

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
<u>SECTION NO. 1 - PRELIMINARIES</u>					
<u>BILL NO. 1 PRELIMINARIES</u>					
<u>BUILDING AGREEMENT AND PRELIMINARIES</u>					
The JBCC Principal Building Agreement (Edition 6.2 - May 2018) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described					
The JBCC Principal Building Agreement contract data form an integral part of this agreement					
The JBCC General Preliminaries (May 2018) published by the Joint Building Contracts Committee for use with the JBCC Principal Building Agreement (Edition 6.2 - May 2018) shall be deemed to be incorporated in these bills of quantities , amended as hereinafter described					
The contractor is deemed to have referred to the abovementioned documents for the full intent and meaning of each clause					
The clauses in the abovementioned documents are hereinafter referred to by clause number and heading only					
Where any item is not relevant to this agreement such item is marked N/A signifying "not applicable"					
Where standard clauses or alternatives are not entirely applicable to this agreement such amendments, modifications, corrections or supplements as will apply are given under each relevant clause heading and such amendments, modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the abovementioned documents					
<u>PREAMBLES FOR TRADES</u>					
<u>User note</u>					
The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors shall be deemed to be applicable in these bills of quantities and no claims arising from brevity of description of items fully described in the said General Preambles will be entertained					
Carried to Collection					

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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<p>The contractor is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this agreement. Value Added Tax (VAT) is to be separately stated on the summary page of these bills of quantities</p> <p>Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the contractor's omission to price any item will be entertained</p> <p>Prices for all construction equipment, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary</p> <p>Abbreviated descriptions</p> <p>The items in these bills of quantities utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the contractor shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of international best practice</p> <p>Legal status of contractor</p> <p>If the contractor constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:</p> <p>1. These persons are deemed to be jointly and severally liable to the employer for the performance of this agreement</p> <p>2. These persons shall notify the employer of their leader who has assigned authority to bind the contractor and each of these persons</p> <p>3. The contractor shall not alter its composition or legal status without the prior written consent of the employer</p> <p>F:..... V:..... T:.....</p> <p>Carried to Collection</p>	Item		1		

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
2	<p>Clause 2.0 - Law, regulations and notices</p> <p>NHBRC levies</p> <p>The employer shall allow for and pay any levies required by the National Home Builders Registration Council (NHBRC). The contractor warrants that he is registered and will maintain registration with the NHBRC for the duration of this agreement [2.1]</p> <p>F:..... V:..... T:.....</p>	Item		1		
3	<p>Clause 3.0 - Offer and acceptance</p> <p>F:..... V:..... T:.....</p>	Item		1		
4	<p>Clause 4.0 - Cession and assignment F:.....</p> <p>V:..... T:.....</p>	Item		1		
5	<p>Clause 5.0 - Documents</p> <p>Value Added Tax</p> <p>Provision is made in the summary page of these bills of quantities for the inclusion of Value Added Tax (VAT)</p> <p>Priced document as specification</p> <p>Clause 5.4 is deemed to be deleted</p> <p>The principal agent shall decide which portion of the priced document may be used as a specification of materials and goods or methods, if any</p> <p>Electronic issue of drawings</p> <p>Drawings for this project will be issued electronically and the contractor shall be deemed to have received such drawings on the date that such drawings have been dispatched electronically [5.6]</p> <p>F:..... V:..... T:.....</p>	Item		1		
	Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
6	<p>Clause 6.0 - Employer's agents</p> <p>Delegated authority may be dealt with in B 5.0 of the contract data.</p> <p>Delegated authority</p> <p>The authority of the principal agent to issue contract instructions [17.1] and perform duties for specific aspects of the works is delegated to agents as follows [6.2]. This does not preclude the principal agent from issuing such contract instructions:</p> <p><u>1. Architect</u></p> <p>Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA</p> <p>1.1 Duties [6.2] : The architect is responsible for the architectural design, functional design and quality inspection of the works</p> <p>1.2 Contract instructions [6.2; 17.1] :</p> <p>1.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>1.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p>					
	Carried to Collection					

[illegible]

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<p>2.1 Duties [6.2] : The quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the works</p> <p>2.2 Contract instructions [6.2; 17.1] :</p> <p>2.2.1 No contract instructions delegated to the quantity surveyor</p> <p><u>3. Civil and structural engineer</u></p> <p>Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA</p> <p>3.1 Duties [6.2] : The civil and structural engineer is responsible for all aspects of civil and structural engineering design and quality inspection of the works</p> <p>3.2 Contract instructions [6.2; 17.1] :</p> <p>3.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>3.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>3.2.3 The site [13.0]</p> <p>3.2.4 Compliance with the law, regulations and bylaws [2.1]</p> <p>3.2.5 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>3.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p>					
	Carried to Collection					

[illegible]

[illegible]

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<p>5.1 Duties [6.2] : The electrical engineer is responsible for all aspects of electrical engineering design and quality inspection of the works ? and, where appointed by the employer for quantity surveying services in respect of the electrical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions</p> <p>5.2 Contract instructions [6.2; 17.1] :</p> <p>5.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>5.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>5.2.3 Compliance with the law, regulations and bylaws [2.1]</p> <p>5.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>5.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>5.2.6 Removal or re-execution of work</p> <p>5.2.7 Removal or substitution of any materials and goods</p> <p>5.2.8 Protection of the works</p> <p>5.2.9 Making good physical loss and repairing damage to the works [23.2.2]</p> <p>5.2.10 Rectification of defects [21.2]</p> <p>5.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p>5.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums ?</p> <p><u>6. Wet services engineer</u></p>					
	Carried to Collection					

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA					
6.1 Duties [6.2] : The wet services engineer is responsible for all aspects of wet services engineering design and quality inspection of the works					
6.2 Contract instructions [6.2; 17.1] :					
6.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement					
6.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works					
6.2.3 Compliance with the law, regulations and bylaws [2.1]					
6.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works					
6.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]					
6.2.6 Removal or re-execution of work					
6.2.7 Removal or substitution of any materials and goods					
6.2.8 Protection of the works					
6.2.9 Making good physical loss and repairing damage to the works [23.2.2]					
6.2.10 Rectification of defects [21.2]					
Carried to Collection					

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
6.2.11A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion					
6.2.12Expenditure of budgetary allowances, prime cost amounts and provisional sums					
<u>7. Fire consultant</u>					
Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA					
7.1 Duties [6.2] : The fire consultant is responsible for all aspects of rational fire design and quality inspection of the works					
7.2 Contract instructions [6.2; 17.1] :					
7.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement					
7.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works					
7.2.3 Compliance with the law, regulations and bylaws [2.1]					
7.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works					
7.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]					
7.2.6 Removal or re-execution of work					
7.2.7 Removal or substitution of any materials and goods					
Carried to Collection					

