

PROVISIONAL BILLS OF QUANTITIES

FOR

REFURBISHMENTS AND UPGRADES TO MZIMHLOPHE TRAIN STATION

AT

SOWETO, JOHANNESBURG

Sept-22

SECTION NO.1 : PRELIMINARIES

SECTION A: PRINCIPAL BUILDING AGREEMENT

Interpretation (A1-A7)

- 1 Clause 1.0 - Definitions and interpretation
- 2 Clause 2.0 - **Law**, regulations and **notices**
- 3 Clause 3.0 - Offer and acceptance

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

- 4 Clause 4.0 - Cession and assignment

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

- 5 Clause 5.0 - Documents

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

- 6 Clause 6.0 - **Employer's agents**

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

- 7 Clause 7.0 - Design responsibility

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

Insurances and securities (A8-A11)

- 8 Clause 8.0 - **Works** risk

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

Carried to Collection

Section No. 1
Preliminaries
Contract
Part C2: Pricing Data

R

9	<p>Clause 9.0 - Indemnities</p> <p>F:..... V:..... T:.....</p>	Item		
10	<p>Clause 10.0 - Insurances</p> <p>F:..... V:..... T:.....</p>	Item		
11	<p>Clause 11.0 - Securities</p> <p><u>Execution (A12 - A17)</u></p>			
12	<p>Clause 12.0 - Obligations of the parties</p> <p>F:..... V:..... T:.....</p>	Item		
13	<p>Clause 13.0 - Setting out</p> <p>F:..... V:..... T:.....</p>	Item		
14	<p>Clause 14.0 - Nominated subcontractors</p> <p>F:..... V:..... T:.....</p>	Item		
15	<p>Clause 15.0 - Selected subcontractors</p> <p>F:..... V:..... T:.....</p>	Item		
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>			
	Carried to Collection		R	
	<p>Section No. 1 Preliminaries Contract Part C2: Pricing Data</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		
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><u>Completion (A18 - A24)</u></p>	Item		
18	Clause 18.0 - Interim completion	N/A		
19	<p>Clause 19.0 - Practical completion</p> <p>F:..... V:..... T:.....</p>	Item		
20	Clause 20.0 - Completion in sections			
21	Clause 21.0 - Defects liability period and final completion			
22	<p>Clause 22.0 - Latent defects liability period</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried to Collection		R	
	<p>Section No. 1</p> <p>Preliminaries</p> <p>Contract</p> <p>Part C2: Pricing Data</p>			

23	<p>Clause 23.0 - Revision of the date for practical completion</p> <p>Substitution of materials and goods</p> <p>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]</p> <p>F:..... V:..... T:.....</p>	Item		
24	<p>Clause 24.0 - Penalty for late or non-completion</p> <p>F:..... V:..... T:.....</p> <p><u>Payment (A25 - A27)</u></p>	Item		
25	<p>Clause 25.0 - Payment</p> <p>Prices submitted</p> <p>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</p> <p>F:..... V:..... T:.....</p>	Item		
26	<p>Clause 26.0 - Adjustment of the contract value and final account</p> <p>Fluctuations in costs</p> <p>All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor [26.9.5]</p>			
Carried to Collection			R	
<p>Section No. 1 Preliminaries Contract Part C2: Pricing Data</p>				

27	<p>Clause 27.0 - Recovery of expense and/or loss</p> <p>F:..... V:..... T:.....</p> <p><u>Suspension and termination (A28 - A29)</u></p>	Item		
28	<p>Clause 28.0 - Suspension by the contractor</p> <p>F:..... V:..... T:.....</p>	Item		
29	<p>Clause 29.0 - Termination</p> <p>F:..... V:..... T:.....</p> <p><u>Dispute resolution (A30)</u></p>	Item		
30	<p>Clause 30.0 - Dispute resolution</p> <p>F:..... V:..... T:.....</p>	Item		
31	<p><u>Agreement</u></p> <p>The required information of the parties and the amount of the contract sum shall be inserted in the agreement for signature of the agreement by the parties</p> <p>F:..... V:..... T:.....</p>	Item		
32	<p><u>Contract data</u></p> <p>F:..... V:..... T:.....</p> <p><u>SECTION B: GENERAL PRELIMINARIES</u></p> <p><u>Definitions and interpretation (B1)</u></p>	Item		
33	<p>Clause 1.1 - Definitions</p> <p>F:..... V:..... T:.....</p>	Item		
Carried to Collection			R	
<p>Section No. 1 Preliminaries Contract Part C2: Pricing Data</p>				

34	<p>Clause 1.2 - Interpretation</p> <p>F:..... V:..... T:.....</p> <p><u>Documents (B2)</u></p>	Item		
35	<p>Clause 2.1 - Checking of documents</p> <p>F:..... V:..... T:.....</p>	Item		
36	<p>Clause 2.2 - Provisional bills of quantities</p> <p>F:..... V:..... T:.....</p>	Item		
37	<p>Clause 2.3 - Availability of construction information</p> <p>F:..... V:..... T:.....</p>	Item		
38	<p>Clause 2.4 - Ordering of materials and goods</p> <p>F:..... V:..... T:.....</p> <p><u>Previous work and adjoining properties (B3)</u></p>	Item		
39	<p>Clause 3.1 - Previous work - dimensional accuracy</p> <p>F:..... V:..... T:.....</p>	Item		
40	<p>Clause 3.2 - Previous work - defects</p> <p>F:..... V:..... T:.....</p>	Item		
41	<p>Clause 3.3 - Inspection of adjoining properties</p> <p>F:..... V:..... T:.....</p>	Item		
Carried to Collection			R	
<p>Section No. 1 Preliminaries Contract Part C2: Pricing Data</p>				

	<u>The site (B4)</u>		
42	Clause 4.1 - Handover of site in stages F:..... V:..... T:.....	Item	
43	Clause 4.2 - Enclosure of the works	Item	
44	Clause 4.3 - Geotechnical and other investigations F:..... V:..... T:.....	Item	
45	Clause 4.4 - Encroachments F:..... V:..... T:.....	Item	
46	Clause 4.5 - Existing premises occupied F:..... V:..... T:.....	Item	
47	Clause 4.6 - Services - known F:..... V:..... T:.....	Item	
	<u>Management of contract (B5)</u>		
48	Clause 5.1 - Management of the works F:..... V:..... T:.....	Item	
49	Clause 5.2 - Progress meetings F:..... V:..... T:.....	Item	
50	Clause 5.3 - Technical meetings F:..... V:..... T:.....	Item	
	Carried to Collection		R
	Section No. 1 Preliminaries Contract Part C2: Pricing Data		

