



DEPARTMENT OF
CO-OPERATIVE GOVERNANCE,
HUMAN SETTLEMENTS & TRADITIONAL AFFAIRS

**CONSTRUCTION OF COMMUNITY RESIDENTIAL UNITS (TOP
STRUCTURE) AND INSTALLATION OF ENGINEERING SERVICES AT
TALANA HOSTEL IN GREATER TZANEEN MUNICIPALITY WITHIN
MOPANI DISTRICT MUNICIPALITY**

CONTRACT NUMBER:

COGHSTAB22/24-25FY

NAME OF TENDERER:	
CIDB REGISTRATION NUMBER:	
CSD NUMBER:	
TENDER AMOUNT (Incl VAT):	
TENDER AMOUNT (in words):	

ISSUED BY:

CO-OPERATIVE GOVERNANCE
HUMAN SETTLEMENTS AND TRADITIONAL
AFFAIRS
HENSA TOWERS BUILDINGS
28 MARKET STREET & 20 RABE STREET
POLOKWANE, 0700

Technical: Employer

Contact: Mogotsi KP

Telephone: 015 284 5165

E-mail: MogotsiKP@coghsta.limpopo.gov.za

Employers Agent:

Rhandzo Projects Pvt Ltd

Contact: R.Mashele

Telephone: 079 167 6897

E-mail: admin@randzo.co.za

ISSUED BY:

CO-OPERATIVE GOVERNANCE
HUMAN SETTLEMENTS AND TRADITIONAL
AFFAIRS
HENSA TOWERS BUILDINGS
28 MARKET STREET & 20 RABE STREET
POLOKWANE, 0700

Administration: SCM

Contact: Mokalapa MJ

Telephone: 015 294 2278

E-mail: MokalapaMJ@coghsta.limpopo.gov.za

www.coghsta.limpopo.gov.za

CLOSING DATE: 21 FEBRUARY 2025

CLOSING TIME: 11:00 am

**CONTENTS**

THE TENDER		
Number	Heading	Page
Part T1:	Tendering Procedures	
T1.1	Tender Notice and Invitation to Tender	3
T1.2	Tender Data	4 – 16
Part T2:	Returnable Documents	
T2.1	List of Returnable Schedules and Documents	17
T2.2	Returnable Schedules and Documents	18 – 41
THE CONTRACT		
Part C1:	Agreements and Contract Data	
C1.1	Form of Offer and Acceptance	42 – 47
C1.2	Contract Data	48 – 57
C1.3	Occupational Health and Safety Agreement	58 – 59
C1.4	Application for a permit to department of labour to do construction work	60 – 62
Part C2:	Pricing Data	
C2.1	Preamble to Bills of Quantities	63-66
C2.2	Bills of Quantities	67-225
Part C3:	Scope of Works	
C3.1	Description Of Works	226 – 245
C3.2	Building Works Specifications	246
C3.3	Civil Engineering Specifications	247-251
C3.4	EPWP and LIC Construction Specifications	252-296
Part C4:	Annexures	
C4.1	Occupational Health and Safety Specifications	298-332
C4.2	EMP Specifications	334
C4.3	Site Information	335
C4.4	Construction Notice Board	336
C4.5	Tender Drawings	337
C4.6	Geotechnical Investigation	338
C4.7	Pro Forma Documents – Skills Development	339

Note: Document can be printed and submitted in black and white

T1.1 TENDER NOTICE AND INVITATION TO TENDER

1. The Department of Cooperative Governance, Human Settlements, and Traditional Affairs (COGHSTA) invites tenders for: **COGHSTA B22/24-25FY: Construction of Community Residential Units (Top Structure) and Installation of Engineering Services at Talana Hostel in Greater Tzaneen Municipality Within Mopani District Municipality**
2. Tenderers should have CIDB contractor grading of 8GB or higher.
3. **The closing time for receipt of tenders is 11:00 am on 21 February 2025.**
4. Email, post, telephone, facsimile, and late tenders will not be accepted.
5. Tenders may only be submitted on the tender documentation that is issued.
6. Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.
7. Bid documents will be emailed to prospective bidders as per the Departmental Standard Operating Procedures.
8. All bids must be submitted in the Bid Box @ 20 Rabe Street, Cnr Landdros Mare & Rabe Streets, Polokwane addressed to:

The Chief Director
Supply Chain Management
Department of Co-operative Governance, Human Settlements & Traditional Affairs
Private Bag X9485
Polokwane
0700

T1.2 Tender Data

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Construction Procurement. (See www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of tenderers as an Annexure to this Tender Data.

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

Clause number	Tender Data
C.1.1	The employer The employer is Limpopo COGHSTA
C.1.3.2	These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.
C1.4	Communication and employer's agent Employers Agent: Rhandzo Projects Pvt Ltd
C.2.7	Clarification Meeting There will be compulsory briefing session/clarification meeting
C.2.9	Insurance The contractor will be liable to provide project insurance
C.2.11	Alterations to documents Add the following to the clause: To correct errors made, draw a line through the incorrect entry and write the correct entry above in black ink and All signatories to the tender offer shall initial all such alterations
C.2.12	Alternative tender offers No alternative tender offers are permitted as per clause C.2.12.1 and C.2.12.2
C.2.13	Submitting a tender offer Add the following to the clause: No claim will be entertained for faults in the tender price resulting from any discrepancies, omissions, or indistinct figures.
C.2.13.2	Replace the contents of the clause with the following: Return all volumes of the tender document to the Employer after completion of the relevant sections of each volume in their entirety by writing in black ink. All volumes are to be left intact in its original format and no pages shall be removed or re-arranged.
C.2.13.3	Replace the contents of the clause with the following: Parts of each tender offer communicated on paper shall be submitted as an original.
C.2.13.5	Submitting a tender offer Only one copy to be submitted as an "ORIGINAL"
C.2.13.6	The tender will not be two-envelope system
C2.15.1	The employer's address for delivery of tender offers Physical address and Location of tender box

CO-OPERATIVE GOVERNANCE, HUMAN SETTLEMENTS AND TRADITIONAL AFFAIRS

Clause number	Tender Data																					
	20 Rabe Street, Cnr Landdros Mare & Rabe Streets, Polokwane																					
C.2.15.1	Closing Time The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.																					
C.2.16.1	Tender offer validity The tender offer validity period is 120 days.																					
C.2.16.1	Add the following to the clause: If the tender validity expires on a Saturday, Sunday or public holiday, the tender shall remain valid and open for acceptance until the closure of business on the following working day.																					
C.2.16.2	Validity period will only be extended once																					
C.2.18	Provide other material. There shall be no other material(s) requested and disposal thereof for this tender.																					
C.3.5	Two-envelope system A two-envelope procedure will not be followed.																					
C.3.11	Evaluation of Tenders The procedure for the evaluation of responsive tenders is Method 2 (Price and Specific Goals) A maximum of 90 points will be awarded for the price. A maximum of 10 points may be awarded for the specific goals specified hereunder. The following specific goals with verifiable means of verification and applicable points will be utilised for awarding of points: <table><tr><th>Ownership</th><th>Means of verification</th><th>Points</th></tr><tr><td>Limpopo Province</td><td>Latest (not older than three months) Municipal Account/Traditional Council letter</td><td>2</td></tr><tr><td>Black People</td><td>Valid Sworn Affidavit</td><td>2</td></tr><tr><td>Women</td><td>Certified ID copy (not older than six months)</td><td>2</td></tr><tr><td>Youth</td><td>Certified ID copy (not older than six months)</td><td>3</td></tr><tr><td>SMME</td><td>Company registration</td><td>1</td></tr><tr><td colspan="2">Total</td><td>10</td></tr></table>	Ownership	Means of verification	Points	Limpopo Province	Latest (not older than three months) Municipal Account/Traditional Council letter	2	Black People	Valid Sworn Affidavit	2	Women	Certified ID copy (not older than six months)	2	Youth	Certified ID copy (not older than six months)	3	SMME	Company registration	1	Total		10
Ownership	Means of verification	Points																				
Limpopo Province	Latest (not older than three months) Municipal Account/Traditional Council letter	2																				
Black People	Valid Sworn Affidavit	2																				
Women	Certified ID copy (not older than six months)	2																				
Youth	Certified ID copy (not older than six months)	3																				
SMME	Company registration	1																				
Total		10																				
C.3.11.3	Scoring quality (functionality) Functionality will not be a factor for evaluation of this tender.																					

C.3.12	Insurance provided by the employer. The employer shall not be liable to provide the insurance. If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide
C.3.17	Complete adjudicator's contract Adjudicator's contract will not be applicable.
C.3.18	Provide copies of the contracts Provision of one copy will be issued to the successful bidder.
C.3.19	Contract participation goal. • The contractor shall, in the performance of the contract, achieve the Contract Participation Goal (CPG), as established in the Standard. • The said condition shall form part of the condition of contract. • The Employer shall, after the award of the contract, provide the proforma documents to be completed by the contractors. (Refer to Annexure 1– Proforma documents).

Standard Conditions of Tender

C.1 General

C.1.1 Actions

The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently.

C.1.2 Tender Documents

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

C.1.3 Interpretation

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

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

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

- a) **comparative offer** means the tenderer's financial offer after the factors of non-firm prices, all unconditional discounts and any other tendered parameters that will affect the value of the financial offer have been taken into consideration.
- b) **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
- c) **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.

- d) **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

C.1.4 Communication and employer's agent

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

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

C.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.

C.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.

C.2 Tenderer's obligations

C.2.1 Eligibility

Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.

C.2.2 Cost of tendering

Accept that 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 satisfy requirements.

C.2.3 Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

C.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and

submitting a tender offer in response to the invitation.

C.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

C.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary, apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

C.2.7 Clarification meeting Attend

Where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

C.2.8 Seek clarification

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

C.2.9 Insurance

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

C.2.10 Pricing the tender offer

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

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

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

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

C.2.11 Alterations to documents

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.

C.2.12 Alternative tender offers

- C.2.12.1** 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.
- C.2.12.2** Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

C.2.13 Submitting a tender offer

- C.2.13.1** Submit a tender offer to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.
- C.2.13.2** Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing in black ink.
- C.2.13.3** Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.
- C.2.13.4** Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.
- C.2.13.5** Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- C.2.13.6** Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- C.2.13.7** Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.
- C.2.13.8** Accept that the employer will not assume any responsibility for the

misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

C.2.14 Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

C.2.15 Closing time

C.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Proof of posting shall not be accepted as proof of delivery. The employer shall not accept tender offers submitted by telegraph, telex, facsimile or e-mail, unless stated otherwise in the tender data.

C.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

C.2.16 Tender offer validity

C.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.

C.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period.

C.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted. Note: Sub-clause C.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.

C.2.18 Provide other material

C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

C.2.18.2 Dispose of samples of materials provided for evaluation by the employer,

where required.

C.2.19 Inspections, tests and analysis

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

C.2.20 Submit securities, bonds, 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.

C.2.21 Check final draft

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

C.2.22 Return of other tender documents

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

C.2.23 Certificates

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

C.3 The employer's undertakings

C.3.1 Respond to clarification

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

C.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until seven 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.

C.3.3 Return late tender offers

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

C.3.4 Opening of tender submissions

C.3.4.1 Unless the two-envelope system is to be followed, open valid tender

submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

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

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

C.3.5 Two-envelope system

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

C.3.5.2 Evaluate 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.

C.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

C.3.7 Grounds for rejection and disqualification

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

C.3.8 Test for responsiveness

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

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

C.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and

specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

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

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

C.3.9 Arithmetical errors

C.3.9.1 Check responsive tender offers for arithmetical errors, correcting them in the following manner:

- a) Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.
- b) If bills of quantities (or schedule of quantities or schedule of rates) 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.
- c) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

C.3.9.2 Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of his arithmetical errors in the manner described in C.3.9.1.

C.3.10 Clarification of a tender offer

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

C.3.11 Evaluation of tender offers

C.3.11.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate it using the tender evaluation method that is indicated in the Tender Data and described below:

Method 1: Financial offer	1) Rank tender offers from the most favourable to the least favourable comparative offer. 2) Recommend highest ranked tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 2: Financial offer and preferences	1) Score tender evaluation points for financial offer. 2) Confirm that tenderers are eligible for the preferences claimed and if so, score tender evaluation points for preferencing. 3) Calculate total tender evaluation points. 4) Rank tender offers from the highest number of tender evaluation points to the lowest. 5) 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.
Method 3: Financial offer and quality	1) Score quality, rejecting all tender offers that fail to score the minimum number of points for quality stated in the Tender data. 2) Score tender evaluation points for financial offer. 3) Calculate total tender evaluation points. 4) Rank tender offers from the highest number of tender evaluation points to the lowest. 5) 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.
Method 4: Financial offer, quality and preferences	1) Score quality, rejecting all tender offers that fail to score the minimum number of points for quality stated in the Tender data. 2) Score tender evaluation points for financial offer. 3) Confirm that tenderers are eligible for the preferences claimed, and if so, score tender evaluation points for preferencing. 4) Calculate total tender evaluation points. 5) Rank tender offers from the highest number of tender evaluation points to the lowest. 6) 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.

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

C.3.11.2 Scoring Financial Offers

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

$NFO = W1 \times A$ where:

NFO = the number of tender evaluation points awarded for the financial offer.

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

A = a number calculated using either formulas 1 or 2 below as stated in the Tender Data.

Formula	Comparison aimed at achieving	Option 1	Option 2
1	Highest price or discount	$A = (1 + \frac{(P-PM)}{PM})$	$A = P / P_m$
2	Lowest price or percentage commission / fee	$A = (1 - \frac{(P-PM)}{PM})$	$A = P_m / P$

where:

P_m = the comparative offer of the most favourable tender offer.

P = the comparative offer of tender offer under consideration.

C.3.11.3 Scoring quality (functionality)

Score quality in each of the categories in accordance with the Tender Data and calculate total score for quality.

C.3.12 Insurance provided by the employer

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

C.3.13 Acceptance of tender offer.

C.3.13.1 Accept tender offer only if the tenderer complies with the legal requirements stated in the Tender Data.

C.3.13.2 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. Providing the form of offer and acceptance does not contain any qualifying statements, it will constitute the formation of a contract between the employer and the successful tenderer as described in the form of offer and acceptance.

C.3.14 Notice to unsuccessful tenderers

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

C.3.15. Prepare contract documents

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:

- addenda issued during the tender period,
- inclusion of some of the returnable documents,
- other revisions agreed between the employer and the successful tenderer, and
- the schedule of deviations attached to the form of offer and acceptance, if any.

C.3.16 Issue final contract

Prepare and issue the final draft of contract documents to the successful tenderer for acceptance as soon as possible after the date of the employer's signing of the form of offer and acceptance (including the schedule of deviations, if any). Only those documents that the conditions of tender require the tenderer to submit, after acceptance by the employer, shall be included.

C.3.17 Complete adjudicator's contract

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

C.3.18 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.

T2.1 List of Returnable Schedules and Documents

Tenderers must confirm that documents issued as part of this tender have been completed and returned by inserting a tick (✓), thus

	Document	Description	Tick
1	SBD 1	Invitation to bid (Part A and B)	
2	SBD 3.1	Pricing Schedule – Firm Prices (Purchases)	
3	SBD 4	Bidder's Disclosure	
4	SBD 6.1	Preference Points Claim Form in terms of the Preferential Procurement Regulations 2022	
5	SBD 7.1	Contract Form - rendering of services	
6	Form A:	Record of Addenda to Tender Documents	
7	Form B:	Schedule of Construction Plant and Equipment (not for evaluation purpose)	
8	Form C:	Schedule of Proposed Subcontractors (not for evaluation purpose)	
9	Form D:	Schedule of Proposed Key Personnel (not for evaluation purpose)	
10	Form E:	Proposed Amendments and Qualifications (if any – not for evaluation purpose)	
11	Form F:	Fulfilment of the Construction Regulations	
12	Form G:	Questionnaire on tenderer's procedures with respect to OHSA and Construction Regulations	

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

T2.2 Returnable Schedules and Documents**SBD1****PART A
INVITATION TO BID**

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/ PUBLIC ENTITY)					
BID NUMBER:	COGHSTA B22/24-25FY	CLOSING DATE:	21 FEBRUARY 2025	CLOSING TIME:	11H00
DESCRIPTION:	CONSTRUCTION OF COMMUNITY RESIDENTIAL UNITS (TOP STRUCTURE) AND INSTALLATION OF ENGINEERING SERVICES AT TALANA HOSTEL IN GREATER TZANEEN MUNICIPALITY WITHIN MOPANI DISTRICT MUNICIPALITY				
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE TENDER BOX SITUATED AT (STREET ADDRESS)					
HENSA TOWERS					
28 MARKET STREET & 20 RABE STREET					
POLOKWANE					
0700					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Mokalapa MJ		CONTACT PERSON	Mogotsi KP	
TELEPHONE NUMBER	(015) 294 2278		TELEPHONE NUMBER	(015) 284 5165	
E-MAIL ADDRESS	mokalapamj@coghsta.limpopo.gov.za		E-MAIL ADDRESS	MogotsiKP@coghsta.limpopo.gov.za	
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA
1.1.1.1 ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]		1.1.1.2 ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES OFFERED?	☐ Yes ☐ No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]	
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS					
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?				☐ YES ☐ NO	
DOES THE ENTITY HAVE A BRANCH IN THE RSA?				☐ YES ☐ NO	
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?				☐ YES ☐ NO	
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?				☐ YES ☐ NO	
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?				☐ YES ☐ NO	
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.					

PART B
TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED (NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.**
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, THE CONDITIONS OF CONTRACT (CC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
- 1.4. **THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN SERVICE-LEVEL AGREEMENT.**

2. TAX COMPLIANCE REQUIREMENTS

- 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
- 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
- 2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
- 2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:

.....

CAPACITY UNDER WHICH THIS BID IS SIGNED:

.....

(Proof of authority must be submitted e.g. company resolution)

DATE:

.....

**PRICING SCHEDULE – FIRM PRICES
(PURCHASES)**

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of bidder.....	Bid number: COGHSTA B22/24-25FY
Closing Date: 21 FEBRUARY 2025	Closing Time: 11h00 am

OFFER TO BE VALID FOR 120 DAYS FROM THE CLOSING DATE OF BID.

ITEM NO.	QUANTITY	DESCRIPTION	BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)
-	Required by:		
-	At:		
			
-	Brand and model		
-	Country of origin		
-	Does the offer comply with the specification(s)?		*YES/NO
-	If not to specification, indicate deviation(s)		
-	Period required for delivery		
			*Delivery: Firm/not firm
-	Delivery basis		

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

** "All applicable taxes" include value-added tax, pay-as-you-earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

BIDDER'S DISCLOSURE**1. PURPOSE OF THE FORM**

Any person (natural or juristic) may make an offer or offer 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 is listed in the Register for Tender Defaulters and/or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. BIDDER'S DECLARATION

2.1 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

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

Full Name	Identity Number	Name of State Institution

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

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.

2.3.1 If so, furnish particulars:

.....
.....

3. 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:

- 3.1 I have read, and I understand the contents of this disclosure.
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect.
- 3.3 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.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, or 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.
- 3.5 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.6 There have been no consultations, communications, agreements, or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.7 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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.

.....

Signature

.....

Date

.....

Position

.....

Name of bidder

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 90/10 preference point system.
- b) The applicable preference point system for this tender is the 80/20 preference point system.
- c) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

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

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

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

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

1.4.1 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.

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

in any manner required by the organ of state.

2. DEFINITIONS

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

$$\begin{array}{ccc}
 \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\
 \\
 \mathbf{Ps} = \mathbf{80} \left(\mathbf{1} - \frac{\mathbf{Pt} - \mathbf{P\ min}}{\mathbf{P\ min}} \right) & \mathbf{or} & \mathbf{Ps} = \mathbf{90} \left(\mathbf{1} - \frac{\mathbf{Pt} - \mathbf{P\ min}}{\mathbf{P\ min}} \right)
 \end{array}$$

Where

Ps = Points scored for price of tender under consideration
 Pt = Price of tender under consideration
 Pmin = Price of lowest acceptable tender

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

3.2.1. POINTS AWARDED FOR PRICE

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

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender, the tenderer will be allocated points based on the goals stated in Table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
 - (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
 - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

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

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

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

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed. (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Limpopo Province- Latest (not older than three months) Municipal Account/Traditional Council letter	2	N/A		N/A
Black people -Valid Sworn Affidavit	2	N/A		N/A
Women - Certified ID copy (not older than six months)	2	N/A		N/A
Youth - Certify ID copy (not older than six months)	3	N/A		N/A
SMME- Company registration	1			
TOTAL	10	N/A		N/A

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, qualify 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 the 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:

.....

.....

CONTRACT FORM - RENDERING OF SERVICES

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SERVICE PROVIDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SERVICE PROVIDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE SERVICE PROVIDER)

1. I hereby undertake to render services described in the attached bidding documents to (name of the institution) in accordance with the requirements and task directives/proposals specifications stipulated in Bid Number..... at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid.
2. The following documents shall be deemed to form and be read and construed as part of this agreement:
 - (i) Bidding documents, viz
 - Invitation to bid.
 - Tax clearance certificate.
 - Pricing schedule(s).
 - Filled in task directive/proposal.
 - Preference claims for Broad-Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2011;
 - Declaration of interest.
 - Declaration of the bidder's past SCM practices.
 - Certificate of Independent Bid Determination.
 - Special Conditions of Contract.
 - (ii) General Conditions of Contract; and
 - (iii) Other (specify)
3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfilment of this contract.
5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.
6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES

1

2

DATE:

CONTRACT FORM - RENDERING OF SERVICES**PART 2 (TO BE FILLED IN BY THE PURCHASER)**

1. I..... in my capacity
as..... accept your bid under reference number
.....dated..... for the rendering of services indicated hereunder and/or
further specified in the annexure(s).
2. An official order indicating service delivery instructions is forthcoming.
3. I undertake to make payment for the services rendered in accordance with the terms and
conditions of the contract, within 30 (thirty) days after receipt of an invoice.

DESCRIPTION OF SERVICE	PRICE (ALL APPLICABLE TAXES INCLUDED)	COMPLETION DATE	B-BBEE STATUS LEVEL OF CONTRIBUTION	MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT (if applicable)

4. I confirm that I am duly authorised to sign this contract.

SIGNED ATON.....

NAME (PRINT).....

SIGNATURE

OFFICIAL STAMP

WITNESSES

1

2

DATE:

TO ALL OUR STAKEHOLDERS

RE: The channels of reporting fraudulent and Corrupt Activities

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

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

All people doing business with the Department of COGHSTA are encouraged to report any corrupt or illegal practice.

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

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

- Toll-free number.....
- Toll-free Fax
- SMS (charged @ R1.50)
- Email Address:.....
- Website:.....
- Free post:.....



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

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

FORM A: Record of Addenda to Tender Documents

CO-OPERATIVE GOVERNANCE, HUMAN SETTLEMENTS AND TRADITIONAL AFFAIRS

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

	DATE	TITLE OR DETAILS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

.....
SIGNATURE

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

.....
DATE

FORM B: Schedule of Construction Plant & Equipment (not for evaluation purposes)

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

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

DESCRIPTION	QUANTITY	YEAR ACQUIRED

Attach additional information in a supplementary document.

(b) Details of Plant and Equipment that will be hired or acquired for this contract if my/our tender is accepted.

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

Attach additional information in a supplementary document.

.....
SIGNATURE

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

.....
DATE

[illegible]

DATE

FORM D: Proposed Key Personnel (not for evaluation purposes)

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

LOCATION	DESIGNATION	NAME AND NATIONALITY OF PROPOSED CANDIDATE	SUMMARY OF QUALIFICATIONS & EXPERIENCE
HEAD OFFICE	Partner/Director		
	Contract Manager		
SITE OFFICE AND WORKS SITE OFFICE AND WORKS	Site Agent		
	Health & Safety Officer		
	General Forman		
	Construction Supervisor (SMME Contractor 01 Works, Forman)		
	Construction Supervisor (SMME Contractor 02 Works, Forman)		
	Construction Supervisor (SMME Contractor 03 Works, Forman)		
	Construction Supervisor (SMME Contractor 04 Works, Forman)		

LOCATION	DESIGNATION	NAME AND NATIONALITY OF PROPOSED CANDIDATE	SUMMARY OF KEY QUALIFICATIONS & EXPERIENCE
OTHER PROPOSED KEY PERSONNEL			

NOTE: Detailed Curriculum Vitae, Qualifications and Professional registration IN GOOD STANDING of proposed candidates are to be separately provided

.....
SIGNATURE

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

.....
DATE

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

[illegible]

DATE _____

FORM F: Fulfilment of the Construction Regulations, 2003

In terms of regulation 4(3) of the Construction Regulations, 2003 (hereinafter referred to as the Regulations), promulgated on 18 July 2003 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) the Employer shall not appoint a contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfilment of all the applicable requirements of the Act and the Regulations.

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

(Tick)

YES	
NO	

2. Proposed approach to achieve compliance with the Regulations

(Tick)

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

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

.....

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

.....

5. Potential key risks identified and measures for addressing risks:

.....

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

(Tick)

YES	
NO	

.....
SIGNATURE

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

.....
DATE

FORM G: Questionnaire on Tenderer's Procedures with respect to the Occupational Health and Safety Act (OHACT) and Construction Regulations.

1. Name of the employee to be appointed as Construction Supervisor [Construction Regulation 6 (1)]
.....
2. Names of the competent employees to assist the Construction Supervisor [Construction Regulation 6 (2)]
.....
3. Name of the person to be appointed to conduct base line and ongoing risk assessments [Construction Regulation 7 (1)]
.....
4. Name of competent person to be appointed as occupational health and safety officer [Construction Regulation 6 (6)]
.....
5. Will the employees to be appointed on the project be in possession of proof of health and safety induction training that will address the project specific risks and exposures [Construction Regulation 7 (9) (a)]? Yes / No
If no, what are the tenderer's proposals for such training?
.....
6. Are the tenderer's tools, plant and equipment tested and inspected regularly i.e. daily for vehicles and equipment and at least weekly for other tools and hand tools in terms of safety compliance? Yes/No
If no, what are the tenderer's proposals for such testing?
.....
7. Will a dedicated supervisor be designated to manage the process to test and inspect all tools, plant and equipment? Yes/No
If no, what are the tenderer's proposals for such designation?
.....
8. What other measures will the tenderer take to comply with the OHSACT and the Construction Regulations? Yes/No
If no, what are the tenderer's proposals to comply with this requirement?
.....
.....

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

.....

SIGNATURE

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

.....

DATE

PART C1: AGREEMENTS AND CONTRACT DATA

C1.1	FORM OF OFFER AND ACCEPTANCE	43
	OFFER.....	43
	ACCEPTANCE	44
	SCHEDULE OF DEVIATIONS	45
	CONFIRMATION OF RECEIPT	47
C1.2	CONTRACT DATA	48
C1.5	HEALTH AND SAFETY AGREEMENT	58
C1.6	APPLICATION FOR A PERMIT TO DEPARTMENT OF LABOUR TO DO CONSTRUCTION WORK	60

C1.1 FORM OF OFFER AND ACCEPTANCE

STAMP

OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works (Construction Of Community Residential Units (Top Structure) And Installation Of Engineering Services At Talana Hostel In Greater Tzaneen Municipality Within Mopani District Municipality)

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 Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.

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

BILL OF QUANTITIES (The quantities given are only to provide a method to evaluate the bids and are not a reflection of the actual expected quantities as the tender is a **RATE ONLY TENDER** and bidder will be appointed on rates)

THE OFFERED TOTAL OF PRICES INCLUSIVE OF VALUE ADDED TAX IS

R

(in figures)

(in words)

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

FOR AND ON BEHALF OF THE TENDERER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:

(Full name in BLOCK letters and signature)

1. _____

2. _____

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
Part C2	Pricing Data
Part C3	Scope of Work
Part C3	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.

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 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.

FOR AND ON BEHALF OF THE EMPLOYER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at

on this

day of

WITNESSES:

(Full name in BLOCK letters and signature)

1.

2.

SCHEDULE OF DEVIATIONS**Notes:**

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

4.1 Subject: _____

Details: _____

4.2 Subject: _____

Details: _____

4.3 Subject: _____

Details: _____

4.4 Subject: _____

Details: _____

4.5 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 the amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well

as any confirmation, clarification or change 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, 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.

FOR AND ON BEHALF OF THE TENDERER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:

(Full name in BLOCK letters and signature)

1. _____

2. _____

FOR AND ON BEHALF OF THE EMPLOYER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:

(Full name in BLOCK letters and signature)

1. _____

2. _____

CONFIRMATION OF RECEIPT

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

FOR AND ON BEHALF OF THE CONTRACTOR:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:

(Full name in BLOCK letters and signature)

1. _____
2. _____

C1.2 CONTRACT DATA

The following variations and additions to the **General Conditions of Contract for Construction Works, Third Edition (2015)**, shall apply to this contract:

NB: For purposes of interpretation of concept in this contract, we shall use interpretation as contained in the **General Conditions of Contract for Construction Works, Third Edition (2015)** unless expressly contained in this contract.

States the applicable conditions of contract and associated contract specific data that collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the contract

The employer shall include the following clause in the conditions of contract It will be a condition of contract that:

The contractor shall achieve in the performance of the contract the *Contract Skills Development Goal (CSDG)* established in the cidb Standard for Developing Skills through Infrastructure Contracts, published in Gazette Notice No.48491 of 28 April 2023.

The contractor shall achieve in the performance of the contract the *Contract Participation Goals (CPG)* relating to the engagement of targeted enterprises as established in the cidb Standard for Indirect Targeting for Enterprise Development through Construction works Contracts, published in Gazette Notice No.36190 of 25 February 2013

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
1.1	Definitions	1.1.1.1 The Employer means <u>Add</u> the following to the clause: It means Limpopo Cooperative Governance Human Settlements and Traditional Affairs (CoGHSTA)
		1.1.1.3 Certificate of Completion <u>Add</u> the following to the clause: <i>Unless specified otherwise in the Contract Data, separate Certificates of Completion will not be issued for portions or phases of the Works.</i>
		1.1.1.9 Contractor means. <u>Add</u> the following to the clause: The Tenderer.
		1.1.1.10 Contract Price means <u>Add</u> the following to the clause: Firm price as contained in the form of Offer and Acceptance
		1.1.1.13 Defects Liability Period means <u>Add</u> the following to the clause: Period of 12 months after issuing of Certificates of Completion

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		1.1.1.14 Due Completion Date means Add the following to the clause: For a period of twelve (12) months commencing from the date of the signature by the employer
		1.1.1.16 Employers Agent is Add the following to the clause: Rhandzo Projects Pvt Ltd
		1.1.1.24 Practical Completion means Add the following to the clause: <i>This clause shall apply mutatis mutandis to any portion or phase of the Works that may be described in the Scope of Works or in the Contract Data, or agreed subsequently between the Contractor and the Employer, and committed to writing.</i> Twelve (12) months commencing from the date of the signature by the employer
		Add the following new clause: 1.1.1.35 Construction Work Permit <i>Construction Work Permit” means a statutory permit as defined in the Construction Regulations 2014.</i> <i>No works shall be carried out without all required permit.</i>
1.2.1	Delivery of notices	Add the following to the clause: 1.2.1 Sent by email, electronic text messages or any like communication irrespective of time of transmission; All form of notices shall be collected and signed for at the Employer’s Legal Services.
2.4.1	Ambiguity or Discrepancy	Delete the contents of the clause and insert the following: <i>The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence, listed from highest to lowest priority:</i> a) Form of Offer and Acceptance b) Contract Data c) General Conditions of Contract d) Drawings e) Scope of Work f) Standard Specifications g) Bill of Quantities h) any other documents forming part of the Contract <i>Upon finding any ambiguity in, or discrepancy between, or otherwise any error in the documents, the Contractor shall forthwith advise the Employer’s Agent thereof before applying an interpretation in accordance with the above priority. If, after applying the above priority,</i>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<i>an ambiguity in, or discrepancy between, or otherwise any remaining error in the documents remains, the Employer's Agent shall provide the necessary clarification or instruction.</i>
3.2.3	Specific approval of the Employer required	Replace clause 3.2.3 with the following: <i>In addition to the functions or duties set out in the Contract Data under Data Provided By The Employer, the Employer's Agent is required to obtain the specific prior approval of the Employer for:</i> 3.2.3.1 <i>certification of expenditure that exceeds the Contract Price in terms of Clause 1.1.1.10;</i> 3.2.3.2 <i>issuing of an order to suspend the progress of the Works in terms of Clause 5.11.2, the extra cost resulting from which order is to be borne by the Employer or the effect of which is liable to give rise to a claim by the Contractor for an extension of time under Clause 5.12 of these conditions;</i> 3.2.3.3 <i>issuing of an instruction or order to vary the nature or quantity of the Works in terms of Clause 6.3, the estimated effect of which will be to increase the Contract Price by an amount exceeding R100 000, the evaluation of all variation orders in terms of Clause 6.4 and the adjustment of the sum(s) tendered for General Items in terms of Clause 6.11; or</i> 3.2.3.4 <i>Pending approval of any claim submitted by the Contractor in terms of Clause 10.1.</i> 3.2.3.5 <i>The Employers Agent shall have fourteen (14) day to source all required approvals or permit(s) commencing from the date it became required.</i> 3.2.3.6 <i>The Tenderer shall have fourteen (14) days to source all required approvals or permit(s) commencing from the date it became required.</i>
4.1.2	Contractor's liability for own design errors	Add the following to the clause: <i>The Contractor shall provide the following to the Employer's Agent for retention by the Employer or his assignee in respect of all works designed by the Contractor:</i> 4.1.2.1 <i>A Certificate of Stability of the Works signed by a registered Professional Engineer confirming that all such works have been designed in accordance with the appropriate codes of practice.</i> 4.1.2.2 <i>Proof of registration and of adequate and current professional indemnity insurance cover held by the designer(s).</i> 4.1.2.3 <i>Design calculations should the Employer's Agent request a copy thereof.</i> 4.1.2.4 <i>Engineering drawings and workshop details (both signed by the relevant professional engineer), in order to allow the</i>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<i>Employer's Agent to compare the design with the specified requirements and to record any comments he may have with respect thereto.</i> 4.1.2.5 <i>"As-Built" drawings in DXF electronic format after completion of the Works.</i> <i>The Contractor shall be responsible for the design of the Temporary Works.</i>
4.3	Legal Provisions	Add the following new sub-clause: 4.3.3 <i>Wages and conditions of work:</i> i. <i>For conventional construction works the Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) shall apply and the minimum employment conditions which will apply shall be guided by the Bargaining Council for the Civil Engineering Industry Collective Agreement as published from time to time.</i> ii. <i>The current Ministerial Determination (also downloadable at www.epwp.gov.za), Expanded Public works Programs, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice R347, shall apply to the works described in the scope of works as being labour-intensive and which are undertaken by unskilled or semi-skilled workers.</i> Add the following new sub-clause: 4.3.4 <i>Notwithstanding any actions which the Employer may take, the Contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and all its regulations, including the Construction Regulations, 2014, for which he is liable as mandatory. By entering into this Contract it shall be deemed that the parties have agreed in writing to the above provisions in terms of Section 37(2) of the Act. The Contractor shall sign the Occupational Health and Safety Agreement for Contract Work in the (Employer) included in section C1.5.</i> Add the following new sub-clause: 4.3.5 <i>The Employer retains an interest in all inquiries conducted under this Contract in terms of Section 31 and/or 32 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and its Regulations following any incident involving the Contractor and/or Sub-Contractor and/or their employees. The Contractor shall notify the Employer in writing of all investigations, complaints or criminal charges which may arise pursuant to work performed under this Contract in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and Regulations.</i>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		Add the following new sub-clause: 4.3.6 <i>Contractor's Designer</i> <i>The Contractor and his designer shall accept full responsibility and liability to comply with the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and the Construction Regulations, 2014 for the design of the Temporary Works and those part of the Permanent Works which the Contractor is responsible to design in terms of the Contract</i> Add the following new sub-clause: 4.3.7 <i>Construction Work Permit</i> <i>Unless duly exempted or otherwise duly agreed with the Contractor, the Employer shall forthwith, where a Construction Work Permit in terms of Regulation 3(1) of the Construction Regulations 2014 is required to be obtained by the Employer without derogation from the Employer's duties, the Employer or his duly appointed Construction Health and Safety Agent in terms of Regulation 5(6) or otherwise, upon the Construction Work Permit becoming available, issue it to the Employer's Agent, who, in turn, shall forthwith issue it to the Contractor.</i> <i>Notwithstanding anything stipulated to the contrary in these Conditions, the Contractor shall not be entitled to any claim or extension of time arising from any delay in obtaining a Construction Work Permit which has been duly applied for, unless such delay exceeds 84 consecutive days.</i>
4.4	Subcontracting whole Contract	Subcontracting Add the following new sub-clause 4.4.1 the contractor shall not subcontract the whole contract. The subcontract shall be a minimum of 5% of the total project value to targeted enterprises in line with C3.3.2.1 Scope of Mandatory Subcontract Works.
5.3.3	Time to instruct the commencement of the works	Replace both periods of "7 days" in Clause 5.3.3 with "14 days".
5.6.1	Programme of works	Add the following to the clause: <i>The Contractor shall have regard for the phases and sub-phases (if applicable) for the Works, which shall also be the order in which the Permanent Works shall be constructed, unless otherwise agreed between the parties and committed to writing. If phased construction is applicable, the phases and sub-phases will be described in the Scope of Works and/or will be indicated on the Phasing Plan which forms part of the Drawings.</i>
5.7.1	Rate of progress	Delete the last paragraph of the clause and replace with the following:

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<i>No instruction by the Employer's Agent to the Contractor to improve his rate of progress in this regard will qualify for additional compensation, unless the instruction explicitly states that the Contractor is entitled to additional compensation and cites the amount of such compensation or the basis upon which it is to be determined.</i>
5.9.2	Further drawings and instructions	Add the following to the clause: <i>All instructions shall be in writing</i>
5.12	Extension of time for Practical Completion	Add the following new sub-clause 5.12.5 Critical path provision <i>A delay in so far as extension of time is concerned, will be regarded as a delay only if, on a claim by the Contractor in accordance with the General Conditions of Contract, the Employer's Agent rules that all progress on an item or items of work on the critical path of the approved programme for the execution of the Works by the Contractor, has been brought to a halt. Delays on normal working days only, based on a working week, of five normal working days, will be taken in account for the extension of time.</i> Add the following new sub-clause 5.12.6 Extension of time due to abnormal rainfall <i>Extension of time due to abnormal rainfall shall be determined by means of Method 1, if rainfall records and/or values derived from rainfall records are supplied in the Scope of Work, otherwise Method 2 shall apply.</i> <u>Method 1: Rainfall formula method</u> <i>The rainfall records and/or values derived from rainfall records from a suitable rainfall station near the Site, which are supplied in the Project Specifications, shall be considered suitable for the determination of extension of time due to abnormal rainfall in accordance with this method.</i> <i>Extension of time arising from abnormal rainfall, shall be calculated separately for each calendar month or part thereof for the full period of completion of the Contract, including any extension thereof, in accordance with the rainfall formula given below:</i> $V = (N_w - N_n) + \frac{(R_w - R_n)}{X}$ <i>If V is negative and its absolute value exceeds N_n, then V shall be equal to minus N_n.</i> <i>If V is positive and greater than the number of calendar days in the calendar month under consideration, V shall be taken as</i>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		equal to the number of calendar days in the relevant calendar month. The symbols shall have the following meaning: V = Extension of time in calendar days in respect of the calendar month under consideration N_w = Actual number of days during the calendar month on which a rainfall of Y mm or more has been recorded. R_w = Actual rainfall in mm for the calendar month under consideration. N_n = Average number of days as derived from existing rainfall records, on which a rainfall of Y mm or more has been recorded for the calendar month. Rainfall records and/or the derived values of N_n will be provided in the Specifications. R_n = Average rainfall in mm for the calendar month, as derived from existing rainfall records. Rainfall records and/or the derived values of R_n will be provided in the Project Specifications. $X = 20$ unless otherwise provided in the Project Specifications $Y = 10$ unless otherwise provided in the Project Specifications The total extension of time shall be the algebraic sum of the monthly totals for the period under consideration. However, if the grand total is negative the time for completion shall not be reduced on account of abnormal rainfall. Extension of time for parts of a month shall be calculated by pro rata values of N_n and R_n being used. The factor $(N_w - N_n)$ shall be considered to represent a fair allowance for variations from the average number of days during which rainfall exceeds Y mm and wet conditions prevented or disrupted work. The factor $\frac{(R_w - R_n)}{X}$ shall be considered to represent a fair allowance for variations from the allowance for variations from the average number of days when wet conditions further to that allowed for the factor $(N_w - N_n)$, prevented or disrupted work during the calendar month. Accurate rain gauging shall be taken at a suitable point on Site and the Contractor shall, at his own expense, take all necessary precautions to ensure that the rain gauges cannot be interfered with. This formula does not take into account further on concurrent delays which could be caused by other abnormal climatic conditions such as floods, which have to be determined separately in accordance with Sub-Clause (5.12.5 Critical Path Provision) hereof.

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<u>Method 2: Expected delay method</u> The Contractor shall make provision in his programme for the execution of the Works, for an expected delay of "n" normal working days (based on a working week of five normal working days) due to normal rainfall, for which he will not receive any extension of time. Unless otherwise provided in the Project Specifications, the value of "n" shall be taken as equal to the tendered time for completion of the Works in months, rounded off to an integer. Extension of time during normal working days will be granted to the degree to which actual delays as determined in accordance with Sub-Clause (5.12.5 Critical Path Provision) hereof, exceed the number of "n" normal working days. The value of "n" does not take into account further or concurrent delays which are caused by other abnormal climatic conditions such as floods, which have to be determined separately in accordance with Sub-Clause (5.12.5 Critical Path Provision) hereof.
5.13	<u>Penalty for delay</u>	<u>Penalty for Delay</u> <u>Add</u> the following new sub clause: 5.13 In the event of any of the parties being deemed to have committed an act of default, the other party shall give written notice (without prejudice to any other rights that it may have in law) calling upon the defaulting party to rectify such deemed act of default within a period of seven (07) working days to after the date of such notice
5.17	Penalty for noncompliance	<u>Add</u> the following new sub clause: 5.17.1 Faulty Workmanship or Materials This section also covers the removal of existing road studs, and the supply and fixing of road studs as ordered by the Employer's Agent. The contractor shall ensure not to repaint or paint new traffic markings not in compliance with Legislation or as specified by the Employer's Agent on the drawings. A fixed penalty of R5 000,00 per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of this specification. <u>Add</u> the following new sub clause: 5.17.2 Road Markings; On all newly constructed traffic calming measures are to be painted on the day of construction and before nightfall. A non-performance penalty of R5 000,00 per day per measure will be applicable <u>Add</u> the following new sub clause: 5.17.3 All Traffic Accommodation measures; As per SARTSM Vol. 2 Chapter 13. must be adhere to for all measures during construction. A non-compliance penalty of R5 000,00 per day per measure will be applicable. All work to be

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<i>stopped immediately until all remedial measures are in place in accordance with specification.</i>
6.1	Payment to Contractor	Add the following new sub-clause: 6.1.2 <i>Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way of his obligations either in contract or in delict.</i> Add the following new sub-clause: 6.1.3 <i>The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the Contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframe stipulated by the employer. The Contractor's invoices shall not be paid until all pending labour information has been submitted.</i> Add the following new sub-clause: 6.1.4 <i>The Contractor shall be paid at the Department in the currency of the Republic of South Africa only at the Office of the Chief Financial Officer of the Department, unless otherwise stated in the Data provided by Employer.</i>
6.2	Performance Guarantee	Add the following new sub-clause: 6.2.4 <i>As an alternative to a performance guarantee, the Contractor may deposit with the Employer a cash amount in a sum equal to the amount stated in the Data provided by Employer. All the provisions in respect of the guarantee apply mutatis mutandis to the cash deposit except that the amount deposited will be repaid to the Contractor within 30 (thirty) days after the issue of the Certificate or Certificates of Completion in respect of the whole of the permanent works.</i> 6.2.5 <i>A minimum performance guarantee of 10% of the total project value shall govern.</i>
6.10.2	Valuation of Material brought onto site	Valuation of Material onto site Replace clause 6.10.2 with the following: The Employer shall not be responsible for any cost related to material on or delivered on site.
8.6	Insurances	Replace clause 8.6 with the following: 8.6 Insurances 8.6.1.1 <i>The Employer's shall be exonerated from any insurance pertaining to contractors' plant, material or any other property belonging to the contractor (Tenderer). A minimum security of 10% of the total project value shall govern.</i>

GENERAL CONDITIONS OF CONTRACT

The general conditions of contract applicable to this contract shall be **General Conditions of Contract for Construction Works, Third Edition (2015)**, as well as the Data provided by Employer.