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
7.2.8 Protection of the works					
7.2.9 Making good physical loss and repairing damage to the works [23.2.2]					
7.2.10 Rectification of defects [21.2]					
7.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion					
7.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums					
<u>8. Health and safety consultant</u>					
8.1 Duties [6.2] : The health and safety consultant is responsible for all aspects of health and safety of the works. Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the works. He shall:					
8.1.1 Act as the employer's agent in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended					
8.1.2 Prepare and update the health and safety specification for the works					
8.1.3 Agree with the contractor the health and safety plan for the works					
8.1.4 Carry out regular audits to ensure adherence to the safety plan and compliance with the act and regulations					
8.1.5 Stop the execution of the works where the agreed specification or plan is not adhered to					
F:..... V:..... T:.....	Item		1		
Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
7	Clause 7.0 - Design responsibility F:..... V:..... T:.....	Item		1		
	Insurances and securities (A8-A11)					
8	Clause 8.0 - Works risk F:..... V:..... T:.....	Item		1		
9	Clause 9.0 - Indemnities F:..... V:..... T:.....	Item		1		
10	Clause 10.0 - Insurances F:..... V:..... T:.....	Item		1		
11	Clause 11.0 - Securities Guarantee for payment The contractor shall consequently waive his lien or right of continuing possession of the works [11.10] Extension of waiver of lien The contractor shall ensure that a waiver of lien is included in all subcontracts and that the works executed on the site are kept free of all liens and other encumbrances at all times [11.10] F:..... V:..... T:.....	Item		1		
	Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>Execution (A12 - A17)</u>					
12	Clause 12.0 - Obligations of the parties					
	Office accommodation					
	The contractor shall provide, maintain and remove on practical completion air conditioned office accommodation with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times [12.2.18]					
	Notice board					
	The contractor shall erect in a position approved by the principal agent, maintain and remove on practical completion a notice board recommended by the South African Institute of Architects and as approved by the principal agent listing the names and logos of the employer, the contractor and the professional consultants. No subcontractor or supplier notice boards may be erected unless permission is granted by the principal agent for such notice boards to be erected [12.2.18]					
	Statutory and other notices					
	The contractor shall submit and/or comply with all statutory and other notices that may be required by any local or other authority in order not to cause any delay to the commencement of the works by the contractor. The contractor shall pay all deposits or fees in this regard					
	It is, however, specifically recorded that the employer shall be responsible for the timeous approval of building plans by any local or other authorities and the payment of any fees or charges related thereto					
	F:..... V:..... T:.....	Item		1		
13	Clause 13.0 - Setting out					
	F:..... V:..... T:.....	Item		1		
14	Clause 14.0 - Nominated subcontractors					
	F:..... V:..... T:.....	Item		1		
15	Clause 15.0 - Selected subcontractors					
	F:..... V:..... T:.....	Item		1		
	Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
16	<p>Clause 16.0 - Direct contractors</p> <p>Attendance on direct contractors</p> <p>In respect of direct contractors the contractor shall:</p> <p>1. Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials</p> <p>2. Allow the use of personnel welfare facilities, where provided</p> <p>3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation</p> <p>4. Permit the direct contractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right, while it remains erected on the site [16.1]</p> <p>F:..... V:..... T:.....</p>	Item		1		
17	<p>Clause 17.0 - Contract instructions</p> <p>Site instructions</p> <p>Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the contractor</p> <p>F:..... V:..... T:.....</p> <p>Completion (A18 - A24)</p>	Item		1		
18	Clause 18.0 - Interim completion	item		1		
19	<p>Clause 19.0 - Practical completion</p> <p>F:..... V:..... T:.....</p>	Item		1		
20	<p>Clause 20.0 - Completion in sections</p> <p>F:..... V:..... T:.....</p>	Item		1		
21	<p>Clause 21.0 - Defects liability period and final completion</p> <p>F:..... V:..... T:.....</p>	Item		1		
	Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
22	Clause 22.0 - Latent defects liability period F:..... V:..... T:.....	Item		1		
23	Clause 23.0 - Revision of the date for practical completion Substitution of materials and goods The removal or substitution of any materials and goods which do not conform to the specification or the contract drawings shall not constitute grounds for the extension of the construction period nor for the adjustment of the contract value [17.1.8; 23.1 & 2] F:..... V:..... T:.....	Item		1		
24	Clause 24.0 - Penalty for late or non-completion F:..... V:..... T:.....	Item		1		
	Payment (A25 - A27)					
25	Clause 25.0 - Payment Prices submitted Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of this agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the certificate of final completion, it shall be in writing F:..... V:..... T:.....	Item		1		
26	Clause 26.0 - Adjustment of the contract value and final account Fluctuations in costs All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor [26.9.5]					
	Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<p>Tenant installation/user requirements delayed</p> <p>There is a possibility that certain works related to tenant installation/user requirements may have to be delayed and may consequently not be executed prior to practical completion</p> <p>Should the contractor be instructed to do so he shall execute this work under the conditions pertaining to this agreement on the basis that a separate amount for preliminaries appurtenant to this work (if applicable) is agreed to between the contractor and the principal agent and on condition that instruction to proceed with such work is given to him within a period of three (3) calendar months after the date of practical completion of the works</p> <p>The employer reserves the right to omit such work without compensation to the contractor for loss of profit or any other loss which the contractor may suffer as a result of such omission</p> <p>Cost of claims</p> <p>All costs incurred by the contractor in the preparation of claims shall be borne by the contractor. This provision shall not preclude an adjudicator or an arbitrator appointed in terms of this agreement [30.6 & 7] from making a determination on costs</p> <p>Claims from subcontractors</p> <p>The contractor shall review, assess and adjudicate any claims received by him from any subcontractor and thereafter submit same to the principal agent with a recommendation in order to assist the principal agent in adjudicating the claim [26.6]</p> <p>F:..... V:..... T:.....</p>					
27	<p>Clause 27.0 - Recovery of expense and/or loss F:..... V:..... T:.....</p>	Item		1		
	<p>Suspension and termination (A28 - A29)</p> <p>Clause 28.0 - Suspension by the contractor</p> <p>F:..... V:..... T:.....</p>	Item		1		
Carried to Collection						

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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
Previous work and adjoining properties (B3)						
39	Clause 3.1 - Previous work - dimensional accuracy F:..... V:..... T:.....	Item		1		
40	Clause 3.2 - Previous work - defects F:..... V:..... T:.....	Item		1		
41	Clause 3.3 - Inspection of adjoining properties F:..... V:..... T:.....	Item		1		
The site (B4)						
42	Clause 4.1 - Handover of site in stages F:..... V:..... T:.....	Item		1		
43	Clause 4.2 - Enclosure of the works F:..... V:..... T:.....	Item		1		
44	Clause 4.3 - Geotechnical and other investigations F:..... V:..... T:.....	Item		1		
45	Clause 4.4 - Encroachments F:..... V:..... T:.....	Item		1		
46	Clause 4.5 - Existing premises occupied F:..... V:..... T:.....	Item		1		
47	Clause 4.6 - Services - known F:..... V:..... T:.....	Item		1		
Carried to Collection						

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
Management of contract (B5)						
48	Clause 5.1 - Management of the works F:..... V:..... T:.....	Item		1		
49	Clause 5.2 - Progress meetings F:..... V:..... T:.....	Item		1		
50	Clause 5.3 - Technical meetings F:..... V:..... T:.....	Item		1		
Samples, shop drawings and manufacturer's instructions (B6)						
51	Clause 6.1 - Samples of materials F:..... V:..... T:.....	Item		1		
52	Clause 6.2 - Workmanship samples F:..... V:..... T:.....	Item		1		
53	Clause 6.3 - Shop drawings F:..... V:..... T:.....	Item		1		
54	Clause 6.4 - Compliance with manufacturer's instructions F:..... V:..... T:.....	Item		1		
Deposits and fees (B7)						
55	Clause 7.1 - Deposits and fees F:..... V:..... T:.....	Item		1		
Temporary services (B8)						
56	Clause 8.1 - Water F:..... V:..... T:.....	Item		1		
Carried to Collection						

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
57	Clause 8.2 - Electricity F:..... T:..... V:.....	Item		1		
58	Clause 8.3 - Ablution and welfare facilities F:..... V:..... T:.....	Item		1		
59	Clause 8.4 - Communication facilities F:..... V:..... T:.....	Item		1		
	Prime cost amounts (B9)					
60	Clause 9.1 - Responsibility for prime cost amounts					
	Where details of materials included in prime cost amounts are not readily available and it is therefore not possible for the contractor to price for waste, the relevant prime cost amount shall be inserted in the bills of quantities as a lump sum with the contractor being given the opportunity to separately price his overheads and profit and for taking delivery, etc as called for in this clause 9.1 of the preliminaries. In such case the fixing only or installation only of the relevant materials shall be provisionally measured for the contractor to price and shall be re-measured upon completion					
	Where details of materials for which prime cost amounts are to be allowed are readily available, the relevant prime cost amounts are included in measured items, which measured items contain sufficient detail for the contractor to price for fixing and installation, waste, etc F:..... V:..... T:.....	Item		1		
	Attendance on subcontractors (B10)					
	Clause 10.1 - General attendance					
	User note					
	Clause 10.1 - General attendance	Item		1		
61	Clause 10.1 - General attendance is defined as being the duties of the contractor in terms of clause 12.2 of the JBCC n/s subcontract agreement F:..... V:..... T:.....					
	Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
62	<p>Clause 10.2 - Special attendance</p> <p>It is important to note that general attendance only requires the contractor to "permit the subcontractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right while it remains erected on the site" (refer to 12.2.13 of the JBCC n/s subcontract agreement). Many n/s subcontractors qualify their tenders to exclude scaffolding and/or hoisting facilities. Especially scaffolding could be an expensive item and it may be necessary in order to avoid claims to require the contractor to provide for the extended use of scaffolding for specific subcontracts within a description of "special attendance" in the applicable bill F:..... V:..... T:.....</p> <p>General (B11)</p>	Item		1		
63	<p>Clause 11.1 - Protection of the works F:..... V:..... T:.....</p>	Item		1		
64	<p>Clause 11.2 - Protection/isolation of existing works and works occupied in sections F:..... V:..... T:.....</p>	Item		1		
65	<p>Clause 11.3 - Security of the works F:..... V:..... T:.....</p>	Item		1		
66	<p>Clause 11.4 - Notice before covering work F:..... V:..... T:.....</p>	Item		1		
67	Clause 11.5 - Disturbance					
Carried to Collection						

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	<p>Disturbance</p> <p>All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the construction period or contract value whatsoever F:.....</p> <p>V:.....T:.....</p>	Item		1		
68	<p>Clause 11.6 - Environmental disturbance</p> <p>Controlling all forms of pollution</p> <p>The contractor shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the site during the construction period due inter alia to noise, artificial light, wind-blown sand, dust, deposits of mud, etc</p> <p>The contractor is to ensure that all roads which border the site and are used by the contractor during the execution of the works are kept clean and free of any dirt or debris caused by the execution of the works ?</p> <p>Environmental management plan</p> <p>The employer has prepared an environmental management plan (EMP) (refer to Annexure ? for a copy of the relevant plan). The contractor shall price opposite this item for compliance with all the requirements of such EMP F:.....</p> <p>V:.....T:.....</p>	Item		1		
69	<p>Clause 11.7 - Works cleaning and clearing</p> <p>F:..... V:..... T:.....</p>	Item		1		
70	<p>Clause 11.8 - Vermin</p> <p>F:..... V:..... T:.....</p>	Item		1		
	Carried to Collection					