<u>Samples, shop drawings and manufacturer's instructions (B6)</u>				
51	Clause 6.1 - Samples of materials F:..... V:..... T:.....	Item		
52	Clause 6.2 - Workmanship samples F:..... V:..... T:.....	Item		
53	Clause 6.3 - Shop drawings F:..... V:..... T:.....	Item		
54	Clause 6.4 - Compliance with manufacturer's instructions F:..... V:..... T:.....	Item		
<u>Deposits and fees (B7)</u>				
55	Clause 7.1 - Deposits and fees F:..... V:..... T:.....	Item		
<u>Temporary services (B8)</u>				
56	Clause 8.1 - Water F:..... V:..... T:.....	Item		
57	Clause 8.2 - Electricity F:..... V:..... T:.....	Item		
58	Clause 8.3 - Ablution and welfare facilities F:..... V:..... T:.....	Item		
Carried to Collection			R	
Section No. 1 Preliminaries Contract Part C2: Pricing Data				

59	<p>Clause 8.4 - Communication facilities</p> <p>F:..... V:..... T:.....</p> <p><u>Prime cost amounts (B9)</u></p>	Item		
60	<p>Clause 9.1 - Responsibility for prime cost amounts</p> <p><u>Attendance on subcontractors (B10)</u></p>			
61	<p>Clause 10.1 - General attendance</p> <p><u>User note</u></p> <p><i>General attendance is defined as being the duties of the contractor in terms of clause 12.2 of the JBCC n/s subcontract agreement</i></p> <p>F:..... V:..... T:.....</p>	Item		
62	Clause 10.2 - Special attendance			
63	<p>Clause 11.1 - Protection of the works</p> <p>F:..... V:..... T:.....</p>	Item		
64	<p>Clause 11.2 - Protection/isolation of existing works and works occupied in sections</p> <p>F:..... V:..... T:.....</p>	Item		
65	<p>Clause 11.3 - Security of the works</p> <p>F:..... V:..... T:.....</p>	Item		
66	<p>Clause 11.4 - Notice before covering work</p> <p>F:..... V:..... T:.....</p>	Item		
67	Clause 11.5 - Disturbance			
Carried to Collection			R	
<p>Section No. 1 Preliminaries Contract Part C2: Pricing Data</p>				

68	Clause 11.6 - Environmental disturbance				
69	Clause 11.7 - Works cleaning and clearing F:..... V:..... T:.....	Item			
70	Clause 11.8 - Vermin F:..... V:..... T:.....	Item			
71	Clause 11.9 - Overhand work F:..... V:..... T:.....	Item			
72	Clause 11.10 - Tenant installations F:..... V:..... T:.....	Item			
73	Clause 11.11 - Advertising F:..... V:..... T:.....	Item			
	<u>SECTION C: SPECIFIC PRELIMINARIES</u>				
74	Site instructions Contract Instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor F:..... V:..... T:.....	Item			
Section No. 1 Preliminaries Contract Part C2: Pricing Data		Carried to Collection		R	

75	<p>Warranties for material 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 firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the final completion of the contract. The warranty shall state that workmanship, materials and installation are warranted for a specified period from the date of final completion and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice to do so. The warranty will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor</p> <p>F:.....V:.....T:.....</p>				
		Item			
76	<p>Co-operation of contractor for cost management</p> <p>It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget. The principal agent undertakes to make available to the contractor all budgetary allowances and cost assessments/reports to enable the proper procedure to be implemented and the contractor shall attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures, as necessary, to all subcontractors</p> <p>F:.....V:.....T:.....</p>				
		Item			
Carried to Collection					R
Section No. 1					
Preliminaries					
Contract					
Part C2: Pricing Data					

77	<p>Propping of floors below</p> <p>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</p> <p>F:..... V:..... T:.....</p>				
		Item			
78	<p>Testing of windows for watertightness</p> <p>Each window shall be tested for watertightness with water sprayed on using adequate pressure. If in the opinion of the principal agent, the pressure proves to be inadequate, then the pressure shall be boosted by means of compressed air or other approved means</p> <p>F:..... V:..... T:.....</p>				
		Item			
79	<p>Testing of flat roof waterproofing for watertightness</p> <p>Flat roof waterproof areas shall be prepared with small sand dykes around them of a size and enclosing an area approved by the principal agent, flooded with water and kept "ponded" for at least 36 hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing</p> <p>F:..... V:..... T:.....</p>				
		Item			
Carried to Collection					R
Section No. 1					
Preliminaries					
Contract					
Part C2: Pricing Data					

HIV/AIDS AWARENESS

It is required of the Contractor to thoroughly study the HIV/AIDS Specification together with and is deemed to be incorporated under this Section of the Bills of Quantities. Provision for pricing of HIV/AIDS awareness is made under items hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained.

The **Contractor** must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the **Principal Agent**, notwithstanding the provisions of Clause A 31 of "Section 1: Preliminaries (Section A)" or any other clauses to the contrary, reserve the right to delay issuing any progress **payment certificate** until the **Contractor** provides satisfactory proof of compliance. The **Contractor** shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.

80 **AWARENESS CHAMPION**

Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification.