Tenderers, contractors and subcontractors **shall obtain their own copies** of the document **General Conditions of Contract for Construction Works, Third Edition (2015)** for tendering purposes and for use for the duration of the contract and shall bear all expenses in this regard:

Consulting Engineers South Africa (CESA)
Telephone: 011 463 2022
E-Mail: general@cesa.co.za
Web: www.cesa.co.za

OR

South African Institution of Civil Engineering (SAICE)
Telephone: 011 80505947 / 48 / 53
E-Mail: civilinfo@saice.org.za
Web: www.saice.org.za

C1.3 HEALTH AND SAFETY AGREEMENT

Article of Agreement in terms of Section 37(2) of the Occupational Safety Act, 1993 between

(....)
(Hereinafter referred to as the "EMPLOYER")

AND

Herein represented by _____ in his/her capacity as _____ duly authorised
by virtue of a resolution dated _____, attached hereto Annexure A, of the said
_____ (herein after referred to as the
"CONTRACTOR")

WHEREAS the CONTRACTOR is the mandatory of the EMPLOYER as contemplated in an agreement in respect of

COGHSTAB21/24-25FY: CONSTRUCTION OF COMMUNITY RESIDENTIAL UNITS (TOP STRUCTURE) AND INSTALLATION OF ENGINEERING SERVICES AT TALANA HOSTEL IN GREATER TZANEEN MUNICIPALITY WITHIN MOPANI DISTRICT MUNICIPALITY

AND WHEREAS section 37 of the Occupational Health and Safety act, 1993 (Act 85 of 1993), hereinafter referred to as the "ACT"), imposes certain powers and duties upon the EMPLOYER.

AND WHEREAS the parties have agreed to enter into an agreement in terms of section 37(2) of the ACT.

NOW THEREFORE the parties agree as follows:

- (a) The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
- (b) The CONTRACTOR undertakes that all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations will be fully complied with. Provided that should the EMPLOYER prescribe certain arrangements and procedures, that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
- (c) The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedure, if any, imposed by the ACT and Regulations and the EMPLOYER expressly absolves the EMPLOYER from itself being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedure as the case may be.
- (d) The CONTRACTOR agrees that any duly authorised officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with the undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to

inspect any appropriate records held by the CONTRACTOR or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.

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

FOR AND ON BEHALF OF THE CONTRACTOR:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:

(Full name in BLOCK letters and signature)

1. _____

2. _____

FOR AND ON BEHALF OF THE EMPLOYER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:

(Full name in BLOCK letters and signature)

1. _____

2. _____

C1.4 APPLICATION FOR A PERMIT TO DEPARTMENT OF LABOUR TO DO CONSTRUCTION WORK

Annexure 1

**Occupational Health and Safety Act, 1993
(Regulation 3(2) of the Construction Regulations, 2014)**

APPLICATION FOR A PERMIT TO DO CONSTRUCTION WORK

This application must be submitted with the following documents:

- a) Health and Safety specification
- b) Health and Safety plan
- c) Baseline risk assessment.

1. Name, postal address and telephone numbers of the client

2. Details of the agent

(a) Title, Surname and initials:

(b) Identity number / Passport number:

(c) Registration number with
SACPCMP:

(d) Office Tel. Number and/or Mobile
number:

(e) Postal address:

3. Name, postal address and telephone numbers of the principal contractor

4. Name, postal address and telephone numbers of the designer of the project

5. Name, Postal address and telephone numbers of the following persons

(a) Construction Manager:

Construction Health and Safety
(b) Officer

Construction Health and Safety
(c) Officer

6. Exact physical address of the construction and site office

7. Nature of construction work

8. Expected commencement date

9. Expected completion date

10. Estimated maximum number of persons on the construction site:

11. Planned number of contractors on the construction site accountable to the principal contractor:

12. Names(s) of contractors appointed

18. Signature of Client / Client's Agent

19. Signature of the Principal Contractor

FOR OFFICE USE ONLY

Authorization / Unique No.	LABOUR CENTRE	OFFICE APPROVAL STAMP

13. Date of application:

14. Submitted documents prescribed in Construction Regulation 5(4). (Please tick ✓)

CR 5(1)(a)		CR 5(1)(b)		CR 5(1); (C-S)	
------------	--	------------	--	----------------	--

15. Result of the application. (Please tick ☒)

Approved		Declined	
----------	--	----------	--

16. Reason for declining the application

[illegible]

17 **Signature of the Supervisor:** _____

18 **Signature of revoking officer /**
inspector: _____

PART C2: PRICING DATA

C2.1 PREAMBLE TO BILL OF QUANTITIES

PRICING INSTRUCTIONS

1. GENERAL

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

2. DESCRIPTION OF ITEMS IN THE SCHEDULE

The Bill of Quantities has been drawn up generally in accordance with Civil Engineering Quantities 1990 issued by the SA Institution of Civil Engineers.

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

3. QUANTITIES REFLECTED IN THE SCHEDULE

The quantities given in the Bill of Quantities are estimates only, and subject to remeasuring during the execution of the work. The Contractor shall obtain the Engineer's detailed instructions for all work before ordering any materials or executing work or making arrangements for it.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the Specifications and Project Specifications and the Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.

The validity of the contract will in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment.

4. PROVISIONAL SUMS

Where Provisional sums or Prime Cost sums are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with Clause 6.6 of the General Conditions of Contract 2015. The Employer reserves

the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract.

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

5. PRICING OF THE BILL OF QUANTITIES

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

Each item shall be priced and extended to the "Total" column by the Tenderer, with the exception of the items for which only rates are required, or items which already have Prime Cost or Provisional Sums affixed.

If the Contractor omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.

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

The Tenderer shall fill in rates for all items where the words "rate only" appear in the "Total" column. "Rate Only" items have been included where:

- (a) an alternative item or material is contemplated.
- (b) variations of specified components in the make-up of a pay item may be expected; and
- (c) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

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

All rates and amounts quoted in the Bill of Quantities shall be in rands and cents and shall include all levies and taxes (other than VAT). VAT will be added in the summary of the Bill of Quantities.

6. CORRECTION OF ENTRIES

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

7. ARITHMETICAL ERRORS

Arithmetical errors found in the Bill of Quantities as a result of faulty multiplication of addition will be corrected by the Engineer at the tender evaluation stage, as set out in the Tender Data.

8. MONTHLY PAYMENTS

Unless otherwise specified in the Specifications and Project Specifications, progress payments in Interim Certificates, referred to in Clause 6.10 of the General Conditions of Contract 2015, in respect of "sum" items in the Bill of Quantities shall be by means of interim progress instalments assessed by the Engineer and based on the measure in which the work actually carried out relates to the extent of the work to be done by the Contractor.

9. UNITS OF MEASUREMENT

The units of measurement described in the Bill of Quantities are metric units for which the standard international abbreviations are used. Non-standard abbreviations which may appear in the Bill of Quantities are as follows:

mm	=	millimetres
m	=	metre
km	=	kilometres
km-pass	=	kilometres-pass
m ²	=	square metre
no	=	number
m ² -pass	=	square metre-pass
ha	=	hectare
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
kW	=	kilowatt
kN	=	kilonewton
kg	=	kilogram
t	=	ton (1 000 kg)
%	=	per cent
MN	=	meganewton
MN-m	=	meganewton-metre
PC Sum	=	Prime Cost Sum

Prov. Sum = Provisional Sum

10. OCCUPATIONAL HEALTH AND SAFETY ACT AND CONSTRUCTION REGULATIONS

A payment item in the Bill of Quantities has been made to allow the Tenderers to price for compliance with OHSA and the Construction Regulations. This payment item must also include the erection of the Visitor's Indemnity signs and ensuring that visitors receive instruction, induction and sign an indemnity declaration.

C2.2 BILL OF QUANTITIES

SCHEDULE OF QUANTITIES FOR THE CONSTRUCTION OF TALANA CRU's					
ITEM No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNTS
	PRELIMINARY AND GENERAL - FIXED CHARGE AND VALUE RELATED OBLIGATIONS				
1.1	Contractual Requirements:				
1.1.1	Fixed charge contractual requirements.	Sum	1.00		
1.1.2	Value related contractual requirements.	Sum	1.00		
1.2	Facilities for Engineer:				
1.2.1	Furnished office - 1 No.	No	2.00		
1.2.2	Name boards	Sum	2.00		
1.2.3	Provision of survey equipment.	Sum	1.00		
1.2.4	Provision of ICT accessories	Sum	1.00		
1.3	Facilities for Contractor:				
1.3.1	Offices and storage sheds	Sum	1.00		
1.3.2	Workshops	Sum	1.00		
1.3.3	Laboratories	Sum	1.00		
1.3.4	Living accommodation	Sum	1.00		
1.3.5	Ablution and latrine facilities	Sum	1.00		
1.3.6	Tools and equipment	Sum	1.00		
1.3.7	Water supplies, electric power and communications	Sum	1.00		
1.3.8	Dealing with water	Sum	1.00		
1.3.9	Access	Sum	1.00		
1.3.10	Plant	Sum	1.00		
1.3.11	Materials on site storage and protection.	Sum	1.00		
1.3.12	Accommodation of traffic.	Sum	1.00		
1.4	Removal of Site Establishment:	Sum	1.00		
1.5	Occupational H&S				
1.5.1	Provision of Health and Safety	Sum	1.00		
PRELIMINARY AND GENERAL - FIXED CHARGE AND VALUE RELATED OBLIGATIONS					

SCHEDULE OF QUANTITIES FOR THE CONSTRUCTION OF TALANA CRU's					
ITEM No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNTS
	PRELIMINARY AND GENERAL - TIME RELATED OBLIGATIONS				
2.1	Contractual Requirements:				
2.1.1	Time related contractual requirements.	Month	36.00		
2.2	Facilities for Engineer:				
2.2.1	Furnished office - 1 No.	Month	36.00		
2.2.2	Survey assistants and material.	Month	36.00		
2.3	Facilities for Contractor:				
2.3.1	Offices and storage sheds.	Month	36.00		
2.3.2	Workshops.	Month	36.00		
2.3.3	Laboratories.	Month	36.00		
2.3.4	Living accommodation.	Month	36.00		
2.3.5	Ablution and latrine facilities.	Month	36.00		
2.3.6	Tools and equipment.	Month	36.00		
2.3.7	Water supplies, electric power and communications.	Month	36.00		
2.3.8	Dealing with water.	Month	36.00		
2.3.9	Access.	Month	36.00		
2.3.10	Plant.	Month	36.00		
2.4	Supervision for Duration of the Contract:	Month	36.00		
2.7	Health and Safety Management:	Month	36.00		
2.7	Provide Sum for Monitoring of Environmental Management by the Engineer:	Month	36.00		
	PRELIMINARY AND GENERAL - TIME RELATED OBLIGATIONS				

SCHEDULE OF QUANTITIES FOR THE CONSTRUCTION OF TALANA CRU's					
ITEM No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNTS
	PRELIMINARY AND GENERAL - PROVISIONAL SUMS				
3.1	Community Liaison Officer:				
3.1.1	Provision for the employment of CLO.	Prov.Sum	1.00	360,000.00	360,000.00
3.1.2	Overheads, charges and profit on item 3.1.1.	%	360,000.00		
3.3	Training:				
3.3.1	Provision for training.	Prov. Sum	1.00	360,000.00	360,000.00
3.3.2	Overheads, charges and profit on item 3.3.1.	%	360,000.00		
3.4	Relocation/Protection of Existing Services:				
3.4.1	Provision for relocation/protection of existing services.	Prov. Sum	1.00	500,000.00	500,000.00
3.4.2	Overheads, charges and profit on item 3.4.1.	%	500,000.00		
3.5	Routine Tests required by Engineer:				
3.5.1	Provision for routine tests.	Prov. Sum	1.00	1,000,000.00	1,000,000.00
3.5.2	Overheads, charges and profit on item 3.5.1.	%	1,000,000.00		
3.6	Occupational Health and Safety Audits:				
3.6.1	Provision for Occupational Health and Safety audits on site.	Prov. Sum	1.00	500,000.00	500,000.00
3.6.2	Overheads, charges and profit on item 3.6.1.	%	500,000.00		
3.7	Student Training:				
3.7.1	Provision for Student in Built Environment Training	Prov.Sum	1.00	360,000.00	360,000.00
3.7.2	Overheads, charges and profit on item 3.7.1.	%	360,000.00		
3.8	NHBRC ENROLMENT				
3.8.1	Provision for NHBRC enrolment	Prov.Sum	126.00	10,000.00	1,260,000.00
3.8.2	Overheads, charges and profit on item 3.8.1.	%	1,260,000.00		
	PRELIMINARY AND GENERAL - PROVISIONAL SUMS				

SCHEDULE OF QUANTITIES FOR THE CONSTRUCTION OF TALANA CRU's					
ITEM No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNTS
	PRELIMINARY AND GENERAL - DAYWORKS				
4.1	Labour - Normal Working Hours: [Provisional]				
4,1,1	Skilled Labour (Artisan).	hr	48.00		Rate Only
4,1,2	Semi-skilled Labour.	hr	48.00		Rate Only
4,1,3	Unskilled Labour.	hr	48.00		Rate Only
4,1,4	Foreman.	hr	48.00		Rate Only
4,1,5	Extra-over rate for items 5.1.1 to 5.1.4 for work during non working hours.	hr	50.00		Rate Only
4.2	Materials: [Provisional]				
4,2,1	Allowance for Materials used under Dayworks.	Prov.Sum	1.00	75,000.00	75,000.00
4,2,3	Overheads, Handling and all Charges on Item 5.2.1.	%	75,000.00		
4.3	Plant - Heavy Equipment: [Provisional]				
4,3,1	Excavator - Size Cat 225.	hr			Rate Only
4,3,2	Excavator - TLB.	hr			Rate Only
4,3,3	Grader 140G or similar.	hr			Rate Only
4,3,4	Front end loader - bucket capacity ≤ 1.5 m3.	hr			Rate Only
4,3,5	Front end loader - bucket capacity ≤ 1.5 m3.	hr			Rate Only
4,3,6	Tip truck - 5 m3 capacity.	hr			Rate Only
4,3,7	Tip truck - 10 m3 capacity.	hr			Rate Only
4,3,8	Vibratory compaction roller - 13.5 ton.	hr			Rate Only
4,3,9	Transport cost per any unit of plant to deliver to site and remove from site for items 5.3.1 to 5.3.8	Sum			Rate Only
4.4	Plant - Small Equipment: [Provisional]				
4,4,1	Pedestrian roller - BW90 or similar.	hr			Rate Only
4,4,2	Vibratory plate compactor.	hr			Rate Only
4,4,3	Vibratory rammer.	hr			Rate Only
	PRELIMINARY AND GENERAL - DAYWORKS				

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	BILL NO. 1 EARTHWORKS (PROVISIONAL) <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted <u>Site clearance:</u> Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, including grubbing up roots, filling up holes and compacting to 90% MOD ASSHTO density Stripping average 150mm thick layer of top soil and stockpiling on site Removal of trees, etc <u>Taking out and removing, grubbing up roots and filling in holes</u> Tree stump exceeding 200mm and not exceeding 500mm girth Tree stump exceeding 500mm and not exceeding 1000mm girth Excavation, filling, etc <u>Excavation in earth not exceeding 2m deep</u> Trenches <u>Extra over trench and hole excavations in earth for excavation in</u> Soft rock Hard rock <u>Extra over all excavations for carting away</u> Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor				
1		m ²	122		
2		m ²	0		
3		No	0		
4		No	0		
5		m ³	65		
6		m ³	1		
7		m ³	1		
8		m ³	34		
Balance b/f					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
	<u>Risk of collapse of excavations</u>				
9	Sides of trench and hole excavations not exceeding 1,5m deep	m ²	160		
	<u>Keeping excavations free of water</u>				
10	Allow for keeping all excavations free of water and mud	Item	1		
	FILLING ETC				
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
11	In trenches	m ³	31		
	FILLING ETC				
	<u>G5 filling supplied by the contractor compacted to 98% Mod AASHTO density</u>				
12	Under floors, steps, pavings etc	m ²	33		
	<u>Compaction of surfaces</u>				
13	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m ²	110		
	<u>Prescribed density tests on filling</u>				
14	"Modified AASHTO Density" test	No	8		
	SOIL POISONING				
	<u>Soil insecticide in accordance with SANS 5859</u>				
15	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m ²	110		
16	To bottoms and sides of trenches etc	m ²	230		
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2				
	BILL No. 2				
	CONCRETE, FORMWORK AND REINFORCEMENT				
	Preambles The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	CONCRETE (CPAP Work Group No. 110)				
	<u>Unreinforced concrete</u>				
	<u>15MPa/19mm concrete</u>				
1	Aprons cast in panels to falls	m ³	5		
2	Thickenning down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	54		
	<u>25MPa/19mm concrete</u>				
3	Foundations	m ³	18		
	<u>Reinforced concrete cast against excavated surfaces</u>				
4	Surface beds cast in panels on waterproofing (measured elsewhere)	m ³	9		
	TEST BLOCKS				
5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	10		
Balance b/f					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
	CONCRETE SUNDRIES				
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>				
6	Aprons	m ²	54		
	FORMWORK				
	(CPAP Work Group No. 111)				
	<u>Rough formwork to sides</u>				
	Rough formwork (Degree of accuracy III)				
7	Beams	m ²	300		
	<u>Smooth formwork to sides</u>				
	Smooth Formwork (Degree of accuracy III)				
8	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	260		
	MOVEMENT JOINTS ETC				
	<u>Isolation joints</u>				
10	Isolation joint in slabs 10mm wide sealed with and including polyurethane sealant	m	130		
	REINFORCEMENT (PROVISIONAL)				
	(CPAP Work Group No. 114)				
	<u>Steel reinforcement to structural concrete work</u>				
	<u>Mild Steel Bars</u>				
11	8mm dia bars	t	1		
Balance b/f					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
	<u>High tensil steel bars</u>				
12	12mm dia bars	t	0	-	
13	16mm dia bars	t	3.5		
	<u>Fabric reinforcement</u>				
14	Type 193 fabric reinforcement in concrete surface beds, etc.	m ²	110		
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2				
	BILL No. 2				
	PRECAST CONCRETE				
	<u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted <u>Precast Reinforced Concrete</u> <u>Precast reinforced concrete as per structural engineering drawings attached to these bills of quantities including core drilling</u>				
1	170mm thick reinforced concrete floor slab including beams, etc	m ²	115		
2	170mm thick precast concrete stair including beams, etc	m ²	11		
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO: 3 MASONRY <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.118) unless otherwise stated FOUNDATIONS (PROVISIONAL) <u>Brickwork of NFP bricks 14mpa minimum compressive strength) in class II mortar</u> 1 Half brick walls m ² 13 2 One brick walls m ² 68 SUPERSTRUCTURE <u>Brickwork of NFP bricks (14mpa minimum compressive strength) in class II mortar</u> 3 Half brick walls m ² 82 4 Half brick wall in beam filling m ² 22 5 One brick wall in face brickwork in parapet walls. m ² 11 6 One brick walls m ² 446 7 Fair raking cutting. m 20 <u>Brickwork reinforcement</u> 8 75mm Wide reinforcement built in horizontally m 379 9 150mm Wide reinforcement built in horizontally m 1656				
Balance b/f					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
	<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>				
10	75 x 150mm Lintels in lengths not exceeding 3m.	m	59		
	<u>Turning pieces to lintels etc</u>				
11	110mm Wide turning piece to lintels etc	m	23		
	<u>Galvanised hoop iron cramps, ties, etc</u>				
12	30 x 1,6mm Cramp 1500mm long with one end fixed to timber and other end built into brickwork.	No	71		
	FACE BRICKWORK				
	<u>Semi-face brickwork or other approved pointed with recessed with recessed horizontal and vertical joints.</u>				
13	Extra over brickwork for face brickwork.	m ²	190		
14	Extra over brickwork for face brickwork in foundations (Provisional).	m ²	36		
15	Fair cutting and fitting around pipe not exceeding 110mm diameter.	No	6		
	<u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u>				
16	Extra over brickwork for brick-on-edge header course lintels course, pointed on face and 110mm soffit.	m	13		
	<u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u>				
17	220mm Wide sills set sloping and slightly projecting.	m	9		
	<u>DECORATIVE SCREEN WALLS AND GRILLES</u>				
	<u>Screen walls of face bricks pointed with flush horizontal and vertical joints on all exposed faces</u>				
18	One brick walls with openings 106mm wide x 2 635mm high at 294mm centres pointed on both sides and in openings	m ²	8		
19	One brick walls with openings 106mm wide x 2 805mm high at 294mm centres pointed on both sides and in openings	m ²	9		
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 4 WATERPROOFING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.120) unless otherwise stated DAMP PROOFING OF WALLS AND FLOORS <u>One layer of 375 micron "Consol Plastics Brikqrip DPC" embossed damp proof course in</u>				
1	In walls <u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>	m ²	42		
2	Under surface beds JOINT SEALANTS ETC <u>Silicone sealing compound including backing cord, bond</u>	m ²	100		
3	10 x 10mm sealant in isolation joint	m	160		
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 5 ROOF COVERINGS ETC <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.124) unless otherwise stated CONCRETE ROOF TILES <u>Infraset horizontal concrete shingle roof tiles (Code: HZ SL STD) size 420 x 330mm laid in straight bond with minimum 75mm headlap, fixed at a pitch of 20 degrees with three rows of tiles at the ridge, eaves and verge for the full overhang and every third tiles in every in every row over the remainder of the third tiles in every in every row over the remainder of the roof the raking pattern using non-corrosive nails to 38 x 38mm sawn softwood battened at maximum 345mm centres, on and including roof membrane and single sided Radiant Barrier with joints lapped 150mm, fixed over rafters with trusses at 760mm centres</u>				
1	Roof coverings with pitch not exceeding 20 degrees.	m ²	110		
2	Ridge/hip capping to match roofing tiles bedded and pointed in 1:3 cement mortar to match tile colour	m	14		
Balance c/f					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
Balance b/f					
3	<u>Flashings</u> Head wall flashing 550mm girth bedded to brick wall with cement mortar ROOF AND WALL INSULATION <u>Roof insulation to be Isoboard® high density 32- 36kg/m3 rigid extruded polystyrene 100% closed cell insulation boards 40mm thick x 600mm wide with brown paper and polyethylene laminate slip sheet factory applied to upper surface, with tongue & groove joints fixed concurrent with roof covering over steel purlins at maximum 1500mm centres with 5mm gap between boards butt-joined over purlins. Ridge vents are recommended to be allowed for in the roof covering (elsewhere specified) in order to prevent deflection due to heat build up above the boards.</u>	m	24		
4	Insulation laid taut over purlins (at approximately 1.80m centres) and fixed concurrent with roof covering, including taped laps and nylon straining wires	m ²	0		
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
5	<u>40mm thick horizontal hardwood entrance door suitable for paint on both sides, hung to steel frames</u> 44mm Framed batten door size 813 x 2032mm high with 3mm plywood backing and 76 x 32mm weather bar. CUPBOARDS TO KITCHENS, BEDROOMS, ETC <u>Kitchen cupboards etc.</u> <u>Kitchen cupboards with 16mm 'Melawood' shives, 32mm post formed formica countertop, 16mm 'Versafront' post formed cupboard doors, shelves, lockable drawers, etc, including ironmongery, quarterrounds, framing, bearers, backing, skirting, bottoms, etc comple</u>	No	4		
6	Wall cupboard size 1000 x 350 x 500mm high with top, sides, bottom, divisions, shelf, back and single hinged door plugged	No	0.0		
7	Sink cupboard type size 1500 x 550 x 900mm high with sides, bottom, divisions, shelf, back and double hinged doors (sink elsewhere) <u>Bedroom cupboards with hinges, handles, roller catches to upper doors, cupboard locks to lower doors, 100mm brass barrel bolts to lower double doors and clothes hanging rails in hanging spaces</u>	No	4.0		
8	Cupboard size 2400 x 600 x 2200mm high with top, sides, bottom, division, shelves, doors, etc	No	0.0		
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL No. 7 CEILINGS, PARTITIONS AND ACCESS FLOORING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.129) unless otherwise stated CEILINGS, ETC NAILED-UP CEILINGS <u>6.4mm Gypsum plasterboard nailed up ceiling</u> 1 Ceilings including 38 x 38mm sawn softwood branderling at not exceeding 300mm centres in one direction 2 Extra over ceiling for hinged trap door size 610 x 610mm. <u>Gypsum or equal approved plasterboard cornices</u> 3 76mm Coved cornices plugged INSULATION 4 115mm thick Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of branderling, etc, all as per manufacturers instructions				
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2				
	BILL NO. 9				
	IRONMONGERY				
	<u>Preambles</u>				
	The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities				
	No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	(CPAP WORK GROUP NO.132) unless otherwise stated				
	CATCHES, CABIN HOOKS, ETC				
1	Hat & Coat Hook Rubber Buffer (code: 15469)	No	4		
	<u>Locks</u>				
	<u>Union or equal approved</u>				
2	2 Lever locks complete with handles	No	12		
3	3 Lever locks complete with handles	No	4		
	<u>Handles</u>				
4	19mm Sanford l/on rose handle (code: EDD104C059)	Pairs	0		
	<u>Sundries</u>				
5	D/Stop rubber buffer (code: 139/69)	No	16		
	BATHROOM FITTINGS				
	<u>Sundries</u>				
6	Toilet paper roll holder plugged	No	4		
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2				
	BILL NO. 11				
	METALWORK				
	<u>Preambles</u>				
	The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities				
	No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	GALVANISED STEEL GATES, SCREENS, ETC				
	<u>Welded screens and gates</u>				
1	Single gate 900 x 2125mm high of 25 x 25 x 2mm hollow section frame and 25 x 25 x 2mm hollow section horizontal middle rail, filled in with 12 x 12 x 2mm hollow section vertical bars at 75mm centres and fitted with a pair of suitable hinges welded to frames	No	0		
6	80mm Expansion bolt	No	24		
Balance b/f					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
	<u>STEEL HANDRAILS, BALUSTRADES, ETC</u>				
	<u>Welded balustrading and handrails</u>				
2	Horizontal handrails 1 000mm high formed of 50mm external diameter x 2.5mm thick continuous pipe handrail, 40 x 40mm Hollow section balusters at approximately 1300mm centres with one end welded to handrail and other end to 100 x 100 x 2.5mm thick foot plates bolted to concrete, 40 x 10mm flat section top and bottom rail at 1000mm centres welded between balusters and 20mm diameter solid section vertical members welded between top and bottom rail at 100mm centres between balusters	m	12		
3	Horizontal balustrades 1 000mm high formed of 50mm external diameter x 2.5mm thick continuous pipe handrail, 40 x 40mm Hollow section balusters at approximately 1300mm centres with one end welded to handrail and other end to 100 x 100 x 2.5mm thick foot plates bolted to concrete, 40 x 10mm flat section top and bottom rail at 1000mm centres welded between balusters and 20mm diameter solid section vertical members welded between top and bottom rail at 100mm centres between balusters	m	6		
4	Extra over for L-intersection of horizontal balustrades	No	4		
5	Extra over for flat closed end	No	4		
	<u>DOOR FRAMES, DOORS, WINDOWS, ETC</u>				
	<u>PRESSED STEEL DOOR FRAMES</u>				
	<u>1,2mm Double rebated frames suitable for half brick walls</u>				
7	Frame for door size 813 x 2032mm high	No	4		
	<u>1,2mm Double rebated frames suitable for one brick walls</u>				
8	Frame for door 813 x 2032mm high	No	12		
	<u>WINDOWS</u>				
	<u>Anodised Aluminium Windows with 6mm glazing complete with buglar bars</u>				
9	Aluminium Window size 600 x 900mm high	No	4		
10	Aluminium Window size 1200 x 1200mm high	No	8		
11	Aluminium Window size 1500 x 1500mm high	No	8		
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	BILL NO. 12 PLASTERING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.142) unless otherwise stated SCREEDS <u>1:3 Screeds on concrete with wooden float finish</u>				
1	30mm Thick on floors and landings to receive ceramic tiles	m ²	220		
	INTERNAL PLASTER <u>Cement plaster on brickwork</u>				
2	On walls	m ²	647		
3	On narrow widths	m ²	9		
	<u>Cement plaster on concrete soffits</u>				
4	On walls	m ²	110		
	EXTERNAL PLASTER <u>Cement plaster on brickwork</u>				
5	On wall	m ²	202		
6	On narrow widths	m ²	5		
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2				
	BILL NO. 13				
	TILING				
	Preambles				
	The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities				
	No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	(CPAP WORK GROUP NO.144) unless otherwise stated				
	WALL TILING				
	<u>200 x 200 x 10mm glazed wall tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u>				
1	On walls	m ²	88		
2	On narrow widths not exceeding 300mm width	m ²	4		
	SUNDRIES				
	<u>White glazed ceramic soap dishes, etc</u>				
3	150 x 150mm Plumbcrazy Fast-Fit or equal approved semi-recessed soap dish built into walls	No	4		
	FLOOR TILING				
	<u>300 x 300 x 10mm thick ceramic floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound</u>				
4	On floors	m ²	220		
5	Cut tiles to skirting 100mm high	m	496		
Carried to Summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
8	Single bowl catering sink 900 x 650mm with end bowls 500 x 230mm deep each installed in BIC cabinet (e/m) <u>Vaal or equally approved</u>	No	4		
9	Vitreous china 'Orchid' or equal approved closed coupled 90 degrees outlet wall hung open rim pan (code 438600) and matching 6 litre pushbutton top dual flush back inlet cistern (code 4386DT) complete with lid, fitment and with bolt-through-the-wall bracket (code 8084Z0)	No	4		
10	Ceramic fireclay 595 x455mm "Cameo" or equal approved oval self rimming vanity basin with one tap and chainstay hole through the centre semi-punched taphole supplied standard without an overflow	No	4		
11	Plexicor President 1 700 or equal approved cast acrylic perspex rectangular bath in opal finished with with chromium plated grip handles, overall size 1700 x 750 x 400mm deep WASTE UNIONS ETC <u>"Cobra Watertech" or equal approved</u>	No	4		
12	32mm 301CP or qual approved basin waste union	No	4		
13	40mm 316 CP sink waste union TRAPS, ETC <u>Marley or equal approved</u>	No	4		
14	Bath trap (code 40PBC)	No	4		
Balance b/f					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
	<u>uPVC</u>				
15	40 x 40mm flexi rubber waste trap	No	4		
	TAPS, VALVES, ETC				
	<u>"Cobra Watertech" or equal approved</u>				
16	15mm 1001/125-15RB fullway gate valve.	No	16		
17	15mm 166/041CP "Star" sink mixer.	No	4		
18	15mm basin mixer	No	4		
19	15mm bath mixer	No	4		
	SANITARY PLUMBING				
	<u>uPVC soil and vent pipes</u>				
20	50mm diameter pipe	m	72		
21	110mm diameter pipe	m	96		
	<u>Extra over uPVC pipe fittings</u>				
22	50mm bend	No	32		
23	50mm junction	No	32		
24	50mm GI two way vent valve	No	16		
25	50mm access bend	No	16		
26	110mm access bend with anti-syphon horn	No	4		
27	110mm bend	No	8		
28	110mm Straight pan connector	No	4		
Balance b/f					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
29	110mm rodding eye	No	4		
30	110mm reducing junction	No	4		
31	110mm uPVC guller and grating	No	4		
32	Vent cowl and setting in top of 110mm diameter pipe	No	4		
	<u>Sundries</u>				
33	Testing waste pipe system	Item	1		
	WATER SUPPLIES				
	<u>Class 10 HDPE type IV pipes</u>				
34	50mm Pipes laid in and including trenches not exceeding 1m deep	m	3		
	<u>Extra over Class 10 HDPE type IV pipes for Plasson fittings</u>				
35	50mm Bend.	No	1		
36	50mm tee.	No	1		
37	50mm reducing junction	No	1		
	<u>Class 2 copper pipes with brass compression couplings</u>				
38	15mm Pipes	m	20		
39	22mm Pipes	m	20		
	<u>Extra over class 2, copper pipes for soldered capillary fittings</u>				
40	15mm fittings	No	15		
41	22mm fittings	No	15		
	<u>Copper service pipes</u>				
42	15mm Service pipe 350mm girth.	No	2		
	<u>Testing</u>				
43	Allow for testing of water supplies	Item	1		
Carried to summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 15 GLAZING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.150) unless otherwise stated TOPS, SHELVES, DOORS, MIRRORS, ETC <u>6mm Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete:</u>				
1	Mirror 450 x 600mm high.	No	4		
Carried to summary					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 16 PAINTWORK <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.152) unless otherwise stated PAINTWORK, ETC TO NEW WORK ON ON FLOATED PLASTER <u>Prepare etc as specified, apply one under coat and two coats superior quality acrylic emulsion paint:</u>				
1	On internal walls ON CONCRETE SOFFIT <u>Prepare etc as specified, apply one under coat and two coats superior quality acrylic emulsion paint:</u>	m ²	647		
2	On concrete soffits <u>Prepare etc as specified, apply one under coat and two coats superior quality acrylic emulsion paint:</u>	m ²	110		
3	On external walls	m ²	202		
Balance b/f					

Talana CRU					
Type B - 8 Bed Double Storey					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
	<u>ON PLASTERBOARD</u> <u>One coat primer and two coats superior quality acrylic emulsion paint for interior and exterior use</u> 4 On ceilings and cornices	m ²	110		
	<u>ON FIBRE-CEMENT</u> <u>One coat primer and two coats professional acrylic polyvinyl paint</u> 5 On fascias and barge boards	m ²	14		
	<u>ON METAL</u> <u>Spot priming bare metal surfaces, one coat alkyd based universal undercoat and two coats superior quality universal enamel paint, on work in poor condition</u> 6 On door frames	m ²	32		
	7 Gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m ²	13		
	<u>ON WOOD</u> <u>Prepare, etc as specified and apply three coats of polyurethane suede varnish:</u> 8 On doors	m ²	40		
	<u>Prepare, etc as specified and apply two coats of gloss enamel paint:</u> 9 On doors	m ²	13		
Carried to Summary					

Talana CRU

Type B - 8 Bed Double Storey

Final Summary

ITEM	DESCRIPTION	PAGE NO	AMOUNT
1	EARTHWORKS	73	
2	CONCRETE, FORMWORK AND REINFORCEMENT	76	
3	PRECAST CONCRETE	77	
4	MASONRY	79	
5	WATERPROOFING	80	
6	ROOF COVERINGS	82	
7	CARPENTRY AND JOINERY	84	
8	CEILINGS AND ACCESS FLOORING	85	
9	IRONMONGERY	86	
10	METALWORKS	88	
11	PLASTERING	89	
12	TILING	90	
13	PLUMBING AND DRAINAGE	94	
14	GLAZING	95	
15	PAINTWORK	97	
TOTAL SUMMARY PER UNIT			

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO. 1				
	EARTHWORKS (PROVISIONAL)				
	<u>Preambles</u>				
	The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities				
	No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	<u>Site clearance:</u>				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, including grubbing up roots, filling up holes and compacting to 90% MOD ASSHTO density	m ²	122		
2	Stripping average 150mm thick layer of top soil and stockpiling on site	m ²	0		
	Removal of trees, etc				
	<u>Taking out and removing, grubbing up roots and filling in holes</u>				
3	Tree stump exceeding 200mm and not exceeding 500mm girth	No	0		
4	Tree stump exceeding 500mm and not exceeding 1000mm girth	No	0		
	Excavation, filling, etc				
	<u>Excavation in earth not exceeding 2m deep</u>				
5	Trenches	m ³	100		
	<u>Extra over trench and hole excavations in earth for excavation in</u>				
6	Soft rock	m ³	4		
7	Hard rock	m ³	2		
	<u>Extra over all excavations for carting away</u>				
8	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m ³	69		
Balance b/f					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Balance c/f					
9	<u>Risk of collapse of excavations</u> Sides of trench and hole excavations not exceeding 1,5m deep	m ²	200		
10	<u>Keeping excavations free of water</u> Allow for keeping all excavations free of water and mud	Item	1		
	FILLING ETC Earth filling obtained from the excavations and/or prescribed stock piles				
11	<u>on site</u> In trenches	m ³	31		
	FILLING ETC G5 filling supplied by the contractor compacted to 98% Mod AASHTO density				
12	Under floors, steps, pavings etc	m ³	33		
	Compaction of surfaces Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m ²	126		
14	<u>Prescribed density tests on filling</u> "Modified AASHTO Density" test	No	8		
	SOIL POISONING Soil insecticide in accordance with SANS 5859				
15	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m ²	126		
16	To bottoms and sides of trenches etc	m ²	297		
CARRIED TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2 BILL No. 2 CONCRETE, FORMWORK AND REINFORCEMENT <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted CONCRETE (CPAP Work Group No. 110) <u>Unreinforced concrete</u> <u>15MPa/19mm concrete</u>				
1	Aprons cast in panels to falls	m ³	6		
2	Thickenning down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	72		
	<u>25MPa/19mm concrete</u>				
3	Foundations	m ³	18		
	<u>Reinforced concrete cast against excavated surfaces</u>				
4	Surface beds cast in panels on waterproofing (measured elsewhere)	m ³	9		
	TEST BLOCKS				
5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	10		
Balance b/f					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Balance c/f					
7	CONCRETE SUNDRIES				
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>				
	Aprons	m ²	72		
	FORMWORK				
8	(CPAP Work Group No. 111)				
	<u>Rough formwork to sides</u>				
	Rough formwork (Degree of accuracy III)				
	Beams	m ²	300		
9	<u>Smooth formwork to sides</u>				
	Smooth Formwork (Degree of accuracy III)				
	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	250		
	MOVEMENT JOINTS ETC				
10	<u>Isolation joints</u>				
	Isolation joint in slabs 10mm wide sealed with and including polyurethane sealant	m	130		
	REINFORCEMENT (PROVISIONAL)				
	(CPAP Work Group No. 114)				
11	<u>Steel reinforcement to structural concrete work</u>				
	<u>Various diameter bars</u>				
	<u>Mild Steel Bars</u>				
	8mm dia bars	t	1.2		
Balance b/f					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Balance c/f					
	<u>High tensil steel bars</u>				
12	12mm dia bars	t	2.6		
13	16mm dia bars	t	5		
	<u>Fabric reinforcement</u>				
14	Type 193 fabric reinforcement in concrete surface beds, etc.	m ²	126		
Carried to Summary					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2				
	BILL No. 2				
	PRECAST CONCRETE				
	<u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted <u>Precast Reinforced Concrete</u> <u>Precast reinforced concrete as per structural engineering drawings attached to these bills of quantities including core drilling</u>				
1	170mm thick reinforced concrete floor slab including beams, etc	m ²	230		
2	170mm thick precast concrete stair including beams, etc	m ²	22		
Carried to Summary					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2 BILL NO: 3 MASONRY <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.118) unless otherwise stated FOUNDATIONS (PROVISIONAL) <u>Brickwork of NFP bricks 1(4mpa minimum compressive strength) in class II mortar</u> 1 Half brick walls m ² 16 2 One brick walls m ² 84 SUPERSTRUCTURE <u>Brickwork of NFP bricks (14mpa minimum compressive strength) in class II mortar</u> 3 Half brick walls m ² 130 4 One brick walls m ² 606 <u>Brickwork reinforcement</u> 5 75mm Wide reinforcement built in horizontally m 435 6 150mm Wide reinforcement built in horizontally m 2059 <u>Prestressed fabricated concrete lintels including necessary temporary supports</u> 7 75 x 150mm Lintels in lengths not exceeding 3m. m 90 Balance b/f				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance c/f				
	<u>Turning pieces to lintels etc</u>				
8	110mm Wide turning piece to lintels etc	m	36		
	<u>Galvanised hoop iron cramps, ties, etc</u>				
9	30 x 1,6mm Cramp 1500mm long with one end fixed to timber and other end built into brickwork.	No	71		
	FACE BRICKWORK				
	<u>Semi-face brickwork or other approved pointed with recessed with recessed horizontal and vertical joints.</u>				
10	Extra over brickwork for face brickwork.	m ²	416		
11	One brick wall in face brickwork in parapet walls.	m ²	7		
12	Half brick walls in facings pointed on one side in beam filling.	m ²	7		
13	Extra over brickwork for face brickwork in foundations (Provisional).	m ²	20		
14	Fair raking cutting.	m	10		
15	Fair cutting and fitting around pipe not exceeding 110mm diameter.	No	9		
	<u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u>				
16	Extra over brickwork for brick-on-edge header course lintels course, pointed on face and 110mm soffit.	m	21		
	<u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u>				
17	220mm Wide sills set sloping and slightly projecting.	m	18		
	<u>DECORATIVE SCREEN WALLS AND GRILLES</u>				
	<u>Screen walls of face bricks pointed with flush horizontal and vertical joints on all exposed faces</u>				
18	One brick walls with openings 106mm wide x 2 635mm high at 294mm centres pointed on both sides and in openings	m ²	12		
19	One brick walls with openings 106mm wide x 2 805mm high at 294mm centres pointed on both sides and in openings	m ²	14		
	Carried to Summary				

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2 BILL NO. 4 WATERPROOFING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.120) unless otherwise stated DAMPPROOFING OF WALLS AND FLOORS <u>One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course in</u>				
1	In walls <u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>	m ²	63		
2	Under surface beds JOINT SEALANTS ETC <u>Silicone sealing compound including backing cord, bond</u>	m ²	126		
3	10 x 10mm sealant in isolation joint	m	160		
Carried to Summary					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2 BILL NO. 5 ROOF COVERINGS ETC <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.124) unless otherwise stated CONCRETE ROOF TILES <u>Infraset horizontal concrete shingle roof tiles (Code: HZ SL STD) size 420 x 330mm laid in straight bond with minimum 75mm headlap, fixed at a pitch of 20 degrees with three rows of tiles at the ridge, eaves and verge for the full overhang and every third tiles in every in every row over the remainder of the third tiles in every in every row over the remainder of the roof the raking pattern using non-corrosive nails to 38 x 38mm sawn softwood battened at maximum 345mm centres, on and including roof membrane and single sided Radiant Barrier with joints lapped 150mm, fixed over rafters with trusses at 760mm centres</u>				
1	Roof coverings with pitch not exceeding 20 degrees.	m ²	132		
2	Ridge/hip capping to match roofing tiles bedded and pointed in 1:3 cement mortar to match tile colour	m	14		
	<u>Flashings</u>				
3	Head wall flashing 550mm girth bedded to brick wall with cement mortar	m	24		
	Balance b/f				