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71	Clause 11.9 - Overhand work F:..... V:..... T:.....	Item		1		
72	Clause 11.10 - Tenant installations F:..... V:..... T:.....	Item		1		
73	Clause 11.11 - Advertising F:..... V:..... T:.....	Item		1		
<u>SECTION C: SPECIFIC PRELIMINARIES</u>						
74	<p>Warranties for materials and workmanship</p> <p>Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the entity supplying the materials and/or executing the work and shall deliver same to the principal agent on final completion of the contract</p> <p>The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of practical completion and that any defects that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written notice to do so</p> <p>The warranty will not be enforced if the work is damaged by defects in the execution of the works, in which case the responsibility for replacement shall rest entirely with the contractor F:..... V:..... T:.....</p>	Item		1		
Carried to Collection						

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75	Overtime Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the employer F:..... V:..... T:.....	Item		1		
76	Cooperation of the contractor for cost management It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the contract value does not exceed the budget F:..... V:..... T:.....	Item		1		
77	Overloading The contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works or temporary works eg scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc to the principal agent for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agent's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the contractor at his sole expense F:..... V:..... T:.....	Item		1		
78	Propping of floors below The contractor is advised that propping of floors below may be required if he wishes to use any areas of completed suspended reinforced concrete slabs for vehicle access, storage of materials and goods and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the principal agent and the cost thereof shall be borne by the contractor F:..... V:..... T:.....	Item		1		
	Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
79	Testing of flat roof waterproofing for watertightness Flat roof waterproof areas shall be flooded and kept "ponded" for at least forty eight (48) hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing F:..... V:..... T:.....	Item		1		
80	Health and safety Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the reasonable provisions of the aforementioned health and safety specification [2.1]					
<div>Carried to Collection</div>						

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<p>The contractor shall:</p> <ol style="list-style-type: none"> 1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Cooperate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the employer's health and safety specification <p>F:..... V:..... T:.....</p> <p><u>THE FOLLOWING NOTE IS COMPULSORY: The contractor's Health and Safety representative will be expected to be on site on a full-time basis. This includes all working times throughout the duration of the construction works.</u></p> <p>F:..... V:..... T:.....</p> <p><u>Flagmen</u></p> <p>Flagmen will be required during all working times as per the express requirements of working in close proximity to a railroad. A minimum of one flagman should be posted on either side of the construction area and shall notify the site workers as and when the passenger train is approaching in line with the health and safety officer's instructions</p> <p>F:..... V:..... T:.....</p>	Item		1		
		Item		1		
82	<p>Broad based black economic empowerment (BBBEE)</p> <p>Tenders submitted will be evaluated taking into account their empowerment rating</p> <p>The employer will be monitoring the broad based black economic empowerment (BBBEE) status of the contractor throughout the execution of the works</p>	Item		1		
	Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	The contractor is to submit to the principal agent on an annual basis a schedule of spend, split into vendors engaged as subcontractors and suppliers indicating their BBBEE rating including proof of the said rating F:..... V:.....T:.....	Item		1		
83	Advertising rights					
	The employer may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The contractor shall not prevent such an arrangement and will assist in the facilitation of same. The position and type of advertising structure to be agreed with the principal agent so as not to hinder the contractor in meeting his obligations under this agreement F:..... V:.....T:.....	Item		1		
84	Confidentiality					
	The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works No information regarding this project shall be published or disclosed without the prior written consent of the employer F:..... V:.....T:.....	Item		1		
85	Media releases					
	All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the employer The contractor together with his subcontractors shall not, without the prior written consent of the employer, cause any statement or advertisement connected with this project to be printed, screened or aired by the media F:..... V:.....T:.....	Item		1		
	SUMMARY OF CATEGORIES					
	Category : Fixed R.....					
	Category : Value R.....					
	Category : Time R.....					
	Carried to Collection					

**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
PRELIMINARIES AND GENERAL					
<u>COLLECTION</u>					
				Page No	Amount
Total Brought Forward from page No.				1	.....
				2	.....
				3	.....
				4	.....
				5	.....
				6	.....
				7	.....
				8	.....
				9	.....
				10	.....
				11	.....
				12	.....
				13	.....
				14	.....
				15	.....
				16	.....
				17	.....
				18	.....
				19	.....
				20	.....
Carried to Collection					

**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
PRELIMINARIES AND GENERAL					
<u>COLLECTION</u>					
				Page No	Amount
Total Brought Forward from page No.				21	.....
				22	.....
				23	.....
				24	.....
				25	.....
				26	.....
				27	.....
				28	.....
				29	.....
				30	.....
Carried to Summary					.....
				

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
<u>SECTION NO 2 - SITE WORKS</u>					
<u>BILL NO 1</u>					
<u>ALTERATIONS TO EXISTING BUILDING</u>					
<p><u>Notes: 1.Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill</u></p>					
GENERAL NOTES					
<p><u>For further preambles and full descriptions of items not fully described in this Bill, reference must be made to supplementary preambles and descriptions in the other Bills of this Section. Such supplementary preambles and descriptions shall apply equally</u></p>					
<p><u>Tenderers are advised to visit the site before tendering and satisfy themselves as to the nature and extent of the works, means of access to the site and availability of working space. No claims will be entertained due to the tenderer having failed to comply</u></p>					
GENERAL					
<p>In taking down and removing existing work the utmost care shall be observed to prevent any structural or other damage to remaining portions of the building and the Contractor shall provide all shoring, needling, strutting, etc. to ensure stability</p>					
<p>Any water supply and other piping that may be encountered and which is found necessary to disconnect or cut shall, after such disconnection or cutting has been authorised by the Representative/Agent, be effectively stopped off</p>					
Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	EXISTING BUILDINGS The existing buildings will be in use and occupied during the progress of the contract and the Contractor will be required to carry out the works in such a manner as will least interfere with the occupants and with the minimum of disturbance SIZE PERTAINING TO EXISTING WORK The Contractor is advised to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the correctness of sizes of all new work. All sizes given in relation to existing work are approximate. MAKING GOOD DAMAGED WORK The Contractor shall make good in all trades to existing work where damaged or disturbed through the alterations with all necessary new materials to match the existing FORMING NEW OPENINGS OR ALTERING OPENINGS IN EXISTING WALLS Descriptions of forming new openings or altering openings in existing walls shall be deemed to include breaking out for and forming new brick, in-situ concrete or prestressed concrete lintels, including all reinforcement, formwork, turning pieces, etc. BUILDING UP OPENINGS Descriptions of building up existing openings where given in number shall be deemed to include preparing existing surfaces all around, brickwork properly toothed and bonded to existing, wedging up and making good on both sides as described					
	Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<p>PAINTWORK</p> <p>Where plasterwork on walls, ceilings, etc. are required to be patched or made good, prices are to include for the appropriate priming coat and one coat undercoat to receive paint finishing coats which are measured elsewhere</p> <p>The contractor must protect all work not removed such as walls, floors, doors, windows, fittings, etc. from damage during the progress of the work and provide all necessary materials for doing so.</p> <p>PROCEDURE OF WORK</p> <p>The Representative/Agent reserves the right to direct the order in which the contract will be executed, should circumstances necessitate such action.</p> <p>LOSS BY THEFT, FIRE OR OTHERWISE</p> <p>The risk of loss, theft, fire, storm, riot or otherwise of the buildings to be demolished and the materials therein shall rest entirely with the contractor immediately upon the handing over of the site.</p> <p>WATER AND OTHER PIPING</p> <p>Any water supply or other piping that may be met with and found necessary to disconnect or cut are to be effectually stopped off or grubbed up and removed and any new connections that may be necessary and are to be made with proper fittings</p> <p>ELECTRICAL AND OTHER SERVICES</p> <p>Special care is to be exercised not to unnecessarily interfere with any electric light, bell, power, telephone or other wires and fittings that may be met with and due notice must be given to the Architect.</p> <p>The contractor must protect all work not removed such as walls, floors, doors, windows, fittings, etc. from damage during the progress of the work and provide all necessary materials for doing so.</p>					
	Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	OCCUPATION OF EXISTING BUILDINGS					
	Tenderers are advised that the existing buildings will be in occupation during the building operations and due allowance must be made for the work being carried out in such a manner as will least interfere with the general routine of the occupants.					
	NOISE PREVENTION					
	The contractor shall take special care to minimise noisy operations during business hours. Such measures will include, inter alia, the use of silent compressors and strict control of workmen.					
	The contractor shall demolish the portions of existing structures or buildings with a minimum amount of damage to adjoining buildings, materials, pavings, etc. Any damage caused is to be made good at his own expense with materials to match the existing.					
	ALTERATIONS TO OPENINGS					
	Where the Contractor is required to form openings, alter openings or brick up openings in existing walls all brickwork shall be made good at jambs including properly bonding to existing. Brickwork in bricking up openings shall be wedged and pinned up					
	MAKING GOOD, ETC					
	Prices are to include for making good in all trades to existing work, where damaged or disturbed through alterations, with all necessary new materials to match existing and leave complete and perfect in every respect.					
	<u>REMOVAL OF EXISTING WORK</u>					
	Breaking down and removing of existing pavers					
1	Interlocking pavers	m ²	N/A	30		
2	Remove existing precast concrete kerbs	m	N/A	30		
	<u>Removal of existing boundary walls</u>					
3	1800mm high precast panelled wall including foundations	m	N/A	44		
	<u>Removal of existing palisade fence including posts and bases</u>					
4	2100mm high steel panel fence complete with razor wire	m	N/A	50		
	Carried to Collection					

**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
Bill No. 1 ALTERATIONS					
<u>COLLECTION</u>					
			Page No	Amount	
Total Brought Forward From Page No.			33	
			34	
			35	
			36	
Carried to Summary				
				

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**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	Extra over trench and hole excavations in earth for excavation in					
4	Soft rock	m ³	N/A	0.4		
5	Hard rock	m ³	N/A	0.2		
	Carting Away					
6	Carting away of surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor off site (provisional)	m ³	N/A	4		
	<u>Filling etc</u>					
	<u>Imported G5 earth filling compacted in 150mm layers</u>					
7	Under floors, steps, pavings, etc	m ³	N/A	13		
	<u>Compaction of surfaces</u>					
	<u>Compaction of natural or excavated ground surface under floors etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density</u>					
8	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	N/A	87		
	Prescribed tests to determine degree of compaction or other properties of ground or filling					
9	Modified AASHTO Density test	No	N/A	2		
	Soil insecticide; applied in accordance with manufacturers specification					
10	Under floors etc	m ²	N/A	87		
11	To bottoms and sides of trenches etc	m ²	N/A	35		
	Carried to Collection					

**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
Bill No. 2 EARTHWORKS					
<u>COLLECTION</u>					
			Page No	Amount	
Total Brought Forward From Page No.			38	.....
			39	.....
Carried to Summary					.....
				