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Item

Carried to Collection

R

Section No. 1
Preliminaries
Contract
Part C2: Pricing Data

81	<p>AWARENESS WORKSHOPS</p> <p>Selection and appointment of a competent Service Provider approved by the principal agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multimedia techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification.</p> <p>F:..... V:..... T:.....</p>	Item		
82	<p>POSTERS, BOOKLETS, VIDEOS, ETC.</p> <p>Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification.</p> <p>F:..... V:..... T:.....</p>	Item		
83	<p>ACCESS TO CONDOMS</p> <p>Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification.</p> <p>F:..... V:..... T:.....</p>	Item		
Carried to Collection			R	
Section No. 1 Preliminaries Contract Part C2: Pricing Data				

84	<p>MONITORING</p> <p>Monitoring HIV/AIDS awareness of workers, providing the principal agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification.</p> <p>F:..... V:..... T:.....</p> <p><u>SOCIO-ECONOMIC DELIVERABLES</u></p>				
85	<p>It is required that the contractor shall adhere to all Socio-Economic Deliverables.</p> <p>Provision for pricing of all the main contractor's costs as stipulated in the deliverables is made under this clause and are deemed to be priced hereunder and no additional claims in this regard shall be entertained</p> <p>F:..... V:..... T:.....</p> <p><u>EMPLOYMENT OF SMME SUB-CONTRACTORS AS A CONDITION OF TENDER</u></p>	Item			
86	<p>It is required that the contractor shall sub-contract 30% of the contract value (Excluding VAT, Escalation, Contingencies, HT equipment provisions and Socio-Economic provisions) of the contract including labour and material to EME's and QSE's</p> <p>Provision for pricing of all the main contractor's costs is made under this clause and are deemed to be priced hereunder and no additional claims in this regard shall be entertained</p> <p>F:..... V:..... T:.....N/A</p>	Item			
Carried to Collection					
<p>Section No. 1 Preliminaries Contract Part C2: Pricing Data</p>					R

OCCUPATIONAL HEALTH AND SAFETY ACT

87 The contractor shall comply with all the requirements set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act no.85 Of 1993)

It is required of the contractor to thoroughly study the Health and Safety Specification.

The contractor must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the principal agent, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.

Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.

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Item

Carried to Collection

R

Section No. 1
Preliminaries
Contract
Part C2: Pricing Data

ENVIRONMENTAL HEALTH AND SAFETY

88 The contractor shall comply with all the requirements set out in the Environmental Health and Safety Specification

It is required of the contractor to thoroughly study the Enviromental Health and Safety Specification

The contractor must take note that compliance with the Environmental Health and Safety is compulsory.

Provision for pricing of the Environmental Health and Safety is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.

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Item

Carried to Collection

R

Section No. 1
Preliminaries
Contract
Part C2: Pricing Data

SUMMARY OF CATEGORIES

Category: Fixed R

Category: Value	R
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Category: Time R

Carried to Collection

R

Section No. 1
Preliminaries
Contract
Part C2: Pricing Data

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

Section No. 1			
Preliminaries			
Bill No. 1			
Preliminaries			
<u>COLLECTION PAGE</u>			
	Page No	Amount R	
Total Brought Forward from Page No.	1		
Total Brought Forward from Page No.	2		
Total Brought Forward from Page No.	3		
Total Brought Forward from Page No.	4		
Total Brought Forward from Page No.	5		
Total Brought Forward from Page No.	6		
Total Brought Forward from Page No.	7		
Total Brought Forward from Page No.	8		
Total Brought Forward from Page No.	9		
Total Brought Forward from Page No.	10		
Total Brought Forward from Page No.	11		
Total Brought Forward from Page No.	12		
Total Brought Forward from Page No.	13		
Total Brought Forward from Page No.	14		
Total Brought Forward from Page No.	15		
Total Brought Forward from Page No.	16		
Total Brought Forward from Page No.	17		
Total Brought Forward from Page No.	18		
Total Brought Forward from Page No.	19		
Carried to Final Summary		R	
Section No. 1			
Preliminaries			
Contract			
Part C2: Pricing Data			

SECTION NO.2 : BUILDING WORK

Tenderers are advised that parts of the existing buildings on the site, including the existing water supply and sanitary systems will be in use during the progress of the Works and any disconnections, etc. that may be necessary must be made as directed by the Project Manager and in such a manner as to cause the minimum of inconvenience to the occupants of the buildings

Notices

Special care shall be exercised during the progress of the work to ensure that any electrical installations, water supply pipes, telephone and other services which may be encountered are not interfered with and notice shall be given to the Project Manager if any disconnection or alterations become necessary

Demolitions

All demolitions work shall be carried out in accordance with the Local By-laws and to the requirements of the Local Health Authorities. The Contractor shall take all precautions necessary to prevent any nuisance from dust whilst carrying out the work, including watering of the works with a jet or spray

Old materials to become the property of the Contractor

Old materials from alterations, except where described to be re-used or handed over to the Project Manager, become the property of the Contractor

Old materials from the alterations, except where described to be re-used or handed over to the Project Manager, as well as all rubbish, etc., must be regularly carted from site and not be allowed to accumulate on or around the site.

Old materials not to be re-used

None of the old materials is to be used for new work except where specifically described as being set aside for re-use

Carried to Collection

R

Section No. 2
Alterations
Contract
Part C2: Pricing Data

Handing over of materials

Where certain materials or articles from demolitions or alterations are described as to be handed over by the Contractor to the Project Manager such materials or articles shall be properly stored by the Contractor, until handing over thereof.

The Contractor must obtain an official receipt listing the materials or articles and dates of handing over. If the Contractor fails to submit the receipt when requested, it shall be deemed that the materials or articles are still in his possession and he will be liable to the Chief Director for the full replacement value thereof, which amount will be deducted from any monies due to the Contractor

Protection

In taking down and removing existing work the utmost care is to be observed to avoid any structural or other damage to the remaining portions of the building and the work is to be carried out in a workmanlike, practical and safe manner under the constant supervision of a competent foreman

The contractor must also protect all work not removed such as walls, floors, doors, windows, or other joinery, loose and fixed fittings and electrical appliances, etc. from damage during the progress of the work and provide all necessary materials for doing so

The Contractor will be held solely responsible for any damage to persons or property and for the safety of the structure throughout the whole of this contract and must make good at his own expense any damage that may occur. He shall allow for protecting and indemnifying persons using or passing through the existing buildings from injury and by necessary barriers, signs, etc

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. The works shall be left complete and perfect in every respect

Carried to Collection

R

Section No. 2
Alterations
Contract
Part C2: Pricing Data

Pulling down

Pulling down walls shall include for dead shoring under existing concrete slabs, beams, roof members, etc., for pulling down face brick, tiled or plastered walls and concrete beams or lintels occurring in same, for removing skirtings, quadrants, cornices, etc, fixed to same for hacking up flooring in openings and making good as previously described to walls, floors, ceilings, etc, unless otherwise described

Junction of new and existing

Making good at the junction of new and existing work shall include for piercing out, cutting through or removing short lengths of existing material, for supplying short lengths of new material and for jointing to match existing

Existing and adjoining buildings, etc.