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance c/f				
	ROOF AND WALL INSULATION				
	Roof insulation to be Isoboard® high density 32- 36kg/m3 rigid extruded polystyrene 100% closed cell insulation boards 40mm thick x 600mm wide with brown paper and polyethylene laminate slip sheet factory applied to upper surface, with tongue & groove joints fixed concurrent with roof covering over steel purlins at maximum 1500mm centres with 5mm gap between boards butt-joined over purlins. Ridge vents are recommended to be allowed for in the roof covering (elsewhere specified) in order to prevent deflection due to heat build up above the boards.				
4	Insulation laid taut over purlins (at approximately 1.80m centres) and fixed concurrent with roof covering, including taped laps and nylon straining wires	m²	0		
Carried to Summary					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2 BILL NO. 6 CARPENTRY AND JOINERY <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.126) unless otherwise stated ROOFS, ETC <u>Sawn softwood</u> 1 38 x 114mm Wall plates m 72 2 Design, manufacture and deliver on site, plate nailed roof trusses to two bedroom single house, with area 110m ² measured on plan. Each truss 8200mm x 2300mm high overall with 600mm eaves overhang, including all necessary purlins, runners, bracing and cross bracing (wall plates elsewhere) Item 1 EAVES, VERGES, ETC <u>"Everite FC77" or other equal and approved pressed fibre-cement</u> 3 12 x 225mm Fascias, including aluminium H-profile jointing strips m 65 DOORS, ETC <u>Semi-solid flush doors with 3,2mm standard hardboard covering face suitable for paint on both sides, hung to steel frames</u> 4 44mm semi-solid core flush door No 18				
Balance b/f					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance c/f				
5	<u>40mm thick horizontal hardwood entrance door suitable for paint on both sides, hung to steel frames</u> 44mm Framed batten door size 813 x 2032mm high with 3mm plywood backing and 76 x 32mm weather bar. CUPBOARDS TO KITCHENS, BEDROOMS, ETC <u>Kitchen cupboards etc.</u> <u>Kitchen cupboards with 16mm 'Melawood' shives, 32mm post formed formica countertop, 16mm 'Versafront' post formed cupboard doors, shelves, lockable drawers, etc, including ironmongery, quarterrounds, framing, bearers, backing, skirting, bottoms, etc comple</u>	No	6		
6	Wall cupboard size 1000 x 350 x 500mm high with top, sides, bottom, divisions, shelf, back and single hinged door plugged	No	0		
7	Sink cupboard type size 1500 x 550 x 900mm high with sides, bottom, divisions, shelf, back and double hinged doors (sink elsewhere)	No	6		
	<u>Bedroom cupboards with hinges, handles, roller catches to upper doors, cupboard locks to lower doors, 100mm brass barrel bolts to lower double doors and clothes hanging rails in hanging spaces</u>				
8	Cupboard size 2400 x 600 x 2200mm high with top, sides, bottom, division, shelves, doors, etc	No	0		
Carried to Summary					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2				
	BILL No. 7				
	CEILINGS, PARTITIONS AND ACCESS FLOORING				
	<u>Preambles</u>				
	The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities				
	No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	(CPAP WORK GROUP NO.129) unless otherwise stated				
	CEILINGS, ETC				
	NAILED-UP CEILINGS				
	<u>6.4mm Gypsum plasterboard nailed up ceiling</u>				
1	Ceilings including 38 x 38mm sawn softwood branderling at not exceeding 300mm centres in one direction	m ²	126		
2	Extra over ceiling for hinged trap door size 610 x 610mm.	No	2		
	<u>Gypsum or equal approved plasterboard cornices</u>				
3	76mm Coved cornices plugged	m	256		
	INSULATION				
4	115mm thick Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of branderling, etc, all as per manufacturers instructions	m ²	126		
Carried to Summary					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2				
	BILL NO. 9				
	IRONMONGERY				
	<u>Preambles</u>				
	The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities				
	No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	(CPAP WORK GROUP NO.132) unless otherwise stated				
	CATCHES, CABIN HOOKS, ETC				
1	Hat & Coat Hook Rubber Buffer (code: 15469)	No	0		
	<u>Locks</u>				
	<u>Union or equal approved</u>				
2	2 Lever locks complete with handle	No	18		
3	3 Lever locks complete with handle	No	6		
	<u>Handles</u>				
4	19mm Sanford l/on rose handle (code: EDD104C059)	Pairs	0		
	<u>Sundries</u>				
5	D/Stop rubber buffer (code: 139/69)	No	24		
	BATHROOM FITTINGS				
	<u>Sundries</u>				
6	Toilet paper roll holder plugged	No	6		
Carried to Summary					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2				
	BILL NO. 11				
	METALWORK				
	<u>Preambles</u>				
	The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities				
	No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	GALVANISED STEEL GATES, SCREENS, ETC				
	<u>Welded screens and gates</u>				
1	Single gate 900 x 2125mm high of 25 x 25 x 2mm hollow section frame and 25 x 25 x 2mm hollow section horizontal middle rail, filled in with 12 x 12 x 2mm hollow section vertical bars at 75mm centres and fitted with a pair of suitable hinges welded to frames	No	0		
	<u>STEEL HANDRAILS, BALUSTRADES, ETC</u>				
	<u>Welded balustrading and handrails</u>				
2	Horizontal handrails 1 000mm high formed of 50mm external diameter x 2.5mm thick continuous pipe handrail, 40 x 40mm Hollow section balusters at approximately 1300mm centres with one end welded to handrail and other end to 100 x 100 x 2.5mm thick foot plates bolted to concrete, 40 x 10mm flat section top and bottom rail at 1000mm centres welded between balusters and 20mm diameter solid section vertical members welded between top and bottom rail at 100mm centres between balusters	m	18		
3	Horizontal balustrades 1 000mm high formed of 50mm external diameter x 2.5mm thick continuous pipe handrail, 40 x 40mm Hollow section balusters at approximately 1300mm centres with one end welded to handrail and other end to 100 x 100 x 2.5mm thick foot plates bolted to concrete, 40 x 10mm flat section top and bottom rail at 1000mm centres welded between balusters and 20mm diameter solid section vertical members welded between top and bottom rail at 100mm centres between balusters	m	10		
4	Extra over for L-intersection of horizontal balustrades	No	6		
Balance b/f					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance c/f				
5	Extra over for flat closed end	No	6		
6	80mm Expansion bolt	No	36		
	DOOR FRAMES, DOORS, WINDOWS, ETC				
	PRESSED STEEL DOOR FRAMES				
	<u>1.2mm Double rebated frames suitable for half brick walls</u>				
7	Frame for door size 813 x 2032mm high	No	6		
	<u>1.2mm Double rebated frames suitable for one brick walls</u>				
8	Frame for door 813 x 2032mm high	No	18		
	WINDOWS				
	<u>Anodised Aluminium Windows with 6mm glazing complete with buglar bars</u>				
9	Aluminium Window size 600 x 900mm high	No	6		
10	Aluminium Window size 1200 x 1200mm high	No	12		
11	Aluminium Window size 1500 x 1500mm high	No	12		
Carried to Summary					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO. 12				
	PLASTERING				
	<u>Preambles</u>				
	The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities				
	No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	(CPAP WORK GROUP NO.142) unless otherwise stated				
	SCREEDS				
	<u>1:3 Screeds on concrete with wooden float finish</u>				
1	30mm Thick on floors and landings to receive ceramic tiles	m ²	378		
	INTERNAL PLASTER				
	<u>Cement plaster on brickwork</u>				
2	On walls	m ²	1450		
3	On narrow widths	m ²	12		
	<u>Cement plaster on concrete soffits</u>				
4	On walls	m ²	252		
	EXTERNAL PLASTER				
	<u>Cement plaster on brickwork</u>				
5	On wall	m ²	226		
6	On narrow widths	m ²	5		
Carried to Summary					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2				
	BILL NO. 13				
	TILING				
	<u>Preambles</u>				
	The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities				
	No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	(CPAP WORK GROUP NO.144) unless otherwise stated				
	WALL TILING				
	<u>200 x 200 x 10mm glazed wall tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u>				
1	On walls	m ²	132		
2	On narrow widths not exceeding 300mm width	m ²	6		
	SUNDRIES				
	<u>White glazed ceramic soap dishes, etc</u>				
3	150 x 150mm Plumbcrazy Fast-Fit or equal approved semi-recessed soap dish built into walls	No	6		
	FLOOR TILING				
	<u>300 x 300 x 10mm thick ceramic floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound</u>				
4	On floors	m ²	378		
5	Cut tiles to skirting 100mm high	m	744		
Carried to Summary					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2				
	BILL NO. 14				
	PLUMBING AND DRAINAGE				
	<u>Preambles</u>				
	The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities				
	No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	(CPAP WORK GROUP NO.148) unless otherwise stated				
	RAINWATER DISPOSAL				
	<u>Approved 0.6mm prepainted sheet iron:</u>				
1	100 x 75mm eaves gutter	m	65		
2	Extra over 100 x 75mm gutter for outlet	No	9		
3	Extra over 100 x 75mm gutter for bend	No	10		
4	Extra over 100 x 75mm gutter for stopped end	No	2		
5	75mm diameter square rainwater downpipes	m	81		
6	Extra over 75mm rainwater pipe for bend	No	9		
7	Extra over 75mm rainwater pipe for shoe	No	9		
Balance b/f					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance c/f				
	SANITARY FITTINGS				
	<u>"Franke" stainless steel or equal approved</u>				
8	Single bowl catering sink 900 x 650mm with end bowls 500 x 230mm deep each with 150mm high intergral splashback at rear set on 45mm diameter stainless steel tubular legs, plates, braces, adjustable die-cast zinc foot pieces, etc, 40mm sink outlet chrome plated with backnut plug and chain unslopped as cobra 316, 40mm butyl rubber combination resealing P-trap.	No	6		
	<u>Vaal or equally approved</u>				
9	Vitreous china 'Orchid' or equal approved closed coupled 90 degrees outlet wall hung open rim pan (code 438600) and matching 6 litre pushbutton top dual flush back inlet cistern (code 4386DT) complete with lid, fitment and with bolt-through-the-wall bracket (code 8084Z0)	No	6		
10	Ceramic fireclay 595 x455mm "Cameo" or equal approved oval self rimming vanity basin with one tap and chainstay hole through the centre semi-punched taphole supplied standard without an overflow	No	6		
11	Plexicor President 1 700 or equal approved cast acrylic perspex rectangular bath in opal finished with with chromium plated grip handles, overall size 1700 x 750 x 400mm deep	No	6		
	WASTE UNIONS ETC				
	<u>"Cobra Watertech" or equal approved</u>				
12	32mm 301CP or qual approved basin waste union	No	6		
13	40mm 316 CP sink waste union	No	6		
	TRAPS, ETC				
	<u>Marley or equal approved</u>				
14	Bath trap (code 40PBC)	No	6		
	<u>uPVC</u>				
15	40 x 40mm flexi rubber waste trap	No	6		
	Balance b/f				

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance c/f				
	TAPS, VALVES, ETC				
	<u>"Cobra Watertech" or equal approved</u>				
16	15mm 1001/125-15RB fullway gate valve.	No	20		
17	15mm 166/041CP "Star" sink mixer.	No	6		
18	15mm basin mixer	No	6		
19	15mm bath mixer	No	6		
	SANITARY PLUMBING				
	<u>uPVC soil and vent pipes</u>				
20	50mm diameter pipe	m	108		
21	110mm diameter pipe	m	144		
	<u>Extra over uPVC pipe fittings</u>				
22	50mm bend	No	48		
23	50mm junction	No	48		
24	50mm GI two way vent valve	No	20		
25	50mm access bend	No	20		
26	110mm access bend with anti-syphon horn	No	6		
27	110mm bend	No	12		
28	110mm Straight pan connector	No	6		
29	110mm rodding eye	No	6		
30	110mm reducing junction	No	6		
31	110mm uPVC guller and grating	No	6		
32	Vent cowl and setting in top of 110mm diameter pipe	No	6		
	Balance b/f				

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance c/f				
	<u>Sundries</u>				
33	Testing waste pipe system	Item	1		
	WATER SUPPLIES				
	<u>Class 10 HDPe type IV pipes</u>				
34	50mm Pipes laid in and including trenches not exceeding 1m deep	m	4		
	<u>Extra over Class 10 HDPe type IV pipes for Plasson fittings</u>				
35	50mm Bend.	No	1		
36	50mm tee.	No	1		
37	50mm reducing junction	No	1		
	<u>Class 2 copper pipes with brass compression couplings</u>				
38	15mm Pipes	m	10		
39	22mm Pipes	m	10		
	<u>Extra over class 2, copper pipes for soldered capillary fittings</u>				
40	15mm fittings	No	16		
41	22mm fittings	No	16		
	<u>Copper service pipes</u>				
42	15mm Service pipe 350mm girth.	No	2		
	<u>Testing</u>				
43	Allow for testing of water supplies	Item	1		
Carried to summary					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2 BILL NO. 15 GLAZING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.150) unless otherwise stated TOPS, SHELVES, DOORS, MIRRORS, ETC <u>6mm Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete:</u>				
1	Mirror 450 x 600mm high.	No	6		
Carried to summary					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SECTION NO. 2 BILL NO. 16 PAINTWORK <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.152) unless otherwise stated PAINTWORK, ETC TO NEW WORK ON ON FLOATED PLASTER <u>Prepare etc as specified, apply one under coat and two coats superior quality acrylic emulsion paint:</u>				
1	On internal walls ON CONCRETE SOFFIT <u>Prepare etc as specified, apply one under coat and two coats superior quality acrylic emulsion paint:</u>	m ²	1450		
2	On concrete soffits <u>Prepare etc as specified, apply one under coat and two coats superior quality acrylic emulsion paint:</u>	m ²	252		
3	On external walls ON PLASTERBOARD <u>One coat primer and two coats superior quality acrylic emulsion paint for interior and exterior use</u>	m ²	226		
4	On ceilings and cornices	m ²	126		
Balance b/f					

Talana CRU

Type C - 12 Bed Three Storey

Bills of Quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance c/f				
	ON FIBRE-CEMENT				
	<u>One coat primer and two coats professional acrylic polyvinyl paint</u>				
5	On fascias and barge boards	m ²	14		
	ON METAL				
	<u>Spot priming bare metal surfaces, one coat alkyd based universal undercoat and two coats superior quality universal enamel paint, on work in poor condition</u>				
6	On door frames	m ²	48		
7	Gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m ²	20		
	ON WOOD				
	<u>Prepare,etc as specified and apply three coats of polyurethane suede varnish:</u>				
8	On doors	m ²	20		
	<u>Prepare, etc as specified and apply two coats of gloss enamel paint:</u>				
9	On doors	m ²	60		
Carried to Summary					

ITEM	DESCRIPTION	PAGE NO	AMOUNT
1	EARTHWORKS	100	
2	CONCRETE, FORMWORK AND REINFORCEMENT	103	
3	PRECAST CONCRETE	104	
4	MASONRY	106	
5	WATERPROOFING	107	
6	ROOF COVERINGS	109	
7	CARPENTRY AND JOINERY	111	
8	CEILINGS AND ACCESS FLOORING	112	
9	IRONMONGERY	113	
10	METALWORKS	115	
11	PLASTERING	116	
12	TILING	117	
13	PLUMBING AND DRAINAGE	121	
14	GLAZING	122	
15	PAINTWORK	124	
TOTAL SUMMARY PER UNIT			

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	BILL NO. 1				
	EARTHWORKS (PROVISIONAL)				
	<u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	<u>Site clearance:</u>				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, including grubbing up roots, filling up holes and compacting to 90% MOD ASSHTO density	m ²	130		
2	Stripping average 150mm thick layer of top soil and stockpiling on site	m ²	0		
	Removal of trees, etc				
	<u>Taking out and removing, grubbing up roots and filling in holes</u>				
3	Tree stump exceeding 200mm and not exceeding 500mm girth	No	0		
4	Tree stump exceeding 500mm and not exceeding 1000mm girth	No	0		
	Excavation, filling, etc				
	<u>Excavation in earth not exceeding 2m deep</u>				
5	Trenches	m ³	41		
	<u>Extra over trench and hole excavations in earth for excavation in</u>				
6	Soft rock	m ³	1		
7	Hard rock	m ³	1		
	<u>Extra over all excavations for carting away</u>				
8	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m ³	5		
	Balance b/f				

Talana CRU

Type D - 6 Bed Three Storey

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	<u>Risk of collapse of excavations</u>				
9	Sides of trench and hole excavations not exceeding 1,5m deep	m ²	117		
	<u>Keeping excavations free of water</u>				
10	Allow for keeping all excavations free of water and mud	Item	1		
	FILLING ETC				
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
11	In trenches	m ³	36		
	FILLING ETC				
	<u>G5 filling supplied by the contractor compacted to 98% Mod AASHTO density</u>				
12	Under floors, steps, pavings etc	m ²	23		
	<u>Compaction of surfaces</u>				
13	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m ²	116		
	<u>Prescribed density tests on filling</u>				
14	"Modified AASHTO Density" test	No	8		
	SOIL POISONING				
	<u>Soil insecticide in accordance with SANS 5859</u>				
15	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m ²	116		
16	To bottoms and sides of trenches etc	m ²	168		
	Carried to Summary				

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2				
	BILL No. 2				
	CONCRETE, FORMWORK AND REINFORCEMENT				
	Preambles The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	CONCRETE (CPAP Work Group No. 110)				
	<u>Unreinforced concrete</u>				
	<u>15MPa/19mm concrete</u>				
1	Aprons cast in panels to falls	m ³	5		
2	Thickenning down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	44		
	<u>25MPa/19mm concrete</u>				
3	Foundations	m ³	13		
	<u>Reinforced concrete cast against excavated surfaces</u>				
4	Surface beds cast in panels on waterproofing (measured elsewhere)	m ³	10		
	TEST BLOCKS				
5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	10		
Balance b/f					

Talana CRU

Type D - 6 Bed Three Storey

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	CONCRETE SUNDRIES				
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>				
6	Aprons	m ²	44		
	FORMWORK				
	(CPAP Work Group No. 111)				
	<u>Rough formwork to sides</u>				
	Rough formwork (Degree of accuracy III)				
7	Beams	m ²	300		
	<u>Smooth formwork to sides</u>				
	Smooth Formwork (Degree of accuracy III)				
8	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	250		
	MOVEMENT JOINTS ETC				
	<u>Isolation joints</u>				
9	Isolation joint in slabs 10mm wide sealed with and including polyurethane sealant	m	142		
	REINFORCEMENT (PROVISIONAL)				
	(CPAP Work Group No. 114)				
	<u>Steel reinforcement to structural concrete work</u>				
	<u>Various diameter bars</u>				
	<u>Mild Steel Bars</u>				
10	8mm dia bars	t	1.2		
	Balance b/f				

Bills of Quantities

[illegible]

Talana CRU

Type D - 6 Bed Three Storey

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2				
	BILL No. 2				
	PRECAST CONCRETE				
	<u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted				
	<u>Precast Reinforced Concrete</u>				
	<u>Precast reinforced concrete as per structural engineering drawings attached to these bills of quantities including core drilling</u>				
1	170mm thick reinforced concrete floor slab including beams, etc	m ²	236		
2	170mm thick precast concrete stair including beams, etc	m ²	22		
Carried to Summary					

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO: 3 MASONRY <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.118) unless otherwise stated FOUNDATIONS (PROVISIONAL) <u>Brickwork of NFP bricks 1(4mpa minimum compressive strength) in class II mortar</u> 1 Half brick walls m ² 14 2 One brick walls m ² 44 SUPERSTRUCTURE <u>Brickwork of NFP bricks (14mpa minimum compressive strength) in class II mortar</u> 3 Half brick walls m ² 146 4 One brick walls m ² 445 <u>Brickwork reinforcement</u> 5 75mm Wide reinforcement built in horizontally m 489 6 150mm Wide reinforcement built in horizontally m 2050 <u>Prestressed fabricated concrete lintels including necessary temporary supports</u> 7 75 x 150mm Lintels in lengths not exceeding 3m. m 78				
	Balance b/f				

Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	<u>Turning pieces to lintels etc</u>				
8	110mm Wide turning piece to lintels etc	m	27		
	<u>Galvanised hoop iron cramps, ties, etc</u>				
9	30 x 1,6mm Cramp 1500mm long with one end fixed to timber and other end built into brickwork.	No	62		
	FACE BRICKWORK				
	<u>Semi-face brickwork or other approved pointed with recessed with recessed horizontal and vertical joints.</u>				
10	Extra over brickwork for face brickwork.	m ²	338		
11	One brick wall in face brickwork in parapet walls.	m ²	14		
12	Half brick walls in facings pointed on one side in beam filling.	m ²	19		
13	Extra over brickwork for face brickwork in foundations (Provisional).	m ²	31		
14	Fair raking cutting.	m	10		
15	Fair cutting and fitting around pipe not exceeding 110mm diameter.	No	9		
	<u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u>				
16	Extra over brickwork for brick-on-edge header course lintels course, pointed on face and 110mm soffit.	m	78		
	<u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u>				
17	220mm Wide sills set sloping and slightly projecting.	m	27		
	<u>DECORATIVE SCREEN WALLS AND GRILLES</u>				
	<u>Screen walls of face bricks pointed with flush horizontal and vertical joints on all exposed faces</u>				
18	One brick walls with openings 106mm wide x 2 635mm high at 294mm centres pointed on both sides and in openings	m ²	14		
19	One brick walls with openings 106mm wide x 2 805mm high at 294mm centres pointed on both sides and in openings	m ²	30		
	Carried to Summary				

Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 4 WATERPROOFING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.120) unless otherwise stated DAMP PROOFING OF WALLS AND FLOORS <u>One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course in</u>				
1	In walls	m ²	20		
	<u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>				
2	Under surface beds	m ²	116		
	JOINT SEALANTS ETC <u>Silicone sealing compound including backing cord, bond</u>				
3	10 x 10mm sealant in isolation joint	m	192		
Carried to Summary					

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 5 ROOF COVERINGS ETC <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.124) unless otherwise stated CONCRETE ROOF TILES <u>Infraset horizontal concrete shingle roof tiles (Code: HZ SL STD) size 420 x 330mm laid in straight bond with minimum 75mm headlap, fixed at a pitch of 20 degrees with three rows of tiles at the ridge, eaves and verge for the full overhang and every third tiles in every in every row over the remainder of the third tiles in every in every row over the remainder of the roof the raking pattern using non-corrosive nails to 38 x 38mm sawn softwood battened at maximum 345mm centres, on and including roof membrane and single sided Radient Barrier with joints lapped 150mm, fixed over rafters with trusses at 760mm centres</u>				
1	Roof coverings with pitch not exceeding 20 degrees.	m ²	130		
2	Ridge/hip capping to match roofing tiles bedded and pointed in 1:3 cement mortar to match tile colour	m	15		
	<u>Flashings</u>				
3	Head wall flashing 550mm girth bedded to brick wall with cement mortar	m	24		
Balance b/f					

Talana CRU

Type D - 6 Bed Three Storey

Bills of Materials

Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	ROOF AND WALL INSULATION <u>Roof insulation to be Isoboard® high density 32- 36kg/m3 rigid extruded polystyrene 100% closed cell insulation boards 40mm thick x 600mm wide with brown paper and polyethylene laminate slip sheet factory applied to upper surface, with tongue & groove joints fixed concurrent with roof covering over steel purlins at maximum 1500mm centres with 5mm gap between boards butt-joined over purlins. Ridge vents are recommended to be allowed for in the roof covering (elsewhere specified) in order to prevent deflection due to heat build up above the boards.</u>				
4	Insulation laid taut over purlins (at approximately 1.80m centres) and fixed concurrent with roof covering, including taped laps and nylon straining wires	m ²	0		
	Carried to Summary				

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 6 CARPENTRY AND JOINERY <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.126) unless otherwise stated ROOFS, ETC <u>Sawn softwood</u> 1 38 x 114mm Wall plates Design, manufacture and deliver on site, plate nailed roof trusses to two bedroom single house, with area 118m ² measured on plan. Each truss 2 8200mm x 2300mm high overall with 600mm eaves overhang, including all necessary purlins, runners, bracing and cross bracing (wall plates elsewhere) EAVES, VERGES, ETC <u>"Everite FC77" or other equal and approved pressed fibre-cement</u> 3 12 x 225mm Fascia and barge boards, including aluminium H-profile jointing strips DOORS, ETC <u>Semi-solid flush doors with 3.2mm standard hardboard covering face suitable for paint on both sides, hung to steel frames</u> 4 44mm semi-solid core flush door	m	62		
		Item	1		
		m	52		
		No	12		
Balance b/f					

Talana CRU

Type D - 6 Bed Three Storey

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
5	<u>40mm thick horizontal hardwood entrance door suitable for paint on both sides, hung to steel frames</u> 44mm Framed batten door size 813 x 2032mm high with 3mm plywood backing and 76 x 32mm weather bar. CUPBOARDS TO KITCHENS, BEDROOMS, ETC <u>Kitchen cupboards etc.</u> <u>Kitchen cupboards with 16mm 'Melawood' shives, 32mm post formed formica countertop, 16mm 'Versafront' post formed cupboard doors, shelves, lockable drawers, etc, including ironmongery, quarterounds, framing, bearers, backing, skirting, bottoms, etc comple</u>	No	6		
6	Wall cupboard size 1000 x 350 x 500mm high with top, sides, bottom, divisions, shelf, back and single hinged door plugged	No	0.0		
7	Cupboard size 1 965 x 600 x 900mm high with top, sides, bottom, division, shelf, back, double hinged doors and including necessary framework	No	0.0		
8	Sink cupboard type size 1500 x 550 x 900mm high with sides, bottom, divisions, shelf, back and double hinged doors (sink elsewhere)	No	6.0		
	<u>Bedroom cupboards with hinges, handles, roller catches to upper doors, cupboard locks to lower doors, 100mm brass barrel bolts to lower double doors and clothes hanging rails in hanging spaces</u>				
9	Cupboard size 2400 x 600 x 2200mm high with top, sides, bottom, division, shelves, doors, etc	No	0		
	Carried to Summary				

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL No. 7 CEILINGS, PARTITIONS AND ACCESS FLOORING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.129) unless otherwise stated CEILINGS, ETC NAILED-UP CEILINGS <u>6.4mm Gypsum plasterboard nailed up ceiling</u> 1 Ceilings including 38 x 38mm sawn softwood branderling at not exceeding 300mm centres in one direction m ² 116 2 Extra over ceiling for hinged trap door size 610 x 610mm. No 2 <u>Gypsum or equal approved plasterboard cornices</u> 3 76mm Coved cornices plugged m 130 INSULATION 4 115mm thick Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of branderling, etc, all as per manufacturers instructions m ² 116				
Carried to Summary					

Talana CRU

Type D - 6 Bed Three Storey

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 9 IRONMONGERY <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.132) unless otherwise stated CATCHES, CABIN HOOKS, ETC 1 Hat & Coat Hook Rubber Buffer (code: 15469) <u>Locks</u> <u>Union or equal approved</u> 2 2 Lever locks complete with handle 3 3 Lever locks complete with handle <u>Handles</u> 4 19mm Sanford l/on rose handle (code: EDD104C059) <u>Sundries</u> 5 D/Stop rubber buffer (code: 139/69) BATHROOM FITTINGS <u>Sundries</u> 6 Toilet paper roll holder plugged				
	Carried to Summary				

141

Bills of Quantities

142

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 13 TILING Preambles The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.144) unless otherwise stated WALL TILING <u>200 x 200 x 10mm glazed wall tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u> 1 On walls m² 132 2 On narrow widths not exceeding 300mm width m² 6 SUNDRIES <u>White glazed ceramic soap dishes, etc</u> 3 150 x 150mm Plumbcrazy Fast-Fit or equal approved semi-recessed soap dish built into walls No 6 FLOOR TILING <u>300 x 300 x 10mm thick ceramic floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound</u> 4 On floors m² 348 5 Cut tiles to skirting 100mm high m 390				
Carried to Summary					

Talana CRU

Type D - 6 Bed Three Storey

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	BILL NO. 14 PLUMBING AND DRAINAGE <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.148) unless otherwise stated RAINWATER DISPOSAL <u>Approved 0.6mm prepainted sheet iron:</u>				
1	100 x 75mm eaves gutter	m	62		
2	Extra over 100 x 75mm gutter for outlet	No	8		
3	Extra over 100 x 75mm gutter for bend	No	8		
4	Extra over 100 x 75mm gutter for stopped end	No	12		
5	75mm diameter square rainwater downpipes	m	72		
6	Extra over 75mm rainwater pipe for bend	No	8		
7	Extra over 75mm rainwater pipe for shoe	No	8		
Balance b/f					

Talana CRU

Type D - 6 Bed Three Storey

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	SANITARY FITTINGS				
	<u>"Franke" stainless steel or equal approved</u>				
8	Single bowl catering sink 900 x 650mm with end bowls 500 x 230mm deep each with 150mm high intergral splashback at rear set on 45mm diameter stainless steel tubular legs, plates, braces, adjustable die-cast zinc foot pieces, etc, 40mm sink outlet chrome plated with backnut plug and chain unslopped as cobra 316, 40mm butyl rubber combination resealing P-trap.	No	6		
	<u>Vaal or equally approved</u>				
9	Vitreous china 'Orchid' or equal approved closed coupled 90 degrees outlet wall hung open rim pan (code 438600) and matching 6 litre pushbutton top dual flush back inlet cistern (code 4386DT) complete with lid, fitment and with bolt-through-the-wall bracket (code 8084Z0)	No	6		
10	Ceramic fireclay 595 x455mm "Cameo" or equal approved oval self rimming vanity basin with one tap and chainstay hole through the centre semi-punched taphole supplied standard without an overflow	No	6		
11	Plexicor President 1 700 or equal approved cast acrylic perspex rectangular bath in opal finished with with chromium plated grip handles, overall size 1700 x 750 x 400mm deep	No	6		
	WASTE UNIONS ETC				
	<u>"Cobra Watertech" or equal approved</u>				
12	32mm 301CP or qual approved basin waste union	No	6		
13	40mm 316 CP sink waste union	No	6		
	TRAPS, ETC				
	<u>Marley or equal approved</u>				
14	Bath trap (code 40PBC)	No	6		
	<u>uPVC</u>				
15	40 x 40mm flexi rubber waste trap	No	6		
	Balance b/f				

Talana CRU

Type D - 6 Bed Three Storey

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	TAPS, VALVES, ETC				
	<u>"Cobra Watertech" or equal approved</u>				
16	15mm 1001/125-15RB fullway gate valve.	No	20		
17	15mm 166/041CP "Star" sink mixer.	No	6		
18	15mm basin mixer	No	6		
19	15mm bath mixer	No	6		
	SANITARY PLUMBING				
	<u>uPVC soil and vent pipes</u>				
20	50mm diameter pipe	m	60		
21	110mm diameter pipe	m	90		
	<u>Extra over uPVC pipe fittings</u>				
22	50mm bend	No	25		
23	50mm junction	No	25		
24	50mm GI two way vent valve	No	10		
25	50mm access bend	No	10		
26	110mm access bend with anti-syphon horn	No	3		
27	110mm bend	No	12		
28	110mm Straight pan connector	No	6		
29	110mm rodding eye	No	6		
30	110mm reducing junction	No	6		
31	110mm uPVC guller and grating	No	6		
32	Vent cowl and setting in top of 110mm diameter pipe	No	6		
	Balance b/f				

Talana CRU

Type D - 6 Bed Three Storey

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	<u>Sundries</u>				
33	Testing waste pipe system	Item	1		
	WATER SUPPLIES				
	<u>Class 10 HDPe type IV pipes</u>				
34	50mm Pipes laid in and including trenches not exceeding 1m deep	m	5		
	<u>Extra over Class 10 HDPe type IV pipes for Plasson fittings</u>				
35	50mm Bend.	No	1		
36	50mm tee.	No	1		
37	50mm reducing junction	No	1		
	<u>Class 2 copper pipes with brass compression couplings</u>				
38	15mm Pipes	m	40		
39	22mm Pipes	m	40		
	<u>Extra over class 2, copper pipes for soldered capillary fittings</u>				
40	15mm fittings	No	15		
41	22mm fittings	No	15		
	<u>Copper service pipes</u>				
42	15mm Service pipe 350mm girth.	No	6		
	<u>Testing</u>				
43	Allow for testing of water supplies	Item	1		
	Carried to summary				

Talana CRU

Type D - 6 Bed Three Storey

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 15 GLAZING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.150) unless otherwise stated TOPS, SHELVES, DOORS, MIRRORS, ETC <u>6mm Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete:</u>				
1	Mirror 450 x 600mm high.	No	6		
Carried to summary					

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 16 PAINTWORK <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.152) unless otherwise stated PAINTWORK, ETC TO NEW WORK ON ON FLOATED PLASTER <u>Prepare etc as specified, apply one under coat and two coats superior quality acrylic emulsion paint:</u>				
1	On internal walls	m ²	800		
	ON CONCRETE SOFFIT <u>Prepare etc as specified, apply one under coat and two coats superior quality acrylic emulsion paint:</u>				
2	On concrete soffits	m ²	232		
	<u>Prepare etc as specified, apply one under coat and two coats superior quality acrylic emulsion paint:</u>				
3	On external walls	m ²	164		
	<u>ON PLASTERBOARD</u> <u>One coat primer and two coats superior quality acrylic emulsion paint for interior and exterior use</u>				
4	On ceilings and cornices	m ²	116		
Balance b/f					

Talana CRU

Type D - 6 Bed Three Storey

Bills of Quantities

Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	ON FIBRE-CEMENT				
	<u>One coat primer and two coats professional acrylic polyvinyl paint</u>				
5	On fascias and barge boards	m ²	14		
	ON METAL				
	<u>Spot priming bare metal surfaces, one coat alkyd based universal undercoat and two coats superior quality universal enamel paint, on work in poor condition</u>				
6	On door frames	m ²	40		
7	Gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m ²	20		
	ON WOOD				
	<u>Prepare,etc as specified and apply three coats of polyurethane suede varnish:</u>				
8	On doors	m ²	20		
	<u>Prepare, etc as specified and apply two coats of gloss enamel paint:</u>				
9	On doors	m ²	40		
Carried to Summary					

Talana CRU

Type D - 6 Bed Three Storey

Final Summary

Item	Description	Page No	Amount
1	EARTHWORKS	127	
2	CONCRETE, FORMWORK AND REINFORCEMENT	130	
3	PRECAST CONCRETE	131	
4	MASONRY	133	
5	WATERPROOFING	134	
6	ROOF COVERINGS	136	
7	CARPENTRY AND JOINERY	138	
8	CEILINGS AND ACCESS FLOORING	139	
9	IRONMONGERY	140	
10	METALWORKS	142	
11	PLASTERING	143	
12	TILING	144	
13	PLUMBING AND DRAINAGE	148	
14	GLAZING	149	
15	PAINTWORK	151	
TOTAL SUMMARY PER UNIT			

SCHEDULE OF QUANTITIES

For the Construction of Talana CRUs

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL AMOUNT
	SOCIAL AMENITIES				
	WASH LINES				
1	<u>The following is in wash lines</u>				
1.1	Galvanised washing line of 4No lines, 6 000mm long x 4mm long tied with 8mm galvanised eye bolts on one end to 75mm diameter x 3mm thick x 2 480mm high pole and braced with 50mm diameter x 4mm thick anchor pole, both steel poles embedded in 500 x 500 x 600mm concrete with 200 x 200 x 6mm mild steel plate, top end of pole flattened around post including one prime coat, one undercoat and two coats gloss enamel paint on steel poles and all necessary excavations, backfilling, cartaway, etc	No	44		
	LAUNDRY BASINS				
2	<u>Laundry basins</u>				
2.1	Supply and install pre-cast concrete double wash trough size 1220mm long x 580mm wide x 900mm high with PCC stands, complete with all necessary pipework including soakaway size 1 000 x 1 000 x 1 000mm covered with bidim	No	44		
	<u>Pipework</u>				
2.2	22mm dia copper pipe including fittings	m	88		
	<u>Fittings</u>				
2.3	Elbow tap plugged	No	44		
2.4	19mm chrome plated push button taps to wash troughs plugged	No	44		
	<u>Testing</u>				
2.5	Allow for testing	item	22		
	Balance b/f				

	Balance c/f				
3	LANDSCAPING				
	<u>The following in landscaping</u>				
	<u>Excavate in earth and dispose on site</u>				
3.1	To remove humps, form shallow ditches, etc	m2	7491		
	<u>Ground preparation</u>				
3.2	Cultivation and preparation of areas to be planted	m2	7491		
	<u>Top soil obtained from prescribed stock piles on site, including spreading and levelling</u>				
3.3	In plant beds, grassed areas and holes for trees, shrubs, etc	m3	7491		
3.4	In plant boxes, pots, etc	m3	7491		
	<u>Compost, lime and fertilizer</u>				
3.5	Super phosphate granular commercial fertilizer for trees, shrubs, ground covers, etc	kg	100		
	<u>Trees</u>				
3.6	Acer palmatum 600mm high	No	2		
3.7	50% indigenous evergreen small trees	No	2		
3.8	50% deciduous evergreen small trees	No	2		
3.9	50% indigenous evergreen large trees	No	2		
3.10	50% deciduous evergreen large trees	No	2		
	<u>Landscaping planting</u>				
3.11	Kniphofia praecox (4l)	No	2		
3.12	Scabiosa africana (4l)	No	2		
3.13	Bulbine frutescens (4l)	No	2		
3.14	Aloe Varieties (40l)	No	2		
	Balance b/f				

	Balance c/f				
	<u>Grass, ground covers, etc</u>				
3.15	Kikuyu rolls 50mm thic	m2	7491		
	<u>Maintenance</u>				
3.16	Allow for maintaining landscapinf for a period of 3 months including watering, weeding, cutting, replacing dead plants, etc	Item	1		
	PLAY AREA				
4	<u>The following in play area</u>				
4.1	Allow a provisional sum of R200 000.00 (Two Hundred Thousand Rands) for play area	item	1		
	<u>FENCING</u>				
5	<u>The following in fencing</u>				
	<u>Invisible or equal approved fencing</u>				
5.1	Invisible or equal approved pressed high density anti climbing and anti-cut pressed mesh panel fencing 2 400mm high, powder coated charcoal, 85-45mm taper locking posts 2 400mm high including locking recess mechanism at 3 382mm centres with sealed end caps and 30 x 3mm x 250mm long angle section base anchors with posts bedded in concrete bases including all excavations, etc all as per manufacturer's instructions.	m	529		
5.2	100mm high powder coated charcoal shark tooth type spike rail, bolted to 50mm wide mesh fencing flange bent along the top.	m	529		
5.3	200 x 200mm concrete sill for anti-burrow including excavations, cartaway, backfilling, formwork to sides, etc.	m	529		
5.4	Purpose made single gate size 1 000 x 2 200mm high in single leaf to match fencing complete with lock and locking mechanism.	No	1		
5.5	Sliding gate 8 000mm wide x 3 000mm high (overall) in one full leaf to match fencing, complete with sliding mechanism, rail, track, lock, etc including motor and battery backup.	No	1		
6	Guard House				
7	Refuse Bay				
	Carried to summary				

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	BILL NO. 1 EARTHWORKS (PROVISIONAL) <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted <u>Site clearance:</u> Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, including grubbing up roots, filling up holes and compacting to 90% MOD ASSHTO density Stripping average 150mm thick layer of top soil and stockpiling on site Excavation, filling, etc <u>Excavation in earth not exceeding 2m deep</u> Trenches <u>Extra over trench and hole excavations in earth for excavation in</u> Soft rock Hard rock <u>Extra over all excavations for carting away</u> Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor <u>Risk of collapse of excavations</u> Sides of trench and hole excavations not exceeding 1,5m deep <u>Keeping excavations free of water</u> Allow for keeping all excavations free of water and mud				
		m ²	47		
		m ²	47		
		m ³	24		
		m ³	1		
		m ³	4		
		m ³	15		
		m ²	85		
		Item	1		
Balance b/f					

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	FILLING ETC				
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
	In trenches	m ³	9		
	FILLING ETC				
	<u>G5 filling supplied by the contractor compacted to 98% Mod AASHTO density</u>				
	Under floors, steps, pavings etc	m ³	8		
	<u>Compaction of surfaces</u>				
	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m ²	25		
	<u>Prescribed density tests on filling</u>				
	"Modified AASHTO Density" test	No	4		
	SOIL POISONING				
	<u>Soil insecticide in accordance with SANS 5859</u>				
	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m ²	25		
	To bottoms and sides of trenches etc	m ²	118		
	Carried to Summary				

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL No. 2 CONCRETE, FORMWORK AND REINFORCEMENT <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted CONCRETE (CPAP Work Group No. 110) <u>25MPa/19mm concrete</u> Foundations <u>Reinforced concrete cast against excavated surfaces</u> Surface beds cast in panels on waterproofing (measured elsewhere) TEST BLOCKS Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional) CONCRETE SUNDRIES <u>Finishing top surfaces of concrete smooth with a steel trowel</u> Aprons MOVEMENT JOINTS ETC <u>Isolation joints</u> Isolation joint in slabs 10mm wide sealed with and including polyurethane sealant				
		m ³	8		
		m ³	2		
		No	4		
		m ²	25		
		m	7		
Balance c/f					

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO: 3 MASONRY <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.118) unless otherwise stated FOUNDATIONS (PROVISIONAL) <u>Brickwork of NFP bricks 1(4mpa minimum compressive strength) in class II mortar</u> Half brick walls One brick walls SUPERSTRUCTURE <u>Brickwork of NFP bricks (14mpa minimum compressive strength) in class II mortar</u> Half brick walls One brick walls <u>Brickwork reinforcement</u> 75mm Wide reinforcement built in horizontally 150mm Wide reinforcement built in horizontally				
		m ²	21		
		m ²	7		
		m ²	15		
		m ²	59		
		m	296		
		m	271		
	Balance b/f				

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>				
	75 x 150mm Lintels in lengths not exceeding 3m.	m	12		
	<u>Turning pieces to lintels etc</u>				
	110mm Wide turning piece to lintels etc	m	5		
	<u>Galvanised hoop iron cramps, ties, etc</u>				
	30 x 1,6mm Cramp 1500mm long with one end fixed to timber and other end built into brickwork.	No	69		
	FACE BRICKWORK				
	<u>Semi-face brickwork or other approved pointed with recessed with recessed horizontal and vertical joints.</u>				
	Extra over brickwork for face brickwork.	m ²	63		
	Extra over brickwork for face brickwork in foundations (Provisional).	m ²	8		
	Fair raking cutting.	m	2		
	Fair cutting and fitting around pipe not exceeding 110mm diameter.	No	2		
	<u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u>				
	Extra over brickwork for brick-on-edge header course lintels course, pointed on face and 110mm soffit.	m	5		
	<u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u>				
	220mm Wide sills set sloping and slightly projecting.	m	3		
	220mm wide in coping.	m	2		
	Carried to Summary				

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 4 WATERPROOFING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.120) unless otherwise stated DAMP PROOFING OF WALLS AND FLOORS <u>One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course in</u> In walls <u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u> Under surface beds JOINT SEALANTS ETC <u>Silicone sealing compound including backing cord, bond</u> 10 x 10mm sealant in isolation joint				
		m ²	9		
		m ²	25		
		m	7		
Carried to Summary					

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 5 ROOF COVERINGS ETC <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.124) unless otherwise stated CONCRETE ROOF TILES <u>Infraset horizontal concrete shingle roof tiles (Code: HZ SL STD) size 420 x 330mm laid in straight bond with minimum 75mm headlap, fixed at a pitch of 20 degrees with three rows of tiles at the ridge, eaves and verge for the full overhang and every third tiles in every in every row over the remainder of the third tiles in every in every row over the remainder of the roof the raking pattern using non-corrosive nails to 38 x 38mm sawn softwood battened at maximum 345mm centres, on and including roof membrane and single sided Radiant Barrier with joints lapped 150mm, fixed over rafters with trusses at 760mm centres</u> Roof coverings with pitch not exceeding 20 degrees. Ridge/hip capping to match roofing tiles bedded and pointed in 1:3 cement mortar to match tile colour <u>Flashings</u> Head wall flashing 550mm girth bedded to brick wall with cement mortar				
		m ²	49		
		m	19		
		m	0		
Balance b/f					

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	ROOF AND WALL INSULATION <u>Roof insulation to be Isoboard® high density 32- 36kg/m3 rigid extruded polystyrene 100% closed cell insulation boards 40mm thick x 600mm wide with brown paper and polyethylene laminate slip sheet factory applied to upper surface, with tongue & groove joints fixed concurrent with roof covering over steel purlins at maximum 1500mm centres with 5mm gap between boards butt-joined over purlins. Ridge vents are recommended to be allowed for in the roof covering (elsewhere specified) in order to prevent deflection due to heat build up above the boards.</u> Insulation laid taut over purlins (at approximately 1.80m centres) and fixed concurrent with roof covering, including taped laps and nylon straining wires	m ²			
	Carried to Summary				

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 6 CARPENTRY AND JOINERY <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.126) unless otherwise stated ROOFS, ETC <u>Sawn softwood</u> 38 x 114mm Wall plates Design, manufacture and deliver on site, plate nailed roof trusses to guard house, with area 25m ² measured on plan. Each truss 7200mm x 1400mm high overall with 600mm eaves overhang, including all necessary purlins, runners, bracing and cross bracing (wall plates elsewhere) EAVES, VERGES, ETC <u>"Everite FC77" or other equal and approved pressed fibre-cement</u> 12 x 225mm Fascias, including aluminium H-profile jointing strips DOORS, ETC <u>Semi-solid flush doors with 3,2mm standard hardboard covering face suitable for paint on both sides, hung to steel frames</u> 44mm semi-solid core flush door	m	12		
		Item	1		
		m	28		
		No	1		
Balance b/f					

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	Balance c/f				
	<u>40mm thick horizontal hardwood entrance door suitable for paint on both sides, hung to steel frames</u> 44mm Framed batten door size 813 x 2032mm high with 3mm plywood backing and 76 x 32mm weather bar.	No	2		
	<u>COUNTERS ,WORKTOPS,ETC</u> Counter top 2000 x 600 x 32mm Thick postformed melamine top with and including timber supports fixed to masonry complete	No	1.0		
	Carried to Summary				