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
BILL NO 3						
CONCRETE, FORMWORK AND REINFORCEMENT (PROVISIONAL)						
Tenderers are to refer to the Model Preambles for Trades (Latest Edition) and Supplementary Preambles for further description and amplification of work in this section						
SUPPLEMENTARY PREAMBLES						
Formwork Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.						
Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 255mm thick unless otherwise described						
Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons.						
Carried to Collection						

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>All Concrete grades/strengths are to the engineer's specifications</u>					
	Cost of tests The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect.					
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>					
	30MPa/19mm concrete					
1	Raft slab and thickenings	m ³	100% Cement	13		
2	Aprons	m ³	100% Cement	4		
	TEST CUBES					
3	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	100% Cement	2		
	<u>CONCRETE SUNDRIES</u>					
	<u>Finishing top surfaces of concrete smooth with a power float</u>					
4	Surface beds, slabs, etc	m ²	N/A	87		
	<u>MOVEMENT, JOINTS ETC</u>					
	Saw cut joints					
5	3 x 55mm saw-cut joints in top of concrete including 10 x 10 flexible sealant	m	N/A	9		
	<u>FORMWORK</u>					
	<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>					
	Smooth formwork to sides of:					
6	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	N/A	33		
	Carried to Collection					

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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>BILL NO 5</u>					
	<u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>					
	Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
	<u>SUPPLEMENTARY PREAMBLES</u>					
	Wire gratings Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings Stormwater channels Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material					
	<u>STORM WATER CHANNEL</u>					
	Restricted excavation in earth not exceeding 2m deep in pickable ground					
1	Excavation not exceeding 2m deep for v-drains and stockpile	m ³	N/A	6		
2	Rip & re-compact 150mm in-situ layer below v-drains to 95% Mod.AASHTO	m ³	N/A	5		
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>					
	25Mpa/ 19mm concrete					
3	Storm water channel (fitted with 250micron polyethylene underlay sheeting)	m ³	100% Cement	1		
	Unformed surface finishes					
4	V drains	m ²	N/A	20		
	<u>SOIL DRAINAGE</u>					
	<u>Drain pipes to have a minimum fall of 1:60</u>					
	uPVC Pipes					
5	110mm UPVC Pipe laid in and including trenches not exceeding 1m deep.	m	100% PVC Products	60		
	Carried to Collection					

**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
6	110mm UPVC Pipe encased in concrete laid in and including trenches not exceeding 1m deep.	m	100% PVC Products	5		
7	110mm Bends	No	100% PVC Products	6		
8	110mm Access bends	No	100% PVC Products	4		
9	110mm Junctions	No	100% PVC Products	5		
10	110mm Access junction	No	100% PVC Products	4		
11	Manhole 800 x 800 x 1000mm deep	No	100% Steel Products	1		
12	Lockable poly concrete manhole covers complete with frames	No	N/A	1		
	uPVC gulleys					
13	110mm Gulley including precast surround and PVC grating etc. not exceeding 500mm deep	No	100% Cement	1		
	<u>TESTING</u>					
14	Testing soil drainage system	Item	N/A	1		
	<u>WATER SUPPLIES</u>					
	Class 16 HDPE water supply pipes in trenches					
15	32mm water supply in and including trenches not exceeding 1m deep to join onto existing water supply to other Blocks	m	100% HDPE pipes	60		
16	Fittings to 32mm pipe	No	100% HDPE pipes	7		
17	32mm gate valve	No	70% valve	1		
	<u>TESTING</u>					
18	Test and commission the complete water supply installation system including pressure testing of the all primary flow and return pipes, cold water pipes and hot water delivery pipes and performance test of the installation	Item	N/A	1		
	Carried to Collection					

**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
Bill No. 5 PLUMBING AND DRAINAGE					
<u>COLLECTION</u>					
			Page No	Amount	
Total Brought Forward From Page No.			46	.....
			47	.....
Carried to Summary					.....
				

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>BILL NO 6</u>					
	<u>PERIMETER FENCING</u>					
	Notes: 1.Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
	<u>Installation</u>					
	Installation of all fences shall be in accordance with the manufacturer's instructions. Any deviation from the recommended installation instructions shall be corrected at the contractor's cost					
	The installed fence shall include a minimum of 10-year warranty					
	<u>STEEL PALISADE FENCING</u>					
	Supply and installation of mild steel palisade fencing panels comprising vertical posts of hollow square tube steel sections to include excavations, concrete bases, backfilling and erecting into position with intermediate vertical panel members of 40 x 40 x 3mm mild steel angle sections @ approx 150mm c/c with 3 spiked tops welded to 25 x 25 x 3mm horizontal mild steel angle sections to tops and bottoms (paint finishes included elsewhere)					
1	2100mm high palisade fence	m	100% Steel Products	44		
	<u>Supply and installation of flatwrap security razor wire mounted to tops of perimeter walls and/or fences</u>					
2	300mm high flat razor wire fence to tops of gates and fences	m	100% Steel Products	44		
3	1800mm wide x 2100mm high pedestrian gate	No	100% Steel Products	1		
	<u>PAINTING</u>					
	Prepare surfaces and apply one coat zinc-chromate primer and two coats gloss enamel paint					
4	To steel palisade fences	m ²	N/A	185		
	<u>PERMANENT BARRIER, SCREENS ETC</u>					
	The barrier shall include all construction work for (vertical posts, panels etc) complete					
	Carried to Collection					

Carried to Collection

**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
Bill No. 6					
PERIMETER FENCING					
<u>COLLECTION</u>					
			Page No	Amount	
Total Brought Forward From Page No.			49	.....
			50	.....
Carried to Summary					.....
				

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>BILL NO 7</u>					
	<u>SITE CLEARANCE AND PAVING</u>					
	<u>SUPPLEMENTARY PREAMBLES</u>					
	Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
	Tenderers are to refer to the Model Preambles for Trades (Latest Edition) and Supplementary Preambles for further description and amplification of work in this section					
	<u>SITE CLEARANCE, ETC</u>					
	Site clearance					
1	Removal of top soil to a depth not exceeding 200mm	m ²	N/A	30		
	<u>SOIL POISONING</u>					
	<u>Weedkiller: Approved soil insecticide applied in accordance with manufacturers specification</u>					
2	Under paving etc	m ²	N/A	30		
	<u>Earth filling supplied by the Contractor under pavings, etc: All density tests etc to be included with the rates below</u>					
3	20mm thick sand bed on compacted earth in preparation for paving blocks (measured elsewhere); allow for grout in paver joints or other suitable adhesive	m ²	100% Cement	30		
	Imported G5 earthfilling supplied by the contractor compacted to 96% Mod AASHTO density:					
4	Under pavings	m ³	N/A	9		
	<u>PAVING</u>					
	Supply and lay new 60mm interlocking concrete pavers in herringbone pattern					
5	200 x 100 x 80mm thick interlocking concrete paving blocks	m ²	N/A	30		
	Carried to Collection					

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**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
<u>SUMMARY</u>			Page No		Amount
<u>SECTION NO 2 - SITE WORKS</u>					
1 ALTERATIONS			37		
2 EARTHWORKS			40		
3 CONCRETE, FORMWORK AND REINFORCEMENT			44		
4 WATERPROOFING			45		
5 PLUMBING AND DRAINAGE			48		
6 PERIMETER FENCING			51		
7 SITE CLEARANCE AND PAVING			54		
Carried to Collection					