In taking down and removing existing work the utmost care must be observed to avoid any structural or other damage to the remaining portions of the building or adjoining buildings, boundary walls, pavings, roadways, etc, and the Contractor shall provide all shoring, needling, strutting, etc, to ensure the stability of all structures during demolition or alteration work. The Contractor must cover up and protect from damage all work not removed and must make good at his own expense any damage that may occur

Forming new openings or altering openings in existing walls

Descriptions for 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 pre-stressed concrete lintels including all reinforcement, formwork, turning pieces, etc, building up jambs or portions of openings as described with brickwork or blockwork properly toothed and bonded to existing, building cavities or hollow walls solid where necessary and making good finishes all round on both sides and into reveals as described

Carried to Collection

Section No. 2
 Alterations
 Contract
 Part C2: Pricing Data

R

Building up openings

Descriptions of building up existing openings, where given in number, shall be deemed to include preparing existing surfaces all round, brickwork or blockwork, properly toothed and bonded to existing, wedging up and making good finishes on both sides as described

Site works

Hacking up gravel, concrete, bituminous or other paving shall include for grubbing up the sub-base and brick or concrete kerb

Pulling down boundary, retaining walls, fencing, etc, shall include for grubbing up all bricks, concrete and reinforced concrete foundations, bases, etc

All voids in ground consequent upon the pulling or cutting down are to be filled in with clean earth, well consolidated and rammed up to finished ground level

Plant and Scaffolding

The Contractor shall provide, maintain and remove from site if no longer required, all plant and scaffolding for the proper execution of the works

Dimensions

The Contractor is advised to take all dimensions affecting the existing buildings on the site, as he will be held solely responsible for all new work being of the correct sizes

Removal of ceilings

The Contractor is to ensure compliance with all relevant by-laws and legislation in terms of taking down, temporary storing on site, loading and final removal from site of ceilings with asbestos cement content

NOTE:

All sizes and dimensions stated herein are approximate and deemed only sufficient to identify the item of work concerned

Carried to Collection

R

Section No. 2
Alterations
Contract
Part C2: Pricing Data

All new finishes are measured in the relevant trades for new work

DEMOLITIONS ETC

Taking down and removing

1	Reinforced mesh fence approximately 2.6m high	m	7	
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Demolishing and removing

2	Single storey shed with timber pitched roof approximate size 5.0 x 4.7m on plan and 2.6m high overall comprising concrete plinth, access control balustrades and and roof sheeting timber trusses	No	2	
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REMOVAL OF EXISTING WORK

Take off and remove doors from existing frames including preparing frame to receive new door leaves (elsewhere measured)

3	Timber single door not exceeding 2,5m2	No	8	
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Taking down and removing roofs, floors, panelling, ceilings, partitions, etc

4	Corrugated iron roof covering and timber purlins, inspect and repair roof trusses to receive new covering.	m²	204	
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5	Gypsum plasterboard ceilings including cornices, timber bandering, etc	m²	150	
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6	Gutters and downpipes complete with fittings	m	47	
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7	Fibre cement fascia and badge boards	m	80	
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Taking out and removing sundry joinery work

8	Timber skirtings from brickwork	m	37	
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Carried to Collection

R

Section No. 2
Alterations
Contract
Part C2: Pricing Data

**Refurbishments and Upgrades to Mzimhlophe Train Station
Prasa South Gauteng Region Corridor 3**

<u>Taking out and removing joinery fittings etc</u>				
9	Timber kitchen floor cupboard approximately 1540 x 600 x 890mm high	No	1	
10	L-shaped Timber kitchen floor cupboard approximately 7630 girth x 600 x 890mm high	No	1	
11	L-shaped Timber kitchen floor cupboard approximately 3525 girth x 600 x 890mm high	No	1	
<u>Taking up and removing vinyl floor coverings, carpeting, etc</u>				
12	Carpet floor covering including preparing screed for new floor covering	m ²		Rate Only
<u>Take off and remove existing ironmongery from doors, including making good and prepare to receive new ironmongery (elsewhere measured)</u>				
13	Mortice lockset complete with handles from timber door	No	3	
14	Door closer from timber door	No	4	
<u>Taking out and removing ironmongery</u>				
15	Stainless steel toilet roll holder	No	9	
16	Paper towel dispenser	No	5	
17	Liquid dispenser	No	5	
<u>Hacking up/off and removing granolithic, screeds, plaster, etc from concrete or brickwork and preparing surfaces for new screeds, plaster, etc</u>				
18	30mm Thick screed from floors	m ²		Rate only
<u>Hacking up/off and removing ceramic tile floor and wall finishes including removing mortar bed or backing and preparing concrete or brick surfaces for new screed, plaster or tile finishes</u>				
19	Tiles to floors	m ²	207	
20	Tiles to walls	m ²	219	
Carried to Collection				R
Section No. 2 Alterations Contract Part C2: Pricing Data				

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

21	Tile skirting	m	263	
	<u>Carefully take out existing sanitary fittings and hand over to Client, or store in demarcated area on site, as directed by the Project Manager</u>			
22	Stainless steel single bowl sink	No	3	
23	Vitreous china wash hand basin	No	5	
24	Vitreous china WC pan with cistern	No	9	
25	Vitreous china wall mounted urinal	No	3	
26	Floor drain	No	2	
	<u>Taking out and removing glass and mirrors</u>			
27	Glass from steel windows including cleaning out rebates and preparing for new glass	m ²	2	
28	Mirror size 450 x 600mm high from wall	No	5	
	<u>Taking out and removing street furniture:</u>			
29	Steel seats	No	8	
30	Steel bins	No	8	
	<u>PREPARATORY WORK TO EXISTING SURFACES</u>			
31	Making good defects in existing screeded floors with an approved cementious compound	m ²		Rate Only
	<u>MAKING GOOD OF FINISHES ETC</u>			
32	Making good brickwork at end of 230mm brick wall	m		Rate Only
	<u>REPAIRING PLASTER</u>			
	Carried to Collection			R
Section No. 2 Alterations Contract Part C2: Pricing Data				