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL No. 7 CEILINGS, PARTITIONS AND ACCESS FLOORING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.129) unless otherwise stated CEILINGS, ETC NAILED-UP CEILINGS <u>6,4mm Gypsum plasterboard nailed up ceiling</u> Ceilings including 38 x 38mm sawn softwood branderling at not exceeding 300mm centres in one direction Extra over ceiling for hinged trap door size 610 x 610mm. <u>Gypsum or equal approved plasterboard cornices</u> 76mm Coved cornices plugged INSULATION 115mm thick Non-combustible lightweight fibreglass insulation blanket closely fitted between tie beams and laid loose on top of branderling, etc, all as per manufacturers instructions				
		m ²	25		
		No	1		
		m	32		
		m ²	25		
Carried to Summary					

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 9 IRONMONGERY <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.132) unless otherwise stated CATCHES, CABIN HOOKS, ETC Hat & Coat Hook Rubber Buffer (code: 15469) <u>Locks</u> <u>Union or equal approved</u> 3 Lever locks complete with handle <u>Handles</u> 19mm Sanford /on rose handle (code: EDD104C059) <u>Sundries</u> D/Stop rubber buffer (code: 139/69) BATHROOM FITTINGS <u>Sundries</u> Toilet paper roll holder plugged				
	Carried to Summary				

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 11 METALWORK <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted GALVANISED STEEL GATES, SCREENS, ETC <u>Welded screens and gates</u> Single gate 900 x 2125mm high of 25 x 25 x 2mm hollow section frame and 25 x 25 x 2mm hollow section horizontal middle rail, filled in with 12 x 12 x 2mm hollow section vertical bars at 75mm centres and fitted with a pair of suitable hinges welded to frames DOOR FRAMES, DOORS, WINDOWS, ETC PRESSED STEEL DOOR FRAMES <u>1.2mm Double rebated frames suitable for half brick walls</u> Frame for door size 813 x 2032mm high <u>1.2mm Double rebated frames suitable for one brick walls</u> Frame for door 813 x 2032mm high WINDOWS <u>Anodised Aluminium Windows with 6mm glazing complete with buglar bars</u> Aluminium Window size 900 x 600mm high Aluminium Window size 900 x 1500mm high	No	2		
		No	1		
		No	2		
		No	1		
		No	3		
Carried to Summary					

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	BILL NO. 12 PLASTERING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.142) unless otherwise stated SCREEDS <u>1:3 Screeds on concrete with wooden float finish</u> 30mm Thick on floors and landings to receive ceramic tiles INTERNAL PLASTER <u>Cement plaster on brickwork</u> On walls On narrow widths EXTERNAL PLASTER <u>Cement plaster on brickwork</u> On wall on gable				
		m ²	25		
		m ²	93		
		m ²	3		
		m ²	5		
Carried to Summary					

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 13 TILING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.144) unless otherwise stated WALL TILING <u>200 x 200 x 10mm glazed wall tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u> On walls On narrow widths not exceeding 300mm width FLOOR TILING <u>300 x 300 x 10mm thick ceramic floor tiles fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound</u> On floors Cut tiles to skirting 100mm high				
	Carried to Summary				

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 14 PLUMBING AND DRAINAGE <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.148) unless otherwise stated RAINWATER DISPOSAL <u>Approved 0.6mm prepainted sheet iron:</u> 100 x 75mm eaves gutter Extra over 100 x 75mm gutter for outlet Extra over 100 x 75mm gutter for stopped end 75mm diameter square rainwater downpipes Extra over 75mm rainwater pipe for bend Extra over 75mm rainwater pipe for shoe SANITARY FITTINGS <u>Vaal or equally approved</u> Vitreous china 'Orchid' or equal approved closed coupled 90 degrees outlet wall hung open rim pan (code 438600) and matching 6 litre pushbutton top dual flush back inlet cistern (code 4386DT) complete with lid, fitment and with bolt-through-the-wall bracket (code 8084Z0)				
		m	28		
		No	4		
		No	4		
		m	11		
		No	4		
		No	4		
		No	1		
Balance c/f					

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	Balance b/f				
	Ceramic fireclay 595 x455mm "Cameo" or equal approved oval self rimming basin with one tap and chainstay hole through the centre semi-punched taphole supplied standard without an overflow	No	1		
	WASTE UNIONS ETC				
	<u>"Cobra Watertech" or equal approved</u>				
	32mm 301CP or qual approved basin waste union	No	1		
	40mm 316 CP sink waste union	No	1		
	TRAPS, ETC				
	<u>Marley or equal approved</u>				
	P-trap (Code 40PBC)	No	0		
	<u>TAPS, VALVES, ETC</u>				
	<u>"Cobra Watertech" or equal approved</u>				
	15mm basin mixer	No	1		
	TAPS, VALVES, ETC				
	SANITARY PLUMBING				
	<u>uPVC soil and vent pipes</u>				
	50mm diameter pipe	m	3		
	110mm diameter pipe in concrete	m	2		
	<u>Extra over uPVC pipe fittings</u>				
	50mm bend	No	2		
	50mm junction	No	1		
	50mm GI two way vent valve	No	1		
	50mm access bend	No	1		
	110mm access bend with anti-syphon horn	No	1		
	110mm bend	No	1		
	110mm Straight pan connector	No	1		
	Balance c/f				

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	Balance b/f				
	110mm rodding eye	No	1		
	110mm reducing junction	No	1		
	110mm uPVC guller and grating	No	1		
	Vent cowl and setting in top of 110mm diameter pipe	No	1		
	<u>Sundries</u>				
	Testing waste pipe system	Item	1		
	WATER SUPPLIES				
	<u>Class 10 HDPe type IV pipes</u>				
	50mm Pipes laid in and including trenches not exceeding 1m deep	m	15.0		
	<u>Extra over Class 10 HDPe type IV pipes for Plasson fittings</u>				
	50mm Bend.	No	5.0		
	50mm tee.	No	4.0		
	50mm reducing junction	No	4.0		
	<u>Class 2 copper pipes with brass compression couplings</u>				
	15mm Pipes	m	7		
	22mm Pipes	m	7		
	<u>Extra over class 2, copper pipes for soldered capillary fittings</u>				
	15mm fittings	No	5		
	22mm fittings	No	5		
	<u>Copper service pipes</u>				
	15mm Service pipe 350mm girth.	No	1.0		
	<u>Testing</u>				
	Allow for testing of water supplies	Item	1		
	Carried to summary				

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 15 GLAZING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.150) unless otherwise stated TOPS, SHELVES, DOORS, MIRRORS, ETC <u>6mm Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete:</u> Mirror 450 x 600mm high.	No	1		
	Carried to summary				

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 16 PAINTWORK <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.152) unless otherwise stated PAINTWORK, ETC TO NEW WORK ON ON FLOATED PLASTER <u>Prepare etc as specified, apply one under coat and two coats superior quality acrylic emulsion paint:</u> On internal walls <u>ON PLASTERBOARD</u> <u>One coat primer and two coats superior quality acrylic emulsion paint for interior and exterior use</u> On ceilings and cornices ON FIBRE-CEMENT <u>One coat primer and two coats professional acrylic polyvinyl paint</u> On fascias and barge boards				
		m ²	93		
		m ²	25		
		m ²	8		
Balance c/f					

Talana CRU					
Guard House					
Bills of Quantities					
Item	Description	Unit	Qty	Rate	Amount
	Balance b/f				
	ON METAL <u>Spot priming bare metal surfaces, one coat alkyd based universal undercoat and two coats superior quality universal enamel paint, on work in poor condition</u> On door frames	m ²	4		
	On eaves gutters and down pipes not exceeding 300 mm girth	m	39		
	ON WOOD <u>Prepare,etc as specified and apply three coats of polyurethane suede varnish:</u> On doors	m ²	11		
	<u>Prepare, etc as specified and apply two coats of gloss enamel paint:</u> On doors	m ²	11		
	Carried to Summary				

Talana CRU			
Guard House			
Final Summary			
Item	Description	Page No	Amount
1	EARTHWORKS	157	
2	CONCRETE, FORMWORK AND REINFORCEMENT	159	
3	MASONRY	161	
4	WATERPROOFING	162	
5	ROOF COVERINGS	164	
6	CARPENTRY AND JOINERY	166	
7	CEILINGS AND ACCESS FLOORING	167	
8	IRONMONGERY	168	
9	METALWORKS	169	
10	PLASTERING	170	
11	TILING	171	
12	PLUMBING AND DRAINAGE	174	
13	GLAZING	175	
14	PAINTWORK	177	
TOTAL SUMMARY PER UNIT			

Talana CRU					
Refuse Area - ERF 146					
Item	Description	Unit	Qty	Rate	Amount
	BILL NO. 1 EARTHWORKS (PROVISIONAL) <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted <u>Site clearance:</u> Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, including grubbing up roots, filling up holes and compacting to 90% MOD ASSHTO density 2 Stripping average 150mm thick layer of top soil and stockpiling on site Excavation, filling, etc <u>Excavation in earth not exceeding 2m deep</u> 3 Trenches <u>Extra over trench and hole excavations in earth for excavation in</u> 4 Soft rock 5 Hard rock <u>Extra over all excavations for carting away</u> 6 Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor				
		m ²	10		
		m ²	10		
		m ³	18		
		m ³	1		
		m ³	3		
		m ³	12		
Balance c/f					

Talana CRU					
Refuse Area - ERF 146					
Item	Description	Unit	Qty	Rate	Amount
Balance b/f					
	<u>Risk of collapse of excavations</u>				
7	Sides of trench and hole excavations not exceeding 1,5m deep	m ²	51		
	<u>Keeping excavations free of water</u>				
8	Allow for keeping all excavations free of water and mud	Item	1		
	FILLING ETC				
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
9	In trenches	m ³	6		
	FILLING ETC				
	<u>G5 filling supplied by the contractor compacted to 98% Mod AASHTO density</u>				
10	Under floors, steps, pavings etc	m ³	11		
	<u>Compaction of surfaces</u>				
11	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m ²	37		
	<u>Prescribed density tests on filling</u>				
12	"Modified AASHTO Density" test	No	4		
	SOIL POISONING				
	<u>Soil insecticide in accordance with SANS 5859</u>				
13	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m ²	37		
14	To bottoms and sides of trenches etc	m ²	86		
Carried to Summary					

Talana CRU					
Refuse Area - ERF 146					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL No. 2 CONCRETE, FORMWORK AND REINFORCEMENT <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted CONCRETE (CPAP Work Group No. 110) <u>25MPa/19mm concrete</u>				
1	Foundations <u>Reinforced concrete cast against excavated surfaces</u>	m ³	9		
2	Surface beds cast in panels on waterproofing (measured elsewhere) TEST BLOCKS	m ³	3		
3	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional) <u>Finishing top surfaces of concrete smooth with a steel trowel</u>	No	4		
4	Surface beds MOVEMENT JOINTS ETC <u>Isolation joints</u>	m ²	9		
5	Isolation joint in slabs 10mm wide sealed with and including polyurethane sealant	m	10		
Balance b/f					

Talana CRU					
Refuse Area - ERF 146					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
	CONCRETE SUNDRIES				
	REINFORCEMENT (PROVISIONAL)				
	(CPAP Work Group No. 114)				
	<u>Steel reinforcement to structural concrete work</u>				
	<u>High tensil steel bars</u>				
6	12mm dia bars	t			
	<u>Fabric reinforcement</u>				
7	Type 193 fabric reinforcement in concrete surface beds, etc.	m ²	37		
Carried to Summary					

Talana CRU					
Refuse Area - ERF 146					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO: 3 MASONRY <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.118) unless otherwise stated FOUNDATIONS (PROVISIONAL) <u>Brickwork of NFP bricks 1(4mpa minimum compressive strength) in class II mortar</u> 1 One brick walls m ² 13 SUPERSTRUCTURE <u>Brickwork of NFP bricks (14mpa minimum compressive strength) in class II mortar</u> 2 One brick walls m ² 90 <u>Brickwork reinforcement</u> 3 150mm Wide reinforcement built in horizontally m 414 FACE BRICKWORK <u>Semi-face brickwork or other approved pointed with recessed with recessed horizontal and vertical joints.</u> 4 Extra over brickwork for face brickwork. m ² 76 5 Extra over brickwork for face brickwork in foundations (Provisional). m ² 17				
Balance b/f					

Talana CRU					
Refuse Area - ERF 146					
Item	Description	Unit	Qty	Rate	Amount
Balance c/f					
6	<u>Brick-on-edge header course copings, sills, etc approved face bricks pointed with recessed joints on all exposed faces</u> 220mm wide in coping.	m	48		
Carried to Summary					

Talana CRU					
Refuse Area - ERF 146					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 4 WATERPROOFING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.120) unless otherwise stated DAMP PROOFING OF WALLS AND FLOORS <u>One layer of 375 micron "Consol Plastics Briqrip DPC" embossed damp proof course in</u>				
1	In walls <u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>	m ²	11		
2	Under surface beds JOINT SEALANTS ETC <u>Silicone sealing compound including backing cord, bond</u>	m ²	37		
3	10 x 10mm sealant in isolation joint	m	10		
Carried to Summary					

Talana CRU					
Refuse Area - ERF 146					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 11 METALWORK <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted GALVANISED STEEL GATES, SCREENS, ETC <u>Welded screens and gates</u> Double gate size 1 800 x 2 125mm high of 25 x 25 x 2mm hollow section frame and 25 x 25 x 2mm hollow section horizontal middle rail, filled in with 12 x 12 x 2mm hollow section vertical bars at 75mm centres and fitted with a pair of suitable hinges welded to frames, including 2 No x 150mm barrel bolts and padlock (paint elsewhere)				
1		No	4		
Carried to Summary					

Talana CRU					
Refuse Area - ERF 146					
Item	Description	Unit	Qty	Rate	Amount
	BILL NO. 12 PLASTERING <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.142) unless otherwise stated SCREEDS <u>1:3 granolithic screed to floors</u>				
1	30mm Thick on floors and landings	m²	37		
Carried to Summary					

Talana CRU					
Refuse Area - ERF 146					
Item	Description	Unit	Qty	Rate	Amount
	SECTION NO. 2 BILL NO. 16 PAINTWORK <u>Preambles</u> The Contractor must read each description throughout these bills of quantities in conjunction with and in the context of the obligations, the Model Preambles for Trades (2008 Edition) and any supplementary Preambles to the Model Preambles forming part of these Bills of Quantities No claims arising from brevity of description of items fully described in the said Model Preambles for Trades or Supplementary Preambles to Model Preambles will be granted (CPAP WORK GROUP NO.152) unless otherwise stated PAINTWORK, ETC TO NEW WORK ON ON FLOATED PLASTER ON METAL <u>Spot priming bare metal surfaces, one coat alkyl based universal undercoat and two coats superior quality universal enamel paint, on work in poor condition</u>				
1	On gates	m ²	14		
Carried to Summary					

Talana CRU			
Refuse Area - ERF 146			
Final Summary			
Item	Description	Page No	Amount
1	EARTHWORKS	180	
2	CONCRETE, FORMWORK AND REINFORCEMENT	182	
3	MASONRY	184	
4	WATERPROOFING	185	
5	METALWORKS	186	
6	PLASTERING	187	
7	PAINTWORK	188	
TOTAL SUMMARY PER UNIT			

TALANA BULK SUPPLY MV RETICULATION ELECTRICALS

[illegible]

LV RETICULATION_ERF 146- PRELIMINARY COST ESTIMATE

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
1	LOW VOLTAGE CABLE For the Supply, delivery to Site and Installation of the following Low Voltage Cable: (600/1000V PVC PVC SWA Copper)				
1.1	70mm sq x 4 core	m	470		
1.2	50mm sq x 4 core	m	160		
2.3	6mm sq x 4 core	m	450		
2	BARE COPPER EARTH WIRE (STRANDED) For the Supply and Installation of the following BCE Wire to run with LV Cables:				
2.1	50mm sq (With 70mm sq Cable)	m	470		
2.2	35mm sq (With 50mm sq Cable)	m	160		
2.3	4mm sq (With 6mm sq Cable)	m	450		
3	LOW VOLTAGE CABLE TERMINATIONS For the supply of Indoor terminations including suitable Lugs and Glands for the Low Voltage Cable and BCE Wire:				
3.1	70mm sq x 4 core	e.a	35		
3.2	50mm sq x 4 core	e.a	20		
3.3	6mm sq x 4 core	e.a	35		
4	LOW VOLTAGE GREATER TZANEEN LOCAL MUNICIPALITY STANDARD DISTRIBUTION METERING KIOSKS For the Supply, delivery to Site and Installation of the following Low Voltage Metering Kiosks Complete with phase busbar, neutral busbar ,earth busbar, N/E link , tube clamps & prewired to SANS End Sleeves/Shrunk End as per Greater Tzaneen Local Municipalityspecification				
TOTAL CARRIED FORWARD					

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
	TOTAL BROUGHT FORWARD				
4.1	Metering Kiosk Box - Three Way Single Phase	e.a	1		
4.2	Metering Kiosk Box - Six Way Single Phase	e.a	2		
4.3	Metering Kiosk Box - Twelve Way Single Phase	e.a	10		
5	EXCAVATION AND TRENCHING For the Supply and Labour of the following: Trenching for LV Cable 1000mm x 450mm wide (Including Backfill)				
5.1	Soft Ground	m	150		
5.2	Pickable ground	m	150		
5.3	Hard Rock	m	200		
5.4	Danger Tape installed in Trenches	m	1200		
5.5	Concrete cable markers	e.a	24		
5.6	110mm PVC Cable sleeve	m	300		
6	For the Supply, delivery to Site and Installation of Non Adjustable 25KA Circuit Breaker				
6.1	150A, 3PH	e.a	15		
6.2	200A,3PH	e.a	20		
7	HOUSE CONNECTION				
7.1	Conlog /Landis Prepayment PLC Meters and remote	e.a	126		
7.2	10mm sq x 3 core 600/1000V PVC SWA Copper	e.a	4410		
8.3	10mm sq BCEW	m	4410		
TOTAL CARRIED FORWARD					

ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
9	STREETLIGHTS For the Supply, delivery to Site and Installation of the following Streetlight Units complete as per Specification:Galvanised steel Post top Type complete with Spigot, Glandplate & 5A breaker				
9.1	Galvanised steel Post top Type complete with Spigot, Glandplate & 5A breaker	e.a	15		
9.2	37 W LED Type Luminaries (complete with all accessories)	e.a	15		
10	WIRING ON THE POLE 600/1000V grade PVC insulated stranded copper conductors compete with terminations and accessories				
10.1	2,5mm ² PVC insulated stranded copper conductors	m	300		
10.2	1.5mm ² Stranded bare copper earth wire	m	340		
11	TESTING AND COMMISSIONING Supply all Test equipment and Labour for Testing, Commissioning and Adjustment at Completion, as well as being in attendance for any Inspections and Tests that the Engineer may call for. Greater Tzaneen Municipality Standards and specifications will apply				
11.1		sum	1		
TOTAL CARRIED TO SUMMARY					

SUMMARY :TALANA HOSTELS ELECTRICALS 146

Item	DESCRIPTION	PAGE No.	AMOUNT
A	MV RETICULATION	190	
B	LV RETICULATION - ERF 146	193	
Total Amount To Summary			

PROJECT NAME: TALANA HOSTELS - ERF: 146						
SCHEDULE 1 SECTION 1: BULK EARTH WORKS						
ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2	SABS 1200 DM	SECTION 2 : ROADS				
2.1	1200 C+D	SITE CLEARANCE				
2.1.1	PSC 2	Clear and grub reserves to a depth of 100mm and remove and stockpile topsoil	ha	13.20		
2.1.2	PSC 4	Remove building rubble as pointed out on the site inspection from site	m ³	13200.0		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
2.4		EARTHWORKS				
2.4.1	8.3.2(a)	Cut to temporary stockpile in all materials	m ³	0.0		
2.4.2		Cut to fill in all materials	m ³	160		
2.4.3	8.3.7	Cut to spoil in all materials - roads	m ³	180		
	8.3.6	Extra over items 2.4.1 to 2.4.7 for excavation				
2.4.8		Intermediate excavation	m ³	119		
2.4.9		Hard excavation	m ³	51		
2.4.10	8.3.12 PSDM 2	Overhaul (provisional)	m ³ km	900		
TOTAL CARRIED FORWARD TO TO ROADS AND STORMWATER SUMMARY						

PROJECT NAME: TALANA HOSTELS - ERF: 146						
SCHEDULE 1 SECTION 1: PARKING						
ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.2	1200 DM	TREATMENT OF ROAD-BED				
2.2.1	8.3.3(a) PSDM 3	Road-bed preparation and compaction of 150mm material to 93% Mod.	m ²	1,640.0		
2.3		MASS EARTHWORKS (FOR RESHAPING SITE)				
2.3.1	8.3.2(a)	Cut to temporary stockpile in all	m ³	82.0		
2.3.2		Fetch from stockpile and fill in retention dam wall AND compact to 95% (100% for sand) Mod. AASHTO	m ³	0.0		
2.3.3		Cut to fill in all materials AND compact to 95% (100% for sand) Mod. AASHTO	m ³	82.0		
2.3.4	8.3.7	Cut to spoil in all materials	m ³	164.0		
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146						
SCHEDULE 1 SECTION 1: PARKING						
ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
2.5		SUBGRADE				
2.5.2	1200 DM 8.3.5	Fetch from stockpile, Construct 150mm sand subgrade and compact to 100% Mod. AASHTO max. density	m ³	492.0		
2.5.3	1200 ME PSME 1.2	Shape shoulders from back of kerb up to erf boundary in even grade as per road cross section and compact to 93% Mod. AASHTO with insitu	m ²	820.0		
2.6	SABS 1200 ME	SUBBASE				
	8.3.2	Construct subbase with material from commercial sources				
2.6.3	8.3.2	Imported 150mm G6 material and compact to 95% Mod. AASHTO max. density -	m ³	246.0		
2.6.4	8.3.2	Imported 150mm G5 material and compact to 95% Mod. AASHTO max. density - imoya road	m ³	246.0		
2.7	SABS 1200 MF	BASE				
	8.3.3	Construct base with material from commercial sources				
2.7.1	PSMF 1.1	150mm Crusher run (G4) compacted to 98% Mod. AASHTO max. density	m ³	246.0		
TOTAL CARRIED FORWARD TO TO ROADS AND STORMWATER SUMMARY						

PROJECT NAME: TALANA HOSTELS - ERF: 146						
SCHEDULE 1 SECTION 1: ROADS						
ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.2	1200 DM	TREATMENT OF ROAD-BED				
2.2.1	8.3.3(a) PSDM 3	Road-bed preparation and compaction of 150mm material to 93% Mod.	m ²	2,460.0		
2.3		MASS EARTHWORKS (FOR RESHAPING SITE)				
2.3.1	8.3.2(a)	Cut to temporary stockpile in all materials	m ³	123.0		
2.3.2		Fetch from stockpile and fill in retention dam wall AND compact to 95% (100% for sand) Mod. AASHTO	m ³	0.0		
2.3.3		Cut to fill in all materials AND compact to 95% (100% for sand) Mod. AASHTO	m ³	123.0		
2.3.4	8.3.7	Cut to spoil in all materials	m ³	246.0		
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146						
SCHEDULE 1 SECTION 1: ROADS						
ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
2.5		SUBGRADE				
2.5.2	1200 DM 8.3.5	Fetch from stockpile, Construct 150mm sand subgrade and compact to 100% Mod. AASHTO max. density	m ³	738.0	200	147,600.00
2.5.3	1200 ME PSME 1.2	Shape shoulders from back of kerb up to erf boundary in even grade as per road cross section and compact to 93% Mod. AASHTO with insitu	m ²	1,230.0	150	184,500.00
2.6	SABS 1200 ME	SUBBASE				
	8.3.2	Construct subbase with material from commercial sources				
2.6.3	8.3.2	Imported 150mm G6 material and compact to 95% Mod. AASHTO max. density -	m ³	369.0	500	184,500.00
2.6.4	8.3.2	Imported 150mm G5 material and compact to 95% Mod. AASHTO max. density - imoya road	m ³	369.0	650	239,850.00
2.7	SABS 1200 MF	BASE				
	8.3.3	Construct base with material from commercial sources				
2.7.1	PSMF 1.1	150mm Crusher run (G4) compacted to 98% Mod. AASHTO max. density	m ³	369.0	650	239,850.00
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146						
SCHEDULE 1 SECTION 1: ROADS						
ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
2.17	SABS 1200 MM	ROAD SIGNS				
2.17.1	8.3.1	Traffic signs 600mm STOP	No.	1.0		
2.17.2	8.3.1	Traffic signs 600mm YIELD OR ROUND ABOUT	No.	6.0		
2.17.3	8.3.1	Traffic signs 600mm SPEED	No.	3.0		
2.17.4	8.3.1	Traffic signs 900mm STOP	No.	0.0		
2.18		TEMPORARY TRAFFIC SIGNS				
	8.3.1	To drawing for				
2.18.1		a) Roadworks in MR238	Sum	0.0		
2.18.2		b) Jacking of pipes	Sum	0.0		
TOTAL CARRIED FORWARD TO TO ROADS AND STORMWATER SUMMARY						

PROJECT NAME: TALANA HOSTELS - ERF: 146
SCHEDULE 1 SECTION 1: SURFACING

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.9	SABS 1200 MJ	PAVING				
	8.2.1	Provision of Edge Restraints	m	870		
2.9.1	8.2.2	Construction of 80mm paving complete with 25mm river sand	m ²	6,500.0		
2.9.2	8.2.3	Cutting units to fit Edge Restraints	m	609		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
2.10	SABS 1200 MK	CONCRETE KERBING AND CHANNELLING				
2.10.1	8.2.2	Mountable kerb & channel - MK7&C1 DETAIL 6 radius > 10m	m	0		
2.10.2	8.2.2	Mountable kerb & channel - MK7&C1 DETAIL 6 radius < 10m	m	0		
2.10.3		Mountable kerb only - MK7as in DETAIL 6 radius > 10m	m	510		
2.10.4		Mountable kerb only - MK7as in DETAIL 6 radius < 10m	m	360		
2.10.5		Barrier Kerb & channel BK1&C1 DETAIL 5 radius > 15m - road	m	0.0		
2.10.6		Barrier Kerb & channel BK1&C1 DETAIL 5 radius > 15m - islands	m	0.0		
2.10.7		Barrier kerb & channel BK1&C1 DETAIL 5 radius <15m	m	0		
2.10.8		Barrier kerb & channel BK1&C1 radius +- 0.5m	m	0		
2.10.9		Edging E1 DETAIL _ radius > 15m	m	0.0		
2.10.10		Edging E1 DETAIL _ radius <15m	m	0		
2.10.11		Barrier kerb - only BK1 DETAIL 4 rad > 5m	m	0.0		
2.10.12		Barrier kerb - only BK1 DETAIL 4 rad < 5m	m	0.0		
2.10.13		Barrier kerb - only BK1 DETAIL 4 rad < 1.5m	m	0.0		
2.10.14		V - channel - C1 - DETAIL 3	m	0.0		
2.10.15		Transition kerb	No.	102.0		
TOTAL CARRIED FORWARD TO TO ROADS AND STORMWATER SUMMARY						

SCHEDULE 1 SECTION 2: STORMWATER

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	SABS 1200 LE	SECTION 3 : STORMWATER DRAINAGE				
3.1	1200 C	CLEAR SITE				
3.1.1	PSC 4 8.3.1(a)	Clear and grub pipe trenches to 2m over trench widths outside road reserves.	m	215.0		
	1200 DB 8.3.2(a)	Excavate, select materials, backfill and dispose of surplus/unsuitable material				
		Trench width 1450mm				
3.1.6		0m to 0.5m depth	m			
3.1.7		>0.5m to 1.0m depth	m			
3.1.8		>1m to 1.5m depth	m	95.6		
3.1.9		>1.5m to 2.0m depth	m	71.7		
		>2.0m depth	m	47.8		
	8.3.2(b)	Extra over items 3.1.2 to 3.1.9 for excavation				
3.1.10		Intermediate material	m ³	218.2		
3.1.11		Hard rock material	m ³	93.5		
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 1 SECTION 2: STORMWATER

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
3.2	SABS 1200	PIPES				
	8.2.1	Supply, handle, lay, bed on Class C, class 100D concrete pipe, socket & spigot type				
3.2.1		450 mm diameter	m	43.2		
3.2.2		600 mm diameter	m	0.0		
3.2.3		750 mm diameter	m	171.9		
3.2.4		900 mm diameter	m			
	8.2.1	Supply, handle, lay, bed on Class C, class 75D concrete pipe, socket & spigot type				
3.2.5		600 mm diameter	m	0.0		
3.2.6		750 mm diameter	m	0.0		
3.2.7		825 mm diameter	m			
	8.2.1	Supply, handle, lay, bed on Class C, class 50D concrete pipe, socket & spigot type				
3.2.8		900 mm diameter	m			
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 1 SECTION 2: STORMWATER

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
3.4	SABS 1200 LB	PROVIDE BEDDING MATERIAL				
	8.2.1	Provision of bedding material from trench excavation or stockpile on site.				
3.4.1		Selected granular material	m3			
3.4.2		Selected fill material	m3			
3.5	8.2.8	CATCHPITS AND INLETS				
		Kerb Side inlet kerb as indicated on drawings. 1.2m deep				
3.5.1		1m Inlets (600X900 inside)	No.	4.00		
3.5.2		2m Inlets (600x1300 inside)	No.	0.0		
		Kerb Side inlet kerb as indicated on drawings. 1.3-1.8m deep				
3.5.3		2m Inlets (800x1300 inside)	No.	0.0		
		Kerb drop inlet kerb as indicated on				
3.5.4		1m Inlets	No.	0		
3.5.5		2m Inlets	No.			
3.5.6		Roofwater chamber (300x300x600)-plastered double brickwall complete with 300x300 CI grid and rame	No.			
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 1 SECTION 2: STORMWATER

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
3.6	8.2.8	MANHOLES				
3.6.1		Construct complete manholes as per drawings. 1,0 m to 1,5 m	No.	0.0		
3.6.2		Construct complete manholes as per drawings.	No.	5.0		
3.6.3		Construct complete manholes as per drawings.	No.	4.0		
3.7		OUTLET STRUCTURES				
3.7.1		Inlet/Outlet structures for 375-450mm stormwater pipes as per drawing	No.	0.0		
3.7.2		Outlet structures for 750mm stormwater pipes as per drawing	No.	1.0		
3.7.3		Construct 25 mpa re-inforced concrete retaining wall at the ends of existing Outlet Culvert structures. 1800x1500x300mm wall with 2x ref 888 mesh and 2000x1500x300 foundation with 2x ref 888 mesh	No.	0.0		
3.8		CROSSING OF EXISTING ROADS				
3.8.1		Regulating traffic during roadcrossings	Sum	0.0		
3.8.2		Cut asphalt surface to its total depth along a straight line (tolerance ± 10mm) where indicated by the Engineer	m	0.0		
3.8.3		Backfill and replace road foundation to its original layer thickness and compaction densities	m3	0.0		
3.8.4		Replace 25mm premix surface layer with similar material and thickness including the	m2	0.0		
3.8.5		Existing services crossings, water,	No	0.0		
3.8.6		Existing services along new pipe, water and electrical	m	0.0		
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 1 SECTION 2: STORMWATER

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
3.9		MISCELLANEOUS				
3.9.1		Allow a provisional amount for miscellaneous work	pc	1.0		
3.9.2		Block off 450 mm diameter stormwater pipes	No.	1.0		
3.9.3		Shape sides of earth channel and plant with grass roots and maintain for 3 months	m²	0.0		
3.9.4		Shape POS and plant with grass roots and maintain for 3 months	m²	0.0		
3.9.5		Allow for automatic irrigation system	pc			Rate Only
TOTAL CARRIED FORWARD TO ROADS AND STORMWATER SUMMARY						

PROJECT NAME: TALANA HOSTELS - ERF: 146
SUMMARY FOR ROAD AND STORMWATER

SUMMARY OF SCHEDULE 1			
SECTION	DESCRIPTION	PAGE No.	AMOUNT
1	PARKING	198	
2	ROADS	201	
3	SURFACING	203	
4	STORMWATER	208	
TOTAL			

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 3 SECTION 1 : SEWER RETICULATION

ITEM NO	PAYMEN T	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4	SABS 1200 LD	SECTION 4 : SEWER RETICULATION				
4.1		SEWERS				
4.1.1	1200 C PSC4	Clear vegetation along pipelines outside road reserves to a max. width over centre line of 2m	m	240.0		
4.2	8.3.1(a)	EXCAVATION				
	1200 DB 8.3.2(a)	Excavate in all materials for backfill, compact and dispose of material:				
	PSDB 2.2					
		900 mm WIDE TRENCHES				
4.2.7		1,0 m to 1,5 m	m	70.6		
4.2.8		>1,5 m to 2,0 m	m	98.8		
4.2.9		>2,0 m to 3,0 m	m	70.6		
		>3.0m	m	0.0		
	8.3.2(b)	Extra over item 4.3 for excavation in:				
4.2.10		Intermediate material	m ³	84.0		
4.2.11		Hard rock material	m ³	36.0		
4.2.12		Hand excavation	m ³	20.0		
4.2.13		Extra over item 4.3 for excavation in: Sewer excavation next to vibacrete wall/brick wall	m ³	20.0		
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 3 SECTION 1 : SEWER RETICULATION

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
4.3	SABS 1200 LB	BEDDING				
	8.2.1 PSLB1/2	Provision of bedding from trench excavation as directed by the Engineer:				
4.3.1		Selected granular material	m ³			
4.3.2		Selected fill material	m ³			
	8.2.2.3	Provision of bedding from commercial sources:				
4.3.3		Selected granular material	m ³	21.6		
4.3.4		Selected fill material	m ³	21.6		
4.3.5	8.2.3	Grade 20/19 concrete in bedding cradle	m ³	5.0		
4.3.6		Encasement of pipes in concrete where directed by the Engineer	m ³	15.0		
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 3 SECTION 1 : SEWER RETICULATION

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
4.4	SABS 1200 LD	UPVC SEWER PIPES				
	8.2.1 PSLD 7	Supply, lay, joint, bed and test as for rigid pipes - class 34 - SABS 791 - SOLID WALL				
4.4.1		110 mm dia	m			
4.4.2		160 mm dia	m	240.0		
4.4.3		200 mm dia	m			
4.4.4		250 mm dia	m			
4.4.5		300 mm dia	m			
	SABS 1200 L	MEDIUM PRESSURE UPVC CLASS 12 LINES rising main with required couplings, test and disinfect. Supply, deliver, store, protect, handle, lay, clean, disinfect & test pipes complete with couplings:				
4.4.6		90 mm upvc Class 12	m			
4.4.7		110 mm upvc Class 12	m			
4.4.8		160 mm upvc Class 12	m	0		
4.4.9		200 mm upvc Class 12	m			
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 3 SECTION 1 : SEWER RETICULATION

ITEM NO	PAYMEN T	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
4.5	8.2.3 PSLD 2 PSLD 9.1	MANHOLES				
		Supply and installation of 1.0m dia prefabricated fibre cement manholes, complete as per datail drawing , SABS type 2A cover				
		Depths from (measured from F.G.L of lowest pipe):				
4.5.1		>1,0 m to 1,5 m	No.	5.0		
4.5.2		>1,5 m to 2,0 m	No.	7.0		
4.5.3		>2,0 m to 3,0 m	No.	5.0		
		>3,0 m	No.			
4.5.4		Extra over item for a SABS type 2A heavy duty cover and frame,	No.	17.0		
4.5.5	8.2.4	Extra over item for backdrops ramps, including additional excavation etc. for depths 0,0 m to 2,1 m	No.			
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 3 SECTION 1 : SEWER RETICULATION

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
4.6	8.2.6 PSDB 2.1 PSLD 6	ERF CONNECTIONS Length detailed in description measured along the pipe from the line of main sewer to the plug of the erf connection Supply, cut, joint and lay of up-stream side of "Y"-junction included in the price of the connection Direct connection into main sewer PIPE length up to 2 m, including excavation, backfilling and bedding:				
4.6.1		110 mm dia into 160 mm dia sewer	No.	22.0		
4.6.2		110 mm dia into 200 mm dia sewer Direct connection into main sewer PIPE length over 2m up to 12 m, including excavation, backfilling and bedding:	No.			
4.6.3		110 mm dia into 160 mm dia sewer	No.	0.0		
4.6.4		110 mm dia into 200 mm dia sewer	No.	0.0		
4.6.5		160 mm dia into 160 mm dia sewer	No.			
4.6.6		160 mm dia into 200 mm dia sewer Direct connection into main sewer MH length up to 2 m, including excavation, backfilling and bedding:	No.			
4.6.7		110 mm dia into MH Supply, joint and lay pipe, fit rodding eye, complete as per drawing, incl. access box	No.			
4.6.8		Depth: 1,0 m to 2,0 m	No.	11.0		
4.6.9		Depth: 2,0 m to 3,0 m	No.	11.0		
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 3 SECTION 1 : SEWER RETICULATION

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
4.8.1	PSLD 4	Marker blocks for erf connections, complete	No.	22.0		
4.8.2		Temporary end caps for erf connections	No.	22.0		
4.8.3		Break in and connect to existing sewer, including thetemporary handling of sewage in the municipal sewer, that is for example pumps, pipes and generator as required (manhole measured	Sum	1.0		
4.8.4		Extra over - sewer excavation, spoil clay off site	m ³			
4.8.5		Allow a provisional amount for miscellaneous items	pc	1.0		
TOTAL CARRIED FORWARD TO SUMMARY						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SUMMARY FOR SEWER

SUMMARY OF SCHEDULE			
ITEM No	DESCRIPTION	PAGE No	AMOUNT
1	SEWER	215	
TOTAL			

PROJECT NAME: TALANA HOSTELS - ERF: 146

TOTAL COST OF WORKS

SUMMARY OF SCHEDULE

SCHEDULE	DESCRIPTION	PAGE No	AMOUNT
1	EARTHWORKS	196	
2	ROADS AND STORMWATER	209	
3	SEWER RETICULATION	216	
TOTAL			

SCHEDULE 2 SECTION 1 : FIRE PROTECTION

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.1		SECTION 1: SITE AND BUILDING FIRE PROTECTION, BULK WATER STORAGE AND PUMP Supply and install Fire fighting equipment complete with all piping, supports, hangers, couplings etc. Supply, install, test, commission and hand over of complete Hydrant and Hose Reel System as shown on the relevant drawings. Supply and Install Portable Fire Extinguishers c/w mounting brackets fixed inside cabinets, signage and surface mounted where required mounted inside cabinets. Supply and install all statutory signs on chromadek or similar complete with hangers, supports etc. Supply & Install Fire Hose Reels (30m long) c/w chromium plated 25mm valve, pressure gauge & cock, fittings, fixings, etc. Supply and Install Portable Fire Extinguishers c/w mounting brackets fixed inside cabinets, signage and surface mounted where required mounted inside cabinets. Supply and install all statutory signs on chromadek or similar				
		Fire Hydrants				
1.1.1		Tamper Proof Fire Hydrant with Pressure Gauge Thread: 80mm Male Bras Coupling: 65mm Light Alloy Opening Mechanism: Key Ground Height: 242mm	No	8		
1.1.2		Tamper Proof Double Booster Fire Hydrant with Pressure Gauge Thread: 80mm Male Brass Coupling: 65mm Light Alloy Opening Mechanism: Key Ground Height: 242mm	No	2		
1.1.3		Concrete Base Mount for Fire Hydrants Height: 1.2m (above ground), 0.3m Below Ground Length and Width: 0.25m Concrete Volume: 0.10m ³	No	10		
1.1.4	SABS 1456	76mm Diameter Fire Hydrant Hose Type: 76mm with 80mm Diameter Valve Hose Dimension: 30m Pressure Gauge of up to 15 Bar Complete with Steel Connections and Nozzle	No	8		
1.1.5		Fire Hydrant Hose Cabinet Ground Mounted Powder Coated Steel, Complete with Steel Footings (up to 1.2m above ground) With Break Glass to access Key Dimensions: 670 x 210 x 520mm(H)	No	8		
1.2		Fire Hose Reels				
1.2.1		Fire Hose Reel with Hose and Pressure Gauge Type: 580mm with 750mm Valve Hose Dimension: 30m Pressure Gauge of up to 15 Bar Valve (Stop Cock): Chromium Plated Double 25mm Discharge Rate: 30L/min @ 300kPa	No	22		
TOTAL CARRIED FORWARD						

SCHEDULE 2 SECTION 1 : FIRE PROTECTION

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
1.2.2		Double Door Fire Hose Reel Cabinet (To house Fire Hose Reel and Fire Extinguisher) Wall Mounted Powder Coated Steel, With Break Glass to access Key Dimensions: 850 x 295 x 850mm(H)	No	22		
1.3		Fire Extinguisher				
1.3.1		Fire Extinguishers Type: Dry Chemical Powder Size: 9.0kg	No	8		
1.3.2		Fire Extinguishers (For Each Apartment Unit) Type: Dry Chemical Powder Size: 4.5kg	No	126		
1.3.3		Fire Extinguisher Cabinet Wall Mounted Powder Coated Steel, With Break Glass to access Key Dimensions: 350 x 220 x 685mm(H)	No	8		
1.4		Fire Protection Back-up Pumps				
		Supply, delivery, installation, commissioning and testing of Fire Protection Back-up Pump Set, Water Supply Pump Set				
1.4.1		ASIB Approved Back-Up Fire Protection Pump (SKID Unit) Performance Parameters; 6.5Bar and 45L/s at outlet Comprising of 1 x Diesel Driven Pump complete with engine and auto start control panel 1 x Electrical Driven Pump complete with auto start control panel 1 x Electrical Driven Jockey Pump complete with auto start control panel 2 x pressure switches Set of 200mm Diameter flanged galvanised steel piping complete with isolating valves for water inlet	Prov Sum			R 3,500,000.00
1.6		Fire Protection Water Storage Tank				
		Supply, delivery, installation, commissioning and testing of Fire and Potable Water Storage Tank				
1.6.1		297,085 Litre Water Storage Sectional Steel Tank with 3 Separate Compartments both completely covered Compartment 1 = 145,267 Litres = 4.88mm (L) x 6.10mm (W) x 4.88mm(H) - Storage of Fire Water Compartment 2 = 29,053 Litres 3.66mm (L) x 6.10mm (W) x 4.88mm(H) - Storage of Field Irrigation Compartment 3 = 29,053 Litres 1.44mm (L) x 6.10mm (W) x 4.88mm(H) - Storage of Potable Water	Prov Sum	1		R 1,000,000.00
1.6.2		Provision Sum for Engineer to design Base Footings and Structural Platform/Plinth	Prov Sum	1		R 500,000.00
1.7		Fire Protection Water Reticulation Network				
		Supply, delivery, installation, commissioning and testing of Fire Water Supply Piping, HDPE Pipes and GS Piping to include flanges where required.				
TOTAL CARRIED FORWARD						

SCHEDULE 2 SECTION 1 : FIRE PROTECTION

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QUANTIT Y	RATE	AMOUNT
		TOTAL BROUGHT FORWARD				
1.7.1		HDPE PN 16 - 65mm Diameter Water Supply Piping	m	432		
1.7.2		HDPE PN 16 - 80mm Diameter Water Supply Piping	m	112		
1.7.3		HDPE PN 16 - 110mm Diameter Water Supply Piping	m	106		
1.7.4		HDPE PN 16 - 125mm Diameter Water Supply Piping	m	670		
1.7.5		HDPE PN 16 - 200mm Diameter Water Supply Piping	m	120		
1.7.6		32mm Diameter Galvanised Steel Waster Supply Piping	m	36		
1.7.7		80mm Diameter Galvanised Steel Waster Supply Piping	m	20		
1.7.8		110mm Diameter Galvanised Steel Waster Supply Piping	m	30		
1.7.9		150mm Diameter Galvanised Steel Waster Supply Piping	m	1		
1.7.10		200mm Diameter Galvanised Steel Waster Supply Piping	m	1		
1.7.11		PN 16 - 65mm Diameter Water Supply Piping Fittings	No	108		
1.7.12		PN 16 - 80mm Diameter Water Supply Piping Fittings	No	28		
1.7.13		PN 16 - 110mm Diameter Water Supply Piping Fittings	No	26.5		
1.7.14		PN 16 - 150mm Diameter Water Supply Piping Fittings	No	206		
1.7.15		PN 16 - 200mm Diameter Water Supply Piping Fittings	No	38		
1.7.16		32mm Diameter Galvanised Steel Waster Supply Piping Fittings	No	41		
1.7.17		80mm Diameter Galvanised Steel Waster Supply Piping Fittings	No	8		
1.7.18		110mm Diameter Galvanised Steel Waster Supply Piping Fittings	No	3		
1.7.19		150mm Diameter Galvanised Steel Waster Supply Piping Fittings	No	1		
1.7.20		200mm Diameter Galvanised Steel Waster Supply Piping Fittings	No	1		
1.8		WORKSHOP DRAWINGS, TESTING, COMMISSIONING AND COCs				
1.8.1		Provision for Workshop Drawings for Fire Pump Set	Sum	1		
1.8.2		Provision for COC for the Fire Pump Set by ASIB Registered	Sum	1		
1.8.3		Provision for Connection of Fire Line to Municipal Line	Sum	1		
1.8.4		Provision for Testing of Entire Fire Protection System	Sum	1		
1.8.5		Provision for Fire System Inspection by Local Fire Department	Sum	1		
1.8.6		Issuing of COC for the entire Fire Pipe System by Registered	Sum	1		
TOTAL CARRIED TO SUMMARY						