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
<u>SECTION NO 3 - TRAIN PLATFORMS</u>					
<u>BILL NO 1 - ALTERATIONS</u>					
Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
GENERAL NOTES					
In taking down and removing existing work the utmost care shall be observed to prevent any structural or other damage to remaining portions of the building and the Contractor shall provide all shoring, needling, strutting, etc. to ensure stability					
Any water supply and other piping that may be encountered and which is found necessary to disconnect or cut shall, after such disconnection or cutting has been authorised by the Representative/Agent, be effectively stopped off					
EXISTING BUILDINGS					
The existing buildings will be in use and occupied during the progress of the contract and the Contractor will be required to carry out the works in such a manner as will least interfere with the occupants and with the minimum of disturbance					
SIZE PERTAINING TO EXISTING WORK					
The Contractor is advised to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the correctness of sizes of all new work. All sizes given in relation to existing work are approximate.					
MAKING GOOD DAMAGED WORK					
The Contractor shall make good in all trades to existing work where damaged or disturbed through the alterations with all necessary new materials to match the existing					
PAINTWORK					
Where plasterwork on walls, ceilings, etc. are required to be patched or made good, prices are to include for the appropriate priming coat and one coat undercoat to receive paint finishing coats which are measured elsewhere					
Carried to Summary					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<p>LOSS BY THEFT, FIRE OR OTHERWISE</p> <p>The risk of loss, theft, fire, storm, riot or otherwise of the buildings to be demolished and the materials therein shall rest entirely with the contractor immediately upon the handing over of the site.</p> <p>WATER AND OTHER PIPING</p> <p>Any water supply or other piping that may be met with and found necessary to disconnect or cut are to be effectually stopped off or grubbed up and removed and any new connections that may be necessary and are to be made with proper fittings</p> <p>ELECTRICAL AND OTHER SERVICES</p> <p>Special care is to be exercised not to unnecessarily interfere with any electric light, bell, power, telephone or other wires and fittings that may be met with and due notice must be given to the Architect.</p> <p>The contractor must protect all work not removed such as walls, floors, doors, windows, fittings, etc. from damage during the progress of the work and provide all necessary materials for doing so.</p> <p>The contractor shall demolish the portions of existing structures or buildings with a minimum amount of damage to adjoining buildings, materials, pavings, etc. Any damage caused is to be made good at his own expense with materials to match the existing.</p> <p>MAKING GOOD, ETC</p> <p>Prices are to include for making good in all trades to existing work, where damaged or disturbed through alterations, with all necessary new materials to match existing and leave complete and perfect in every respect.</p> <p><u>REMOVAL OF EXISTING WORK</u></p> <p>Breaking down and removing concrete etc</p> <p>1 Precast steps 2m wide</p> <p><u>Breaking down and removing of existing pavers</u></p> <p>2 Interlocking pavers</p> <p>Carried to Collection</p>					

Carried to Collection

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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
BILL NO 3						
PLUMBING AND DRAINAGE (PROVISIONAL)						
<u>Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill</u>						
SUPPLEMENTARY PREAMBLES						
<u>Wire gratings Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings Stormwater channels Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc, and disposal of surplus material</u>						
RAINWATER DISPOSAL						
Mild steel box gutters to match existing						
1	400mm wide x 200mm high box gutters	m	100% Steel Products	42		
2	150mm diameter downpipe to match gutters	m	100% Steel Products	66		
3	Extra over eaves gutter for stopped end	No	100% Steel Products	32		
4	Extra over eaves gutter for outlet for 150mm diameter pipe	No	100% Steel Products	32		
5	Rain water shoe	No	100% Steel Products	32		
Carried to Summary						

[illegible]

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>BILL NO 5</u>					
	<u>SITE CLEARANCE AND PAVING</u>					
	<u>SUPPLEMENTARY PREAMBLES</u>					
	Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
	Tenderers are to refer to the Model Preambles for Trades (Latest Edition) and Supplementary Preambles for further description and amplification of work in this section					
	<u>SITE CLEARANCE, ETC</u>					
	Site clearance					
1	Removal of top soil to a depth not exceeding 200mm	m ²	N/A	210		
	<u>SOIL POISONING</u>					
	Weedkiller; Approved soil insecticide applied in accordance with manufacturers specification					
2	Under paving etc	m ²	N/A	210		
	Earth filling supplied by the Contractor under pavings, etc: All density tests etc to be included with the rates below					
3	20mm thick sand bed on compacted earth in preparation for paving blocks (measured elsewhere); allow for grout in paver joints or other suitable adhesive	m ²	100% Cement	210		
	Imported G5 earthfilling supplied by the contractor compacted to 96% Mod AASHTO density:					
4	Under pavings	m ³	N/A	32		
	PAVING					
	Supply and lay new 60mm interlocking concrete pavers in herringbone pattern					
5	200 x 100 x 60mm thick interlocking concrete paving blocks	m ²	N/A	210		
	Carried to Collection					

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Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
<u>SECTION NO 4 - ABT CONTAINERS</u>					
<u>BILL NO 1 - STRUCTURAL WORKS</u>					
Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications					
ALTERNATIVE BUILDING TECHNOLOGY					
Alternative Building Technology (ABT) comprises the use of custom designed containers complete with internal fittings, fixtures to suite the functional/operational needs of the end-user					
NOTES					
Construction of an ABT Container office structure to be built according to the detailed design					
SUPPLEMENTARY PREAMBLES					
Where descriptions in the Bills of Quantities differ from the respective issued drawings, the descriptions and specifications in the drawings shall take precedence.					
The works in this section are deemed to be specialist works, and shall be built to match the issued design drawings. Collaboration between the architect, engineer and the ABT construction specialist will take place throughout the construction phase. Where the specialist's proposed works may differ from the issued drawings, the specialist shall consult with the architect and or engineer prior to making proposed changes. No claims arising from work done prior to approval will be entertained.					
<u>STEEL CONTAINERS</u>					
NOTE: All rates for the delivery of steel containers are to include lifting, hoisting, hire of machinery such as cranes, wayleave applications and all statutory requirements, including all transportation costs					
Supply and delivery of the following steel containers for rigging and conversion at the ABT contractor's rigging facility:					
1 Container of size: 12190mm long x 2350mm wide x 3400mm high	No	100% Steel Products	2		
Delivery, placing and connection of existing services to ABT container structure					
Carried to Collection					

**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
2	Delivery of complete and converted ABT container office structure from rigging site to the construction site including placing in position and connection of existing electrical, mechanical, water supply and drainage services.	Item	N/A	1		
	<u>STRUCTURAL STEELWORK</u>					
	GALVANISED STEEL COLUMNS AND BEAMS					
	Welded beams in single lengths with flat bearer and connection plates, bolted to steel					
3	203 x 203 x 46kg/m I-section columns	t	100% Steel Products	0.10		
4	203 x 203 x 46kg/m I-section beams	t	100% Steel Products	0.05		
	Bolts to columns, beams, etc					
5	M16 HD Bolts	No	100% Steel Products	16		
	<u>STEEL LIGHTWEIGHT FRAME</u>					
	Steel frame affixed to ABT container surfaces to specialist design installed complete with all required steel section members, welds, bolts, nuts, washers, bracing, connector plates etc to be galvanized					
	<u>Steel lightweight floor frame</u>					
6	Steel lightweight frame comprising hollow sections below floors complete with steel tread plate below floors to required and approved thickness	m ²	100% Steel Products	53		
	<u>Vertical steel light weight frame</u>					
7	Steel lightweight frame comprising hollow sections to internal side of container walls (from floor to ceiling)	m ²	100% Steel Products	130		
	Carried to Collection					

**REFURBISHING AND IMPROVEMENT OF
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Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
Bill No. 1					
STRUCTURAL WORKS					
<u>COLLECTION</u>					
			Page No	Amount	
Total Brought Forward From Page No.			67	.....
			68	.....
Carried to Summary					.....
				

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
<u>BILL NO 2</u>					
<u>ROOF COVERINGS</u>					
Notes: 1.Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
<u>SUPPLEMENTARY PREAMBLES</u>					
Straight cutting					
Descriptions of all roof coverings are deemed to include for all straight cutting					
<u>ROOF COVERING TO ABT STRUCTURE</u>					
<u>0.58mm thick heavy industrial galvanized roof sheeting with doubleinterlocking roll-formed profile in continuous lengths and cut to length by a pneumatic cut-off process complete with concealed fixing with approved clips and fasteners</u>					
1 Roof coverings with a pitch not exceeding 12 degree complete with flashing on edges	m	100% Steel Products	62		
<u>RAINWATER GOODS</u>					
<u>Profile pre-coated aluminium seamless gutters</u>					
2 150 x 150 x 6mm eaves gutter	m	100% Steel Products	17		
3 100 x 75mm downpipe to match gutters	m	100% Steel Products	14		
4 Extra over eaves gutter for stopped end	No	100% Steel Products	6		
5 Extra over eaves gutter for bends	No	100% Steel Products	4		
6 Extra over eaves gutter for outlet for 150mm diameter pipe	No	100% Steel Products	4		
7 Extra over rainwater pipe for offset	No	100% Steel Products	4		
8 Rain water shoe	No	100% Steel Products	4		
Carried to Summary					

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Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
Bill No. 3 CEILINGS AND PARTITIONS					
<u>COLLECTION</u>					
			Page No	Amount	
Total Brought Forward From Page No.			71	.....
			72	.....
Carried to Summary					.....
				