General Notes

All plaster repair admixtures are to be applied strictly in accordance with the manufacturer's requirements. Break out all loose and hollow plaster at least 200mm wide all around loose plaster area, brush clean of all loose material, treat exposed area with adhesive slurry and plaster with an admixture of 3:1 sand/cement and 3:1 water/adhesive slurry

All work is deemed to be in patches

Prepare and apply 3:1 plaster admixture as described

33	On brick walls	m ²			Rate Only
34	On narrow widths	m ²			Rate Only

CONCRETE CRACK REPAIRS

General Notes

Preparation of surfaces

Surfaces shall be dry and clean, free of dust, sand, grit and flaking particles, rust, scale, marine growths, laitance and loose matter, contaminants such as oil, grease, etc. Cracks to be cleaned and widened by hand or mechanical means. Where applicable, surfaces shall not have a moisture content exceeding 4%. The cleaning of surfaces to be done by means of high speed pneumatic rotary wire brush. Oil, grease, animal fats, etc to be removed with suitable product to be applied in strict accordance with the manufacturer's instructions. Once clean, surfaces to be profiled mechanically (Vacublasting, scarifying or grinding) by means of acid etching (one part concrete etchant thinned with two parts water applied at the rate of 2m²/1 litre in strict accordance with the manufacturer's instructions)

CONCRETE REPAIRS

Prepare cracked concrete surfaces as described and apply two component epoxy putty

35	On soffits of slabs	m ²			Rate Only
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Carried to Collection

R

Section No. 2
Alterations
Contract
Part C2: Pricing Data

Refurbishments and Upgrades to Mzimhlophe Train Station
Prasa South Gauteng Region Corridor 3

CLEANING OF WALLS

Cleaning of surfaces

36	Facebrick walls	m²	159		
37	Sandblasting painted brick surfaces	m²	200		

SEALING OF EXISTING ROOF SHEETING

Inspect, clean and seal existing corrugated metal roof sheeting by tightening all existing screws and replacing missing or damaged screws with new, seal all screw heads and laps with an approved sealant to ensure a leak free roof, all to the approval of the Project Manager. (Re-painting elsewhere measured)

38	Roof with a pitch not exceeding 25 degrees	m²	2 443		
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Repair existing platform seats and bins

39	Provide a sum of R 15 000.00 (Fifteen Thousand Rand) for steel repair work		Item		
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Carried to Collection

R

Section No. 2
Alterations
Contract
Part C2: Pricing Data

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

[illegible]

Item No	Quantity	Rate	Amount R
<u>SECTION NO. 2</u>			
<u>BILL NO. 2</u>			
<u>CONCRETE, FORMWORKAND REINFORCEMENT</u>			
<u>PREAMBLES</u>			
Tenderers are advised to study the GP ASC (General Specifications of materials and methods to be used for building contracts) before pricing this bill of quantities			
<u>SUPPLEMENTARY PREAMBLES</u>			
<p>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. (Test cubes are measured separately)</p> <p>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.</p>			
Carried to Collection			R
Section No. 2 Concrete, Formwork and Reinforcement Contract Part C2: Pricing Data			

Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm 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 purposes. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

Carried to Collection

Section No. 2
Concrete, Formwork and Reinforcement
Contract
Part C2: Pricing Data

R

[illegible]

[illegible]

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>			
	<u>BILL NO. 4</u>			
	<u>MASONRY</u>			
	<u>PREAMBLES</u>			
	Tenderers are advised to study the GP ASC (General Specifications of materials and methods to be used for building contracts) before pricing this bill of quantities			

	<u>GRANITE COUNTER TOPS AND VANITY SLABS</u>			
	<u>KITCHEN COUNTERS</u>			
	<u>30mm thick polished granite counters with all exposed edges large bevel edged, fixed to supports (elsewhere specified) using dabs of 100% black silicone adhesive along all supports with all joints filled with matching polyester resin glue. Granite surface to be sealed using an approved stone sealer, all in accordance with the manufacturer's recommendations.</u>			
47	Kitchen counter 1540 long x 600mm wide including forming opening for single bowl sink	No	1	
48	L-Shaped kitchen counter 7630 long x 600mm wide including forming opening for single bowl sink	No	1	
49	L-shaped kitchen counter 3525 long x 600mm wide including forming opening for single bowl sink	No	1	
	Carried Forward to Summary of Section No. 2			R
	Section No. 2			
	Masonry			
	Contract			
	Part C2: Pricing Data			

JOINT SEALANTS ETC

Polysulphide sealing compound including backing cord, bond breaker, primer, etc

53

10 x 10mm In vertical isolation joints

m

34

Carried to Collection

Section No. 2
 Waterproofing
 Contract
 Part C2: Pricing Data

R

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

[illegible]

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>			
	<u>BILL NO. 6</u>			
	<u>ROOF COVERINGS ETC</u>			
	<u>PREAMBLES</u>			
	Tenderers are advised to study the GP ASC (General Specifications of materials and methods to be used for building contracts) before pricing this bill of quantities			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Straight cutting</u>			
	Descriptions of all roof coverings are deemed to include for all straight cutting			

	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	<u>0.58mm Z275 spelter galvanised ribbed sheet steel with chromadek finish on one side in single lengths and accessories, fixed to timber purlins using approved clips and fasteners all in accordance with manufacturer's recommendations and specifications.</u>			
54	Roof covering with pitch not exceeding 25 degrees	m ²	204	
	<u>ROOF INSULATION</u>			
	<u>Heavy duty reflective aluminium foil bonded insulation</u>			
55	Insulation boards fixed over steel purlins	m ²	204	
	Carried Forward to Summary of Section No. 2			R
	Section No. 2 Roof Coverings Contract Part C2: Pricing Data			

[illegible]

KITCHEN CUPBOARDS

22mm Thick white melamine carcass base and shelves with masonite backing and black painted chipboard kickplates complete with and including timber bearers, melawood impact post formed wrapped doors fitted with appropriate hinges and all ironmongery

61	Floor standing cupboard 1540mm long x 600mm wide x 900mm high complete with back, divisions, drawers, filler pieces etc for supporting counter (counter measured elsewhere)	No	1
62	L-shaped floor standing cupboard 7630mm long x 600mm wide x 900mm high complete with back, divisions, drawers, filler pieces etc for supporting counter (counter measured elsewhere)	No	1
63	L-shaped floor standing cupboard 3525mm long x 600mm wide x 900mm high complete with back, divisions, drawers, filler pieces etc for supporting counter (counter measured elsewhere)	No	1
<u>Joinery fittings</u>			
64	Provide a sum of R30 000.00 (Thirty Thousand Rand) for staff serving counters, cupboard drawers, shelving etc		Item

Joinery fittings

64	Provide a sum of R30 000.00 (Thirty Thousand Rand) for staff serving counters, cupboard drawers, shelving etc	Item
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Carried to Collection

R

Section No. 2
Carpentry and Joinery
Contract
Part C2: Pricing Data

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

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SUSPENDED CEILINGS

12.5mm Vinyl Faced Gypsum Ceiling Panels, face-covered with white embossed vinyl, size 1200 x 600mm, laid on fire rated exposed demountable suspension system including galvanised main tees, cross tees, etc., all suspended with galvanised hangers at centres not exceeding 1200mm, all installed to manufacturer's instructions.