SCHEDULE 2 SECTION 2 : WET SERVICES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3.1		WET SERVICES				
		Supply and install water supply, drainage and water heating equipment complete with all piping, supports, hangers, couplings etc. Supply, install, test, commission and hand over of complete Water (Hot and Cold) Supply Piping as shown on the relevant				
2.1.1		Water Supply Installations				
		Supply, delivery, installation, commissioning and testing of Water Supply Piping and Water supply Copper Class 2 Supply Water Piping.				
2.1.1.1		15 mm Diameter Flexible Connector with Valve	No	620		
2.1.1.2		15 mm Diameter Pipe	m	1240		
2.1.1.3		22 mm Diameter Pipe	m	575		
2.1.1.4		28 mm Diameter Pipe	m	1850		
2.1.1.5		15 mm Diameter Bends, Connectors, etc..	No	320		
2.1.1.6		22 mm Diameter Bends, Connectors, etc..	No	145		
2.1.1.7		25mm Diameter Bends, Connectors, etc..	No	465		
2.2.1		Water Drainage Installations				
		Supply, delivery, installation, commissioning and testing of PVC Drainage Water Piping (Class 16)				
2.2.1.1		110 mm Diameter Pipe	m	3850		
2.2.1.2		50 mm Diameter Pipe	m	1050		
2.2.1.3		32 mm Diameter Pipe	m	530		
2.2.1.4		110 mm Diameter Bends, Connectors, etc..	No	960		
2.2.1.5		50 mm Diameter Bends, Connectors, etc..	No	265		
2.2.1.6		32 mm Diameter Bends, Connectors, etc..	No	135		
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 2 SECTION 2 : WET SERVICES

ITEM NO	PAYMENT	DESCRIPTION	UNIT		RATE	AMOUNT
		TOTAL BROUGHT FORWARD				
2.3.1		Water Heating Systems				
		Supply, delivery, installation, commissioning and testing of Water Heating and Storage Systems				
2.3.1.1		Kwikot 200L Solar Geyser 2.0m ² Vertical Flat Plate Collector KwikSol 300L 400kPa Direct Solar Geyser Geyserwise Delta T Geyser Controller, Max 12V Pump Kit and Solar Probe 22mm Brass Pocket kit Accessories: Roof Mountings, Valves, Automatic Pressure Release Valve and Ball Valves	No	16		
2.3.1.2		Kwikot 150L Solar Geyser 1.50m ² Vertical Flat Plate Collector KwikSol 300L 400kPa Direct Solar Geyser Geyserwise Delta T Geyser Controller, Max 12V Pump Kit and Solar Probe 22mm Brass Pocket kit Accessories: Roof Mountings, Valves, Automatic Pressure Release Valve and Ball Valves	No	16		
2.3.1.3		Kwikot 200L Electric Geyser 200L 400kPa Electric Geyser Accessories: Wall Mountings, Valves, Automatic Pressure Release Valve and Ball Valves	No	27		
2.3.1.4		Kwikot 150L Electric Geyser 150L 400kPa Electric Geyser Accessories: Wall Mountings, Valves, Automatic Pressure Release Valve and Ball Valves	No	31		
2.4.1		Valves and Metres				
		Supply, delivery, installation, commissioning and testing of Water Valves and Meters				
2.4.1.1		25mm Diameter Brass Ball Valve	No	88		
2.4.1.2		22mm Diameter Ball Valve	No	177		
2.4.1.3		15mm Diameter Ball Valve	No	620		
2.4.1.4		Lesira Prepaid Smart Water Metre Model Number: SPM-PB2-CF-25 Complete with Smart Metre, Communication Module and associated fittings to ensure the unit operates upon completion of installation	No	89		
TOTAL CARRIED FORWARD						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SCHEDULE 2 SECTION 2 : WET SERVICES

ITEM NO	PAYMENT	DESCRIPTION	UNIT		RATE	AMOUNT
		TOTAL BROUGHT FORWARD				
2.5.1		Accociated Works				
		Perform associated installations and works relating to water supply and drainage infrastructure				
2.5.1.1		Wall Clamps for Copper Piping (All Sizes)	Sets	370		
2.5.1.2		Wall Clamps for uPVC Piping (All Sizes)	Sets	550		
2.5.1.3		75mm Depth x 50mm Width Wall Chasing for Copper Piping	m	920		
2.5.1.4		75mm Depth x 50mm Width Wall Chasing for 25mm uPVC Piping	m	275		
2.5.1.5		Trenching: Width 600mm x up 1500mm Depth on Hard/Moderate/Soft Material	m	2885		
2.6.1		Workshop Drawings, Disinfection, Testing, Commissioning and COCs				
2.6.1.1		Disinfection and Testing of Each Unit's Water Supply, Drainage and Water Heating System	Units	90		
2.6.1.2		Provision for Workshop Drawings Entire Block	Units	90		
2.6.1.3		Issuing of COC for the entire Fire Pipe System by Registered Plumber	Units	90		
TOTAL CARRIED TO SUMMARY						

PROJECT NAME: TALANA HOSTELS - ERF: 146

SUMMARY FOR FIRE PROTECTION AND PORTABLE WATER SUPPLY

ITEM NO	DESCRIPTION	PAGE No.	AMOUNT
SECTION 1	SITE FIRE PROTECTION	220	
SECTION 2	WET SERVICES: ALL BLOCKS	223	
TOTAL			

SUMMARY SCHEDULE OF QUANTITIES

Construction of Talana CRUs - ERF 146

SUMMARY OF QUANTITIES

ITEM	DESCRIPTION	Page No.	No. of units	Amount	Total Amount
1	<u>Preliminary and General</u>				
1.1	Fixed Charge and Value Related Obligations	68	1		
1.2	Time Related Obligations	69	1		
1.3	Provisional Sums	70	1		
1.4	Dayworks	71	1		
2	<u>Buildings</u>				
2.1	Type A (2 Bed double storey)		0		
2.2	Type B (8 Bed double storey)	98	3		
2.3	Type C (12 Bed three storey)	125	8		
2.4	Type D (6 Bed three storey)	152	11		
3	External Works	155	1		
3.1	Washlines				
3.2	Laundry basins				
3.3	Landscapping				
3.4	Play area				
3.5	Fencing				
4	Guard House	178	1		
5	Refuse Bay	189	1		
6	Civil Works	217	1		
7	Electrical Installations	194	1		
8	Mechanical Installations	224	1		
	Sub-Total 1				
	Add: 10% Contingency				
	Add: 6% Contract Price Adjustment Provisions				
	Add: 2.5% CSDG				
	Sub-Total 2				
	Add: VAT @ 15%				
TOTAL SUMMARY					

PART C3: SCOPE OF WORK

C3.1	DESCRIPTION OF THE WORKS, DESIGN GENERAL REQUIREMENTS AND CONSTRUCTION GENERAL REQUIREMENTS
C3.2	BUILDING WORKS SPECIFICATIONS
C3.3	CIVIL ENGINEERING SPECIFICATIONS
C3.4	EPWP AND LIC CONSTRUCTION SPECIFICATIONS
C3.5	OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS
C3.6	HIV AND AIDS SPECIFICATIONS
C3.7	ENVIRONMENTAL MANAGEMENT SPECIFICATIONS

C3.1. DESCRIPTION OF WORKS, DESIGN GENERAL REQUIREMENTS AND CONSTRUCTION GENERAL REQUIREMENTS

C3.1.1 DESCRIPTION OF THE WORKS

The works on ERF 5841(146) involves the construction of civil services infrastructure between Koedoe and Rietbok street. It also involves the construction Talana Community Residential Units (CRU) that comprises of :

- Three (3) blocks of 2 bedroom self-contained units(60 units)
- Eight (8) blocks of three storey self-contained units (48 units)
- Eleven (11) blocks of three storey self-contained one bedroom units (66 units)

C3.1.1.1 Employer's Objectives

The Employer's objectives are to improve human settlement by providing descent accommodation to communities and to decongest the current Talana informal settlement through labour intensive methods.

C3.1.1.2 Overview of the Works

The works involves the civil works to prepare the foundations and stormwater drainage infrastructure for the site before foundations for the superstructure followed by the construction of the superstructure. Mechanical and firefighting amenities will also be installed in compliance with all the regulations.

C3.1.1.3 Location of the Works

Talana Residential Units is located under the jurisdiction of Greater Tzaneen Municipality, Tzaneen in Limpopo Province. The site is located on the following coordinates: S 23° 49' 43" E 30° 10' 37"

C3.1.1.34 Extent of the Works

The work to be carried out under this contract includes inter alia the following:

- Establishment of camps on site;
- Site clearance;
- Building work;
- Civils works (fencing, storm water drainage, sewer, water

,paved roads);

- Electrical and Mechanical
- Maintenance of the works during construction and defects liability period. In addition the contractor must pick up the litter and keep the working area clean.

C3.1.2 DESIGN GENERAL REQUIREMENTS

C3.1.2.1 Design Services

The design of the Permanent Works and providing the related construction drawings is the responsibility of the Employer.

The Contractor is responsible for the design of the Temporary Works. The Contractor is responsible providing As-built data and information in the manner and form required by the Employer's Agent and/or Employer.

C3.1.2.2 Working and Construction Drawings

The reduced drawings contained in Part C4 that form part of the tender document shall be used for tender purposes only. Further drawings are to be provided on an on-going basis by the Employer's Agent.

Drawings are not to be scaled. Only figured dimensions shall be used and drawings shall not be scaled unless so instructed by the Employer's Agent. If a dimension is not shown, it will be the responsibility of the Contractor to find the correct dimension from the Employer's Agent.

For steelwork the actual as built concrete dimensions/ levels must be measured before ordering or proceeding with fabrication.

The Contractor will be provided with three free sets of paper prints of the drawings and two free copies of the contract document.

In addition, a further set of paper prints of the drawings will be issued to the Contractor which shall be kept on site and upon which the Contractor shall record all data necessary for the compilation of "As-built" drawings. The Contractor shall record all the data necessary to for the compilation of "As-built" drawings and provide this data monthly to the Employer's Agent.

At the Completion of the Works, all data necessary for completion of "As-built" drawings must have been provided to the Employer's Agent.

C3.1.2.3 As-Built Drawings

The Contractor is required to supply to the Employer's Agent for the records of the Employer the following:

- "As Built" plans showing the work designed by him in terms of the Contract as well as any additional information the Employer's Agent or Employer may wish to have shown thereon. One paper print of each such plan as well AUTOCAD compatible digital file shall be submitted for the Employer's Agent's approval within three months of the issue of a Certificate of Completion.
- Furthermore at the extra set of paper prints issued to the contractor the contractor must pass all changes and with the conclusion of the works.

Any information in the possession of the Contractor, which the Employer's Agent requires to complete the as-built drawings, shall be supplied to the resident Employer's Agent before a certificate of completion will be issued.

No additional payment will be made and the cost related thereto shall be deemed to be included in the tendered rates for the related items.

C3.1.2.4 Custody of Drawings and Specifications

The Drawings and Specifications shall remain the sole property of the Employer and the Contractor shall be required to sign for receipt thereof. The copyright of all documents shall vest in the Employer and the Drawings and Specifications may not be reproduced, in part or in whole, without the written authority of the Employer's Agent.

C3.1.2.5 Copyright

The copyright in all documents, drawings and records related to the purpose and scope of the Works or related in any other manner to the Works, shall vest in the Employer and the Contractor shall not furnish any information in connection with the Works to anybody without the approval of the Employer.

C3.1.3 CONSTRUCTION GENERAL REQUIREMENTS

C3.1.3.1 Project Meetings

The contractor shall be required to attend meetings relating to the Works and the site.

C3.1.3.2 Power, Water Supply and Other Services

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

There is power available on site at the electrical substation and for light duty at different buildings. The contractor must supply all temporary major connections at the works and connect directly to this substation where he will install an electrical meter. The use of electricity will be monitored and charged for at the Eskom current charge out rates by the owner for payment by the contractor. The client cannot guarantee supply of power and is noted that outage is common in the area. The contractor must make his own arrangements for emergency power supply to his camp and especially at critical machinery and plant of his operation. No extension of time for outage will be entertained. It is to be noted that a certified electrician must correctly install all site electrical extensions.

The Employer will make metered potable water available at a standard charge of R5.00 per m³ for the normal execution of the works and the needs of the labour force on site. The Contractor shall make his own arrangements with the Employer for a suitable connection point for a water supply for contractors' camp and construction purposes. Such installation inclusive of any water pipes and dispense taps will be for the contractor account. The contractor shall install at his expense a water meter to monitor the consumption of water and also will be liable for any punitive payments required in regard to excessive use of water.

The following are noted:

- The abstraction and purification works have water available for use by the contractor, but the contractor's attention is drawn to the fact that water will not be available at certain periods during the refurbishment stage which he will be carrying out as well during the often occurring on site outage. The cost of the line to the main contractor camp will have to be borne by the general P&G rates offered. The connection point would be in the vicinity of the main water tower. The client cannot guarantee either the water supply or the water quality. Especially the water for drinking purposes.

- The Contractor shall comply with any measures regarding restrictions on the use of water laid down by the Employer from which water is directly or indirectly obtained.

C3.1.3.3 Contractor's Camp Site and Security

The contractor shall make his own arrangements regarding the establishment of a camp site and housing for his construction personnel and all regulations stipulated by the local authority shall be adhered to.

It is anticipated that the contractor's choice of a camp site will be influenced by the availability of telephone and electrical connections as well as the supply of potable water.

Provision is made in these specifications for the erection of a security fence around the site offices. The contractor shall be responsible for the security of his personnel and constructional plant on and around the site of the works and for the security of his camp, and the Employer will consider no claims in this regard.

C3.1.3.4 Accommodation of Traffic

The contractor may not commence constructional activities before adequate provision has been made to accommodate traffic in accordance with the requirements of this document and the South African Road Traffic Signs Manual.

The contractor shall submit proposals in connection with directional signs to the Employer's Agent for approval.

C3.1.3.5 Construction in Confined Areas

It may be necessary for the contractor to work in confined areas. The method of construction in these confined areas depends on the contractor's construction plant. However, the contractor must note that measurement and payment will be in accordance with the specified cross-sections and dimensions, irrespective of the method used to achieve these cross-sections and dimensions, and that the rates and amounts tendered will be deemed to include full compensation for any special equipment or construction methods or for any difficulty encountered in working in confined areas and narrow widths, and at or around obstructions, and that no extra payment will be made nor will any claim for payment be considered on account of these difficulties.

C3.1.3.6 Barricading of Excavations

All excavations in close proximity to pedestrian and vehicular traffic are to be barricaded to the satisfaction of the Employer's Agent. Barricading shall consist of a minimum of two strands of parallel and horizontal wire of at least 2mm gauge, the topmost strand being fixed at least 1m above ground level. These wires shall be fixed to the approved fence posts, which shall be securely fixed in a vertical position. The visibility of these barricades shall be enhanced by the attachment of high visibility construction tape to the posts and wire strands and by the placing of reflective signing to the Employer's Agent's satisfaction. All costs arising from these requirements are to be included in the tendered rates for excavation.

C3.1.3.7 Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards which ensure an equal or higher quality than the standards and codes specified will be accepted subject to the Employer's Agent's prior review and written approval. Differences between the standards specified and the proposed alternative standards must be fully described in writing by the Contractor and submitted to the Employer's Agent at least 7 days prior to the date when the Contractor desires the Employer's Agent's approval. In the event the Employer's Agent determines that such proposed deviations do not ensure equal or higher quality, the Contractor shall comply with the standards specified in the documents.

C3.1.3.8 Temporary Accommodation

The contractor shall make his own arrangements for accommodation of his workmen and staff. He shall liaise with the relevant authorities and comply with any regulations required. No accommodation will be allowed inside the security area of the purification works.

The contractor's site camp and site accommodation of personnel will be subject to the requirements of the Construction Safety Act of 2003, the requirements of the Employment Act and the Environmental Impact Report.

C3.1.3.9 Health and Sanitation

Provide health and sanitation in accordance to the latest safety act regulations. In a similar manner change rooms, shower facilities, site personnel eating facilities with gender separation where required are to be supplied. The contractor shall be responsible for the safe and environmentally acceptable disposal of all rubbish and rubble from the site, accumulated during the construction period. All facilities must comply with the OHS act.

The hygiene measures with regards to the works durations as well the number of personnel to be deployed on site must be seen very seriously by the contractor. Chemical toilets will only be allowed on a temporary basis for use at the furthest areas of the works, at the work face.

These shall be provided on the following basis:

One per 20 labourers of the Contractor's staff with separate facilities for male and female staff.

The Contractor shall make arrangements for the proper maintenance of these facilities.

Reference is made to the Health and safety act and specific requirements for sanitation. The Health and safety requirements are to be the prevailing standards requirements.

The main camp of the contractor will be expected to have container type ablution facilities with combined shower and hand wash facilities. Each chemical facility must be equipped with a hand cleaning facility with soap and paper towel dispenser. All effluent to be collected in containers for disposal of and evacuated timeously off site. Upon appointment and within two weeks a detailed plan must be put in place and submitted for the Employer's Agent approval.

C3.1.3.10 Notice of Covering of Works

The Contractor shall give due notice to the Employer's Agent, whenever any work is intended to be covered over with earth or otherwise, in order that the Employer's Agent may examine the work to determine that it is in accordance with the Specification and that its correct dimensions may be ascertained before the work is covered, and in default of such notice being received the work shall be uncovered at the Contractor's expense whenever instructions are given by the Employer's Agent to do so.

C3.1.3.11 Inspection and Rejection of Faulty Work

The Employer's Agent or his representative (Employer's Agent's Representative) appointed by the Employer's Agent shall have the full power to inspect the work during every stage of its construction, and for that purpose shall have free access to the works at all times. Should any work appear to the Employer's Agent or his representative not be executed in accordance with the Specifications, the same may be immediately rejected, and the Contractor shall forthwith carry out the making good, breaking down and rebuilding where applicable of rejected work at his own expense.

The Employer's Agent or his representative (Employer's Agent's Representative) appointed by the Employer's Agent shall not be used as the Contractor's site agent. The contractor is deemed to have carried out all process control before asking for the work to be inspected.

The inspection of all concrete work will be on all stages of the construction and no works will be released for the new stage unless is done so in writing by the Employer's Agent the foundation level, the placing and fixing of steel and the final end product. Settings out and quality of shutters are the responsibility of the contractor and can only be accessed once the end product is built.

All inspection call outs (successful or not) will be recorded and must be reported at the site meetings. Both parties must agree all defect lists with a completion date entered into the list for each defect.

All site communications are to be confirmed in writing.

C3.1.3.12 Setting Out of the Works

The Contractor shall set out the works using the various Setting Out Drawings. He will establish a system of setting out and reference pegs encased in concrete, which will be checked by the Surveyor of the Employer's Agent and then maintained and protected for the duration of the contract by the contractor. Should any benchmark be disturbed it will be re-established and verified by the Employer's Agent at the cost of the contractor.

The contractor shall set out the Works relative to the afore-mentioned system of reference pegs in accordance with the positioning and dimensions on the drawings.

C3.1.3.13 Control of Stormwater

The Contractor is fully responsible for the handling of storm water from higher-laying areas, adjacent to the works, for the management of possible sub-surface water and for the management of spoiled water when disconnecting existing connections or valves. No separate payment will be made for this as all costs related thereto will be deemed to be included in the tendered rates.

C3.1.3.14 Finishing and Tidying

Progressive and systematic finishing and tidying will form an essential part of this contract. Under no circumstances would spoil, rubble, materials, equipment or unfinished operations be allowed to accumulate unnecessarily. In the event of this occurring the Employer's Agent will have the right to withhold payment for as long as necessary in respect of the relevant works in the area(s) concerned.

C3.1.3.15 Contractor's Code of Conduct

Workmen Instant Dismissal

Workmen may be instantly dismissed for the following:

- a) Theft.
- b) Violence with co-workers or supervising staff
- c) Committing a criminal offence and is sentenced to prison without the option of a fine.

Misconduct

Any employee who, within a period of 6 months, receives two written warnings and for the third time is guilty of misconduct as listed below may be dismissed without further notice.

- a) Insubordination and constant refusal to follow instructions
- b) Absenteeism for 3 or more days without a valid medical certificate
- c) Repeatedly coming to work late
- d) Disruptive behaviour conducive to delays in the work program
- e) Intimidation of other workers

- f) Dangerous behaviour
- g) Use of alcohol or drugs during working hours
- h) Non-performance
- i) Abuse or waste of company property
- j) Continuous absenteeism

C3.1.3.16 Features Requiring Special Attention

a) Existing services

The Contractor shall be deemed to have made allowance in his tender for the need to protect the existing services from damage and to hand over the completed works with the existing services intact and undamaged.

Notwithstanding the information given herein, the Contractor shall retain full responsibility for establishing the exact positions of the various existing services, which may not be shown on the construction drawings, in advance of the main construction work.

The use of specialised equipment for location of power cables and other services is allowed into the relevant Bill of quantities.

All the works areas with known services are to be preceded with thorough investigation with hand excavations and exposure of the services.

b) Survey beacons

The Contractor's attention is drawn to SABS 1200 A, Clause 5.1.2 - Preservation and Replacement of Beacons and Pegs subject to the Land Survey Act - and to the liabilities of the Employer and the Contractor in this regard.

The Contractor shall locate and mark all existing pegs.

The Contractor shall be held responsible for the maintenance of all the cadastral and benchmark pegs on the site that are recorded as existing at the commencement of construction, and for the placement of any pegs that are found to be missing or disturbed upon the completion of the contract. A Completion Certificate shall only be issued after the Contractor has handed back all the pegs and has submitted a certificate from a registered Land Surveyor to the Employer's Agent stating that all relevant pegs are in

their correct positions.

Notwithstanding Clause 8.8.5 of SABS 1200 A, the Contractor shall tender sums for searching for and protecting all pegs. Where pegs have been moved, disturbed or covered on the specific instruction of the Employer's Agent, such pegs shall be reinstated by a registered Land Surveyor and shall be paid for by number reinstated on instruction of the Employer's Agent.

C3.1.3.16 Damage to Services and Existing Works

a) Responsibility of contractor

The Contractor shall be responsible for any damage to existing services and existing works in the execution of this contract and shall reimburse the Owner concerned for any repairs required or compensation for damages awarded. The Contractor's attention is drawn to Clause 3.1.30 and SABS 1200 A, Clause 5.4.

b) Notification

The Contractor will be responsible for immediately notifying the Authorities concerned the Employer and the Employer's Agent regarding any damage caused to public services and existing works.

The Employer's Agent's Representative must be notified without delay.

C3.1.3.17 Work on Public and Private Property

The Contractor shall exercise the greatest care to avoid unnecessary damage to trees, gardens, fences, walls and structures on public and private property, and also strictly supervise the behaviour of his workmen.

On completion of the work over or in the vicinity of Local or Tribal Authority or private property, the Contractor shall ensure that anything that may have been disturbed or damaged has been compensated for or reinstated to a condition equal to that which it was before construction commenced and also to the satisfaction of the owner concerned. The materials resulting from any demolition of existing structures shall be the property of the owner.

C3.1.3.18 Regulations

The Contractor shall in all respects conform to the requirements contained in regulations by higher authorities. Such regulations shall include *inter alia*:

- 1.) ***National Building Regulations. SANS 10400**
- 2.) Code of Practice for the Wiring of Premises, SANS 10142-1 as amended.

- 3.) The Mines and Works Regulations, Government Notice Number R1609 of 1962-09-28, as amended.
- 4.) ***The Occupational, Health and Safety Act 85/93, as amended.**
- 5.) The local Municipal Bye-laws and Regulations as well as the regulations of the local Supply Authority.
- 6.) The local Fire Regulations.
- 7.) The regulations of Telkom.
- 8.) The regulations of the local Gas Board where applicable.
- 9.) The standard regulations of any Government Department or public service company where applicable.
- 10.) The Regulations of Lepelle Northern Water attached at volume no 1.
- 11.) The Regulations of Eskom
- 12.) ***The NHBRC National home builders: Home building manual part 1&2 ,& part 3 two volumes**
- 13.) ***SANS 1200 and the application SANS 10120.**
- 14.) The construction Regulations of the Construction Industry Development Board (CIDB)

The regulations marked “*” are to be kept on site.

The Contractor shall pay and indemnify the Employer against any fees or charges by law and shall keep the Employer and the Employer's Agent indemnified against all penalties and liabilities of any kind for breach by the Contractor or any of the conditions due by law, except insofar as amended or specifically allowed by the Employer's Agent.

C3.1.3.19 Employment of Local Labour

The contractor shall limit the utilisation of permanently employed personnel for the execution of the Works to key personnel, such as contracts manager, site agent, foreman, supervisors, plant operators, material technicians, surveyors, trainers, buyers, storemen and the like should such expertise not be available within the community. Not less than 70% of the labour employed on site shall be drawn from the community closest to the contract Works.

The contractor, in conjunction and in co-ordination with the local community/Local Authority, will establish a Community Liaison Officer (CLO) within the local community and the Contractor shall apply to the CLO for details of local labourers who are available

and shall give preference to the employment of these labourers identified through the CLO.

The employment of labour from outside the local area will only be allowed in the event of:

- The unavailability within the local community of sufficient numbers of local labourers to execute the work,
- The unavailability of required skills within the local community necessary for the execution of specific tasks
- Where the completion period does not permit the creation of the necessary skills through training.

In these cases, the contractor shall prove to the satisfaction of the Employer that he has exercised his best endeavours and taken all reasonable actions to recruit local labour.

The Contractor shall maintain accurate and comprehensive daily records of all labour engaged on the contract and shall submit to the Employer at two weekly intervals detailed labour returns substantiating the actual numbers of labours employed, the amounts actually paid in respect thereof, and details of the various activities undertaken by the labourers.

The Contractor shall employ a Community Liaison Officer (CLO), through the Labour Committee (LC) representing the local community. The CLO and LC shall be the facilitators for all negotiations between the Contractor and the Labourers. An Agreement signed by the LC on behalf of the Labourers shall be given to and accepted by the Contractor and applied without revisions. The Contractor may price to recover his Payment for the CLO in the P & G and where he enters no price; it shall be assumed that the cost of the CLO is included in the other rates.

3.1.3.20 Labour-Intensive Construction and EPWP

As much as is economically feasible all work shall be implemented by employing Labour Intensive Construction methods. Over and above the normal Building and Allied works to be implemented by employing skilled and unskilled labour the works specified in the “Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)” shall be undertaken using Labour Intensive Construction methods.

Employer’s objectives

The Employer’s objectives provide decent accommodation and improve human settlements through infrastructure development using labour intensive methods to benefit the beneficiary communities.

Labour-intensive works

Labour-intensive works comprise the activities described in SANS 1921-5, Earthworks activities which are to be performed by hand, and its associated specification data. Such works shall be

constructed using local workers who are temporarily employed in terms of this Scope of Work.

Labour Intensive Competencies of Supervisory and Management Staff

Contractors having a CIDB contractor grading designation of 5GB/CE and higher shall engage, as far as is feasible, supervisory and management staff in labour intensive works who have relevant Labour-Intensive Construction Qualifications or have relevant experience in Labour Intensive Construction.

The managing principal of the contractor, namely, a sole proprietor, the senior partner, the managing director or managing member of a close corporation, as relevant, having a contractor grading designation of 1GB/CE, 2 GB/CE, 3 GB/CE and 4 GB/CE shall have, as far as is feasible, personally completed a relevant skills programme in Labour Intensive Construction or have relevant experience in Labour Intensive Construction. All other site supervisory staff in the employ of such contractors must, as far as is feasible, have completed a relevant skills programme in Labour Intensive Construction or have relevant experience in Labour Intensive Construction.

The Employer may set other conditions at their discretion which must be complied to when engaging Contractors who do not comply with this provision.

1 EMPLOYMENT OF UNSKILLED AND SEMI-SKILLED WORKERS IN LABOUR-INTENSIVE WORKS

1.1 Requirements for the sourcing and engagement of labour.

1.1.1 Unskilled and semi-skilled labour required for the execution of all labour-intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.

1.1.2 The rate of pay set for the EPWP is to be determined from the latest government gazette of such rates per task or per day.

1.1.3 Tasks established by the contractor must be such that:

- a) the average worker completes 5 tasks per week in 40 hours or less; and
- b) the weakest worker completes 5 tasks per week in 55 hours or less.

1.1.4 The contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 1.1.3.

1.1.5 The Contractor shall, through all available community structures, inform the local community of the labour intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and / or who come from households:

- a) where the head of the household has less than a primary school education;
- b) that have less than one full time person earning an income;
- c) where subsistence agriculture is the source of income.

d) those who are not in receipt of any social security pension income

1.1.6 The Contractor shall endeavour to ensure that the expenditure on the employment of temporary workers is in the following proportions:

a) 55% women;

b) 55% youth who are between the ages of 18 and 35; and

c) 2% on persons with disabilities.

1.2 Specific provisions pertaining to SANS 1914-5

1.2.1 Definitions

Targeted labour: Unemployed persons who are employed as local labour on the project.

1.2.2 Contract participation goals

1.2.2.1 There is no specified contract participation goal for the contract. The contract participation goal shall be measured in the performance of the contract to enable the employment provided to targeted labour to be quantified.

1.2.2.2 The wages and allowances used to calculate the contract participation goal shall, with respect to both time-rated and task rated workers, comprise all wages paid and any training allowance paid in respect of agreed training programmes.

1.2.3 Terms and conditions for the engagement of targeted labour.

Further to the provisions of clause 3.3.2 of SANS 1914-5, written contracts shall be entered into with targeted labour.

1.2.4 Variations to SANS 1914-5

1.2.4.1 The definition for net amount shall be amended as follows: Financial value of the contract upon completion, exclusive of any value added tax or sales tax which the law requires the Employer to pay the contractor.

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

1.3 Training of targeted labour

1.3.1 The contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.

1.3.2 The cost of the formal training of targeted labour, will be funded by the provincial office of the Department of Labour. This training should take place as close to the project site as practically

possible. The contractor, must access this training by informing the relevant provincial office of the Department of Labour in writing, within 14 days of being awarded the contract, of the likely number of persons that will undergo training and when such training is required. The Employer must be furnished with a copy of this request.

- 1.3.3 A copy of this training request made by the contractor to the DOL provincial office must also be faxed to the EPWP Training Director in the Department of Public Works - Cinderella Makunike, Fax Number 012 328 6820 or email cinderella.makunike@dpw.gov.za Tel: 083 677 4026.
- 1.3.4 The contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he/she is employed for 4 months or more.
- 1.3.5 The contractors shall do nothing to dissuade targeted labour from participating in the above mentioned training programmes.
- 1.3.6 An allowance equal to 100% of the task rate or daily rate shall be paid by the contractor to workers who attend formal training, in terms of 1.3.4 above.
- 1.3.7 Proof of compliance with the requirements of 1.3.2 to 1.3.6 must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

C3.1.3.21 Environment and Safety

The Environmental Management Plan (EMP) for the site of the Works has been commissioned by the Client and will be issued to the Successful Contractor.

The Contractor shall comply with all the requirements laid down in the EMP. The Contractor shall take time to acquaint his employees with the provisions, regulations, duties, obligations and prohibitions, and shall accept sole liability for due compliance with the duties, obligations and prohibitions and absolve the Employer from being obliged to comply with the aforesaid duties, obligations and prohibitions.

In case of failure on the part of the Contractor to comply with the requirements of the EMP, the Employer shall be entitled to employ and pay other persons to carry out any remedial work to rectify any consequence resulting from the non-compliance by the Contractor and all cost consequent or incidental thereto shall be borne by the Contractor and shall be recoverable from him by the Employer. If it is not practical to rectify any consequence resulting from the non-compliance of the Contractor with the EMP the Employer will be entitled to impose a penalty on the Contractor which penalty shall be in relation to the expense which the Contractor would have incurred to comply.

The Contractor shall indemnify the Employer and the Employer's Agent against responsibility for damage to the environment on the site of the Works.

C3.1.3.22 Recording of Weather

The Employer's Agent shall adjudge the extent of the delays that are attributable to

“abnormal climatic conditions”, however, in order to assist him in this regard, the Contractor must erect a rain gauge at the site office to record rainfall figures. The reading of the rain gauge shall be made at 08h00 and 16h00 of each working day of the contract. The records shall be submitted weekly to the Employer’s Agent (the Employer’s Agent); together with a statement recording the Contractor’s opinion of the effect on his programme of any weather condition that he may consider to be abnormal.

C3.1.3.23 Extension of Time Resulting from Abnormal Rainfall

The critical-path method shall be used to for determining the extension of time resulting from abnormal rainfall.

A delay caused by inclement weather conditions will be regarded as delay only if, in the opinion of the Employer’s Agent, all progress on an item or items of work on the critical path of the working programme of the Contractor has been brought to a halt. Delays on working days only (based on five-day working week) will be taken into account for the extension of time, but the Contractor shall make provision in his programme of work for an expected of “10” working days caused by normal rain weather, for he will not receive any extension of time.

Extension of time during working days will be granted to the degree to which actual delays, as defined above, exceed the 10 working days.

C3.1.3.24 Blasting Indemnity

The Contractor may require to blast rock from time to time during the implementation of his construction works. The use of a certified Blasting Contractor as sub-contractor is paramount to the safety of the surrounding public, person and property. When blasting in the close proximity of fixed structures, the Contractor shall take full responsibility for any costs related to damage thereof. It is in this context that it is recommended for the Contractor to fully photograph and record structural damage, prior to blasting. The Contractor shall complete the “Blasting Indemnity included below, before the commencement of the Works.

The Contractor is responsible for compliance with all requirements of the authorities concerned with respect to the safety of the Works labourers and the public. Any negligence or non-compliance on the side of the Contractor shall be sufficient cause for the Employer’s Agent to suspend the Works and the Contractor shall have no claim for additional compensation against the Employer in such an event.

BLASTING INDEMNITY FORM

Contract No.

Given by

*Company Registration No.

Address

a *Company incorporated with limited liability according to the company laws of the Republic of South Africa, *Partnership, *Close Corporation, *Public Company (hereinafter called the Contractor), represented herein by in his capacity as the Contractor's.....duly authorised hereto by a resolution of the Contractor dated a certified copy of which resolution is attached to this Indemnity.

WHEREAS the Contractor has entered into a Contract with the Limpopo Department of Cooperative Governance, Human Settlements and Traditional Affairs (hereinafter called the Company) for,

and the Company requires this Indemnity from the Contractor

NOW THEREFORE THIS DEED WITNESSE that the Contractor does hereby indemnify and hold harmless the Company in respect of all loss or damage that may be incurred or sustained by the Company by reason of or in any way arising out of or caused by blasting operations that may be carried out by the Contractor in connection with the aforementioned Contract and also in respect of all claims that may be made against the Company in consequence of such blasting operations, by reason of or in any way arising out of any accidents or damage to persons, life or property or any other cause whatsoever, and also in respect of all legal or other expenses that may be incurred by the Company in examining, resisting or settling any such claims; for the due performance of which the Contractor binds itself according to law.

THUS DONE AND SIGNED for and on behalf of the Contractor aton the
..... day of 20..... in the presence of the subscribing
witnesses.

AS WITNESSES

SIGNATURE

DESIGNATION OF SIGNATORY

BUILDING WORKS SPECIFICATIONS

C3.2.1 APPLICATION

This specification specifies the materials and methods to be used in Building Works including that Architectural work to be done on the new filters and settling tanks. This technical specification forms an integral part of the contract document and therefore shall be read in conjunction with the Bills of Quantities and Drawings.

C3.2.2 SPECIFICATIONS

The Tzaneen Local Municipality Municipal Bye-laws, Mopani District Municipality Bye-laws will apply to all works on this project.

The National Building Regulations and Building Standards Act (Act no. 103 of 1977) as amended shall apply. The SANS 10400, The Application of National Building Regulations shall also apply.

C3.2.3 PARTICULAR SCOPE FOR ARCHITECTURAL WORKS

This particular scope of Architectural Works must be read in conjunction with drawings.

C3.3 ENGINEERING

C3.3.1 DESIGN

Guidelines for Human Settlement Planning and Design (“Red Book”) as well as the Design Criteria proposed in Chapter 5 of the Technical Guidelines for the development of Water and Sanitation Infrastructure, second edition 2004 of DWAF (Now known as DWS). The Employer is responsible for the design of the permanent Works as reflected in the Contract Documents unless otherwise stated.

The Contractor is responsible for the design of the temporary Works and their compatibility with the permanent Works. The Contractor shall supply all details necessary to assist the Engineer in the compilation of the as-built drawings.

C3.3.2 DRAWINGS

- a) The Contractor shall use only the dimensions stated in figures on the Drawings in setting out the Works, and dimensions shall not be scaled from the Drawings unless required by the Engineer. The Engineer will, on the request of the Contractor in accordance with the provisions of the Conditions of Contract, provide such dimensions as may have been omitted from the Drawings.
- b) The Contractor shall ensure that accurate as-built records are kept of all infrastructure installed or relocated during the contract. The position of pipe bends, junction boxes, duct ends, and all other underground infrastructure shall be given by either co-ordinates or stake value and offset. Where necessary, levels shall also be given. A marked-up set of drawings shall also be kept and updated by the Contractor. This information shall be supplied to the Engineer's Representative as and when required.
- c) All information in possession of the Contractor, required by the Engineer and/or the Engineer's Representative to complete the as built/record drawings, must be submitted before a Certificate of Completion will be issued.
- d) The drawings issued to the bidder(s) as part of the tender document must be regarded as provisional and preliminary for the bidder(s) benefit to generally assess the scope of work.

The drawings are included as part of this document.

- e) The work shall be carried out in accordance with the latest available revised drawings approved for construction (AFC).

- f) At the commencement of the contract, the Engineer shall deliver to the Contractor copies of the AFC drawings and any instructions required for the commencement of the works. From time to time thereafter during the progress of the works, the Engineer may issue further drawings for construction purposes as may be necessary for adequate construction, completion and defects correction of the works.
- g) Drawings issued separately will be listed in the Book of Drawings, where applicable. Drawings issued as part of this tender document are listed hereafter.
- h) The contractor shall keep a signed record of all drawings received as and when received, and this should also be noted in the daily diary.
- i) All drawings and specifications, and copies thereof remain the property of the Employer, and the Contractor shall return all drawings and copies thereof to the Employer at the completion of the contract.

Table: The book of drawings schedule

DRAWING NO	Revision	TITLE
CGSTA-RP-NB-01	0	PROJECT NAME BOARD
CGSTA-SDP-ARC-CB-01	0	ERF 146 SITE DEVELOPMENT PLAN
AES-COGHSTA-TCRU-C-103	0	ERF 146 EARTHWORKS LAYOUT
AES-COGHSTA-TCRU-C-202	0	ERF 146 ROAD & SW LAYOUT
AES-COGHSTA-TCRU-C-210	0	MAIN ROAD & STORM WATER LAYOUT
AES-COGHSTA-TCRU-C-206	0	ERF 146 ROAD LONGSECTION
AES-COGHSTA-TCRU-C-209	0	ERF 146 ROAD LONGSECTION
AES-COGHSTA-TCRU-C-210	0	PAVING AND CATCHPIT DETAILS
AES-COGHSTA-TCRU-C-212	0	INLET DETAILS
AES-COGHSTA-TCRU-C-213	0	HEADWALL DETAILS
AES-COGHSTA-TCRU-C-214	0	ERF 146 ROAD CROSS SECTIONS SHEET 1 OF 2
AES-COGHSTA-TCRU-C408	0	MANHOLE DETAILS

AES-COGHSTA-TCRU-C-215	0	ERF 146 ROAD CROSS SECTIONS SHEET 2 OF 2
AES-COGHSTA-TCRU-C-302	0	ERF 146 WATER LAYOUT
AES-COGHSTA-TCRU-C306	0	ERF 146 WATER PIPE LONGSECTIONS
AES-COGHSTA-TCRU-C308	0	TALANA BULK WATER SUPPLY LINE
AES-COGHSTA-TCRU-C-402	0	ERF 146 SEWER LAYOUT
AES-COGHSTA-TCRU-C-403	0	ERF 147 & 148 SEWER LAYOUT
AES-COGHSTA-TCRU-C-405	0	ERF 146 SEWER LONGSECTIONS
AES-COGHSTA-TCRU-C-406	0	ERF 147 & OUTFALL SEWER LONGSECTION
AES-COGHSTA-TCRU-C-407	0	ERF 148 SEWER LONGSECTIONS

C3.3.4 PROCUREMENT

C3.3.4.1 PREFERENTIAL PROCUREMENT

C3.3.4.2 Requirements

- Acceptable bids will be evaluated by using a system that awards points based on 80 points for the bid price and 20 points for the for Specific Goals.

C3.3.4.3 Resource Standard Pertaining to Targeted Procurement.

- *Not Applicable*

C3.3.5 SUBCONTRACTING

C3.3.5.1 Scope of Mandatory Subcontract Works

The successful contractor shall:

- Subcontract a **minimum of 5%** of the total project value to targeted enterprises
- develop the targeted enterprise/s in two development areas as specified in the Standard, and agreed by both the main contractor and the targeted enterprise/s
- perform needs analysis on the targeted enterprise to identify developmental goals;
- provide internal mentorship support to improve the targeted enterprise/s performance;

- develop a project specific enterprise development plan to improve the targeted enterprise/s performance in the identified developmental areas;
- monitor and report the progress of the agreed development areas with the targeted enterprise/s and
- submit a project completion report to the Employer's representative for each targeted enterprise

C3.3.5.2 Targeted Enterprise(s)/(Subcontractors)

- The Contractor shall be responsible for all work carried out by subcontractors on their behalf.
- The Engineer will not liaise directly with any such sub-contractor, nor will they become involved in any issue and/or disputes related to payments, programming, workmanship, etc, unless provided for in the Conditions of Contract.
- Such issues and/or disputes shall remain the sole concern of the Contractor and his subcontractors.

C3.3.5.3 Subcontracting Procedures

- The Engineer may at his discretion, upon receipt of a written and fully motivated application from the Contractor, and where he deems the circumstances so warrant, and provided always that the Contractor has complied fully and in all respects with the provisions of the Contract pertaining to subletting to local sub-contractors or has utilised his best endeavours to comply therewith, authorise in writing that the Contractor may employ local residents in terms of clause C3.3.1.1 with the sole intent of executing on-the-job training of such local residents to suitable levels of skill that will enable the Contractor to sub-let appropriate portions of the Works as specified in clause C3.3.1.1 to such local residents.

Without limiting the generality of application of this sub-clause, circumstances which may be considered by the Engineer to warrant such authorization include:

- a) non-receipt of valid or acceptable tenders/quotations from local sub-contractors;
- b) serious default or failure of appointed local sub-contractors.

The Engineer shall not grant such authority in cases where it may reasonably be concluded on the available evidence that the invitation of further tenders/quotations in accordance with the terms of the Contract, is likely to result in the successful completion of the portions of the Works concerned by local sub-contractors.

Should the Contractor, after suitable due endeavours, be unable to identify local residents suitable for and desiring to train as sub-contractors for portions of the Works as specified in clause C3.3.2.1, then the Contractor shall be permitted to undertake the Works in question with his own workforce as provided for in clause C3.3.1.1 above.

The Engineer shall monitor progress achieved with subcontractor training, and successful completion of this training shall be subject to his approval or instruction. The Contractor shall tender rates for the training of sub-contractors and labour.

C3.3.5.4 Attendance on Subcontractors

The Contractor shall approach the Labour Desk that is established for the purposes of the Contract for assistance and advice regarding conditions of employment, minimum wages, disputes and disciplinary procedures in respect of local sub-contractors.