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>BILL NO 4</u>					
	<u>CARPENTRY AND JOINERY</u>					
	Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
	<u>DOORS, ETC</u>					
	NOTE: All ironmongery and finishes to doors are measured elsewhere					
	The following door descriptions are to be read in conjunction with the attached door schedule:					
	Interior grade flush hollow core single timber door with 3mm thick ply on both sides with two consolidated edges fitted to comply with SABS 545					
1	Door type D01 of overall size 900 x 2120mm high including frame	No	100% Steel Products	4		
	Heavy duty interior quality T & G hardwood door fitted to comply with SABS 545 exterior grade complete with frame					
2	Door type D02 of overall size 900 x 2120mm high including frame	No	100% Steel Products	6		
	<u>FITTINGS</u>					
	Kitchen cupboards in 16mm thick white melamine board including all ironmongery installed complete					
3	1500mm long x 600mm wide x 1200mm high floor mounted kitchen cupboard to receive counter top (measured elsewhere)	No	N/A	1		
	Rustenburg granite counter tops with large bevel edges fixed to cupboards (measured elsewhere), granite surface to be sealed using an approved stone sealer in accordance with the manufacturer's recommendations					
4	Granite counter tops 600mm wide x 30mm thick	m	N/A	2		
	Shelving, storage, etc					
	<u>Wall mounted melamine 16mm board shelves including mounting frames and supports as required</u>					
5	600mm wide timber shelving boards	m	N/A	11		
	Carried to Collection					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
6	Mirror 450 x 900mm high overall 6mm thick clear float glass silver-backed mirror, size 450 x 900mm high with polished bevelled edges 4 times holed for and fixed, with chromium plated dome-headed mirror screws.	No	N/A	5		
Carried to Collection						

**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
Bill No. 4 CARPENTRY AND JOINERY					
<u>COLLECTION</u>					
			Page No	Amount	
Total Brought Forward From Page No.			74	
			75	
Carried to Summary				
				

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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>BILL NO 6</u>					
	<u>IRONMONGERY</u>					
	Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
	<u>IRONMONGERY</u>					
	Stainless steel cylinder locksets					
1	75mm four lever upright mortice lockset with satin chrome furniture	No	100% Steel Products	10		
2	Indicator bolt with 'red/green' indicator	No	100% Steel Products	5		
	Stainless steel lever handles complete with backplate					
3	Grade 304 stainless steel round D lever handle on a long backplate with a profiled cylinder opening fixed to timber doors with matching screws	Pairs	100% Steel Products	10		
	Bathroom Fittings					
4	Satin stainless steel paper towel dispenser with min 600 folded paper towels and cylinder lock, plugged and screwed to the wall with stainless steel screws.	No	100% Steel Products	5		
5	Satin stainless steel waste disposal bins with capacity of plus minus 40 litres and with a frame inside the dispenser to hold a liner, plugged and screwed to the wall with stainless steel screws	No	100% Steel Products	5		
6	Satin stainless steel liquid soap dispenser complete with replaceable and refillable 1 litre container, cylinder lock all plugged and screwed to walls with stainless steel screws	No	100% Steel Products	5		
7	Vandal resistant satin stainless steel 3 tier lockable toilet roll holder with central shaft system and cylinder lock, plugged and screwed to walls with stainless steel screws	No	100% Steel Products	5		
8	Satin stainless steel sanitary towel disposal bins with capacity of minimum 10 litres, free standing or wall mounted (plugged and screwed to the wall with stainless steel screws)	No	100% Steel Products	2		
9	32mm diameter stainless steel cistern back rail in satin polished finish complete with SS fixing screws and plastic wall plugs, installed at 800mm above floor level as per manufacturer's instructions.	No	100% Steel Products	1		
	Carried to Collection					

**REFURBISHING AND IMPROVEMENT OF
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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
10	300 x 300 x 300mm x 32mm diameter stainless steel dog-leg side grab rail, without centre flange in satin polished finish complete with SS fixing screws and plastic wall plugs, as per manufacturer's instructions.	No	100% Steel Products	1		
	Door stoppers					
11	Chrome plated hooded door stopper plugged onto floors	No	N/A	10		
	<u>BLINDS</u>					
	<u>Vertical blinds comprising 127mm wide fabric vanes with slimline white powder coated aluminium headrail complete with top hangers, bottom weights and stabilizing chain, easy fit brackets to be recess mounted into reveals to be supplied and installed according to the manufacturer's recommendation</u>					
12	Blinds to cover window opening of size: 900 x 900mm high	No	N/A	3		
13	Blinds to cover window opening of size: 2000 x 1200mm high	No	N/A	2		
	Carried to Collection					

**REFURBISHING AND IMPROVEMENT OF
PRASA AKASIA BOOM TRAIN STATION**

Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
Bill No. 6 IRONMONGERY					
<u>COLLECTION</u>					
			Page No	Amount	
Total Brought Forward From Page No.			78	.....
			79	.....
Carried to Summary					.....
				

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>BILL NO 7</u>					
	<u>METALWORK</u>					
	<u>WINDOW AND DOOR OPENING</u>					
	<u>Rates in this section shall include creation of openings for windows and doors, installation of windows and doors complete with waterproofing sealant and glazing where applicable and paint finishes</u>					
	Aluminium windows and doors to remain taped and remain so for duration of contract					
	<u>Glazed aluminium windows and doors, complete with subframes, ironmongery, glass, sealing, etc and fixing to container walls</u>					
	The following window and door descriptions are to be read in conjunction with the attached window/door schedule					
	<u>Create opening and install:</u>					
	<u>Aluminium windows with bulletproof glazing</u>					
1	Aluminium window type W01 of size 900 x 900mm high	No	100% Steel Products	3		
2	Aluminium window type W02 of size 600 x 900mm high	No	100% Steel Products	6		
3	Aluminium window type W03 of size 2000 x 1200mm high	No	100% Steel Products	2		
	<u>Bullet-resistant anti-bandit door</u>					
4	Door of overall size 900 x 2120mm high including frame	No	100% Steel Products	1		
	<u>SUNDRIES</u>					
	Bulletproof cladding to internal side of container walls comprising panels affixed to steel frame (measured elsewhere) to specialist and manufacturer's specification					
5	To walls	m ²	100% Steel Products	130		
	Corrugated steel cladding including paint finishes					
6	To exterior walls including mounting	m ²	100% Steel Products	130		
	Carried to Collection					

Carried to Collection

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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>BILL NO 8</u>					
	<u>TILING</u>					
	Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
	SUPPLEMENTARY PREAMBLES					
	Descriptions Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc					
	WALL TILING					
	Supply, delivery and fixing of tiles allowing for all adhesives, grouts, labours and the like:					
	<u>Porcelain wall tiles allow a PC sum of R300/m2 for the supply of all materials</u>					
1	On walls	m ²	N/A	58		
	FLOOR TILING					
	<u>Supply, delivery and fixing of tiles allowing for all adhesives, grouts, labours and the like:</u>					
	Porcelain floor tiles allow a PC sum of R300/m2 for the supply of all materials					
2	On floors	m ²	N/A	53		
3	Tile skirtings 100mm high	m	N/A	65		
	Carried to Summary					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>BILL NO 9</u>					
	<u>PLUMBING AND DRAINAGE</u>					
	Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
	ABT SANITARY FITTINGS, ETC					
	Supply, delivery and installation of sanitaryware items ; fix accordingly allowing for all sundry plumbing fittings and connections					
1	Vitreous china white cloakroom basin of size 455 x 290mm with one tap hole including integrated overflow and chainstay hole bolted to wall with two 10mm bolts and sealed with silicone sealant where basin meets wall.	No	N/A	4		
2	Vitreous china 510 x 405mm disabled lavatory basin to comply with SABS 497 with two tap hole configuration	No	N/A	1		
3	Public vandal proof composite polymer toilet of size 390mm x 480mm x 410mm high with a concealed cistern and flush volume 6/3 litres, subject to the pan being installed with a cistern providing an effective 6/3 litre flush volume. Complete with all necessary fittings to manufacturer's specification and applicable SABS standards	No	N/A	4		
4	565 x 275 x 310mm white vandal proof composite polymer wall mounted back inlet urinal including 38mm chromium plated domical grating and chromium plated back inlet spreader, flush valve, flush pipe fixed on and including two hanger brackets	No	N/A	2		
5	Grade 304 18/10 polished stainless steel single end bowl insert sink size 800 x 400mm wide with in 340 x 370 x 152mm deep bowl fitted onto kitchen cupboard (measured elsewhere)	No	N/A	1		
6	Paraplegic vitreous china floor mounted paraplegic washdown suite colour white comprising semi-close 90 degree outlet open rim washdown pan and matching 9 litre cistern, including lid, fittings and purpose-made chromium plated side flush lever to comply with SABS 497 with all necessary fittings with flush valve fitted with suitable paraplegic extension lever.	No	N/A	1		
	<u>WASTE UNIONS ETC</u>					
7	38mm stainless steel waste fitting to sinks	No	N/A	1		
	Carried to Collection					