- 66 Horizontal ceilings, including 38 x 38mm sawn softwood branderling at 450mm centres

m²

69

1200 x 600 x 15mm biologically absorbable mineral wool fire rated ceiling tiles, with square-edge and white painted finish, laid on fire rated exposed demountable suspension system, comprising galvanised main tees and cross tees with main tees suspended by means of galvanised hangers at centres not exceeding 1200mm with ceiling perimeter

- 67 Horizontal ceilings suspended not exceeding 1m below timber or steel soffits

m²

81

Cornices to suspended ceilings

- 68 Pre-painted cornices, nailed and plugged

m

217

PARTITIONS ETC

FIXED PARTITIONS

12mm Compact High Pressure Laminate modular, frameless system with overhead brace and hanging clamp, floor anchored with adjustable supporting feet and bracketed to walls and pilasters using stainless steel brackets. All fixings and ironmongery in 316 grade stainless steel as specified. Ironmongery to include hat and coat hook with buffer stopper, indicator bolt and rise and fall butt auto open hinge installed complete in strict accordance with the manufacturer's instructions

- 69 Partition 2600mm high

m

8

Carried to Collection

R

Section No. 2
Ceilings, Partitions and Access Flooring
Contract
Part C2: Pricing Data

[illegible]

LOCKS

Grade 304 Stainless steel

74	Euro profile Mortice sash lock with reversible latch and deadbolt. Fore end to be stainless steel	No	6
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PUSH PLATES AND KICKING PLATES

**Grade 304 Stainless steel plates counter sunk
screwed along edges at not exceeding 200mm
centres**

75	813 x 200mm Kick plate	No	10
76	900 x 200mm Kick plate	No	6

HANDLES

Grade 304 Stainless steel

77	Round D pull handle on 19 x 200 mm backplate	Pairs	6
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DOOR CLOSERS

Approved

78	Approved delayed action door closer	No	2
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LETTERS, NAMEPLATES, ETC

Stainless steel

79	152 x 152 x 2mm Thick engraved with female pictogram	No	2
80	152 x 152 x 2mm Thick engraved with male pictogram	No	2
81	152 x 152 x 2mm Thick engraved with Unisex pictogram	No	1
82	152 x 152 x 2mm Thick engraved with kitchen and breakroom pictogram	No	3
83	152 x 152 x 2mm Thick engraved with cleaning store pictogram	No	1

Carried to Collection

R

Section No. 2
Ironmongery
Contract
Part C2: Pricing Data

Refurbishments and Upgrades to Mzimhlophe Train Station
Prasa South Gauteng Region Corridor 3

SUNDRIES

Approved

84	Stainless steel door stop	No	6
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85	Hat and coat hook	No	5
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BATHROOM FITTINGS

86	Satin stainless steel recessed toilet roll holders for single or two rolls, plugged and screwed to the wall with stainless steel screws.	No	9
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87	Satin stainless steel sanitary towel disposal bins with capacity of min 10 litres, free standing or wall mounted (plugged and screwed to the wall with stainless steel screws)	No	2
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88	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	2
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89	Satin stainless steel waste disposal bins with capacity of plus minus 20 litres and with a frame inside the dispenser to hold a liner, plugged and screwed to the wall with stainless steel screws.	No	3
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90	Satin stainless steel towel rings, plugged and screwed to the wall with stainless steel screws.	No	3
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91	Satin stainless steel soap dispensers with a replaceable and refillable 1 litre container, cylinder lock , plugged and screwed to the wall with stainless steel screws.	No	5
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92	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	5
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93	Satin stainless steel full automatic industrial hand dryer with 2 vandal proof lock screws and key wrench, plugged and screwed to the wall with stainless steel screws. 2500 W motor with automatic power cut off after 90 second and a 5 year warranty.	No	3
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VERTICAL LOUVRE BLINDS

Carried to Collection

R

Section No. 2
Ironmongery
Contract
Part C2: Pricing Data

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

[illegible]

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

[illegible]

GALVANISED STEEL WELDED SCREENS

Gates formed of 50 x 6mm flat section outer frame and 25 x 25 x 3mm angle section inner frame welded to outer frame, filled in with approved expanded metal panel fixed all round to inner frame with 20 x 20 x 3mm angle section fixing beads bolted on with and including 6mm diameter bolts at 500mm centres and fitted with a pair of suitable hinges welded to post

- 95 Single gate 900 x 2100mm high with and including two 16mm expansion bolts for fixing gate, with hasp and staple and 12mm drop bolt welded on (Refuse area)

No

3

STEEL RECORDROOM AND STRONGROOM DOORS, VENTILATORS, ETC

Level G3 bullet resistant Anti-bandit door, complete with 100 x 50 x 3mm gauge mild steel rectangular frame and 25 x 25 x 3mm MS angle rebates in powder coating and or galvanised cladding with peep hole, supplied with a 6 pin tumbler key system, mortice dead lock with an additional heavy duty magnetic lock and striker including key switch and surface mounted casing, 6 Amp power supply, push buttons and interlock system, heavy duty aluminium continuous hinge, aluminium slam bar with heavy duty door closer and D-style pull handles. Door to comply to SABS 1658-1996

- 96 Anti Bandit bullet resistant door and frame 920 x 2100mm high

No

1

SECURITY PAYROLL WINDOWS

Level G3 bullet resistant glazed & natural anodised aluminium transaction window with 30mm deep stainless steel dish tray and speech transfer posts (interior applications only), overall size to details, glazed in 38mm thick clear glass with 32mm post formed granite counter top. Installation to include security roller shutter.