C3.4 CONSTRUCTION

C3.4.1 WORKS SPECIFICATIONS

C3.4.1.1 Applicable SABS 1200 Standardized Specifications

The standard specifications on which this contract is based are the **South African Bureau of Standards Standardized Specifications for Civil Engineering Construction SABS 1200, also referred to as SANS 1200.**

Although not bound in nor issued with this Document, the following Sections of the Standardized Specifications of SABS 1200, but not limited to, shall form part of this Contract:

SABS 1200 A:	GENERAL
SABS 1200 AB:	ENGINEER'S OFFICE
SABS 1200 C:	SITE CLEARANCE
SABS 1200 DB:	EARTHWORKS (PIPE TRENCHES)
SABS 1200 DK:	GABIONS AND PITCHING
SABS 1200 DM:	EARTHWORKS (ROADS, SUBGRADE)
SABS 1200 GA:	CONCRETE (STRUCTURAL)
SABS 1200 LB:	BEDDING (PIPES)
SABS 1200 LD:	SEWERS
SABS 1200 LE:	STORMWATER DRAINAGE

The following SANS specifications are also referred to in this document and the Contractor is advised to obtain them from Standards South Africa (a division of SABS) in Pretoria.

SANS 10396: 2003	:	Implementing Preferential Construction Procurement Policies using Targeted Procurement Procedures
SANS 1914-1 to 6 (2002)	:	Targeted Construction Procurement
SANS 1921 – 1 (2004)	:	Construction and Management Requirements for
		Works Contracts Part 1: General Engineering and Construction Works and where accommodation of traffic is involved:
SANS 1921-2 (2004)	:	Construction and Management Requirements for
		Works Contracts; and Part 2: Accommodation of Traffic on Public Roads Occupied by the Contractor.

SANS 10409 (2005) : Design, selection and Installation of geomembranes.

C3.4.1.2 Particular Specifications

The Project Specification, consisting of two parts, forms an integral part of the contract and supplements the Standard Specifications.

Part A contains a general description of the works, the site and the requirements to be met.

Part B contains variations, amendments and additions to the Standardized Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

The standard specifications which form part of this contract have been written to cover all phases of work normally required for the construction of water systems.

C3.4.1.3 Variations and Additions to the SABS 1200 Standardized Specifications

Variations and additions to the following SABS 1200 Standardized Specifications listed in C3.4.1 are given in section C3.4.6.

C3.4.2 SITE ESTABLISHMENT

C3.4.2.1 Services and facilities provided by the Employer

(a) Water sources

There is no reticulated water supply available in close proximity to the Site.

The Contractor shall, in accordance with the provisions of subclause C3.4.2.2(b), and at his own cost, make all arrangements necessary for the supply and distribution of water required for construction purposes as well as for use in and about his site establishment and for human consumption.

(b) Electricity supply

There is no reticulated electrical power supply available in close proximity to the Site.

The Contractor shall, in accordance with the provisions of subclause C3.4.2.2(c), and at his own cost, make all arrangements necessary for the supply and distribution of electrical power required for construction purposes as well as for use in and about his site establishment.

The Contractor shall comply with all prevailing legislation in respect of the generation and distribution of electricity and shall, when required by the Engineer, produce proof of such compliance.

(c) Excrement disposal

No water-borne sewage or other off-site excrement disposal systems are available in the vicinity of the Site.

(d) Area for contractor's site establishment (Example only)

A specific area in close proximity to or on the Site of the Works will be made available by the Employer to the Contractor for the Contractor's site establishment. The specific area for the Contractor's site establishment will be identified to the Contractor by the Engineer and the Contractor shall have sole use of such area, free of charge, for the duration of the Contract. The Contractor shall use this area only for the purposes of erecting his site offices, workshops, stores and other facilities required for the execution of the Contract. The Contractor shall not use the area nor allow it to be used for any purposes not directly associated with the execution of the Contract.

The Contractor shall be responsible for arranging, at his own cost, for the provision of all services he may require in the area, as well as elsewhere on the Site.

Should the Contractor deem the area made available by the Employer to be inadequate or unsuitable for the Contractor's particular needs, then the Contractor shall be at liberty to make his own arrangements with the owners of other sites which he considers are better suited to his needs; provided always that the use by the Contractor of any area other than that made available to him by the Employer shall be subject to the prior written approval of the Engineer, which approval shall not be unreasonably withheld; and provided further that the Contractor shall have no claim against the Employer in respect of any costs incurred by him, either directly or indirectly in consequence of utilising any area other than that made available to him by the Employer, and which costs exceed those costs allowed for by the Contractor in his Bid.

C3.4.2.2 Contractor's campsite and depot (*Read with SANS 1921 - 1: 2004 clause 4.14*)

The Contractor's office for this contract shall be as required to fulfil his obligations under the Contract. The Contractor is responsible for providing a suitable site for his camp and for providing accommodation for his personnel and labourers. If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor.

- Contractor's campsite/store yard

The contractor may erect his site offices and storage depot within the boundaries of the area indicated by the Engineer. The contractor shall submit a general layout drawing to a scale of not less than 1:200 to the Engineer for approval before any work on the camp or offices is commenced. No housing is available, and the Contractor shall make his own arrangements to house his employees and transport them to and from the site. The Contractor shall use this area only for the purposes of erecting his site offices, workshops, stores and other facilities required for the execution of the Contract. The Contractor shall not use the area nor allow it to be used for any purposes not directly associated with the execution of the Contract. The Contractor shall be responsible for arranging, at his own cost, for the provision of all services he may require in the area, as well as elsewhere on the Site. Should the Contractor deem the area made available by the Employer to be inadequate or unsuitable for the Contractor's particular needs, then the Contractor shall be at liberty to make his own arrangements with the owners of other sites which he considers are better suited to his needs; provided always that the use by the Contractor of any area other than that made available to him by the Employer shall be subject to the prior written permission of the landowner and approval of the Engineer, which approval shall not be unreasonably withheld; and provided further that the Contractor shall have no claim against the Employer in respect of any costs incurred by him, either directly or indirectly in consequence of utilising any area other than that made available to him by the Employer, and which costs exceed those costs allowed for by the Contractor in his Tender. All buildings erected must be to the size as approved by the Engineer. The parking of plant is restricted to these areas.

Any clearing of the site that is necessary and the making good after de-establishment will be the responsibility of the Contractor.

In addition to the requirements of SABS 1200A clause 8.3.2.2, the following conditions shall also apply:

- i. None of the existing roads shall be damaged in any way.
- ii. The Contractor is to make his own arrangements for a water supply to the works and pay all installation and consumption charges levied by the Local Authority.

- iii. The Contractor is to make his own arrangements for electrical power. Site office and lighting are available from the on-site DB and the Contractor is responsible for installation and consumption charges levied by the Local Authority.
- iv. It shall be the responsibility of the Contractor to make good any damage caused to the campsite area or any improvements on it, including services, and for reinstating it to its former condition when vacated. The standard of reinstatement must be to the satisfaction of the Engineer.
- v. The Contractor shall be responsible for providing adequate storage, collection and disposal of refuse, all in a sanitary manner.
- vi. The Contractor shall construct a sealed bund wall around their diesel tanks. The bund wall shall be of such capacity that the contents of the tanks shall be contained within the bund wall in the event of an accident. The inside of the bund wall shall be painted with a bituminous sealant and the entire system must be constructed to the Engineer's satisfaction.
- vii. The Contractor shall provide a suitably screened-off shower area within his campsite.

Within the confines of the project location, all indigenous wildlife, trees shrubs etc. are to be protected at all times and are not to be disturbed, removed or killed.

- The Contractor must note that other Contractors, Subcontractors and specialised Subcontractors, including those who will construct specifically the geomembrane liner, will be working on or adjacent to the site of the Works during the currency of the Contract.

C3.4.2.3 Facilities Provided by the Contractor

(a) Facilities for the Engineer

The Contractor shall provide on the Site, for the duration of the Contract and for the exclusive use of the Engineer and/or his Representative (as applicable), the various facilities described hereunder. All such facilities shall be provided promptly on the commencement of the Contract and failure on the part of the Contractor to provide any facility required in terms of this specification shall constitute grounds for the Engineer to withhold payment of the Contractor's bidded Preliminary and General items until the facility has been provided or restored as the case may be.

(i) Office accommodation

The Contractor shall provide on the Site 1 x office for the exclusive use of the Engineer. Such office(s) shall comply with and be furnished in accordance with the requirements of subclause PSAB3.2 of SABS 1200 AB. The Contractor shall maintain the office(s) in accordance with the requirements of subclause 5.2 of SABS 1200 AB. Such office accommodation shall be provided within the Contractor's site establishment facilities.

Such office accommodation shall be provided within the Contractor's site establishment facilities.

(ii) Carports

The Contractor shall provide on Site 2 x carports for the exclusive use of the Engineer, in accordance with the requirements of subclause PSAB 3.2.

(iii) Site meeting venue

The Contractor shall provide within his own site establishment facilities, a suitably furnished office or other venue capable of comfortably accommodating a minimum of **twenty** (20) persons at site meetings. The Engineer shall be allowed free use of such venue for conducting any other meetings concerning the Contract at all reasonable times.

(iv) Notice Board

The typical notice board with the following requirements shall apply with regards to the notice board:

The wording in the space for "Name of Contract" shall be Construction of Community Residential Units (Top Structure) And Installation Of Engineering Services At Talana Hostel In Greater Tzaneen Municipality Within Mopani District Municipality"

The word to follow "Designed" shall be: "**Rhandzo Projects (Pty) Ltd**)"

(v) Survey equipment and assistant

- Survey Equipment

The Contractor shall, in accordance with the requirements of SABS 1200 AB (as amended) provide the following survey equipment for the exclusive use of the Engineer and his staff:

- 1 upright reading automatic level with tripod.
- 1 levelling staff with protective cover bag.
- 1 x 100 metre Stilton tape measure and measuring wheel.

- Survey assistants.

The Contractor shall, in accordance with the requirements of subclause 5.5 of SABS 1200 AB, make available to the Engineer, two (2) survey assistants. Where required by the Engineer, the Contractor shall at his own cost, promptly arrange for the recalibration of survey equipment provided.

(vi) Telephone facilities

The Contractor will be required to supply the Resident Engineer with reliable internet, Wi-Fi or LTE for the duration of the Contract. The Contractor shall be responsible for the cost of all calls, installation, rental, supplies, maintenance, etc.

The Contractor will not be required to supply the Engineer with any mobile device phone but the Contractor will be required to pay for all calls made from his phone pertaining to

this Project up to a maximum amount of R2000.00 per month as soon as the contract has commenced.

(vii) Computer facilities

The Contractor shall provide the following computer facilities together with the specified software installed, for the exclusive use of the Engineer and his staff, in accordance with the requirements of SABS 1200 AB (as amended):

- 1 x A3 colour printer.

Printers shall, unless otherwise approved by the Engineer, be an A4 colour printer or equivalent compatible.

All computer hardware shall be provided complete with the requisite connecting cables and all interfacing devices and software necessary for its efficient operation as an integral system.

The Contractor shall further provide at his own cost, all paper and ink cartridges and other consumables reasonably required by the Engineer.

(i) Electricity supply for the Engineer

All electricity supply to the Engineer's office(s) and laboratory (if applicable), whether provided by the Contractor by way of a reticulated supply from a local authority or other authorised electricity supply, or by way of on-site generators, shall be regulated by the Contractor to within limits such as to prevent damage due to fluctuations in the electrical current supply that may occur to any electrical plant and equipment provided by the Contractor or the Engineer.

The Contractor shall be liable for and pay to the Engineer on demand, all costs that the Engineer may incur in the repair or replacement of any electrical equipment provided by the Engineer on the Site. Reliance by the Contractor on the regulation of the electrical supply by the supplier or on current regulators fitted to generators shall not absolve the Contractor of his liabilities in terms of this Subclause and, where appropriate, the Contractor shall provide and install at his own cost, all such electrical current-regulating equipment as is necessary to prevent damage to the said equipment.

(ix) Site instruction book

The Contractor shall supply a triplicate book for site correspondence and inspection requests to the Engineer. Reasonable notice shall be allowed prior to inspections. All inspections requests and approval/disapproval thereof shall be recorded by the Site staff in writing. All requests must be signed and dated by the Engineer before implementation.

The Contractor must ensure that a suitable site quality record system is put in place subject to approval by the Engineer to record that each section, or work item, complies

with the relative works specification. Failure to update or provide sufficient records may result of a 10% interim payment reduction being withheld.

(b) Accommodation of Employees

No employees except for security guards will be allowed to sleep or be accommodated on the site. No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to the site.

No informal housing or squatting will be allowed.

The Contractor shall provide the necessary ablution facilities at his camp site and the site of the works for the use of his employees. Chemical toilets only will be allowed where temporary facilities have to be provided.

(c) Accommodation of Other Contractors

The Contractor shall be required to accommodate other contractors on the Site of the Works during the Contract period. Adequate access to the site of their works shall be given to the above-stated contractors at all times.

No direct payment will be made for the cost of providing adequate access and accommodating the stated contractors on the Site of the Works, as well as the cost of any inconvenience or disruption experienced in attending to the aforementioned. Payment shall be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract.

(d) Water

The Contractor shall, at his own expense, be responsible for obtaining and providing all water as may be required for the purposes of executing the Contract, including water for both construction purposes and domestic use, as well as for making all arrangements in connection therewith. The Contractor shall further, at his own expense, be responsible for providing all necessities for procuring, storing, transporting and applying water required for the execution of the Contract, including but not limited to all piping, valves, tanks, pumps, meters and other plant and equipment, as well as for all work and superintendence associated therewith.

The sources of all water utilised for the purposes of the Contract shall be subject to the prior approval of the Engineer, which approval shall not be unreasonably withheld.

The Contractor shall comply with all prevailing legislation in respect of drawing water from natural and other sources and shall when required by the Engineer, produce proof of such compliance. The distribution of water shall be carried out by the Contractor strictly in accordance with the applicable laws and regulations.

All water provided by the Contractor for construction purposes shall be clean, free from undesirable concentrations of deleterious salts and other materials and shall comply with any further relevant specifications of the Contract. The Contractor shall, whenever reasonably required by the Engineer, produce test results demonstrating such compliance. Water provided by the Contractor for human consumption shall be healthy and potable to the satisfaction of the health authorities in the area of the Site.

No separate payment will be made to the Contractor for the obtainment, providing and consumption of water, the costs of which will be deemed to be included in the Contractor's bidden rates.

(e) Electricity

The Contractor shall, at his own expense, be responsible for obtaining and providing all electricity as he may require for the purposes of executing the Contract, including electricity for both construction purposes and domestic use as well as for making all arrangements in connection therewith.

The distribution of electricity shall be carried out by the Contractor strictly in accordance with the applicable laws and regulations.

No separate payment will be made to the Contractor for the obtainment, providing and consumption of electricity, the costs of which will be deemed to be in the Contractor's bidden rates and prices.

(f) Excrement disposal

The Contractor shall, at his own expense, be responsible for safely and hygienically dealing with and disposing of all human excrement and similar matter generated on the Site during the course of the Contract, to the satisfaction of the responsible health authorities in the area of the Site and the Engineer. All such excrement shall be removed from the Site and shall not be disposed of by the Contractor on the Site.

The Contractor shall further comply with any other requirements in this regard as may be stated in the Contract.

No separate payment will be made to the Contractor in respect of discharging his obligations in terms of this subclause and the costs thereof shall be deemed to be included within the Contractor's bidden Preliminary and General items.

C3.4.2.4 Permits and Wayleaves

The Contractor shall be responsible for obtaining all the wayleave required under this Contract. The cost of obtaining wayleaves shall be deemed included in the relevant rates, and no additional payment will be made for the wayleaves as required.

C3.4.2.5 Features requiring special attention.

(a) Site maintenance

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

(b) Tidying Up of works

The Contractor shall take note that progressive and systematic finishing and tidying will form an essential part of this contract. On no account shall spoil, rubble, materials, equipment or unfinished operations be allowed to accumulate in such a manner as to unnecessarily be a hindrance to or impede the activities of other contractors or service providers or landfill operations. In the event of this occurring, the Employer shall have the right to withhold payment for as long as may be necessary in respect of the relevant works in the area(s) concerned. Upon completion of the Works or any portion thereof, the ground, fences, gates and any structures that have been interfered with are to be carefully restored to their original condition and all rubbish, tools, tackle, plant and material must be removed so as to leave the site in a clean and orderly condition. No additional payment shall be made for the work set out above.

(c) Quality Assurance (QA), Quality Control and Quality Plan

(Read with SANS 1921 – 1: 2004 clause 4.4)

The Onus to produce work that conforms in quality and accuracy of detail to the requirements of the Specifications to the satisfaction of the Engineer and Drawings rests with the Contractor, and the Contractor shall at his own expense, institute an appropriate Quality Assurance (QA) and quality control system on site provide experienced engineers, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment to ensure adequate supervision and positive control of his own workmanship quality in accordance with his QA-system at all times. His attention is drawn to the fact that it is not the duty of the Engineer or the Engineer's representative to act as foreman or surveyor.

The cost of supervision and process control, including testing carried out by the Contractor, will be deemed to be included in the rates tendered for the related items of work.

Within one week of the award of the Contract the Contractor shall furnish the Engineer with a comprehensive Quality Assurance (QA) and Quality Plan that incorporates all the requirements of the document comprising the contract, for his own quality management as well as describing the quality control process that will provide for regular inspection and signing off of work by the Engineer.

The Project Quality Plan Shall be subject to the Engineers approval.

The Engineer will audit the Contractor's quality assurance (QA) system on a regular basis to verify that adequate independent checks and tests are being carried out and to ensure

that the Contractor's own control is sufficient to identify any possible quality problems which could cause a delay or failure.

The Contractor's Quality Assurance (QA) and Project Quality Plan for the Contract shall indicate how the Contractor's Quality System shall apply to the specific requirements of the contract. It shall clearly indicate by way of written method statements; descriptions; quality management objectives; policies; schedules; flow diagrams; Product/Process Inspection & Test Plans (ITP); procedures and work instructions that demonstrate the Contractor's implementation of the requirements.

On completion and submission of every part of the work to the Engineer for examination and measurement, the Contractor shall furnish the Engineer with the results of the relevant tests, measurements and levels to demonstrate the achievement of compliance with the Specifications.

This will particularly apply to aspects of the works that will be covered such as checking of the stormwater drain gradients, compaction of material, checking of reinforcement, vibrating of the concrete and other embodied items before placing of concrete.

(d) Testing (*Read with SANS 1921 – 1: 2004 clause 4.11*)

(i) Process control

The Contractor shall arrange for all tests required for process control to be done by a laboratory acceptable to and approved by the Engineer.

The Contractor may establish his own laboratory on site or he may employ the services of an independent commercial laboratory. Whatever method is used, the Contractor must submit the results of tests carried out on materials and workmanship when submitting work for acceptance by the Engineer. The costs for these tests shall be deemed to be included in the relevant rates and no additional payment will be made for testing as required.

The tendered rate for all earthworks, layer works, concrete works and liner works shall cover the cost of site process control testing to ensure the standards specified are met, as well as the provision of all staff and equipment.

(ii) Acceptance control

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Engineer for acceptance control. However, before accepting any work, the Engineer may have further control tests carried out by a laboratory of his choice. The cost of such additional tests will be covered by a provisional sum provided in the Bill of Quantities, but tests that failed to confirm compliance with the specifications will be for the account of the Contractor.

(iii) Additional testing required by the Engineer

In addition to the provisions of subclause C3.4.2.5(d)(i): Contractor to engage services of an independent laboratory, the Engineer shall be entitled at times during the Contract to require that the Contractor arrange with the independent laboratory to carry out any such

tests, additional to those described in subclause C3.4.2.5(d)(i), at such times and at such locations in the Works as the Engineer shall prescribe. The Contractor shall promptly and without delay arrange with the independent laboratory to carry out all such additional testing as required by the Engineer, and copies of the test results shall be promptly submitted to the Engineer.

(iv) Costs of testing

➤ Tests in terms of subclause C3.4.2.5(d)(i)

The costs of all testing carried out by the independent laboratory in accordance with the requirements of subclause C3.4.2.5(d)(i), above shall be borne by the Contractor and shall be deemed to be included in the bidded rates and prices for the respective items of work as listed in the Schedule of Quantities and which require testing in terms of the Specifications. No separate payments will be made by the Employer to the Contractor in respect of any testing carried out in terms of subclause C3.4.2.5(d)(i).

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

(e) Management and disposal of water

(Read with SANS 1921 - 1: 2004 clause 4.6)

The Contractor shall pay special attention to the management and disposal of water and stormwater on the site. It is essential that all completed works or parts thereof are kept dry and properly drained. Claims for delay and for repair of damage caused to the works as a result of the Contractor's failure to properly manage rain and surface water will not be considered.

The contractor shall be responsible for the handling of all surface and sub-surface water in such a way that the construction can proceed with minimum risk and at no time shall overland flows be blocked.

If concentrated flows are blocked a method statement should be provided, and is subject to approval by the Engineer.

The Contractor shall to this end divert flow around the working areas if and where necessary. The Contractor shall also take particular to ensure the safety of the works against damage by water.

The current drains are operational and are conveying water through them.

The contractor shall apply suitable, effective dewatering methods to prevent the ingress of water into the excavations and to keep them dry.

Drainage measures, with the exception of pumping, shall be maintained until the backfilling and concreting of the drains have been completed between the various construction stages.

Any draining and or pumping of water shall be done in a manner that will protect the concrete drain or materials or any part thereof from being carried away.

No Separate payment

Tender rates should also include full compensation for trimming the open drains

The cost of supplying and operating for dewatering and operating the equipment for dewatering all excavations, existing stormwater drains and controlling concentrated and surface flow and sub-surface water on all works will be held to be included in the tendered sum under section PSDM 8.3.4 and 8.3.7 of this document.

(f) Survey beacons *(Read with SANS 1921 - 1: 2004 clause 4.15)*

The Contractor shall be responsible for the preservation of all land surveys, erf or other pegs, benchmarks and beacons. If damage or disturbance of any such pegs or beacons is caused by the operations of the Contractor or his subcontractors the pegs are to be replaced by a Registered Land Surveyor at the cost of the Contractor. Benchmarks will be replaced by the Engineer at the Contractor's expense.

Information regarding the position of all such pegs will be made available to the Contractor by the Engineer on request.

The Contractor is to ensure that no spoil is placed over an erf peg or benchmarks and that these are adequately protected for the full duration of the Contract. Where disturbances of boundary pegs are unavoidable due to excavation or other operations adjacent to the pegs, the Contractor shall advise the Engineer or his Representative immediately, and an agreement is to be reached that the disturbance of the peg is unavoidable and a strict record of such disturbed pegs is to be kept. Such pegs are to be replaced by a Registered Land Surveyor as described above and the Contractor is to submit proof of the cost of replacement of pegs. The Contractor will be reimbursed on a basis pro-rata to the total cost of peg replacement determined on completion of the Works.

(g) Existing Services *(Read with SANS 1921 - 1: 2004 clause 4.17)*

The Contractor shall make himself acquainted with the position of all existing services before any excavation or other work likely to affect the existing services is commenced.

The Contractor will be held responsible for any damage to known existing services caused by or arising out of his operations and any damage shall be made good at his own expense. Damage to unknown services shall be repaired as soon as possible and liability shall be determined on site when such damage should occur.

The Contractor will comply with the conditions for dealing with existing services as attached in C3.3, *Particular Specifications* and approach the relevant authorities for additional information where applicable.

(h) Existing Services (*Read with SANS 1921 - 1: 2004 clause 4.19*)

The Contractor shall pay special attention to the following:

(i) Natural Vegetation

The Contractor shall confine his operation to as small an area of the site as may be practical for the purpose of constructing the works.

Only those trees and shrubs directly affected by the works and such others as the Engineer may direct in writing shall be cut down and stumped. The natural vegetation, grassing and other plants shall not be disturbed other than in areas where it is essential for the execution of the work or were directed by the Engineer.

(ii) Fires

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of a fire, the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

(i) Overhaul

No payment whatsoever will be made for overhaul on this contract whether from commercial sources or off-site or within the site environs. No mass-hauled diagrams will be produced.

(j) Security

The Contractor shall provide security watchmen for the contract as he deems fit at no extra cost for the Employer. The Contractor must ensure that all his employees as well as the employees of his subcontractors can identify themselves as members of the *construction team*.

(k) Subcontractors

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

The Engineer will not liaise directly with any subcontractors nor will he issue instructions concerning the subcontract works directly to any subcontractor.

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

(l) Access to properties

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

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

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

(m) Site Diary

A site diary in triplicate format, which shall be supplied by the contractor must be filled in on a daily basis and submitted to the Engineer on a daily basis. No claims will be considered without the site diary's schedules properly completed and submitted.

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

Contractor having a CIDB contractor grading designation of 7CE and higher shall only engage supervisory and management staff in labour intensive works who have either completed, or for the period 1 April 2004 to 30 June 2006, are registered for training towards, the skills programme outlined in Table 1.

The managing principal of the contractor, namely, a sole proprietor, the senior partner, the managing director or managing member of a close corporation, as relevant, having a contractor grading designation of 1CE, 2CE, 3CE and 4CE shall have personally completed, or for the period 1 April 2004 to 30 June 2006 be registered on a skills programme for the NQF level 2. All other site supervisory staff in the employ of such contractors must have completed, or for the period 1 April 2004 to 30 June 2006 be registered on a skills programme, for the NQF level 2 unit standards or NQF level 4 unit standards.

Table 1: Skills programme for supervisory and management staff

Personnel	NQF level	Unit standard titles	Skills programme description
Team leader/supervisor	2	Apply Labour-intensive Construction Systems and Techniques to Work Activities	This unit standard must be completed, and
		Use Labour-intensive Construction Methods to Construct and Maintain roads and Stormwater Drainage	one of these 3 unit standards be used
		Use Labour -intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour-intensive Construction methods to Construct, Repair and Maintain Structures	
Foreman/supervisor	4	Implement Labour-intensive Construction systems and Techniques	This unit standard must be completed, and
		Use Labour-intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage	any one of these 3 unit standards be used
		Use Labour-intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour-Intensive Construction Methods to Construct, Repair and Maintain Structures	
Site Agent / Manager (i.e. the contractor's most senior representative who is resident on the site)	6	Manage Labour-intensive Construction Processes	Skills Programme against this single unit standard

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

- i. Requirements for the sourcing and engagement of labour

- ii. Unskilled and semi-skilled labour required for the execution of all labour-intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.
- iii. The rate of pay set for the EPWP is R 248.22 per day, Task rates are to be determined at a later stage.

Note to Compiler: Insert value determined by a public body per clause 2.2 of the Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP), which is repeated here for ease of use.

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

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

- 10.4.1 *The rate set should take into account wages paid for comparable unskilled work in the local area per sector, if necessary.*
- 10.4.2 *The rate should be an appropriate wage to offer an incentive for work, to reward the effort provided and to ensure a reasonable quality of work. It should not be more than the average local rate to ensure people are not recruited away from other employment and jobs with longer-term prospects.*
- 10.4.3 *Men, women, youth, disabled persons and the aged must receive the same pay for work of equal value."*
 - (3) Tasks established by the contractor must be such that:
 - (aa) the average worker completes 5 tasks per week in 40 hours or less; and (bb) the weakest worker completes 5 tasks per week in 55 hours or less.
 - (4) The Contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 1.1.3.
 - (5) The Contractor shall, through all available community structures, inform the local community of the labour-intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and/or who come from households:
 - (aa) where the head of the household has less than a primary school education.
 - (bb) that have less than one full-time person earning an income.
 - (cc) where subsistence agriculture is the source of income.
 - (dd) those who are not in receipt of any social security pension income.
 - (6) The contractor must provide monthly statistics to the CoGHSTA indicating the number of new jobs created through this contract. This statistic must be provided with each monthly payment certificate using the CoGHSTA's prescribed format, which will be provided by the Project Manager of this project to the successful bidder. **Failure to provide the required statistics Council may withhold payment.**

- i. Specific provisions pertaining to SANS 1914-5

(1) Definition

Targeted labour: Unemployed persons who are employed as local labour on the project.

(2) Contract participation goals

(aa) There is no specified contract participation goal for the contract. The contract participation goal shall be measured in the performance of the contract to enable the employment provided to targeted labour to be quantified.

(bb) The wages and allowances used to calculate the contract participation goal shall, with respect to both time-rated and task-rated workers, comprise all wages paid and any training allowance paid in respect of agreed training programmes.

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

Further to the provisions of clause 3.3.2 of SANS 1914-5, written contracts shall be entered into with targeted labour.

(4) Variations to SANS 1914-5

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

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

ii) Training of targeted labour

(1) The Contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.

(2) The cost of the formal training of targeted labour, will be funded by the provincial office of the Department of Labour. This training will take place as close to the project site as practically possible. The Contractor must access this training by informing the relevant provincial office of the Department of Labour in writing, within 14 days of being awarded the contract, of the likely number of persons that will undergo training and when such training is required. The Employer must be furnished with a copy of this request.

- (3) A copy of this training request made by the contractor to the DOL provincial office must also be faxed to the EPWP Training Director in the Department of Public Works.
- (4) The contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he/she is employed for 4 months or more.
- (5) The Contractor shall do nothing to dissuade targeted labour from participating in training programmes.
- (6) An allowance equal to 100% of the task rate or daily rate shall be paid by the Contractor to workers who attend formal training, in terms of 1.3.4 above.
- (7) Proof of compliance with the requirements of 1.3.2 to 1.3.6 must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

(p) Employment of local labour

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

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

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

(q) Monthly statements and payment certificates

The statement to be submitted by the Contractor in terms of Clause 49 of the Conditions of Contract shall be prepared by the Contractor at his own cost, strictly in accordance with the standard payment certificate prescribed by the Engineer, in digital electronic computer format. The Contractor shall, together with a copy of the digital electronic computer file of the statement, submit two (2) A4 size paper copies of the statement.

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

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

Any delay by the Contractor in making the said adjustments and submitting to the Engineer the requisite copies of the adjusted statement for the purposes of the Engineer's payment certificate will be added to the times allowed to the Engineer in terms of Subclause 49.4 of the Conditions of Contract to submit the signed payment certificate to the Employer and the Contractor. Any such delay will also be added to the period in which the Employer is required to make payment to the Contractor.

(r) Construction in restricted areas

Working space is sometimes restricted. The construction method used in these restricted areas largely depends on the Contractor's Plant. Notwithstanding, measurement and payment will be strictly according to the specified cross-sections and dimensions irrespective of the method used, and the rates and prices bidden will be deemed to include full compensation for any difficulties encountered by the Contractor while working in restricted areas. No extra payment nor any claim for payment due to these difficulties will be considered.

(s) Notices, signs, barricades and advertisements

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

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

(t) Workmanship and quality control

The onus to produce work that conforms in quality and accuracy of detail to the requirements of the Specifications and Drawings rests with the Contractor, and the Contractor shall, at his

own expense, institute a quality control system and provide suitably qualified and experienced engineers, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment to ensure adequate supervision and positive control of the Works at all times.

The cost of supervision and process control, including testing carried out by the Contractor, will be deemed to be included in the rates bidden for the related items of work.

The Contractor's attention is drawn to the provisions of the various Standardized Specifications regarding the minimum frequency of testing required. The Contractor shall, at his own discretion, increase this frequency where necessary to ensure adequate control.

On completion and submission of every part of the work to the Engineer for examination and measurement, the Contractor shall furnish the Engineer with the results of the relevant tests, measurements and levels to demonstrate the achievement of compliance with the Specifications.

C3.4.3 PLANT AND MATERIALS

C3.4.3.1 Plant and materials supplied by the employer.

"The Employer shall not supply any plant or materials."

C3.4.3.2 Materials, samples and shop drawings

(a) Samples

Materials or work which do not conform to the approved samples submitted in terms of Subclause 23.4 of the Conditions of Contract, will be rejected. The Engineer reserves the right to submit samples to tests to ensure that the material represented by the sample meets the specification requirements.

The costs of any such tests conducted by or on behalf of the Engineer, the results of which indicate that the samples provided by the Contractor do not conform to the requirements of the Contract, shall, in accordance with the provisions of Subclause 23.7 of the Conditions of Contract, be for the Contractor's account.

C3.4.4 CONSTRUCTION EQUIPMENT

C3.4.4.1 Requirements for equipment

- TLB
- Tipper Truck
- Water Cart 18 000L minimum capacity
- Vibratory Roller
- Trench Roller
- Dewatering Pump
- Concrete Vibrator
- 1 x LDV
- Equipment hired from the local community where possible is encouraged.
- Equipment hired from the Local Authority to be negotiated between the Contractor and the Employer.

C3.4.5 ACCOMMODATION OF OTHER CONTRACTORS

C3.4.5.1 General

The Contractor shall be required to accommodate other contractors on the Site of the Works during the Contract period. Adequate access to the site of their works shall be always given to the above-stated contractors.

No direct payment will be made for the cost of providing adequate access and accommodating the stated contractors on the Site of the Works, as well as the cost of any inconvenience or disruption experienced in attending to the aforementioned. Payment shall be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract.

C3.4.6 OCCUPATIONAL HEALTH AND SAFETY

(Read with SANS 1921 - 1: 2004 clause 4.14)

C3.4.6.1 General Statement

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the OHSA 1993 Construction Regulations 2014 issued on 7 February 2014 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act in the form as included in Part C1.4 of the Contract.

C3.4.6.2 Health and Safety Specifications and Plans to be submitted at tender stage

(a) Employer's Health and Safety Specification

The Employer's Health and Safety Specification are included in the tender documents as Part of C3.4.11.6, Particular Specifications.

(b) Tenderer's Health and Safety Plan

The Tenderer shall submit with his tender his own documented Health and Safety Plan he proposes to implement for the execution of the work under the contract. His Health and Safety Plan must at least cover the following:

- (i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Construction Regulations 2014;
- (ii) pro-active identification of potential hazards and unsafe working conditions;
- (iii) provision of a safe working environment and equipment;
- (iv) statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas;
- (v) monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations 2014;
- (vi) details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Construction Regulations 2014 and other applicable regulations; and
- (vii) details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he has already commenced work before he has obtained the Employer's written approval of his Health and Safety Plan.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs

In addition, Tenderers are to note that the site is considered a hazardous area and effective protection equipment must be provided and precautions implemented during the contract. Methane gas is present and personnel must not enter confined spaces without ventilation. Smoking must be prohibited within the site area.

C3.4.6.3 Cost of Compliance with the OHS Construction Regulations

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract. Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

C3.4.7 EMPLOYMENT OF LOCAL LABOUR

It is the intention of the Contract that unskilled and skilled labourers including bricklayers, concrete gangers etc. be hired from the local population via the relevant community bodies, Ward Councillors and Community Liaison Officer (CLO). No labour is to be used on-site except that hired from the local community unless prior approval is obtained from the Engineer. However, once employed by the Contractor they become the entire responsibility of the Contractor as part of his normal workforce.

The daily cost of this labour to be used on this Contract shall be calculated according to the SAFCEC recommended minimum rates applicable at any time during the duration of the Contract.

The appointed Contractor may be called upon to demonstrate how the included wage rate was arrived at, in terms of the above.

Only Foreman, artisans and skilled level and upwards will be allowed from outside the local community and all of the authorised "outside labour etc." will have to be listed under Schedule 8: KEY PERSONNEL. The necessity of these personnel will be assessed by the Engineer and Employer. The Contractor shall maintain accurate and comprehensive daily records of all labour engaged on the Contract and shall submit to the Engineer at monthly intervals detailed labour returns substantiating the actual numbers of labourers employed,

the amounts actually paid in respect thereof and details of the various activities undertaken by the labourers.

This aspect will be closely monitored by the Engineer and Employer and any unauthorised infringement will result in the affected labour being dismissed from the site.

The employment of local labour on this contract is advised but left entirely to the discretion of the Contractor. The onus will be on the Contractor from the very outset to liaise directly with the Local Councillors in so far as labour requirements are concerned.

A Community Liaison Officer (CLO) will be provided for on this contract to assist the Contractor with day-to-day labour and community-related matters that may arise.

The Contractor shall maintain accurate and comprehensive daily records of all labour engaged on this Project and shall submit to the Engineer at two weekly intervals detailed labour returns substantiating the actual numbers of labourers employed, the amounts actually paid in respect thereof, and details of the various activities undertaken by the labourers.

The Contractor shall ensure that all remuneration paid to employees is in line with the relevant sectorial determination in terms of the Basic Conditions of Employment Act, No 75 of 1997, as determined by the Department of Labour and the wage rate on the contract shall not be less than the published minimum rate for the area.

C3.4.8 EXECUTION OF THE WORKS

C3.4.8.1 Inspection by the Engineer

No portion of the work shall be proceeded with until the Engineer or his representative has approved the previous stage. If any work is covered or hidden from view before the Engineer or his representative has inspected the work, the Contractor shall at his own cost expose the covered or hidden work for inspection. The Contractor shall also be responsible for making good any work damaged during the uncovering.

C3.4.8.2 Certificate of Completion

When all the work under the Contract has been completed to the entire satisfaction of the Engineer, he will issue a certificate of completion to the Contractor informing the Contractor of the date at which the works are deemed to be completed and accepted by the Employer.

The sureties provided by the Contractor for the fulfilment and completion of the Contract in terms of the Form of Agreement will be released upon the issue of the Certificate of Completion.

C3.4.9 CONSTRUCTION PROGRAMME

C3.4.9.1 Preliminary programme

The Contractor shall include with his tender a preliminary programme on the prescribed form to be completed by all Tenderers. The programme shall be in the form of a simplified bar chart with sufficient details to show clearly how the works will be performed within the time for completion as stated in the Contract Data.

Tenderers may submit tenders for an alternative Time for Completion in addition to a tender based on the specified Time for Completion. Each such alternative tender shall include a preliminary programme similar to the programme above for the execution of the works, and shall motivate his proposal clearly by stating all the financial implications of the alternative completion time.

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to normal adverse weather conditions and special non-working days as specified in the Special Conditions of Contract, in the Project Specifications and in the Contract Data.

C3.4.9.2 Programme in terms of Clause 5.6 of the General Conditions of Contract

It is essential that the construction programme, which shall conform in all respects to Clause 5.6 of the General Conditions of Contract, be furnished within the time stated in the Contract Data. The preliminary programme to be submitted with the tender shall be used as the basis for this programme.

When drawing up his programme, the Contractor shall also, *inter alia*, take into consideration and make allowances for:

- public access to the current landfilling zones at all times.
- the constructional plant which he intends to supply and use for the purpose of the Contract.
- the possibility of providing plant and equipment at the beginning of the establishment period for relocating indigenous plants from the working site.

- Searching for, dealing with and carrying out alterations to the existing services.
- the quantities that will be carried out and the cash flow resulting from this on a monthly basis;
- known physical conditions or artificial obstructions.
- the accommodation and safeguarding of public access and traffic.
- the design, testing and approval of the concrete mixes, where applicable, and all other imported materials.
- the installation of the geomembrane liner shall be undertaken by a specialist Sub-Contractor, which will entail liaison and co-operation between the Contractor and this Sub Contractor, to ensure each party's activities are accommodated.
- timeously carrying out survey requirements, including the survey of the site, before construction commencing,

The following must be stated on the programme:

- The quantity of work applicable for each bar item as well as the rate at which work will be completed.
- A budget of the value of planned and completed work, month by month for the full contract period.
- The critical path.
- Work to be undertaken by local contractors (if applicable).
- Works to be undertaken by specialist contractors (if applicable)
- Training courses.
- Schedule of plant and resources to be utilised.

The Contractor's programme and method statement will not be accepted as the basis for claims for additional compensation without due reference to all relevant associated factors.

C3.4.9.3 Delay in Completion

If, during the progress of the works which shall be reviewed monthly should the quantities of work performed per week fall below those shown on the approved Contractor's programme, or if the sequence of operations is altered, or if the programme is deviated from in any other way, or the Contractor's progress lags behind the latest accepted programme the Contractor shall, within one week after being notified by the Engineer, the Contractor shall organise the works in such a manner that no delays occur and submit a revised programme clearly indicating how he intends to regain lost time to ensure completion of the works within the period defined in term of Clause 5.12 of the Conditions of Contract or any extended time granted. The proposal to increase the tempo of work must incorporate

positive steps to increase production either by more labour and plant on the Site or by using the available labour and plant in a more efficient manner. Claims for additional payment to meet any cost incurred due to such a revised programme will not be accepted nor will there be any time-related payment for these delays. Failure on the part of the Contractor to submit or to work according to the programme or revised programmes shall be sufficient reason for the Engineer to take steps as set out in Clause 9.2 of the Conditions of Contract.

C3.4.10 VARIATIONS AND ADDITIONS TO SABS 1200 STANDARDIZED SPECIFICATIONS AND PARTICULAR SPECIFICATIONS

INTRODUCTION

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

The number of each clause and each payment item in this part of the project specifications consists of the prefix PS followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications. The number of a new clause or payment item, which does not form part of a clause or a payment item in the standard specifications and which is included here, is also prefixed by PS, but followed by a new number which follows on the last clause or item number used in the relevant section of the standard specifications.

SABS 1200 A - 1986: GENERAL

PSA 2 INTERPRETATIONS

PSA 2.2 Applicable edition of standards

Add at the beginning of the first sentence of Sub-clause 2.2:

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

PSA 2.3 Definitions

Add the following:

The Engineer shall be **“Given to the Bidder upon Appointment”**.

The term "CoGHSTA" shall mean **"CO-OPERATIVE GOVERNANCE, HUMAN SETTLEMENTS AND TRADITIONAL AFFAIRS"**.

PSA 3 MATERIALS

PSA 3.1 Quality

Where a material to be used in this Contract is specified to comply with the requirements of a SABS Standard Specification, and such material is available with the official SABS mark, the material used shall bear the official mark.

The Contractor shall at his own expense without delay, submit in good time, before any construction commences, to the Engineer on-site samples of all materials intended to be incorporated into the works. The samples shall be accompanied by results of tests undertaken by an approved independent laboratory on the samples in question on behalf of the Contractor and at his cost, before consideration by the Engineer.

The Engineer, during construction, will take independent samples from stockpiles of proposed construction materials on-site and from the completed works. Approval will not be granted for samples delivered by the contractor directly to the Engineer's office. The Contractor shall be responsible for the cost of all failures on test samples and control testing.

All pipes, fittings and materials used in the Works, must bear the official standardisation mark of Standards South Africa where applicable. The mark on a pipe shall be visible from above after the pipe is laid.

Rubber articles, including pipe insertion or joint rings, shall be stored in a suitable shed and kept away from sunlight, oil or grease.

Large items not normally stored in a building shall be neatly stacked or laid out on suitable cleared areas on the Site. Grass or vegetation shall not be allowed to grow long in the storage areas and the material shall be kept free of dust and mud and be protected from stormwater. Pipes shall be handled and stacked in accordance with the manufacturer's recommendations, special care being taken to avoid stacking to excessive heights and placing over hard objects uPVC pipes shall be protected from direct sunlight by suitable covers.

Every precaution shall be taken to keep cement dry and prevent access of moisture to it from the time it leaves the place of manufacture until it is required for use on the Site. Cement is to be used on a first-in/first-out basis. Bags of cement which show any degree of hydration and setting shall be removed from the site of the Works and replaced at the Contractor's own expense. Any cement older than six weeks is to be removed from site.

Materials shall be handled with proper care at all times. Under no circumstances may materials be dropped from vehicles. Large pipes or large plant shall be lifted or lowered only by means of suitable hoisting equipment.

Where proprietary materials are specified it is to indicate the quality or type of materials or articles required, and where the terms "or other approved" or "or approved equivalent" are used in connection with proprietary materials or articles, the Contractor is to supply with their tender the name of the manufacturer and supporting documentation that show that the materials or articles comply with the relevant specifications. It is understood that the approval shall be at the sole discretion of the Client and the Engineer.

Irrespective of any approval granted/used by the Engineer or the Employer, the Contractor shall be deemed responsible for all material quality used for construction and their specified performance.

Add the following new subclause:

PSA 3.3 Ordering of Materials

The quantities set out in the Schedule of Quantities have been carefully determined from calculations based on data available at the time and should therefore be considered to be only approximate quantities. The liability shall rest entirely and solely with the Contractor to determine before ordering, the required types and quantities of the various materials required for the completion of the Works in accordance with the Specifications and the Drawings issued to the Contractor for construction purposes.

Any reliance placed by the Contractor on the estimated quantities stated in the Schedule of Quantities issued for tendering purposes, or measurements made by the Contractor from the Drawings issued for tendering purposes, shall be entirely at the Contractor's risk and the Employer accepts no liability whatever in respect of materials ordered by the Contractor on the basis of Tender Documents.

PSA 4 PLANT

PSA 4.2 Contractor's Offices, Stores and Services

Add the following:

“No housing facilities are available for the Contractor’s employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.