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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
8	38mm stainless steel waste fitting to basins	No	N/A	5		
9	38mm stainless steel waste fitting to urinals	No	N/A	2		
	<u>TRAPS ETC</u>					
10	Chrome-plated bottle trap	No	N/A	6		
11	Chrome-plated urinal bottle trap	No	N/A	2		
	uPVC Pipes:					
12	50mm Pipes fixed to walls, ceilings, roofs, floors, or laid in filling	m	100% PVC Products	24		
	Extra over uPVC pipes for fittings:					
13	50mm Bends	No	100% PVC Products	16		
14	50mm access bends	No	100% PVC Products	8		
15	50mm tee	No	100% PVC Products	6		
16	110mm bend	No	100% PVC Products	5		
17	110 mm Access bend	No	100% PVC Products	5		
18	110 mm Reducer	No	100% PVC Products	2		
19	110mm Pan connector	No	100% PVC Products	5		
20	Grease Trap	No	N/A	1		
	WATER SUPPLIES					
	<u>Class 'II' copper pipes</u>					
21	15mm Pipe fixed to walls, ceilings, chased in, etc.	m	100% Steel Products	32		
22	22mm Pipe fixed to walls, ceilings, chased in, etc.	m	100% Steel Products	15		
23	28mm Pipe fixed to walls, ceilings, chased in, etc.	m	100% Steel Products	20		
	<u>Extra over Class II copper pipes for cappillary fittings</u>					
24	15mm Fittings	No	100% Steel Products	38		
25	22mm Fittings	No	100% Steel Products	13		

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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
26	28mm Fittings	No	100% Steel Products	15		
27	15mm Gate valve	No	70% Valve	6		
28	22mm Gate valve	No	70% Valve	9		
29	28mm Gate valve	No	70% Valve	2		
	Taps and mixers					
30	Self-closing push-button pillar tap with chrome finish	No	N/A	4		
31	Elbow action basin mixer tap with single lever	No	N/A	1		
32	Single chrome plated elbow action pillar-tap with quarter turn ceramic disc head and flanged backnut	No	N/A	1		
33	Flexible connection pipe	No	N/A	13		
34	15mm chromium plated angle regulating valve	No	N/A	13		
	TESTING					
35	Test and commission the complete water supply installation system including pressure testing of the all primary flow and return pipes, cold water pipes and hot water delivery pipes and performance test of the installation	Item	N/A	1		

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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>BILL NO 10</u>					
	<u>PAINTWORK</u>					
	Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
	SUPPLEMENTARY PREAMBLES					
	DESCRIPTIONS					
	Descriptions of paintwork shall be deemed to include for all cutting in					
	<u>ON PLASTER BOARD</u>					
	One coat universal undercoat and two coats interior quality PVA emulsion paint					
1	Plasterboard ceilings	m ²	N/A	56		
2	To drywall partitions	m ²	N/A	86		
3	To walls	m ²	N/A	130		
	<u>ON METAL SURFACES</u>					
	One coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint, on steel					
4	To steel section members with a girth exceeding 300mm	m ²	N/A	9		
5	On door frames	m ²	N/A	8		
	<u>WOOD SURFACES</u>					
	Prepare surface and apply universal under coat to comply with SABS 681, grade 1 and finish with 2 coats alkyde egg-shell paint					
6	To timber doors	m ²	N/A	38		
	Carried to Summary					

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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>SECTION NO 5: ELECTRICAL AND MECHANICAL WORK</u>					
	<u>BILL NO 1</u>					
	<u>ELECTRICAL WORK</u>					
	Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
	<u>LV RETICULATION</u>					
	The Supply, delivery and installation of SABS approved material, accessories and equipment as specified.					
	<u>TRENCHING, BACKFILLING AND REINSTATEMENTS</u>					
	Cable trenching shall be done at a minimum of 0.6m deep and 0.45m wide. Sleeves shall be supplied and installed underground.					
1	Excavation in Pickable soil conditions. (depth< 800mm)	m	N/A	100		
2	Supply and lay electrical cable sleeves / Black	m	90% Electrical cable Products	100		
	<u>ARMOURED CABLES</u>					
	Supply and Install 600/1000V grade PVC/SWA/PVC insulated stranded copper conductors drawn into conduit, laid in ground, sleeves or cable tray.					
3	35mm ² 4 core 1000V PVC / SWA / PVC Copper Cable	m	90% Electrical cable Products	100		
4	10mm ² 4 core 1000V PVC / SWA / PVC Copper Cable	m	90% Electrical cable Products	110		
5	6mm ² 4 core 1000V PVC / SWA / PVC Copper Cable	m	90% Electrical cable Products	50		
	<u>BARE COPPER EARTH WIRE</u>					
6	16mm ² Bare Copper Earth Wire	m	90% Electrical cable Products	100		
7	6mm ² Bare Copper Earth Wire	m	90% Electrical cable Products	110		
8	4mm ² Bare Copper Earth Wire	m	90% Electrical cable Products	50		
	<u>CABLE TERMINATIONS(PVC/SWA/PVC)</u>					
	Supply and Install cable terminations complete including lugs, glands, shrouds, ferrules					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
9	35mm ² 4 core PVC / SWA / PVC	No	90% Electrical cable Products	8		
10	10mm ² 4 core 1000V PVC / SWA / PVC Copper Cable	No	90% Electrical cable Products	8		
11	6mm ² 4 core 1000V PVC / SWA / PVC Copper Cable	No	90% Electrical cable Products	8		
CABLE TERMINATIONS- BARE COPPER EARTH WIRE						
Supply and Install cable terminations complete including lugs, glands, shrouds, ferrules						
12	10mm ² Bare Copper Earth Wire	No	90% Electrical cable Products	8		
13	6mm ² Bare Copper Earth Wire	No	90% Electrical cable Products	8		
14	4mm ² Bare Copper Earth Wire	No	90% Electrical cable Products	8		
SUPPLY AND INSTALLATION OF 25KVA TRANSFORMER						
15	Supply and Install 25KVA transformer on existing Steel - Hpole including all termination cables	No	90% Electrical cable Products	1		
<u>LV DISTRIBUTION BOARDS</u>						
16	Main distribution Kiosk 1x 4 way	No	N/A	1		
17	DB1	No	N/A	1		
18	DB2	No	N/A	1		
<u>SMALL POWER AND LIGHTING INSTALLATIONS FOR ALL INTERNAL WORKS</u>						
The Supply, delivery and installation of SABS approved material, accessories and equipment as specified.						
<u>Draw Wires</u>						
19	Supply and install a 0,6mm diameter galvanised draw wire in conduit for data installation	m	N/A	320		
<u>Galvanised Conduit</u>						
20	25mm - Galvanised conduit including bending, short lengths, draw boxes, cutting, bands, jointing, couplings, saddles and wastage as per SABS 1065. Fixed to surface or laid in or flush	m	100% Steel Products	50		

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>Conduit Boxes</u>					
	Supply and installation of SABS approved conduit boxes, installed in the run of the conduit installation, cast into concrete and built into brickwork or flush inside false ceiling spaces, complete with all required conduit termination accessories.					
	<u>Wall Boxes</u>					
	<u>Supply and installation of SABS approved galvanised pressed steel wall boxes for building flush into brickwork or drywall work.</u>					
	Flush mounted type:					
21	100 x 50 x 50mm	No	100% Steel Products	8		
22	100 x 100 x 50mm	No	100% Steel Products	16		
23	100 x 50 x 50mm Standard white coverplates complete with chrome screws.	No	100% Steel Products	8		
24	100 x 100 x 50mm Standard white coverplates complete with chrome screws.	No	100% Steel Products	16		
	PVC INSULATED GENERAL PURPOSE CONDUCTORS					
	<u>Conductors drawn into conduit or installed in wiring channel</u>					
25	1.5mm ²	m	90% Electrical cable Products	600		
26	2.5mm ²	m	90% Electrical cable Products	250		
27	4mm ²	m	90% Electrical cable Products	250		
	<u>Supply and installation of stranded bare copper earth wire along with PVC wiring in conduits. Tendered rates shall make provision for wastage.</u>					
28	1.5mm ²	m	90% Electrical cable Products	500		
29	2.5mm ²	m	90% Electrical cable Products	500		
30	450 x 450mm Bonding tray in roof space	m	N/A	20		
	<u>Light Switches</u>					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	Supply and installation of SABS approved type 16A flush and surface type light switches. Final paint finishes shall be confirmed at a later stage. allowance shall however be made as specified in the general specification. All boxes for flush mounting meas					
31	1 Lever 1 way	No	N/A	12		
32	1 Lever 2 way	No	N/A	2		
	<u>Interior: Light Fittings</u>					
	Supply, delivery to site, storage and installation of the below specified light fittings complete with lamps, fixing material, mounting and tubes. Allowance must be made in the rates for all the required fixing materials and accessories.					
33	Type A- Open channel fluorescent light c/w 2x36W LED fluorescent bulbs	No	N/A	20		
34	Type B: Bulkhead light 2x9W LED bulbs, Vapour proof	No	N/A	8		
35	Type B1: Bulkhead light 2x9W LED bulbs	No	N/A	6		
36	Type FL: Floodlight c/w 125W fluorescent bulbs	No	N/A	2		
37	Type PC:Photo cell, Day/night control switches turn the lights on at dusk and turn off the lights at dawn	No	N/A	3		
	<u>Socket Outlets</u>					
	Supply and installation of SABS approved switched and unswitched type flush and surface mounted type 16A switched socket outlets suitable for mounting in flush steel wall boxes or in steel pedestal units or on surface.					
	The final colour of the paint finish shall be confirmed at a later stage, allowance shall be made as specified in the specification.					
	Flush switched sockets type:					
38	16A SA/Euro Combined switch socket outlets + US	No	N/A	4		
39	16A SA/Euro Combined switch socket outlets	No	N/A	12		
40	20A, DP Isolator(HVAC)	No	N/A	4		
	<u>Power Trunking/ Skirting</u>					