- 97 Bullet resistant glass transaction window 850 x 900mm high

No

3

Carried to Collection

R

Section No. 2
Metalwork
Contract
Part C2: Pricing Data

STEEL ROLLER SHUTTERS ETC

Approved galvanised steel powder coated roller shutters fixed to brickwork or concrete

98 Manual roll-up slatted roller shutter for 3000 x 2600mm high opening

No

4

RECYCLING BINS

Stainless steel furniture

99 Recycling bin formed of GRC and stainless steel . Overall size 1010mm wide x 1140mm high.

No

1

Carried to Collection

R

Section No. 2
Metalwork
Contract
Part C2: Pricing Data

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

[illegible]

FLOOR TILING

**600 x 600 x 10mm Thick slip rated full Bodied
Porcelain tiles, mineralised with 3mm grouting lines
, bedded in and including waterproof tiling cement
and waterproof tile grouting to joints and fixed to
screeds**

104	On floors and landings	m²	162
105	Skirting 100mm high	m	179

Carried to Collection

R

Section No. 2
Tiling
Contract
Part C2: Pricing Data

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

[illegible]

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>			
	<u>BILL NO. 14</u>			
	<u>PLUMBING AND DRAINAGE</u>			
	<u>PREAMBLES</u>			
	Tenderers are advised to study the GP ASC (General Specifications of materials and methods to be used for building contracts) before pricing this bill of quantities			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings unless hailguards are allowed for in the bills of quantities			
	<u>Stainless steel basins, sinks, wash troughs, urinals, etc</u>			
	Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0)			
	Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8)			
	Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8)			
	Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable			
	<u>Waste unions</u>			
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings			
	<u>Sealing of edges</u>			
	Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone			
	Carried to Collection			R
	Section No. 2 Plumbing and Drainage Contract Part C2: Pricing Data			

uPVC pipes and fittings

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings

Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings

uPVC pressure pipes and fittings

Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings

Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints

Pipes shall be type IV and of the class specified with "Plasson" or "Alprene" compression fittings

Reducing fittings

Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained

Fixing of pipes

Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc, casting in, building in or suspending not exceeding 1m below suspension level

Disinfection of water pipework

Water pipework is to be disinfected at completion in accordance with SANS 1200L (provision for disinfection elsewhere)

Carried to Collection

R

Section No. 2
Plumbing and Drainage
Contract
Part C2: Pricing Data

Petrolatum anti-corrosion tape

Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with 30% overlaps

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including mastic, tape, "Layflat" sheeting, securing of same, etc

Prices for wrapping of pipes shall include for all work as described to couplings in the length

Laying, backfilling, bedding, etc of pipes

Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled

Where no manufacturers' instructions exist, pipes shall be laid in accordance with Clauses 5.1 and 5.2 of each of the following:

SANS 1200L : Medium-pressure pipelines

SANS 1200LD : Sewers

SANS 1200LE : Stormwater drainage

Pipe trenches, etc shall be backfilled in accordance with Clauses 3, 5.5, 5.6, 5.7 and 7 of SANS 1200DB : Earthworks (Pipe trenches)

Pipes shall be bedded in accordance with Clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SANS 1200LB : Bedding (Pipes)

Unless otherwise described bedding of rigid pipes shall be Class B bedding

Carried to Collection

R

Section No. 2
 Plumbing and Drainage
 Contract
 Part C2: Pricing Data

General

Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to uPVC pipes, etc are given separately)

Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends

Descriptions of pipes laid in and including trenches and of inspection chambers, catch pits, etc shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 95% Mod AASHTO density and disposal of surplus material on site

Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc are given separately)

Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured)

Exposed concrete surfaces

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster

Excavations

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

Carried to Collection

R

Section No. 2
Plumbing and Drainage
Contract
Part C2: Pricing Data

RAINWATER DISPOSAL

**0.9mm Galvanised steel sheet with chromadek finish
one side and standard backing coat**

106	100 x 150mm Eaves gutters	m	42		
107	Extra over 100 x 150mm eaves gutter for stopped end	No	4		
108	Extra for outlet for 100mm pipe	No	4		
109	100 x 75mm Rainwater pipes	m	5		
110	Extra over 100 x 75mm pipe for angle	No	4		
111	Extra over 100 x 75mm pipe for bend	No	4		
112	Extra over 100 x 75mm pipe for shoe	No	4		
113	Extra 100 x 75mm pipe for eaves or plinth offset	No	4		

SOIL AND STORMWATER DRAINAGE

Budgetary Allowances

Sewer

114	Provide a sum of R35 000.00 (Thirty Five Thousand Rand) for replacing damaged and missing manhole covers and clearing pipe blockages			Item	
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Stormwater

115	Provide a sum of R50 000.00 (Fifty Thousand Rand) for replacing damaged and missing manhole covers and clearing pipe and open drain blockages			Item	
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Carried to Collection

R

Section No. 2
Plumbing and Drainage
Contract
Part C2: Pricing Data

SANITARY FITTINGS

1.6mm Stainless steel type 304 (18/10)

116	Single end bowl inset sink, overall size 800 x 460mm wide with one 340 x 370 x 150mm deep bowl, fitted onto cupboard (elsewhere measured) including 38mm waste fitting and PVC trap (trap elsewhere measured).	No	3
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White glazed vitreous china

117	Vitreous china top flush toilet suite comprising 90° outlet open rim pan with top flush cistern and flush mechanism and normal close seat	No	4
118	High quality non-corrosive 6/3 liter dual flush concealed cistern with inlet/outlet connector for floor mounted applications	No	5
119	Vitreous china approved security pan (Cistern measured elsewhere)	No	5
120	Vitreous china drop-in vanity basin size 420 x 420mm fitted into opening in granite vanity top (elsewhere measured) and sealed with silicone sealant where basin rim meets vanity top.	No	3
121	Vitreous china lavatory basin, size 440 x 380mm with one taphole including integrated overflow and chainstay hole bolted to wall with two x 10mm bolts sealed with silicone sealant where basin meets wall.	No	2
122	Vandal Resistant Urinal with automatic flush sensors or manual flush valve	No	3