Any temporary buildings erected by the Contractor or site offices, accommodation, stores, workshops and ablutions erected on the site must all be to size and at locations approved by the Employer.

The Contractor is responsible for all security of the Camp Site at his own cost”.

The suitable first aid services required in terms of Sub-clause 4.2 of SANS 1200 A shall include, inter alia, a First Aid cabinet fully equipped and maintained with at least the minimum contents as listed in Regulation 3 of the General Safety Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), to deal with accidents and ailments which are likely to occur during the construction period.

PSA 5 CONSTRUCTION

PSA 5.1 Survey

PSA 5.1.1 Setting Out of the Works

Add the following to this clause:

The Contractor is responsible for placing and maintaining survey control pegs to be used in setting out the Works.

The Contractor shall be fully responsible for the setting out of the works, and where labour-intensive work is specified, for the setting out of the daily construction tasks.

A full schedule of control beacons will be issued to the successful tenderer prior to the start of the Contract giving X, Y and Z co-ordinates. These control beacons are to be used by the Contractor for all survey requirements.

The Contractor, within two (2) weeks after the site has been handed over to him, is to ascertain the correctness of all pegs and benchmarks. Any discrepancy shall immediately be reported in writing to the Engineer. Any costs or subsequent costs arising from discrepancies which had not been reported to the Engineer, within the aforementioned period, shall be the sole responsibility of the Contractor.

Add the following new Sub subclause:

PSA 5.1.3 As-Built Data

The Tenderer shall note the Lump Sum item A5.2 covering the submission of as-built data.

The Contractor shall supply the Engineer with:

- a) Co-ordinates and final levels in 10m grid intervals, invert levels, top and bottom edges of the trapezoidal stormwater drain levels, headwall and culvert crossing levels, leachate collection subsoil drain route and depths, stormwater dam areas and at every change in direction and grade of the trapezoidal stormwater drains,
- b) A list of surveyed invert and cover levels and co-ordinates of all drains, headwalls, manholes and existing services constructed or modified during the course of the Contract,
- c) Co-ordinates of subsoil drainage lines, water pipelines and leachate pipelines,
- d) Co-ordinates of any electricity cables constructed or modified during the course of the Contract,
- e) All pipe and culvert sizes and invert levels constructed or modified during the course of the Contract.

The Practical Completion Certificate shall not be issued unless the above information has been forwarded to the Engineer.

PSA 5.2 Accommodation of Traffic

The Contractor shall strictly comply with the following specifications:

- The Contractors' working hours are to be between 07:30 to 17:00 Monday to Friday, excluding public holidays.
- The Contractor shall erect adequate traffic signs that conform to the requirements of the S.A. Road Traffic Signs Manual, and maintain and keep them in good order.
- Temporary traffic signs shall be erected when work is being done within and adjacent to the works. The number and layout of the traffic signs shall comply with the approved "Accommodation of Traffic Safety Plan" as prepared by the Contractor. Traffic signs shall have a yellow background with either a red or black border.

The Contractor shall take the necessary care at all times in all his operations and use of his equipment to protect the public and to facilitate the movement of traffic - Clause 5.1 SABS 1200D has reference.

PSA 5.4 Protection of Overhead and Underground Services

Add the following to this clause;

The Contractor is to ensure at the start of the Contract that all known services are checked to ascertain whether they interfere with the construction of the Works. If obstructions are found, the Engineer is to be notified timeously in writing so that adequate steps can be taken to effect the relocation of the obstructions. No claims for delays will be entertained unless, in the opinion of the Engineer, the Contractor has taken reasonable steps timeously to have the obstruction relocated.

Before the construction of the Works or any phase of the Works, the Contractor shall contact all relevant parties to establish the existence of existing services on site. The Contractor shall be responsible for obtaining permission to proceed. No claims shall be lodged by the Contractor for delays in obtaining these permissions.

PSA 5.5 Dealing with Water

The Contractor shall be responsible for the management and disposal of all surfaces, subsurface and stormwater on-site in a way that construction can proceed with minimum risk and at no time shall overland flow be blocked.

It is essential that all works, completed works or part thereof are kept dry and properly drained, to this end the Contractor shall divert flow around the workings area(s) if necessary. The contractor shall apply suitable, effective drainage and dewatering methods for preventing ingress of water into excavations and to ensure the safety of works against damage by surface, sub-surface, stormwater and floods. Claims for delays and for repairs of damage caused to the works as a result of the contractor's failure to properly manage the surface, subsurface and flooding will not be considered.

Drainage measures, with the exception of pumping, shall be maintained until the works have been completed, between various construction stages, pumping may be interrupted in consultation with the Engineer. Any drainage or pumping of water shall be done in a manner that will preclude the concrete or materials or any part thereof from being carried away.

Allowance for measurement and payment for dewatering and keeping dry all works shall be included in the excavation works specification PSDM 8.3.4 (cut to fill, borrow to fill) and PSDM 8.3.7 (cut to spoil or stockpile from).

PSA 5.7 Safety

- ***Add the following:***

“The Contractor will refer to Part C3.3.7 and Annexure 5.1, Particular Specifications, for the OHSA 1993 Safety Specification.”

- ***and:***

“The Contractor shall provide security watchmen and all measures necessary to secure the works for the contract as he deems fit. The cost thereof will be deemed to be included in the relevant rates tendered. The Contractor must ensure that all his employees as well as the employees of his subcontractors are able to identify themselves as members of the construction team.

Add the following new Sub subclause:

PSA 5.9 Site Diary

A site diary in triplicate format, which shall be supplied by the Contractor must be filled in on a daily basis and submitted to the Engineer on a Daily basis. No claims will be considered without the site diary's schedules properly completed (on a daily basis) and submitted.

PSA 5.10 Site Meetings

The Contractor will be required to attend regular site meetings, which shall normally be held once a month on dates and at times determined by the Engineer, but in any case whenever reasonably required by the Engineer. Unless otherwise indicated in the Contract or instructed by the Engineer, such meetings shall be held at the Contractor's offices on the Site. At such monthly meetings, matters such as general progress on the Works, quality of work, problems, claims, payments, and safety etc., shall be discussed, but not matters concerning the day-to-day running of the Contract.

PSA 5.11 Time-Related Items

Where an extension of time is approved no payment shall be claimed against time-related items unless approved by the engineer. The extension of time may only refer to the relief of penalties.

PSA 5.12 Existing Services

The tendered rate shall further cover the cost of backfilling the excavation with "trench fill" as indicated on detail drawings, keeping the excavation safe and taking care that the services are not damaged in any way. The rate shall include for all negotiations with the authorities, notification to all affected parties and any other requirement to protect and complete the work. No additional direct payment will be made for the protection of such services.

PSA 5.13 Record Drawing Information

As the Works are progressing, the Contractor shall mark on a special set of drawings, all as-built details and submit them to the Engineer for approval on a monthly basis. No extra payment shall be made for preparation of these as-built plans. All stormwater drains, manholes, culverts, stormwater pipes, subsoil drains and the like shall be co-

ordinated together with their invert and cover/ground levels on the as-built drawings. The Certificate of Completion shall only be issued once all the as-built information has been received and verified by the Engineer.

PSA 5.14 Clearance of Site on Completion

The Contractor shall obtain, from the Employer being affected by the Works, a certificate to the effect that the Employer is satisfied with the standard of reinstatement of any fences, boundary walls or structures, compensation paid for loss or damage to stock, crops or property, material spoiled on their properties or any other condition affecting their properties as a result of the operations of the Contractor. The Contractor shall further obtain a Clearance Certificate from each and any authority whose services have been affected or installed during the construction of the works. All such certificates must be lodged with the Engineer before the Certificate of Completion will be issued.

PSA 5.15 Community Liaison Officer

A provisional sum is included to allow for the salary of a person working full time as the Community Liaison Officer for the duration of the construction on this Contract. The sum does not include for costs such as transport, office space, communication and any other requirement necessary. The Contractor shall ensure that the salary and other expenses such as payment to the Community Liaison Officer members are paid timeously in accordance with the payment dates of his own staff. A separate item for overheads, charges and profit on the above item is applicable.

PSA 6 TOLERANCES

PSA 6.1 Degrees of Accuracy

The Contractor shall construct each of the various parts of the Works to a degree II accuracy except where otherwise specified.

PSA 7 TESTING

PSA 7.1 Testing Principles

Add the following to this clause:

Every completed work Process operation / Activity on a section of the stormwater drain as described in the Product/Process Inspection & Test Plan (ITP) shall be subject to check testing by the Contractor. Once the Contractor is satisfied with the standard of the construction, the Engineer will be requested to perform acceptance testing for the particular section. When giving notice, the Contractor shall provide the Engineer with the results of the check testing indicating that the work is to specification. The Engineer shall be given 48 hours notice of when testing or inspections are required.

The Engineer may from time to time carry out his own check tests on the work performed by the Contractor. Should such check tests show that the Contractor's control testing be such that the quality of the Contractor's work can be called into question, then the Engineer may order further check tests to be carried out on work already completed. All costs associated with such check tests shall be for the Contractor's account, as also the costs of any other check test whose results do not comply with the specification.

Failure by the Contractor to notify the Engineer or to provide the required information or, where specified, to perform the required test, will be grounds to exempt the Employer from payment for the associated work and for all subsequent work which would be affected by the failure of the Work to be tested.

The Engineer will be under no obligation to the Contractor to perform the tests. If the Engineer elects not to perform a particular test after notification by the Contractor, the Contractor will be issued with a written instruction to proceed with the relevant works without the acceptance test being performed.

Nothing contained in this clause will relieve the Contractor of any responsibilities under the specification or in any way limit the tests, which the Engineer may call for or perform in terms of the specification.

Add the following new Subclause:

PSA 7.5 Acceptance Control Testing

A laboratory will not be required on site for the Engineer's use and all acceptance control testing shall be done through a commercial laboratory.

The Contractor shall provide his own testing laboratory which shall be capable of carrying out all necessary testing for process control. The Contractor's laboratory shall be subject to the Engineer's approval. The Engineer shall be given free access to the results of testing carried out by the laboratory.

The cost of acceptance control testing carried out by the Engineer will not be for the Contractor's account and will be paid for under the Prime Cost Sum allowed for the Schedule of Quantities, unless the tests reveal that the material is not in accordance with the Specifications. In which case, the costs of such test shall be borne by the Contractor.

Acceptance control testing will only be carried out on the written instruction of the Engineer.

PSA 8 MEASUREMENT AND PAYMENT

PSA 8.1 Measurement

Add the following new Sub subclause:

PSA 8.1.3 Security

The Tenderer must make allowance for the provision of security for his personnel, plant and equipment on the site or work points at his own cost. The cost of security is deemed to be included in Section 1: Preliminary and General.

PSA 8.4.2.2 Facilities for the Contractor

Add the following to this clause:

Facilities for the Contractor shall include all the costs of providing water for construction. The Contractor shall apply to the relevant Water Service Provider or Employer for water and sanitation connections. All costs attached thereto shall be to the Contractor's account.

PSA 8.5 Sums stated Provisionally by the Engineer

Amend the penultimate sentence of Subclause 8.5 to read:

"The percentage rate shall cover the Contractor's overheads, charges and profit on the work covered by the sums provisionally stated. Payment will be made on the basis of the sums actually paid for such work".

PSA 8.5 a) Employment of a Community Liaison Officer and Social Facilitator

A Community Liaison Officer (CLO) and Social Facilitator (SF) must be employed after consultation with Ward Councillor by the Contractor for the duration of the Contract as detailed in Clause 10.19 of the Special Conditions of Contract. The CLO and SF will be selected from within the local community. Remuneration of the CLO and SF will be determined by the Engineer after consultation with the Employer and this salary will be paid by the Contractor.

The CLO and SF will become the entire responsibility of the Contractor as part of his normal workforce. The CLO will be appointed immediately before work commences, while the SF will be appointed as and when required.

PSA 8.6 Prime Cost Items

Amend the penultimate sentence of Subclause 8.6 to read:

"The percentage rate for (b) shall cover the Contractor's overheads, charges for taking delivery and profit on the supply of materials or goods covered by the sums stated in (a) above. Payment will be made on the basis of the sums actually paid for such materials or goods and work, exclusive of VAT." Subject to approval by the engineer upon provision of three quotations before any work or purchases are undertaken.

PSA 8.7 Daywork

All daywork rates are inclusive of supervision and all overheads. Daywork rates will apply irrespective of the conditions contained in Clause 5.7 of the General Conditions of Contract.

PSA 8.8 Temporary Works

Add the following to this clause:

No separate payment will be made for the cost of maintaining the temporary access roads, the removal of the roads and the reinstatement of the areas, on completion. These costs are deemed to be inclusive in the applicable rates and will not be paid for separately.

PSA 8.8.2 Accommodation of Traffic

The tendered rate shall include for traffic accommodation as described in PSA 5.2 of this Document.

No separate item shall be allowed in the Schedule of Quantities for the accommodation of the contractor's traffic. The Contractor's movement of construction activities is mainly between the site camp and the construction site. In the event that the Contractor needs to cross any existing landfill service or municipal road, he will ensure that he takes all necessary precautions for safety which will be deemed included in his rates.

Add the following new payment items:

PSA 8.9 Topographical Survey prior to construction commencement

The unit of measurement shall be the **Lump Sum** (sum).

The tendered rate shall include supplying the engineer with a survey of all the work areas in electronic format in an acceptable ASCII, CSV, model maker and DWG file type. The contractor shall allow the engineer one week from receipt of the survey to recalculate quantities and remodel the stormwater network and leachate management system, where applicable

PSA 8.10 As-Built Drawings

The unit of measurement shall be the **Lump Sum** (Sum).

The tendered rate shall include supplying the Engineer with "as built" surveys of the Works in marked-up drawings, survey data in electronic format and schedules as described in PSA 5.1.3 of this Document. The survey is to include the X, Y and Z coordinates in an approved format.

SABS 1200 AB - 1986: ENGINEER'S OFFICE

PSAB 3 MATERIALS

PSAB 3.1 Nameboards

Add the following:

One Employer's nameboards shall be erected within one month of the commencement of construction and shall be placed where ordered by the Engineer. Any damage to this board shall be repaired within 14 days of a written instruction received from the Engineer. For details of the board refer to the Standard Drawings contained in this document.

Erection of One Contractor's name boards that comply with the drawing(s) provided are required in the area of the Works, at a position approved by the Engineer, who may at any time order their removal if any objections are received.

The board shall be manufactured from materials specified in Clause 3.1 of SANS 1200 AB but shall conform in the painting, decorating and detail with the recommendations to the drawing attached.

All nameboards shall be removed 14 days prior to the date of the Final Approval Certificate.

PSAB 3.2 Office Building(s)

Replace the contents of this clause with the following: -

The Contractor shall supply, maintain and service one office of 9m² minimum floor space and a ceiling height of 2.5m with lighting for the sole use of the Engineer.

The furniture stated SABS 1200 AB-1986 clause 3.2, (a.... j) shall be replaced by the following items to be provided in the site office:

- (a) One desk 1.5m long x 0.9m wide with four (4) drawers (one lockable).
- (b) One trestle table, 2.0m long x 1.0m wide x 0.9m high, with a smooth top.
- (c) One Office swivel chair, two visitors' chairs.
- (d) An acceptable blind to each window.
- (e) A pin board, 1.5m long x 1.2m high for displaying plans and diagrams.
- (f) A whiteboard of 2m² size with 3 coloured markers and duster
- (g) Acceptable lighting
- (h) provision of two 15-amp volt plug points with power supply
- (i) An air conditioner in proper working order.
- (j) One A4 colour printer.
- (k) One small electric refrigerator.
- (l) An acceptable blind on each window.
- (m) a fire extinguisher which shall be properly maintained by the Contractor

The Contractor sum shall also include for a basin with running water, a lockable toilet for the exclusive use by the Engineer and Employer and 2 No. covered parking bays that shall be erected for the sole use by the Engineer, Employer and his staff.

The Contractor sum shall also include for a basin with running water, a lockable toilet for the exclusive use by the Engineer and Employer and 2 No. covered parking bays that shall be erected for the sole use by the Engineer, Employer and his staff.

The Contractor shall also supply, maintain and service a boardroom for 24m² minimum floor area able to seat 10 people for joint use by him and the Engineer. This room shall be equipped with adequate lighting, two power points, chairs, tables, a 2m² whiteboard, a 2.5m² pin board with stationary and an air-conditioner in proper working order.

The Contractor will be required to provide for daily cleaning of the Engineer's office, boardroom and toilets. Payment for the cleaning of the offices will be deemed to be included in the Tenderer's General rates.

PSAB 4 PLANT

PSAB 4.1 Telephone

Replace clause 4.1 with the following:-

The Contractor will be required to supply the Resident Engineer with a reliable internet, wifi or 3G / LTE for the duration of the Contract. The Contractor shall be responsible for the cost of all calls, installation, rental, supplies, maintenance, etc.

The Contractor will not be required to supply the Engineer with any mobile device / phone but the Contractor will be required to pay for all calls made from his phone pertaining this Project up to a maximum amount of R500.00 per month as soon as the contract has commenced.

PSAB 5 CONSTRUCTION

Add the following clauses:

PSAB 5.5 SURVEY EQUIPMENT

The Contractor shall upon request provide the following survey equipment on the Site from commencement to the completion of the Works.

- (a) 1 upright reading automatic level with tripod;
- (b) 1 metric levelling staff with protective cover bag;
- (c) ranging rods;
- (d) 1 x 100 metre Stilton tape measure and measuring wheel;
- (e) Wooden and steel pegs and hammers as required.

The equipment shall be provided for the exclusive use of the Engineer. The Contractor shall keep the equipment continuously insured against any loss, damage or breakage, and he shall indemnify the Engineer and the Employer against any claims in this regard. The Contractor shall also maintain the equipment in good working order throughout the Contract period.

The following additional equipment/services may be required from time to time by the Engineer and shall be supplied by the Contractor when required. The equipment/service may be shared with the Engineer.

- (f) Two chainmen to assist with levelling and surveying.
- (g) Spray paint (selected colour)

PSAB 5.6 Site Instruction books

The Contractor shall supply a triplicate book for site correspondence and inspection requests to the Engineer. Reasonable notice shall be allowed prior to inspections. All inspections requests and approval/disapproval thereof shall be recorded by the Site staff in writing. All requests must be signed and dated by the Engineer before implementation.

The Contractor must ensure that a suitable site quality record system is put in place subject to approval by the Engineer to record that each section, or work item, complies with the relative works specification. Failure to update or provide sufficient records may result of a 10% interim payment reduction being withheld.

PSAB 8 MEASUREMENT AND PAYMENT

PSAB 8.2 Payment

Add the following payment clauses:

PSAB 8.2.1 Fixed and Time Related Charges

PSAB 8.2.2 Telephone

The unit of measurement shall be the Prime Cost Sum (PC Sum).

The Engineer shall reconcile the service provider's account each month for telephone / mobile calls made pertaining to the Project and the Contractor shall reimburse the service provider directly within 7 days of receipt of the account.

PSAB 8.2.3 Survey Equipment

Payment for compliance with Clause PSAB 5.6 on the following basis:

Payment will be made for the supply of the equipment specified in clause PSAB 5.5 under the fixed P&G rate on verification by the Engineer that the equipment specified is on site. Should any of this equipment be removed from the site during the course

of the contract then any payments made for the supply of this equipment will be reversed out of the next interim certificate.

Payment will be made for maintaining the above equipment in a suitable condition under the time-related P&G rate.

SABS 1200C - 1980: SITE CLEARANCE

SABS 1200 DB - 1989: EARTHWORKS (PIPE TRENCHES)

SABS 1200 DK - 1996: GABIONS AND PITCHING

SABS 1200 DM – 1981: EARTHWORKS (Roads, Subgrade)

SABS 1200 G – 1982: CONCRETE (Structural)

SABS 1200 LB - 1983: BEDDING (PIPES)

SABS 1200 LD - 1983: SEWERS

SABS 1200 LE - 1982: STORMWATER DRAINAGE

C3.4.11 PARTICULAR SPECIFICATIONS

The Project Specification, consisting of two parts, forms an integral part of the contract and supplements the Standard Specifications.

Part A contains a general description of the works, the site and the requirements to be met.

Part B contains variations, amendments and additions to the Standardized Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

The standard specifications which form part of this contract have been written to cover all phases of work normally required for the construction of water systems.

C4.1 ANNEXURES

- C4.1.1 Occupational Health and Safety Specifications
- C4.1.2 EMP Specifications
- C4.1.3 Site Information
- C4.1.4 Construction Notice Board
- C4.1.5 Tender Drawings
- C4.1.6 Geotechnical Investigations
- C4.1.7 Pro Forma Documents – Skills Development

C4.1.1 Occupational Health and Safety Specifications



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
**CO-OPERATIVE GOVERNANCE,
HUMAN SETTLEMENTS & TRADITIONAL AFFAIRS**

**CONSTRUCTION OF COMMUNITY RESIDENTIAL UNITS(CRU)
(TOP STRUCTURE) AND INSTALLATION OF ENGINEERING
SERVICES AT TALANA HOSTEL IN GREATER TZANEEN
MUNICIPALITY WITHIN MOPANI DISTRICT MUNICIPALITY-OHS
SPECIFICATIONS**

OHS SPECIFICATIONS

HS1: OHS GENERAL

HS1.1 TENDER DOCUMENT

This document is the pre-contract Health and Safety Specification which must be used by the Principal Contractor and Sub Contractors appointed by the Principal Contractor to compile Health and Safety Plans for this project and forms part of the tender documentation.

The Principal Contractor and Sub Contractors' particular attention is drawn to this specification whereby

“Upon award of the contract, the contractor is to assume and adopt the function and duties of the Principal Contractor as set out in the Construction Regulations 2014 No. 10113 promulgated 07 February 2018.”

The health and safety specifications outlined herein must be taken into account and due allowance made within the pricing of appropriate items contained within the specification. Where the tenderer is of the opinion that a requirement is missing or is not adequately specified then this shall be drawn to the Client attention during the tender period. In the absence of any direction to the contrary, the tenderer shall as part of the tender submission, set out the details of such discrepancy together with the costs associated therewith, separately identified and included within the tender figure.

HS1.2 PRINCIPAL CONTRACTOR

The successful tenderer will on signing of the contract for:-

Project Name: Limpopo Department of Cooperative Governance, Human Settlements and Traditional Affairs be required to fulfil the function and duties of the Principal Contractor as set out in the Construction Regulations 2014 No. 10113 promulgated 07 February 2018.

HS1.3 START OF CONSTRUCTION PHASE

The construction phase shall not commence until the Principal Contractor's Health and Safety Plan was considered and approved by the Client and Design Team. The Client shall discuss and negotiate with the Principal Contractor the contents of the Health and Safety Plan submitted by the Principal Contractor before finally approving it for implementation.

The construction phase shall not commence until written permission is received from the Client. In this respect the Client may rely on the advice of the Technical Team as to the adequacy and comprehensiveness of the Plan offered by the Principal Contractor.

In preparing their detailed Health and Safety Plan based on the relevant sections of this Health and safety Specifications supplied to them by the Client, contractors must allow for the adoption of safe working procedures and co-ordinate and rationalize activities to avoid controllable hazards arising due to clashes of activities.

HS1.4 SUB-CONTRACTORS, SUPPLIERS & DESIGNERS

The Principal Contractor shall ensure that all direct appointments in connection with this project include provisions for the compliance of his sub-contractors, suppliers and designers, etc, with the relevant provision of the Occupational Health and Safety Act (Act 85 of 1993) and its Regulations, in particular the Construction Regulations 2014 No. 10113 promulgated 07 February 2018.

The Principal Contractor shall together with all his appointees, liaison with the Client as required under the Regulations and agrees procedures for the transfer of relevant Information in respect of designs and in connection with the preparation of the Health and Safety File.

HS1.5 ADVICE

The tenderer shall, as part of the tender submission, indicate where advice will or may be required of the Client in respect of the competence of the tenderer's designers and the adequacy of resources allocated or to be allocated by them.

HS1.6 UNDERTAKING BY PRINCIPAL CONTRACTOR AND SUB-CONTRACTORS APPOINTED BY THE PRINCIPAL CONTRACTOR.

The Principal Contractor as well as Sub-Contractors appointed by him / her shall undertake in writing to ensure that the provisions of the Occupational Health and Safety Act (Act 85 of 1993) and its Regulations, in particular the Construction Regulation of 2014 No. 10113 promulgated 07 February 2018 and any amendments or re-enactments thereto are complied with.

The attached Occupational Health and Safety provisions undertaking form for the Principal Contractor shall be completed and signed by the Project Manager of the company / firm awarded the tender.

Client's Occupational Health and Safety Agent: To be appointed

HS1.7 INFORMATION REQUIREMENTS

The contractor must provide the following information.

HS1.7.1 GENERAL

- The Principal Contractor / Sub-Contractor shall have an OHS Policy in accordance with the OHS(Occupational Health and Safety Act, Act 85 of 1993) and include a copy of the Policy in the Health and Safety Plan to be submitted by the Principal Contractor / Sub-Contractor.
- The Principal Contractor / Sub-Contractor shall promptly display a copy of the Company's OHS Policy on the OHS Notice Board for the duration of the contract and include it into information provided to persons at the contract OHS induction.
- The Principal Contractor shall develop a Contract specific OHS Management Commitment Statement based on the Company's OHS Policy.
- The Principal Contractor's Project Managing shall sign the Commitment statement and prominently display a copy on the OHS Notice Board for the duration of the contract. A copy of the Commitment Statement shall be included in information provided to persons at the Contract OHS induction and a copy shall also be supplied to each sub-contractor.

HS1.7.2 MANAGEMENT

- Details of the personnel and management systems to be put in place to prepare, manage, implement, conduct and monitor the Health and Safety Plan for the project.

Broadly speaking your: -

- Organization's internal structure that establishes SHE (Safety, Health and Environmental) ROLES,

RESPONSIBILITIES, ACCOUNTABILITIES, and REPORTING RELATIONSHIPS,

- SHE (Safety, Health and Environmental) PLANS, POLICIES, PROCEDURES, DIRECTIVES and STANDARDS that provide instructions as to how activities and functions are to be carried out,
- SHE (Safety, Health and Environmental) CONTROLS, INSPECTIONS, REVIEWS, etc. built into construction operations to ensure that performance is consistent with SHE (Safety, Health and Environmental) objectives and requirements,
- SHE (Safety, Health and Environmental) COMMUNICATION MECHANISMS for collecting, handling and reporting information.

In other words Management Systems that specifies WHO is going to do WHAT, WHERE, WHEN, WHY and HOW.

- Details of relevant qualifications and experience held by the persons nominated above, including recent health and safety education and training undertaken.
- Procedures for determining the competence of contractors engaged on the project, whether employed by the contractor directly or by others, to fulfil their duties under the Construction Regulations 2014 No. 10113 promulgated 07 February 2018.

HS1.7.3 HAZARD IDENTIFICATION, RISK MANAGEMENT AND CONTROL

- The Principal Contractor / Sub-Contractor shall detail and implement procedures that will identify hazards, assess risks and determine suitable control measures as they arise throughout term of the contract. These procedures shall both comply with and be implemented and managed in accordance with the specification.
- The Principal Contractor / Sub-Contractor shall detail and implement procedures that ensure control measures are evaluated for effectiveness and modified as necessary. The evaluation procedure shall detail the responsibilities, timelines and records that will be kept as part of the process.
- Where Risk is controlled through administrative control measures, the Principal Contractor / Sub-Contractor shall ensure that the administrative measures are:
 - a) Clearly documented and those personnel responsible for implementation and management are explicitly defined;
 - b) Understood by all relevant personnel through training and assessment;
 - c) Implemented as documented and promptly reviewed for effectiveness following initial implementation;
 - d) Amended and authorised as required;
 - e) Adequately supervised, managed and audited to ensure continuing compliance;
 - f) Available at all times wherever the measures are being implemented.
- ❖ Any piece of plant or equipment not complying with the specification shall cease operation until the Principal Contractor / Sub-Contractor can demonstrate to the satisfaction of the Client / Client's Agent that the piece of non-conforming plant or equipment conforms to these requirements.

HS1.8 HEALTH AND SAFETY PLAN

The Principal Contractor / Sub-Contractor shall develop a Health & Safety Plan to reflect variations in design or changes in site conditions and liaise with the Employer's Agent.

The Principal Contractor shall develop this Health and Safety Plan so that it:

- a) Incorporates the contractor's approach to managing the construction work to ensure the health and

- safety of all persons carrying out the construction work and all persons who may be affected by their work.
- b) Includes the risk assessments prepared by all Contractors under their duties set out in the Construction Regulations 2014 and any other relevant legislation (i.e. the OHS Act and Regulations, etc).
 - c) Includes the arrangements for ensuring that, where appropriate or specifically requested, all Contractors / Sub-Contractors prepare suitable and sufficient method statements for their construction works which incorporate adequate measures for ensuring the health and safety of all persons who may be affected by these works.
 - d) Incorporates the common arrangements for site safety, statutory notices and registers etc.
 - e) Includes the site rules to be adopted for controlling the risks to health and safety during the construction phase(s) or the project.
 - f) Includes reasonable arrangements for monitoring compliance with health and safety legislation and site rules.
 - g) Includes reasonable measures to ensure co-operation between all Contractors and Sub-Contractors in respect of health and safety provisions and prohibitions.
 - h) Includes the steps to be taken to ensure that only authorised persons are allowed into any premises or parts of the site / premises where construction work is being carried out.
 - i) Includes arrangements for emergency procedures.
 - j) Includes arrangements for ensuring that, so far as is reasonably practicable, every Contractor and Sub-Contractor is provided with comprehensible information about the risks to health and safety of that Contractor / Sub-Contractor, or of any employees or other persons under their control, arising out of the construction works, including the emergency procedures
 - k) Includes details of the arrangements for ensuring, so far as is reasonably practicable, that the employees or other persons under the control of any Contractor / Sub-Contractor, and any visitors to the site, receive adequate information about the risks to their health and safety arising out of the construction works and, where necessary, adequate training to carry out their work in a safe and healthy manner.
 - l) Includes arrangements for providing all persons at work on the site and visitors to the site with the opportunity and means of discussing and offering advice on health and safety issues relating to the construction works.
 - m) Includes arrangements for the reporting of any accidents, injuries or dangerous occurrences, including conforming with the statutory requirements.
 - n) Can be modified as the work proceeds to take account of any information received from Contractors / Sub-Contractors, any experience gained during the course of the project or any changes necessary as a result of unforeseen circumstances or alterations to the design.

HS1.9 PROGRAMME

A time estimate required by the contractor to implement the Health & Safety Plan sufficiently for works to commence on site.

HS1.9 COST

A detailed breakdown of costs allowed in the contractor's tender for preparing, managing, implementing and monitoring the Health and Safety Plan, and for complying with the requirements imposed on the Principal Contractors under the Construction Regulations of 2014 No. 10113 promulgated 07 February 2018.

HS1.10 GENERAL SITE SAFETY

HS1.10.1 SAFETY TRAINING & EDUCATION

The Principal Contractor shall detail the OHS competencies and training received by its contract management personnel.

The Principal Contractor's Health and Safety Plan shall have a detailed register of the skills and competencies for all personnel for the activities that the personnel will undertake under the contract. (E.g. Mobile plant operators, crane operators etc.)

The Principal Contractor shall demonstrate and maintain documentary evidence of competencies on site for the duration of the contract.

HS1.10.2 INDUCTION TRAINING

The Principal Contractor / Sub-Contractor shall develop and detail a Site Induction Training Programme as part of the Occupational Health and Safety Plan to be submitted to the Client prior to commencement of construction that includes as a minimum:

- a) Training related to hazards likely to be encountered on Site and control measures that have been developed in response to these hazards;
- b) Roles and Responsibilities;
- c) The requirements of the Health and Safety Plan submitted and approved
- d) Address the identified issues in the Fire Safety, Emergency, Evacuation and Rescue Plan to ensure that all Site personnel are aware of procedures in the event of an incident or emergency occurring;

The Principal Contractor / Sub-Contractor shall evaluate all persons undertaking the site Induction Training through a written test to ensure that inductees have an understanding of the OHS (Occupational Health and Safety) requirements for the contract. The written tests shall be signed and dated by the person undertaking the induction training to attest to their understanding and be retained by the Principal Contractor / Sub-Contractor as a record that the training has been completed.

HS1.10.3 INDUCTION TRAINING FOR SPECIFIED WORK

The Principal Contractor / Sub-Contractor shall conduct Site Specific Occupational Health and Safety Induction Training for all personnel, the Client and all visitors not escorted on Site by inducted persons.

The Principal Contractor / Sub-Contractor shall evaluate all persons undertaking the Site Induction Training through a written test to ensure that inductees have an understanding of the OHS (Occupational Health and Safety) requirements for the contract. The written tests shall be signed and dated by the person undertaking the induction training to attest to their understanding and be retained by the Principal Contractor / Sub-Contractor as a record that the training has been completed.

HS1.10.4 RECORDING & REPORTING OF INJURIES

Make arrangements for all contractors to report accidents, ill health and dangerous occurrences notifiable to the Department of Labour under Section 24 of the OHS Act (Occupational Health and Safety Act, Act 85 of 1993) (Reporting to DOL (Department of Labour) Inspector regarding certain incidents).

All lost time incidents associated with the contract works or reportable as defined by **Section 24** of the OHS Act shall be immediately reported to the Client.

The Principal Contractor / Sub-Contractor shall provide a detailed report of all accidents / incidents, including events that could have become lost time incidents were it not for fortuitous circumstances to the Client within 5 days of the incident occurring. The Principal Contractor / Sub-Contractor shall provide copies of all reports and information associated with the incidents to the Client. Copies of reports must be placed on the Health and Safety File.

Where the Principal Contractor / Sub-Contractor has been:-

- Served with a prohibition, contravention or improvement notice under the OHS Act; or
- Required to comply with any order issued by an inspector for the Department of Labour;
- The Principal Contractor / Sub-Contractor shall immediately supply a copy of that notice, order or notification to the Client.
- Where the Principal Contractor / Sub-Contractor have been served with a summons or is convicted of any offence in relation to occupational health and safety, the Principal Contractor / Sub Contractor shall immediately supply a copy of that summons to the Client.
- The Principal Contractor / Sub-Contractor shall detail the reporting and investigation procedures for incident investigation. The procedures shall include the investigating officer responsible and the time limits imposed for reporting and investigating the incident and to implement corrective action in a timely manner so as to prevent a recurrence.
- The client may participate in or undertake an investigation into the incident, injury or illness at its discretion and the Principal Contractor / Sub-Contractor shall cooperate with and provide assistance to the investigation organized and undertaken by the Client.

HS1.10.5 FIRST AID

- o Establish and implement a first-aid programme to provide emergency treatment to victims of accidents, chemical substances or excessive exposure to toxic substances.

The programme shall include:

- proper first aid facilities administered by qualified personnel,
- first-aid boxes,
- first-aid room, where there are 500 or more workers on site,
- training and re-training of first-aiders,
- first-aid treatment procedures,
- standard procedures,
- special procedures, e.g. for poisoning,
- maintenance of first-aid facilities
- All first-aid provisions shall comply with the OHS Act (Act 85 of 1993)

HS1.10.6 FIRE PROTECTION AND PREVENTION

- Appropriate measures must be taken to avoid the risk of fire.
- Sufficient and suitable storage must be provided for flammable liquids, solids and gases.

- Smoking must be prohibited and notices in this regard must be prominently displayed in all places containing readily combustible or flammable materials;
- Combustible materials must not accumulate on the construction site.
- Welding, flame cutting and other hot work may only be done after the appropriate precautions have been taken to reduce the risk of fire.
- Suitable and sufficient fire-extinguishing equipment must be placed at strategic locations and such equipment must be maintained in good working order.
- A sufficient number of workers must be trained in the use of fire-extinguishing equipment.

HS1.10.7 SITE EMERGENCY PROCEDURES

The Principal Contractor / Sub-Contractor shall establish an Emergency Evacuation and Rescue plan.

The plan shall include the following detail:

- The role and responsibility of every individual in the work area on fire safety emergency evacuation and rescue;
- General work area precautions, fire prevention, detection, protection and warning alarm systems;
- Fire fighting and rescue equipment including types of fire extinguishers;
- Fire safety measures for Site accommodation;
- Escape and communication;
- Fire brigade access, facilities and coordination;
- Fire drills and training including the use of fire fighting equipment;
- Material storage including flammable liquids, gasses and waste;

The Principal Contractor / Sub-Contractor shall ensure that all procedures, precautionary measures and safety standards stipulated in the Plan are communicated, implemented and complied with by all workers including other interfacing contractors on Site.

The Principal Contractor / Sub-Contractor shall practice their emergency preparedness within six (6) weeks of the commencement of work and at least four (4) monthly intervals thereafter.

The Principal Contractor / Sub-Contractor shall review and ensure the adequacy of the Plan as the work progress.

The Principal Contractor / Sub-Contractor shall conduct monthly checks on fire fighting equipment and test alarms and detection devices installed on Site and document findings in a register which shall be on site at all times for inspection.

The Principal Contractor / Sub-Contractor shall conduct weekly inspections of escape routes, fire brigade access, fire fighting facilities and working areas to ensure that the requirements stipulated in the Fire Safety, Emergency, Evacuation and Rescue Plan are complied with. All inspection records shall be documented in registers and kept in the Health and Safety file for inspection at any time.

HS1.10.8 HOUSEKEEPING

Suitable housekeeping must continuously be implemented on the construction site, including:

- proper storage of materials and equipment
- removal of scrap, waste and debris at appropriate intervals;

Loose materials shall not be placed or allowed to accumulate on the site so as to obstruct access and egress from workplaces and passageways.

HS1.10.9 STACKING & STORAGE

- Adequate storage areas must be provided.
- Storage areas must be kept neat and under control.

HS1.10.10 ILLUMINATION

Provide adequate artificial lighting when work is carried out after dark or inside buildings.

HS1.10.11 SANITATION / HYGIENE

Provision of site hygiene facilities:

- One sanitary facility for every 30 workers.
- Adequate washing facilities.
- One shower facility for every 15 workers;

Drying sheds, huts, rooms or other accommodation for sheltering during bad weather, storing clothes and taking meals. Facilities should include tables and chairs, suitable means for boiling water and a supply of wholesome drinking water.

The contractor shall provide reasonable and suitable living accommodation for the workers at construction sites which are remote from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

HS1.10.12 PERSONAL PROTECTIVE EQUIPMENT

The Principal Contractor / Sub-Contractor shall provide and maintain suitable PPE (Personal Protective Equipment) for all employees employed on the Site.

The Principal Contractor / Sub-Contractor shall ensure that such PPE comply with the requirements of the OHS Act (Occupational Health and Safety Act, Act 85 of 1993).

The Principal Contractor / Sub-Contractor shall also ensure that all equipment is properly used by his / her employees during the course of their work.

The Principal Contractor / Sub-Contractor shall record all issues of all equipment to his / her employees in documented registers and such registers shall be kept in the Health and Safety File on site and made available for inspection at all times.

The Principal Contractor / Sub-Contractor shall provide the Client / Client's Agent with a colour code by which employees will be identified with regard to occupations, responsibilities, accountabilities, reporting relationships and access to different locations on site. (e.g. hard hats, overalls).

PPE shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards.

All personal protective equipment shall be of safe design and construction for the work to be performed.

HS1.10.13 PERMIT TO WORK REQUIREMENTS

Institute a "hot work" permit system in respect of:

- metalwork flame cutting,
- site welding,

HS1.10.14 LOCK-OUT

Institute a "Lock-out" procedure in respect of controlling energy so as to prevent unexpected operation or activation of machinery or equipment. This procedure must include a written policy, specific procedures, rules and supervisory follow-up, covering the positive locking of switches and valves to ensure that alterations, maintenance, set-up and or other work can be performed safely.

HS1.10.15 MONTHLY HEALTH AND SAFETY AUDITS

The Principal Contractor shall carry out monthly Health and Safety Audits on the measures contained within his / her Health and Safety Plan submitted to the Client as well as Health and Safety Plans submitted by Sub-Contractors appointed by the Principal Contractor to demonstrate that the required level of health and safety are being achieved and maintained and compile a full report to the Client on such audit.

The Client will audit the Principal Contractor as well as his / her Sub-contractor's Health and Safety Plans from time to time and will advise the Principal Contractor of any matter with which he / she is not satisfied and the Principal Contractor shall take such steps as are necessary to satisfy the Client.

The Client will carry out such audits as he / she considers necessary but not less than monthly.

The Principal Contractor shall make available, specialist personnel as the Client may consider necessary for the performance of such audits.

The Principal Contractor shall develop and maintain an Audit Schedule that details the audits planned to be undertaken by the Principal Contractor of the work under the contract, including sub-contractors, for the duration of the contract. The Audit Schedule shall form part of the Health and Safety Plan that needs to be submitted by the Principal Contractor.

Audit reports shall detail the scope of the audit, the audit questions and the audit findings.

The Client shall be promptly provided with copies of all audit reports together with other documentation to show that all matters raised have been appropriately addressed.

Unless otherwise directed by the Client the Principal Contractor / Sub-Contractor shall undertake its initial OHS Audit within 4 weeks of commencement of work. The Principal Contractor / Sub- Contractor shall undertake subsequent OHS Audits at a frequency not less than once every 3 months.

All Principal Contractor's OHS Audits shall include an assessment of Sub-Contractor compliance with the approved OHS Plan.

HS1.10.16 MANAGEMENT REVIEW

The Principal Contractor shall undertake an independent review of the Health and Safety Plan for the contract in accordance with the requirements of the OHS Act, relevant Regulations and in particular the Construction Regulations 2014.

A review shall be undertaken 3 months after commencement of the contract and every 6 months thereafter for the duration of the contract.

Following the completion of the review, the Principal Contractor shall submit a written report that details the suitability, adequacy and effectiveness of the OHS Plan and to certify that the Site procedures, practices and operations are in accordance with the contract.

HS1.10.17 PROVISION OF INFORMATION

- Provide Sub-Contractors appointed by him / her with the relevant sections of the Health and Safety specifications pertaining to the construction work which has to be performed.
- Where changes are brought to the design and construction, provide sufficient information and appropriate resources to the Sub-Contractor to execute the work safely.
- Discuss and negotiate with Sub-Contractors the contents of the Health and Safety Plan / Plans submitted by them and finally approve such plans for implementation.
- Ensure that copies of Health and Safety plans compiled by the Principal Contractor and his / her Sub-Contractors are available on request to an employee, DOL Inspector, contractor, Client.
- The Principal Contractor / Sub-Contractor shall detail procedures that will ensure that personnel are suitably consulted and communicated with during the planning and application of work activities associated with the contract.
- The Principal Contractor / Sub-Contractor shall detail the procedures for the identification, assessment and control of hazards associated with the day-to-day work activities. These procedures shall include requirements for consultation with personnel involved in the work activity.
- The Principal Contractor / Sub-Contractor shall have procedures for ensuring that OHS information is communicated to and from its personnel. The Principal Contractor / Sub-Contractor shall hold OHS meetings with all personnel or their representatives at the site on a weekly basis.
- Minutes shall be recorded for all OHS meetings and posted on OHS notice boards within 48 hours of the meeting.
- The Principal Contractor / Sub-Contractor shall maintain at the Site an OHS Notice Board located in a prominent position and accessible to all personnel, for the distribution of OHS information.
- The Principal Contractor / Sub-Contractor shall as a minimum, establish and implement procedures for reporting relevant and timely information with regard to OHS Performance and incidents.
- The Principal Contractor / Sub-Contractor shall establish, implement and maintain a controlled copy of all Contract OHS documentation on Site.
- Where the Principal Contractor / Sub-Contractor's Health and Safety Plan references other documentation including the contract, the Principal Contractor / Sub-Contractor shall ensure that section and clause numbers are clearly denoted in its Health and Safety Plan. All documentation referenced in the Health and Safety Plan shall be available on Site for the duration of the contract.
- Ensure that Health and Safety Files kept by Sub-Contractors appointed by the Principal Contractor is kept on site and made available to an inspector, Client.
- Hand over a consolidated health and safety file to the Client upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.
- In addition to the Health and Safety File compile a comprehensive and updated list of all contractors on site accountable to the Principal Contractor as well as the agreements between the parties and the type of work done by them.

HS1.10.18 STOP THE EXECUTION OF CONSTRUCTION WORK

Stop any construction / construction related work conducted by any person on the construction site, which is not in accordance with the Principal Contractor's health and safety plan and or the health and safety plans of Sub-Contractors which possess a threat to the health and or safety of persons.