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
41	2 compartment power skirting installed in the offices server room,, service desk and Information desk (To include All elbows, corners sections, T-sections& end caps)	m	100% Steel Products	50		
42	127 mm wide x 76 mm deep (for electronic services, P9000)	m	100% Steel Products	30		
	<u>Network , Data and communication must include draw box, blank cover plate, etc, RJ45</u>					
43	RJ45 point	No	N/A	6		
44	RJ15 point	No	N/A	2		
	Electrical Tests					
45	Making provision for the required inspection, tests and the commissioning of the complete installation and the issuing of the required certificate of compliance (CoC)	Item	N/A	1		
	<u>DATA NETWORKING</u>					
	The Supply, delivery and installation of SABS approved material, accessories abd equipment as specified. Installation of wired data points & wireless access points on wiring channels (inclusive of boxes, RJ45 faceplates, CAT6a termination).					
46	Network Data Point-Molex (cable ,Molex Cat6 module,1m patch lead and 3m flylead)	No	N/A	12		
47	Fibre Optic Patch Panel (12 Port) Including Blanking plates	No	N/A	1		
48	12U Fixed swingout wall mount cabin incl cooling fans, rack shelves, rack rails. Rack must also come with a 230V, 16A, 3pin round (X 5 socket) outlets adapter, white in colour, suitable for munting on the19" rack.	No	N/A	2		
49	Patch panel Molex -12 Port	No	N/A	1		
50	Brush Panel	No	N/A	1		
51	Fiber Patch Leads LC to ST (Black JR+EC)	No	N/A	12		
52	4 core Multimode fiber OM3 Cable	m	90% Electrical cables Products	230		
53	1Gigabyte POE Switch RJ45- 24-Port	No	N/A	1		
54	LC Optic Fiber Switch- 12 Port	No	N/A	1		

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Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
55	XFP, SFP+ LC SR Transceiver Modules	No	N/A	12		
56	TS Network Specialist	No	N/A	1		
57	LAN -Network Point -Install	No	N/A	12		
58	Standalone Fibre Media converter	No	N/A	1		
59	Fibre accessories : (pigtaills, stacking cables etc	No	N/A	1		
60	fiber splicing &ODTR Report ,incl couplers	No	N/A	12		
61	Wireless LAN controller with 60 AP license. Wireless intrusion prevention system (IPS), RF management,QoS, Layer 3 fst secure roaming	No	N/A	1		
62	CAT6a STP Cable	m	90% Electrical cables Products	230		
63	CAT6a STP Fly Leads	No	N/A	24		
64	Lightning Arresters, Earthing	No	N/A	1		
65	Testing and Commissioning of Installation	Item	N/A	1		
<u>HIGH MAST LIGHTING SYSTEM AND AREA LIGHTING</u>						
Supply, delievery to site, storage and installation of the below specified external light fittings such as 10m high masts complete with lamps, fixing material, mounting and tubes. Allowance must be made in the rates for all the required fixing materials and accessories.						
66	Vandal Proof System - 12m TL(10.5M Mid -Hinge) Stepped pole including 1.5m Stubby (76mm OD top), comes with single spigot and all Electrical material inside the Mast.	No	N/A	4		
67	Excavation and Casting of Foundation on concrete/Tared plith or Rock Surface(150kpa) (Cube Test Included)	No	N/A	4		
68	2 X 1.2M Earth Spike	No	N/A	4		

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
69	Assembly and Erection of Mast including Crane Charges	No	N/A	4		
70	Install and connect luminaires/Lights	No	N/A	4		
71	Operation Manuals	No	N/A	1		
PVC INSULATED GENERAL PURPOSE CONDUCTORS						
Conductors drawn into conduit or installed in wiring channel						
72	Supply and install 6mm ² x 4 core insisting cable sleeves for the Mast	m	90% Electrical cables Products	150		
73	Making provision for the required inspection, tests and the commissioning of the complete installation and the issuing of the required certificate of compliance (CoC)	Item	N/A	1		
<u>AREA LIGHTING</u>						
Supply, delievery to site, storage and installation of the below specified external light fittings such as 7m 4 Spogit masts complete with lamps, fixing material, mounting and tubes. Allowance must be made in the rates for all the required fixing materials and accessories.						
74	Vandal Proof System - 7m TL(8.5M Mid -Hinge) Stepped pole including 1.5m Stubby (76mm OD top), comes with 4 spigot and all Electrical material inside the Mast.	No	N/A	1		
75	Excavation and Casting of Foundation on concrete/Tared plith or Rock Surface(150kpa) (Cube Test Included)	No	N/A	1		
76	2 X 1.2M Earth Spike	No	N/A	1		
77	Assembly and Erection of Mast including Crane Charges	No	N/A	1		
78	Install and connect luminaires/Lights	No	N/A	4		
79	Supply and install 4mm ² x 4 core insisting cable sleeves for the Mast	m	90% Electrical cables Products	40		
80	Making provision for the required inspection, tests and the commissioning of the complete installation and the issuing of the required certificate of compliance (CoC)	Item	N/A	1		
<u>EARTHING AND LIGHTNING PROTECTION SYSTEM</u>						
Supply , deliver, installation, testing commissioning, and handing over in working condition and maintainance during the guarantee period.						

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
Survey						
81	Carry out a soil resistivity survey to SABS Standards	Item	N/A	1		
82	Evaluation of soil resistivity survey, including soil prospection sheet graph and report	Item	N/A	1		
83	Design drawings of earthing system including all the assembly details.	Item	N/A	1		
GALVANISED STEEL CONDUIT						
Galvanised steel conduit including short lengths, draw boxes, cutting, bends, jointing, couplings, saddles and accessories as per SABS 1065. Fixed to surface or laid in or flush mounted in brickwork, concrete. The rate to allow for the conduit mounting brackets to suspend conduits from concrete slab. The rate shall include labour and material.						
84	20mm galvanised conduit 4m length with complete with fischer plugs, saddles	m	100% Steel Products	20		
85	9.5mm dia solid Al round air termination conductor including all fixing accessories	m.	100% Steel Products	60		
86	10mm dia solid Al alloy down conductors mounted to the the earth electrode.	m.	100% Steel Products	60		
87	70mm ² (BCEW) bare stranded copper conductor laid in a trench for the creation of ring earth electrode in trench 500mm below ground. Allow for excavation of soil	m.	100% Steel Products	60		
88	Termination of down conductors to roof sheeting, including all fixing accessories	No	100% Steel Products	8		
89	16mm dia. 1 500mm long copper earth electrodes driven into ground+clamps	No	100% Steel Products	8		
90	16mm ² Dia. x 500mm long copper roof termination rod/ Air termination rod	No	100% Steel Products	8		
91	Earth Test Box	No	N/A	2		
92	Saddles+fischer plugs+steel conductor holders	No	N/A	10		
93	Earthing as required at Main Distribution Board to achieve maximum 1 Ohm resistance including testing.	Item	N/A	1		

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Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
Bill No. 1					
ELECTRICAL WORK					
<u>COLLECTION</u>					
			Page No	Amount	
Total Brought Forward From Page No.			91	.....
			92	.....
			93	.....
			94	.....
			95	.....
			96	.....
			97	.....
			98	.....
			99	.....
Carried to Summary					.....
				

Item No		Unit	Local Content Threshold	Quantity	Rate	Amount
	<u>BILL NO 2</u>					
	<u>MECHANICAL WORK</u>					
	Notes: 1. Tenderers are advised to study the Prasa Norms, Guidelines and Standards (NGS) for Station Facilities and Part B of the Prasa Specifications before pricing this bill					
	<u>AIR CONDITIONING</u>					
	<u>Provide as per the client's specification and bring to working condition: Split type air conditioning units . The Units will operate on rotational basic as such will be programmed accordingly</u>					
1	2.0kW Mid Wall Unit with 2.0 kW Outdoor unit inverter type Including wall mounted control panel, drainage pump, Air filter, decoration panel, mountings, connection to refrigerant piping and connection to drainage piping(12000BTU)	No	N/A	4		
	<u>Toilets/Ablutions Extraction System</u>					
	Supply, delivery to site, storage and installation of the below specified extractor fans. Installation shall be in accordance with the manufacturer detailed design					
2	Ceiling and Wall mount silent Extractor Fan (Mixed flow) 150mm-160mm.	No	N/A	5		
3	Issuing of COC by a registered personal	No	N/A	1		
4	Testing and Commissioning of Installation	Item	N/A	1		
	<u>FIRE SERVICES</u>					
	The Supply, delivery and installation of SABS approved material, accessories abd equipment as specified.					
5	Fire Signge	Item	N/A	1		
6	4.5/5kg Dry Chemical Fire Extinguisher, Including brackets to wall mount	No	N/A	2		
7	890mm Heigh x 590mm Width x 285mm Depth Fire Extinguishers Cabinet comes with Vandal Proof System	No	100% Steel Products	2		
	<u>FIRE HYDRANTS</u>					

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**REFURBISHING AND IMPROVEMENT OF
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Item No	Unit	Local Content Threshold	Quantity	Rate	Amount
Bill No. 2 MECHANICAL WORK					
<u>COLLECTION</u>					
			Page No	Amount	
Total Brought Forward From Page No.			101	
			102	
Carried to Summary				
				

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