HS1.10.19 HANDING OVER OF PROJECT HEALTH AND SAFETY FILE

- Hand over a consolidated health and safety file to the Client upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.
- In addition to the Health and Safety File compile and hand over a comprehensive and updated list of all contractors on site accountable to the Principal Contractor as well as the agreements between the parties and the type of work done by them.

HS1.10.20 RECORDS AND RECORDS MANAGEMENT

- The control of records shall be in accordance with the Principal Contractor's / Sub-Contractor's approved Health and Safety Plan for the contract.
- Records shall be registered, ordered and retained on Site in the Health and Safety File for the duration of the contract.

HS1.11.1 CHEMICAL HAZARDS

The following construction materials and substances to be used in the works have been identified as potentially posing special health and/or safety hazards during the project:

NOTE:

The above mentioned is not a definitive list of all potential harmful products. Other materials and substances commonly used during construction may also present health or safety hazards, however, it is deemed that these should be familiar to the average competent Contractor as part of routine risk and OHS (Occupational Health, Safety and Hygiene) assessments and are therefore not included here.

Adopt all precautionary measures provided by manufacturers for storage, use and application of specified materials.

Data sheets for these, and any other materials that will be used for the works, are to be obtained by the contractor from the manufacturers.

HS1.11.2 SAFETY HAZARDS

HS1.11.2.1 TOOLS

C3.7.5.1.1 Hand tools

- Employers shall not issue or permit the use of unsafe hand tools.
- Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs.
- Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.
- The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

HS1.11.2.2 PORTABLE ELECTRICAL TOOLS

No person shall use a portable electric tool with an operating voltage which exceeds 50 to earth unless:

- it is connected to a source of electrical energy incorporating an earth leakage protection device which meets the requirements of section 36 of the OHS Act or,
- it is connected to a source of high frequency electrical energy derived from a generator which is used solely for supplying energy to such portable electric tool and which arrangement is approved by the chief inspector; or
- it is clearly marked that it is constructed with double or reinforced insulation.

Portable electric tools, together with its flexible cord and plug shall be maintained in a serviceable condition.

HS1.12 EXCAVATIONS

- The contractor shall ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing.
- The contractor shall evaluate the stability of the ground before excavation work begins.
- The Contractor shall take suitable and sufficient steps in order to prevent any person from being buried or trapped by a fall or dislodgement of material in an excavation;
- The contractor shall not permit any person to work in an excavation which has not been adequately shored or braced.
- Shoring and bracing may not be necessary where-
 - the sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or
 - such an excavation is in stable material;
 - Provided that-
 - permission being given in writing by the appointed competent person upon evaluation by him or her of the site conditions; and
 - where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional Employer's Agent or a professional technologist competent in excavations shall be decisive and such a decision shall be noted in writing and signed by both the competent person and a professional Employer's Agent or technologist, as the case may be;
- Take steps to ensure that the shoring or bracing is designed and constructed in such manner rendering it strong enough to support the sides of the excavation in question;
- Ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endangering the safety of, any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing;
- Cause convenient and safe means of access to be provided to every excavation in which persons are required to work and such access shall not be further than 6m from the point where any worker within the excavation is working;
- Cause every excavation, including all bracing and shoring, to be inspected-
daily, prior to each shift;

after every blasting operation;

after an unexpected fall of ground;

after substantial damage to supports;

and after rain,

- by a competent person in order to pronounce the safety of the excavation to ensure the safety of persons, and those results are to be recorded in a register kept on site and made available to an inspector, client, client's agent, contractor or employee upon request;
- Cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be-
 - adequately protected by a barrier or fence of at least one meter in height and as close to the excavation as is practicable; and provided with warning illuminates or any other clearly visible boundary indicators at night or when visibility is poor
 - Cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

HS1.13 FORMWORK & SUPPORT WORK

The contractor shall ensure that:

- all form work and support work operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose;
- all form work and support work structures, are adequately designed, erected, supported, braced and maintained so that they will be capable of supporting all anticipated vertical and lateral loads that may be applied to them and also that no loads are imposed onto the structure that the structure is not designed to withstand.
- The designs of form work and support work structures are done with close reference to the structural design drawings and where any uncertainty exists, the structural designer should be consulted.
- All drawing pertaining to the design of form work or support work structures are kept on the site and are available on request by an inspector, contractor, client, client's agent or employee.
- All equipment used in the form work or support work structure are carefully examined and checked for suitability by a competent person, before being used.
- All form work and support work structures are inspected by a competent person immediately before, during and after the placement of concrete or any other imposed load and thereafter on a daily basis until the form work and support work structure has been removed and the results have been recorded in a register and made available on site.
- If, after erection, any form work and support work structure is found to be damaged or weakened to such a degree that its integrity is affected, it shall be safely removed or reinforced immediately.
- Adequate precautionary measures are taken in order to-
- Secure any deck panels against displacement, and
- Prevent any person from slipping on support work or form work due to the application of form work or support work release agents.
- The health of any person is not affected through the use of solvents or oils or any other similar substances.
- Upon casting concrete, the support work or form work structure should be left in place until the concrete has acquired sufficient strength to support safely, not only its own weight but also any imposed loads

and not removed until authorization has been given by a competent person.

- Provision is made for safe access by means of secure ladders or staircases for all work to be carried out above the foundation bearing level.
- All employees required to erect, move or dismantle form work and support work structures are provided with adequate training and instruction to perform these operations safely
- The foundation conditions are suitable to withstand the weight caused by the form work and support work structure and any imposed loads, such that the form work and support work structure are stable.

HS1.14 CONSTRUCTION VEHICLES

The contractor shall ensure that all construction vehicles and mobile plants-

- are of an acceptable design and construction;
- are maintained in a good working order;
- are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
- are operated by workers who-
 - i. have received appropriate training and been certified competent and been authorised to operate such machinery; and
 - ii. are physically and psychologically fit to operate such construction vehicles and mobile plant by being in possession of a medical certificate of fitness;
- have safe and suitable means of access;
- are properly organized and controlled by providing adequate signaling or other control arrangements to guard against the dangers relating to the movement of vehicles and plant, in order to ensure their continued safe operation;
- are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guardrails and crash barriers;
- where appropriate, are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn;
- are equipped with an electrically operated acoustic signalling device and a reversing alarm;
- are on a daily basis inspected prior to use, by a competent person who has been appointed in writing and the findings of such inspection is recorded in a register.

The contractor shall furthermore ensure that:

- no person rides or be required or permitted to ride on any construction vehicle or
 - o mobile plant otherwise than in a safe place provided thereon for that purpose;
- every construction site is organized in such a way that pedestrians and vehicles can move safely and without risks to health;
- the traffic routes are suitable for the persons using them, sufficient in number, in suitable position and of sufficient size;
- every traffic route is, where necessary indicated by suitable signs.
- all construction vehicles and mobile plant left unattended at night, adjacent to a freeway in normal use or adjacent to construction areas where work is in progress, shall have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the

vehicles or plant;

- bulldozers, scrapers, loaders, and other similar mobile plant are, when being repaired or when not in use, fully lowered or blocked with controls in a neutral position, motors stopped and brakes set;
- whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;
- tools and material are secured in order to prevent movement when transported in the same compartment with employees;
- vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried; and
- when workers are working on or adjacent to public roads, reflective indicators are provided and worn by the workers.

HS1.15 ELECTRICAL INSTALLATIONS

- Before construction commences and during the progress thereof, adequate steps must be taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus.
- All parts of electrical installations and machinery must be of adequate strength to withstand the working conditions on construction sites;
- In working areas where the exact location of underground electric power lines is unknown, employees using jackhammers, shovels or other hand tools which may make contact with a power line, must be provided with insulated protective gloves or otherwise that the handle of the tool being used is insulated;
- All temporary electrical installations must be inspected at least once a week and electrical machinery on a daily basis before use on a construction site by competent persons and the records of these inspections must be recorded in a register to be kept on site.
- The control of all temporary electrical installations on the construction site must be designated to a competent person who has been appointed in writing.

HS1.16 USE & STORAGE OF FLAMMABLE LIQUIDS

- Where flammable liquids are being used, applied or stored it must be done in such a manner that would cause no fire or explosion hazard, and that the workplace is effectively ventilated:
 - i. Provided that where the workplace cannot effectively be ventilated-
 - every employee involved is provided with a respirator, mask or breathing apparatus of a type approved by the chief inspector, and
 - ii. steps are taken to ensure that every such employee, while using or applying flammable liquid, uses the apparatus supplied to him or her;
- No person smokes in any place in which flammable liquid is used or stored, and the contractor shall affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking;
- Flammable liquids on a construction site are stored in a well-ventilated reasonably fire resistant container, cage or room and kept locked with proper access control measures in place;
- An adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs;
- Only the quantity of flammable liquid needed for work on one day is to be taken out of the store for use;
- All containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, to be removed from the construction site and safely disposed of;

- Where flammable liquids are decanted, the metal containers are bonded or earthed;
- No flammable material such as cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids.

HS1.17 WELDING & CUTTING

No contractor shall require or permit welding or flame cutting operations to be undertaken, unless:

- the person operating the equipment has been fully instructed in the safe operation and use of such equipment and in the hazards which may arise from its use;
- effective protection is provided and used for the eyes and respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing of persons performing such operations, as well as against heat, incandescent or flying particles or dangerous radiation;
- leads and electrode holders are effectively insulated; and
- the workplace is effectively partitioned off and where not practicable all other persons exposed to the hazards are warned and provided with suitable protective equipment.

No contractor shall require or permit electric welding to be undertaken in wet or damp places, inside metal vessels or in contact with large masses of metal, unless:

- the insulation of the electrical leads is in a sound condition;
- the electrode holder is completely insulated to prevent accidental contact with current-carrying parts;
- the welder is completely insulated by means of boots, gloves or rubber mats; and
- at least one other person who has been properly instructed to assist the welder in case of an emergency is and remains in attendance during operations
- No contractor shall require or permit welding, flame cutting, grinding, soldering or similar work to be undertaken in respect of any tube, tank, drum, vessel or similar object or container where such object or container –
 - is completely closed, unless a rise in internal pressure cannot render it dangerous; or
 - contains any substance which, under the action of heat, may –
 - i. ignite or explode; or
 - ii. react to form dangerous or poisonous substances,

Where hot work involving welding, cutting, brazing or soldering operations is carried out at places, other than workplaces which have been specifically designated and equipped for such work, the Employer shall take steps to ensure that proper and adequate fire precautions are taken.

HS1.18 BLASTING & USE OF EXPLOSIVES

HS1.18.1 SAFETY DISTANCES

The contractor shall:

- apply the safety distances for the respective categories of explosives as stipulated in Annexure 1 of the Explosives regulations;

- where less than five kilograms of explosives is used, apply to the chief inspector of occupational health and safety for a determination of a safety distance which the Employer shall enforce.

HS1.18.2 SUPERVISION OF EXPLOSIVES

In order to ensure that the provisions of the Act and its regulations in relation to explosives workplaces are complied with, the contractor shall in writing appoint a competent and certified person in a full-time capacity to be explosives manager in respect of every workplace where explosives are being used, tested, stored or manufactured:

The contractor shall appoint one or more persons, who are suitably qualified and experienced, as authorized supervisors to assist the explosives manager.

The contractor shall ensure that:

- the explosives manager
 - a. approves in writing the rules, methods, materials, equipment and tools to be used in the danger area;
 - b. ensures that all persons under his or her control are informed of the hazards related to their tasks and are thoroughly trained in safe work procedures, in particular with respect to shock, friction risk of fire, or static electricity, and are familiar with the requirements of the Explosives regulations
 - c. prescribes all protective clothing and equipment to be used in the danger area
 - d. ensures that the processes and equipment specified in schedule licences are safe and appropriate for the manufacturing processes envisaged for the workplace.
- the supervising official
 - a. is at all times in a position to exercise control over the operations
 - b. reports without delay to the explosives manager any plant or
 - c. equipment under his or her control that has or may have posed a risk:
 - d. ensures that all rules implemented in the interest of health and safety are at all times complied with;
 - e. stops all work involving explosives if he or she becomes aware of any risk posed to the health and safety of persons.

HS1.18.3 SAFE HANDLING OF EXPLOSIVES

The contractor shall ensure that:-

- all explosives or ingredients thereof are at all times free of foreign material;
- all reasonable precautions are taken to prevent the spillage of explosives;
- cleaning procedures in the case of a spillage of explosives are prescribed in writing by the explosives manager: Provided that where no cleaning procedures have been prescribed any unusual spillage of explosives shall be reported immediately to the supervising official:
- all waste, paper, timber, rags, cotton and similar materials that have been in contact with explosives or an ingredient of an explosive are disposed of in a manner prescribed in writing by the explosives manager: Provided that at the end of the working day all waste and floor sweepings from danger areas shall be deposited in the designated places;

- the explosives or partly mixed explosives are conveyed as soon and as carefully as possible and taking such precautions and in such a manner as will effectively guard against any accidental ignition or explosion
- only containers provided for the conveyance of explosives are used for transporting explosives or partly mixed explosives and that such containers are at all times kept clean, free from grit and in a good state of repair:
- vehicles containing explosives are left unattended only in designated places
- The contractor shall ensure that: -
 - all material, equipment, tools or similar articles used in a danger area are decontaminated after such use, and that no person makes use of any such article that has not been decontaminated after use in a contaminated area;
 - the certification of the decontamination process is certified and approved by the explosives manager or a person authorized by the explosives manager.
 - Unless permission has been granted by the chief inspector of occupational health and safety, no contractor shall use:
 - explosives in workplaces other than explosives workplaces approved by the chief inspector of occupational health and safety;
 - any explosives for which no provision is made in Explosives regulations.
 - No contractor shall allow unauthorized access to such explosives or bury, dump, hide or abandon any explosives.
 - No contractor shall use any explosive material for blasting purposes unless
 - he or she is in possession of a written permission issued by or under the authority of the chief inspector of occupational health and safety;
 - he or she is undergoing training while using such blasting material under the immediate and constant supervision of a person who is in possession of permission

HS1.18.4 DANGEROUS AREAS

The contractor shall ensure that entry and exit from danger areas is only permitted:

- at the permanent authorized point of entry or exit: Provided that entry or exit at any other point may be authorized by the explosives manager or a person authorized by him if the authorized gatekeeper has been informed thereof;
- for persons and vehicles authorized thereto by the explosives manager or a person authorized by him:
- to visitors under escort by an authorized person who is aware of the hazards attached to the danger area.

The contractor shall keep a register of the entries and exits and that register shall be available on the premises for inspection by an inspector.

No person shall enter the danger area with:

- a. tobacco;
- b. matches, cigarette lighters or other devices capable of generating heat or spark sources;
- c. intoxicating liquor or narcotics;
- d. food, medicine or drinkable fluids: Provided that authorization to enter with such articles may be granted by the explosives manager for purposes of consumption in licensed mess

rooms and smoking areas: Provided further that special rules for the control of such consumption and smoking, approved by the chief inspector of occupational health and safety shall be made in writing and shall be enforced by the Employer, self-employed person or user; or

- e. radio transmitters or cellular telephones; or
- f. The contractor shall ensure that hazard warning signs are clearly displayed at the entrance to any danger area.

HS1.18.5 VESSELS UNDER PRESSURE

HS1.18.6 MANUFACTURER'S DATA PLATE

Every user of a boiler or pressure vessel shall cause a manufacturer's plate with the following minimum particulars to be securely fixed in a conspicuous place to the shell of every such a boiler or pressure vessel:-

- a) Name of manufacturer;
- b) country or origin;
- c) year of manufacture;
- d) manufacturer's serial number;
- e) name, number and date of the standard of design;
- f) design gauge pressure in Pascal's; (design pressure)
- g) maximum permissible operating pressure in Pascal's;
- h) operating temperature;
- i.) capacity in cubic meters; and
- j) mark of an approved inspection authority.

No person shall remove such a manufacturer's plate or wilfully damage or alter the particulars stamped thereon.

HS1.18.7 PORTABLE GAS CONTAINERS

No user shall use or require or permit a portable gas container to be used, and no user shall fill, place in service, handle, modify, repair, inspect or test any portable gas container, other than in compliance with standards incorporated into the Vessels under Pressure regulations.

HS1.18.8 HAND HELD FIRE EXTINGUISHERS

No user shall use, require or permit the use of a hand held fire extinguisher unless designed, constructed, filled, recharged, reconditioned, modified, repaired, inspected or tested in accordance with a safety standard incorporated into the Vessels under Pressure regulations.

No person shall fill, recharge, recondition, modify, repair, inspect or test any hand held fire extinguisher unless a holder of a permit issued by the South African Bureau of Standards in terms of SABS 1475.

HS1.18.9 GAS FUEL USE, EQUIPMENT AND SYSTEMS

No person shall handle, store or distribute a gas fuel in any manner, including the filling of a container, other than in accordance with a health and safety standards.

HS1.18.10 INSPECTION AND TEST

Any user of a boiler or pressure vessel shall cause, where reasonably practicable, such a boiler or pressure vessel, including the appurtenances and automatic controls and indicators, to be subjected to an internal and external inspection, and a hydraulic pressure test to 1.25 times the maximum permissible safe operating pressure as the case may be:

- by an approved inspection authority before commissioning after installation, re-erection or repairs;
- by a person appointed in writing by the user and who is competent to do such inspections and tests by virtue of their training, knowledge and experience in the operation, maintenance, inspection and testing of a boiler or pressure vessel within 36 months from the date of the previous internal and external inspection and hydraulic pressure test: Provided that where a pressure vessel is not subjected to corrosion, the user may dispense with the internal inspection and hydraulic pressure test subject to the written approval of an approved inspection authority:
- Provided further that an inspector may require a specific boiler or pressure vessel to be inspected or tested more frequently or permit a specific boiler or pressure vessel to be inspected or tested less frequently.

HS1.18.11 RECORDKEEPING

Any user of a vessel under pressure shall keep on his premises a record which shall be open for inspection by an inspector in which the results of inspections, tests, modifications and repairs shall be recorded, dated and signed by the competent person.

HS1.18.12 MAINTENANCE

No user shall use, cause or permit a vessel under pressure or gas fuel system, including all automatic controls, indicators and appurtenances, to be used unless it is at all times maintained in a safe working condition and the efficiency thereof is proved by regular testing.

No user shall use or cause or permit a vessel under pressure to be used unless it is kept clean and free from any:

- ❖ carbonized oil or other inflammable material which may ignite under working conditions;
- ❖ material which may cause corrosion; or
- ❖ material which is liable to chemical reaction which may cause an uncontrolled rise in pressure.

HS1.18.12 PHYSICAL HAZARDS

HS1.18.13 ERGONOMICS

- Ensure that assigned tasks do not exceed the limits of the performance capacities of the worker.
- Prevent injury or any detrimental effects to the health of the worker

- Provide that tasks and working conditions will not lead to impairments.

HS1.18.14 NOISE

No contractor shall require or permit an employee to work in an environment in which he is exposed to an equivalent noise level equal to 85 dB(A) or higher. The contractor shall reduce the equivalent noise level to below 85 dB(A) or, where this is not reasonably practicable, he shall reduce the level to as low as is reasonably practicable and take all reasonable steps to isolate the source of the noise acoustically. Where the equivalent noise level in any workplace cannot be reduced to below 85 Db (A) the contractor shall:-

- prohibit any person from entering a noise zone unless such person wears hearing protectors.
- The contractor shall provide, free of charge, hearing protectors to each employee who works in or, to any person who is required or permitted to enter a noise zone, and no contractor shall require or permit any person to work in or enter such noise zone, and no person shall work in or enter such noise zone, unless he wears such hearing protectors in the correct manner.

Provided that where the equivalent noise level to which employees are exposed, is such that the attenuation of the hearing protectors does not reduce the said noise to below 85 dB(A) the Employer concerned shall limit the time during which employees work in that noise zone in such a way that they are not exposed to an equivalent noise level equal to 85 dB(A) or higher.

The contractor shall properly instruct any person who is required to wear hearing protectors in the use of such protectors and inform him of noise zones where the wearing thereof is compulsory.

The contractor shall:

- ensure that every employee employed in a noise zone is subjected to audiometric examinations conducted in accordance with section 7 of SABS 083, by an audiometrist approved by the chief inspector;
- keep records of the results of each audiometric examination and make such records available for inspection by an inspector if he so requires; and
- keep such records for a minimum period of 30 years after termination of employment: Provided that if the Employer ceases activities all such records shall be forwarded to the regional director.

HS1.18.14 VIBRATION

Whole-body vibration occurs when the body is supported on a surface which is vibrating (e.g., when sitting on a seat which vibrates, standing on a vibrating floor or recumbent on a vibrating surface). Whole-body vibration occurs in all forms of transport and when working near some industrial machinery.

Hand-transmitted vibration is the vibration that enters the body through the hands. It is caused by various processes where vibrating tools or work pieces are grasped or pushed by the hands or fingers. Exposure to hand-transmitted vibration can lead to the development of several disorders.

HS1.18.15 SITE WIDE ELEMENTS HS1.18.15.1**SITE ACCESS AND EGRESS**

- Access to the site will involve crossing the public footpath.
- Store materials and plant away from means of access for the general public and occupants.
- Remove rubbish and demolition materials regularly. Do not allow to accumulate on flat roofs.
- Maintain free access through designated means of escape at all times
- Agree with the Employer's Agent delivery points for materials before commencing works.

HS1.18.15.2 VISITORS TO THE SITE

- All visitors to report to the Principal Contractor's reception area for OHS Induction training.
- All visitors to sign the visitor's registration document.
- All visitors to be provided with a Visitors Permit to enable them to access the construction site.
- All un-inducted visitors must be accompanied on the construction site by an inducted person.
- No visitors shall be allowed to access the construction site without wearing the necessary PPE.

HS1.18.16 DELIVERIES

Access will involve crossing the public footpath.

HS1.18.17 EMERGENCIES

Ensure that there are adequate escape routes and that they are kept clear at all times.

HS1.18.18 LOCATION OF TEMPORARY SITE ACCOMMODATION

See Site Lay-out Plan.

HS1.18.19 LOCATION OF MATERIALS UNLOADING AND STORAGE

Materials are to be unloaded and stored in locations which will not in any way affect access or egress to the site nor the works.

HS1.19.1 TRAFFIC AND PEDESTRIAN ROUTES

The road, public footpaths and access way are to be kept open at all times. All necessary signage and barriers are to be put in place to protect pedestrians at the site entrance and access and egress points.

HS1.19.2 SAFETY

- Ensure that all employees are aware of the Health and Safety policy and put into place arrangements to ensure that all visitors and workers new to the site are aware of the site safety provisions.
- Locate underground electricity cables, mark and take precautions to avoid.
- Ensure that cartridge operated tools are operated by trained personnel and in accordance with the maker's instructions that the gun is cleaned regularly and kept in a secure place when not in use.
- Protect people who may be exposed to health risks arising from hazardous substances.

HS1.19.3 CONTINUING LIAISON

The procedures for consideration and evaluation of the health and safety implications of Contractor designed elements of the works must follow the recognised principles of prevention and protection and take account of the issues highlighted in this OHS Specification.

The following information is to be submitted by the Contractor to the Employer's Agent in sufficient time to allow adequate consideration by the Employer's Agent and, where appropriate, the design team, and the provision of relevant information to those persons affected by the works, prior to the commencement of the relevant works:

- Suitable and sufficient information to demonstrate that health or safety issues have been adequately considered.
- Risk assessments.

- A list of health and/or safety hazards identified which cannot be designed out.
- A list of any materials or substances which are specified or inherent in the design which is potentially hazardous to health and/or safety.

HS1.19.4 UNFORESEEN EVENTUALITIES

The following action is to be taken in the event of unforeseen eventualities arising during the construction stage of the project which require significant design changes, or affect the resources required to carry out the work without risk to health and/or safety, or have other health or safety implications.

The Client / Client's Agent and, where possible, the Principal Contractor are to be advised as soon as possible.

Full details of the relevant health and safety issues involved are to be reviewed with the Client / Client's Agent and Principal Contractor as soon as possible.

Full details of any revised designs, risk assessments and identified hazards and/or hazardous materials and substances are to be issued to the Client / Client's Agent and Principal Contractor in sufficient time to allow for the revision of the Health and Safety Plan and notification of all persons affected by the health and/or safety implications of the changes prior to the commencement of the affected works.

HS1.19.5 SITE LIAISON

Liaise with all other contractors and implement any agreed changes to the Health and Safety Plan arising from such liaison. Set up regular training for all operatives including induction training for all staff upon arrival to site.

HS1.19.6 HEALTH AND SAFETY FILE

Provide the Planning Supervisor with any relevant information which the contractor believes should be incorporated into the Health and Safety File.

HS1.19.7 DESIGN DEVELOPMENT

Provide the Client with all design information prepared by sub-Contractors.

Arrange liaison meetings with sub-contractors to discuss and review health and safety issues arising from the sub-contractors' designs.

HS1.19.8 CONCLUSION

The hazards listed above were identified posing potential threats to the health and or safety of persons that will work on the contract. Although every effort were made to ensure that every possible hazard was identified the Employer cannot guarantee this, therefore it is imperative for the contractor to conduct a comprehensive risk identification and hazard assessment in order to make certain that all hazards are identified.

HS1.19.9 MANAGEMENT

Management of the works

The management of the site shall be in accordance with the provisions of the SANS Standard Specification for Building Works (1998 edition).

C4.1.2 EMP Specifications



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
**CO-OPERATIVE GOVERNANCE,
HUMAN SETTLEMENTS & TRADITIONAL AFFAIRS**

**CONSTRUCTION OF COMMUNITY RESIDENTIAL UNITS(CRU)
(TOP STRUCTURE) AND INSTALLATION OF ENGINEERING
SERVICES AT TALANA HOSTEL IN GREATER TZANEEN
MUNICIPALITY WITHIN MOPANI DISTRICT MUNICIPALITY-
DRAFT EMP SPECIFICATIONS**

ENVIRONMENTAL MANAGEMENT SPECIFICATIONS

PD ENVIRONMENTAL PROTECTION AND CONTROL SPECIFICATIONS

CONTENTS

PD1	PLANS
PD2	USE OF LAND
PD3	VEGETATION CLEARANCE PD4
	PROTECTION OF VEGETATON
PD5	PROTECTION OF FAUNA
PD6	ARCHAEOLOGICAL ARTEFACTS
PD7	SCENIC QUALITY
PD8	WORKING AREA
PD9	ACCESS BUILDINGS
PD10	FIRES
PD11	FENCING
PD12	TOPSOIL
PD13	BORROW PITS AND QUARRIES
PD14	EROSION PREVENTION
PD15	EARTHWORKS
PD16	SPOIL AND WASTE MATERIAL
PD17	BLASTING
PD18	PREVENTION OF OIL POLLUTION
PD19	REFUSE DISPOSAL
PD20	ABLUTION FACILITIES
PD21	CLEARANCE OF SITE ON COMPLETION
PD22	ENVIRONMENTAL AWARENESS OF EMPLOYEES
PD23	COMPLIANCE WITH ENVIRONMENTAL PROTECTION SPECIFICATIONS
PD24	SUBCONTRACTED WORK
PD25	MEASUREMENT AND PAYMENT

PD1 PLANS

Prior to establishment of the site camp(s), the Contractor shall produce a plan showing the positions of all buildings, lay down yards, vehicle wash areas, fuel storage areas, batching areas and other infrastructure for approval by the Employer's Agent or the Environmental Officer.

PD2 USE OF LAND

The Contractor shall not use the land forming the Site of, or connected with the Works, for any purpose whatsoever other than for the proper carrying out of the Works under the Contract and shall place any camps that may be required for himself and his employees only on sites approved by the Employer's Agent. No trees or bushes shall be damaged or cut down by the Contractor or

by any of his employees whether for use on the works or otherwise without the written consent of the Employer's Agent or the Environmental Officer and then only where and in the manner as they may direct.

PD3 VEGETATION CLEARANCE

PD3.1 Woody vegetation

Prior to the start of construction, woody vegetative matter shall be stripped. This material shall either be spread randomly throughout the surrounding veld so as to provide biomass for the other micro-organisms and habitats for small mammals and birds, or it may be stockpiled for later redistribution over the reinstated top-soiled surface.

No vegetative matter shall be burnt or remove for firewood.

PD3.2 Herbaceous vegetation

During clearing of woody vegetation no basal cover or grass and topsoil shall be removed and damage to this layer shall be minimized as far as possible.

PD3 PROTECTION OF VEGETATION

The Contractor shall ensure that all works are undertaken in such a manner that vegetation outside the Works area is not damaged under any circumstances.

PD4.1 Vegetation outside the Works area

The following provisions shall apply with respect to the protection of areas of vegetation adjacent to the marked Works areas.

No tree or shrub outside the Works area shall be felled, lopped, cut or pruned until it has been clearly marked for this purpose by the Employer's Agent or the Environmental Officer. The method of marking will be specified by the Employer's Agent or the Environmental Officer, and the Contractor will be informed in writing.

No tree outside the Works area shall be burned for any reason.

For every tree protected by these specifications which is removed or, in the opinion of the Employer's Agent or Environmental Officer, is unduly damaged by the Contractor, the Contractor shall pay a penalty of **R5 000.00** per tree to the client.

PD4.2 Vegetation within or adjacent to the Works area

No tree or shrub within the works area shall be felled, lopped, cut or pruned without the prior written approval of the Employer's Agent or the Environmental Officer.

Trees which have been selected for preservation by the Employer's Agent or the Environmental Officer within or adjacent to the Works area shall be fenced around their drip line. The fence shall be clearly marked with danger tape. No open fires shall be allowed within this fenced area, nor shall vehicles be parked underneath these trees.

If trees are located within the working width of the pipeline, the pipeline shall be aligned to avoid these trees wherever possible.

PD4.3 Transplantation of rare and endangered plant species

Prior to vegetation clearing any rare or endangered plant species which have been identified by the Environmental Officer or Employer's Agent must be removed and transplanted as instructed by these persons.

PD4.3.1 Transplanting of small trees (1 to 1,5m height) and shall shrubs (0,5 to 1m height).

- a) Trees and shrubs shall only be transplanted between the months April and September. Deciduous trees and shrubs shall be transplanted only when they are in leafless conditions.
- b) Holes for transplanting trees and shrubs shall be dug before these plants are dug out. Trees shall be planted in holes of 1m x 1m x 1m and shrubs shall be transplanted in holes of 600mm x 600mm.
- c) Trees and shrubs shall be planted so that their stems or trunks are at the same depth as in their original location. The orientation of the transplanted plants must be the same as in their original location (i.e. the north-facing side must remain north facing).
- d) Transplanted plants shall be pruned to limit transpiration. Plants shall also be sprayed with an evapo-transpiration retardant liquid if they are evergreen.
- e) Transplanted plants shall be watered once a week for 5 weeks and thereafter once every 2 weeks.

PD4.3.2 Transplanting of Aloes, succulents and bulbous plants

- a) Aloes, succulents and evergreen bulbous plants may be transplanted at any time of the year. Deciduous bulbous plants shall be transplanted when they are leafless.
- b) Aloes and bulbous plants shall be planted in similar soil conditions and to the same depth as they were before removal.
- c) Transplanted aloes and bulbs shall be watered once directly after transplanting to settle the soil.

PD4.4 Alien vegetation

The Contractor shall remove all alien vegetation from the works area for the duration of construction. Such vegetation will be identified by the Environmental Officer and the method of eradication will be specified by him.

PD5 PROTECTION OF FAUNA

The Contractor shall ensure that all Works are undertaken in a manner which minimizes the impact on the local fauna and shall apply the following specifications with respect to fauna management and protection.

Under no circumstances shall any animals be handled, removed, killed or interfered with by the Contractor, his employees, his subcontractors or his subcontractor's employees.

The Contractor and his employees shall not bring any domestic animals onto the site.

The Contractor shall ensure that the work site is kept clean and tidy and free from rubbish which would attract animal pest species.

There shall be no feeding of animals.

The Contractor shall ensure that domestic and native animals belonging to the local community are kept away from unprotected works.

PD6 ARCHAEOLOGICAL ARTEFACTS

The Contractor shall engage an archaeologist to demarcate archaeological sites identified during the impact study.

Archaeological sites shall be protected by a three strand fence which will be at least 2m outside the extremities of the site. The fence shall be clearly marked with danger tape.

Should the Contractor expose any archaeological artifacts during excavation, work on the area where the artifacts were found shall cease immediately and the Employer's Agent or the Environmental Officer shall be notified as soon as possible.

Upon receipt of such notification, the Employer's Agent or the Environmental Officer will arrange for the excavation to be examined by an Archaeologist as soon as practicable. Acting upon advice from the Archaeologist, the Employer's Agent will advise the Contractor of necessary actions to be taken. The Employer's Agent will take all necessary actions to ensure that delays are minimized.

Under no circumstances shall archaeological artifacts be removed, destroyed or interfered with by the Contractor, his employees, his subcontractors or his subcontractor's employees.

The Contractor shall ensure that none of his employees gain access to any archaeological areas (whether fenced or unfenced), except when authorized to do so by the Employer's Agent or the Environmental Officer.

PD7 SCENIC QUALITY

The Contractor shall not establish or undertake any activities which, in the opinion of the Resident Employer's Agent or Environmental Officer, are likely to adversely affect the scenic quality of the area. The Employer's Agent may direct the Contractor to refrain from such activities or to take ameliorative actions to reduce the adverse effect of such activities on the scenic quality of the environment.

No painting or marking of natural features shall be done. Marking for surveying and other purposes shall only be done with pegs and beacons.

All cut and fill forms shall be rounded at the edges to blend them with the surrounding land forms.

All packed rock and exposed rock cuttings shall be treated in order to blend their colour with the colour of the natural weathered rocks of the adjacent environment.

PD8 WORKING AREA

The area of construction along the pipelines shall be contained within 5m servitude. Any work done outside the servitude, e.g. stockpiling of excavated material, use for access, etc shall only be done after discussion with and obtaining the written approval of the affected land owners.

The servitude shall be temporarily fenced for the portion under construction at any one time. The fence shall be progressively erected and removed as the work proceeds. The location and extent of the fence shall be determined by the Employer's Agent or the Environmental Officer.

PD9 ACCESS BUILDINGS

No new permanent access buildings shall be developed by the Contractor other than those determined or approved by the Employer's Agent.

Existing buildings shall be used as far as possible for inspection purposes.

Topsoil shall be stripped as described under item PD12 "Topsoil" prior to construction and reinstated on completion of use of the building.

PD10 FIRES

No open fires shall be permitted except in areas specifically prepared and controlled for this purpose.

PD11 FENCING

Fencing shall be erected around sensitive natural or cultural elements to protect them from damage. No pedestrian or vehicular access shall be allowed to such fenced areas.

In places where temporary fencing is required, the Contractor shall erect such fencing when and where required by the Site Employer's Agent, and re-erect and maintain temporary fencing as necessary. Temporary fencing shall remain in position either until it is replaced by permanent fencing or until completion of the whole of the Works, unless the Contractor requires, or the Employer's Agent or the Environmental Officer directs, its earlier removal. The Contractor shall erect and maintain the aforementioned temporary fencing in the locations and for the period described in the Contract.

If temporary fencing is removed temporarily for the execution of any part of the Works it shall be reinstated as soon as practicable by the Contractor.

The clearing for permanent fencing shall be limited to the removal of trees and shrubs within 1m of the fence line. There shall be no removal of the grass cover or topsoil within this width.

Any fences damaged by the Contractor shall be repaired as soon as practicable at his cost.

PD12 TOPSOIL

PD12.1 Source of topsoil

Topsoil shall be stripped from all areas that are to be utilized during the construction period and where permanent structures and access is required. These areas will include all areas to be excavated, temporary and permanent access buildings, construction camps and borrow pits.

Topsoil shall be stripped after clearing of woody vegetation and before excavation or construction commences.

The topsoil is regarded as the top 300mm of the soil profile irrespective of the fertility and composition of the soil.

PD12.2 Topsoil stripping

Soil shall be stripped to a minimum depth of 150mm or to the depth of bedrock where soil is shallower than 150mm. herbaceous vegetation, overlying grass and other fine organic matter shall not be removed from the stripped soil.

The topsoil is regarded as the top 300mm of the soil profile irrespective of the fertility and composition of the soil.

PD12.3 Topsoil stockpiling

Stripped topsoil shall be stockpiled on sites adjacent to where it has been stripped which have been approved by the Employer's Agent. Soil stockpile shall not take the form of windrows, unless this can be placed far enough away from the working area. This is to prevent the soil from being spread out or mixed with the other spoil during construction.

Topsoil stripped from different soil zones shall be stockpiled separately and clearly identified as such. Topsoil obtained from different sites shall not be mixed.

Soil stockpiles shall not be higher than 2,5m, and the slopes of soil stockpiles shall not have a vertical horizontal gradient exceeding 1:2,5.

No vehicles shall be allowed access onto the stockpiles after they have been placed. Topsoil stockpiles shall be clearly demarcated in order to prevent vehicle access and later identification as the resource for rehabilitation and vegetation establishment.

Soil stockpiles shall not be allowed to become contaminated with oil, diesel, petrol, garbage or any other material which may inhibit the later growth of vegetation in the soil.

After topsoil stockpiling has been completed, the Contractor shall apply soil conservation measure to the stockpiles to the approval of the Employer's Agent or Environment Officer.

PD12.4 Topsoil placement

Topsoil shall be placed to a minimum depth of 150mm over all areas where it has been stripped and over disused borrow pits after construction in those areas has ceased. Topsoil placement shall be done concurrent with construction as soon as construction in an area has ceased.

All areas onto which topsoil is to be spread shall be graded to the approximate original landform with maximum slopes of 1:2.5 and shall be ripped prior to topsoil placement. The entire area to be topsoiled shall be ripped parallel to the contours to a minimum depth of 150mm.

Topsoil shall be placed in the same soil zone from which it had been stripped. However, if there is insufficient topsoil available from a particular soil zone to produce minimum specified depth, topsoil of similar quality may be brought from other reservoir sites.

Where insufficient topsoil that has been stripped by the Contractor to provide the minimum specified depth, the Contractor shall obtain suitable material from other sources at no cost to the Employer. The suitability of the substitute material shall be determined by means of a soil analysis which is acceptable to the Employer's Agent or the Environmental Officer.

No vehicles shall be allowed access onto topsoil after it has been placed.

After topsoil placement is complete, cleared and stockpiled vegetation matter shall be spread randomly by hand over the topsoil area as instructed by the Environmental Officer.

PD13 BORROW PITS AND QUARRIES

If a borrow pit is to be developed or an existing one is to be extended, all topsoil from the area that is to be quarried must be stripped and stored for later rehabilitation of the pit.

Stripping and excavation actions shall be progressive in such manner that those parts of a borrow pit or quarry where work is complete can be rehabilitated while other areas are still being quarried.

Cut slopes of borrow pits and quarries shall not have a vertical horizontal gradient of not steeper than 1:3, preferably 1:5.

Borrow pits shall be used as dump sites for excess rock spoil. On completion of spoiling the pits shall be reshaped and covered with a layer of topsoil. On no account may spoil or rock be placed in drainage ways without prior consent being obtained from the Employer's Agent.

Storm water cut off drains shall be provided at the top of the cut slope, where identified as necessary by the Employer's Agent, to prevent erosion of the rehabilitated surface of the borrow pit or quarry.

No borrow pit shall be used as a dump site for refuse material or for toxic material e.g. cement, oil, diesel, rubber and similar materials.

PD14 EROSION PREVENTION

The Contractor shall take measures, to the approval of the Employer's Agent, to ensure that there is no undue storm water damage and soil erosion resulting from the construction activities inside and outside the construction camp and Works areas.

Surface storm water shall, where possible, not be allowed to be concentrated and to flow down cut or fill slopes without erosion protection measures being in place.

Overflow and/or scour channels shall be lined with stone pitching along their length and at their points of discharge to prevent soil erosion. The point of discharge shall be at a point where

there is dense natural grass cover. These channels shall not discharge straight down the contours but shall be aligned at such an angle to the contours that they have the least possible gradient.

PD15 EARTHWORKS

All cut and fill forms should be rounded on the edges to allow them to blend with the surrounding ~~lands~~

PD16 SPOIL AND WASTE MATERIAL

The Contractor shall load and haul excess spoil to fill in the borrow pits or to dump sites approved by the Employer's Agent. The dumped material must be finally rounded off to have slopes not steeper than 1:3.

The Contractor shall remove all foundations and similar waste and transport all such waste material off site to dump areas which have been approved by the Employer's Agent.

PD17 BLASTING

Contractor shall take measure to limit flying rock during blasting operations.

Fly rock 150mm and larger which falls beyond and cleared working area shall be collected and removed together with the rock spill.

When blasting under power lines the Contractor shall arrange for power to be temporarily switched off or have the lines moved or comply with the requirements of ESKOM who will be advised in reasonable time of the intention to blast.

PD18 PREVENTION OF OIL POLLUTION

Waste run-off water from the vehicle wash bays, workshops and diesel/fuel tan areas shall be collected in a series of covered conservancy tanks with oil baffles/oil traps. The oil sludge thus collected shall be disposed of at an approved toxic waste disposal site. Water from conservancy tanks shall be drained to retention areas to allow silt settlement.

Above mentioned areas should be dished concrete floor slabs which drain into the conservancy tanks.

All spillage of oil onto concrete surfaces shall be controlled by the used of an approved absorbent material such as Oclansorb or Drizit.

All old oils shall be retained for re-cycling by the supplier.

All soil contaminated by oil, fuel, etc. shall be collected immediately and disposed of at an acceptable disposal site to the approval of the Employer's Agent or the Environmental Officer.

PD19 REFUSE DISPOSAL

The Contractor shall dispose of all refuse generated by him or his subcontractor on a weekly basis at an approved refuse disposal site.

PD20 ABLUTION FACILITIES

Portable toilets shall be placed within easy access of the Contractor's employees. These shall be moved to follow the progression of the works.

PD21 CLEARANCE OF SITE ON COMPLETION

On completion of the Works the Contractor shall clear away and remove from the works areas all constructional plant, surplus rock and other materials, foundations, plumbing and other fixtures, rubbish and temporary works of every kind. Areas thus cleared shall be graded and scarified to restore the ground to its original profile as near as practicable before topsoil placement.

PD22 ENVIRONMENTAL AWARENESS OF EMPLOYEES

The Contractor shall arrange that all his employees and those of his subcontractors receive environmental training before the commencement of construction to the satisfaction of the Employer's Agent or Environmental Officer, in order that these employees:-

- a) Acquire a basic understanding of the key environmental features of the work site and environs;
- b) Are thoroughly familiar with the requirements of the Environmental Protection and Control Specifications as they apply to the Works;
- c) Receive basic training in the identification of archaeological artefacts, and rare and endangered flora and fauna that may be encountered along the route;
- d) Are made aware of any other environmental matters which are deemed to be necessary by the Employer's Agent or the Environmental Officer.

PD2 3 COMPLIANCE WITH ENVIRONMENTAL PROTECTION SPECIFICATIONS

All persons employed by the Contractor or his subcontractors shall abide by the requirements of these Specifications as they apply to the works.

Any employees of the Contractor or his subcontractors found to be in breach of any of the Environmental Protection Specifications may be ordered by the Employer's Agent to leave the site forthwith. The order may be given orally or in writing. Confirmation of an oral order will be given as soon as practicable but lack of confirmation in writing shall not be a cause for the offender to remain on site. No extension of time will be granted for any delay or impediment to Contractor brought about by a person ordered to leave the site.

Supervisory staff of the Contractor or his subcontractors shall not direct any person to undertake any activities which would place such person in contravention of the Environmental Protection and Control Specifications.

For every tree protected by these specifications which is removed or, in the opinion of the Employer's Agent or the Environmental Officer, is unduly damaged by the Contractor, the Contractor shall pay a penalty of R5 000.00 per tree.

PD24 SUBCONTRACTED WORK

Subcontractors and their employees shall comply with all the requirements of the Environmental Protection and Control Specifications that apply to the Contractor. Absence of specific reference to the subcontractor in any specification does not imply that the subcontractor is not bound by that specification.

PD25 MEASUREMENT AND PAYMENT

The reinstatement of borrow pits, pipe trenches and work areas shall be included in the contractor's rates for earthworks and excavations. Erosion protection such as construction of berms for storm water drainage shall be included in the rates for pipe trenches and excavations of earthworks. Only gabions, where instructed by the Employer's Agent will be paid separately.

C4.1.3

Site Information



The Site is located on the following coordinates: S 23° 10' 42", E 30° 10' 37"

C4.1.4 Construction Notice Board

C4.1.5 Tender Drawings

C4.1.6 Geotechnical Investigation

4.1.7 Pro Forma Documents – Skills Development