Floor drain

123	Floor drain square brass including trap	No	2
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WASTE UNIONS ETC

124	38mm Bath or sink waste union	No	3
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TRAPS ETC

125	40mm Deep seal "P" or "S" trap	No	3
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Carried to Collection

R

Section No. 2
 Plumbing and Drainage
 Contract
 Part C2: Pricing Data

**Refurbishments and Upgrades to Mzimhlophe Train Station
Prasa South Gauteng Region Corridor 3**

126	Chromium plated bottle trap	No	5		
	<u>TAPS, VALVES, ETC</u>				
127	15mm ball type angle valve	No	5		
128	15mm Chrome plated single lever basin mixer with square type handles and cast fixed spout	No	3		
129	Chrome plated self-closing push button metering spout, pillar type with non-hold open feature for cold water only	No	2		
130	15mm chrome plated deck mounted sink mixer with overarm swivel outlet and adjustable flanges	No	3		
131	15mm Ø BSP built-in sleeve, brass urinal flush valve with internal flow control, strainer and no-hold feature for single bowl urinal.	No	3		
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 2 Plumbing and Drainage Contract Part C2: Pricing Data</p>					

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

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**Refurbishments and Upgrades to Mzimhlophe Train Station
Prasa South Gauteng Region Corridor 3**

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 2</u>			
	<u>BILL NO. 15</u>			
	<u>GLAZING</u>			
	<u>PREAMBLES</u>			
	Tenderers are advised to study the GP ASC (General Specifications of materials and methods to be used for building contracts) before pricing this bill of quantities			

	<u>GLAZING TO STEEL WITH PUTTY</u>			
	<u>4mm Clear float glass</u>			
132	Panes not exceeding 0,1 m2	m ²	1	
133	Panes exceeding 0,5m2 and not exceeding 2m2	m ²	1	
	<u>GLAZING TO WOOD WITH PINNED-ON BEADS</u>			
	<u>4mm Clear float glass</u>			
134	Panes exceeding 0,1m2 and not exceeding 0,5m2	m ²		Rate Only
	<u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u>			
	<u>4mm Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete</u>			
135	Mirror size 600 x 900mm high	No	5	
	Carried Forward to Summary of Section No. 2			
	Section No. 2			R
	Glazing			
	Contract			
	Part C2: Pricing Data			

[illegible]

	Surfaces shall be thoroughly washed down to remove dirt and other contaminants and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler, and sanded smooth				
	Previously painted metal surfaces				
	Surfaces shall be thoroughly rubbed and cleaned down to remove dirt and other contaminants and sanded lightly to provide a key for subsequent coats. Blistered or peeling paint shall be completely removed down to bare metal and any rust encountered shall be removed				
	Previously painted wood surfaces				
	Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with a filler as described and sanded smooth				
	<u>BRICK OR QUARRY TILE SURFACES WITH</u>				
	<u>Two coats brick dressing on</u>				
140	Recessed pointed faced walls	m ²	159		
	<u>FLOATED PLASTER SURFACES WITH</u>				
	General				
	Prepare and repair as specified, brush to remove all loose contaminants, rinse and apply one coat alkali resistant primer to bare substrate areas, one coat universal undercoat and two coats non-drip polyurethane enamel paint on existing alkyd-based painted surfaces				
	<u>One coat alkali resistant plaster primer and two coats PVA acrylic emulsion paint on</u>				
141	Internal walls	m ²	347		
142	Ceilings and beams	m ²	57		
	<u>METAL SURFACES WITH</u>				
	Carried to Collection			R	
	Section No. 2 Paintwork Contract Part C2: Pricing Data				

Refurbishments and Upgrades to Mzimhlophe Train Station
Prasa South Gauteng Region Corridor 3

	<u>One coat multisurface primer and two coats gloss enamel paint on work in sound condition on steel</u>				
143	Door frames	m ²	24		
144	On windows	m ²	43		
145	On steel sections not exceeding 300 mm girth	m	110		
146	On steel sections	m ²	85		
147	On eaves gutters not exceeding 300 mm girth	m	47		
	<u>Spot priming bare metal surfaces with zinc chromate primer and applying two coats acrylic roof paint in colours which have a value of 7 or less on the Munsell system in accordance with SANS 1091 on previously painted steel in bad condition</u>				
148	On profiled roof sheeting (measured on flat)	m ²	2 443		
	<u>WOOD SURFACES WITH:</u>				
	<u>Remove all loose and flaking paint to sound substrate, stop, fill holes and cracks with wood filler, sand down, spot prime bare wood with primer for wood and apply one coat universal undercoat and two coats high gloss enamel paint on existing alkyd-based paint surfaces on:</u>				
149	Doors	m ²	35		
Carried to Collection					R
Section No. 2					
Paintwork					
Contract					
Part C2: Pricing Data					

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

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**Refurbishments and Upgrades to Mzimhlophe Train Station
Prasa South Gauteng Region Corridor 3**

<u>EPWP TRAINING</u>				
153	Allow the amount of R120,000.00 (One Hundred and Twenty Thousand Rand) for Expanded Public Works Programme Training, to be used at the discretion of the Project Manager and deducted in whole or in part if not required	Item		120 000.00
154	Allow for general attendance		%	
155	Allow for profit		%	
<u>BUDGETARY AMOUNTS</u>				
<u>SIGNAGE</u>				
156	Allow the amount of R35 000.00 (Thirty Five Thousand Rand) Station signage to be used at the discretion of the Project Manager and deducted in whole or in part if not required	Item		35 000.00
<u>REPAIR OF CONCRETE COLUMNS AND PLATFORM STAIRCASES</u>				
157	Allow the amount of R30 000.00 (Thirty Thousand Rand) for repairing concrete columns, staircase and balustrades to be used at the discretion of the Project Manager and deducted in whole or in part if not required	Item		30 000.00
Carried to Collection			R	
Section No. 2 Provisional Amounts Contract Part C2: Pricing Data				

[illegible]

[illegible]

SECTION NO.3 : CIVIL WORK

Refurbishments and Upgrades to Mzimhlophe Train Station
Prasa South Gauteng Region Corridor 3

SURFACING

Asphalt road and parking surfacing

2	50mm Thick continuously graded asphalt surfacing	m ²	192		
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Prime coat

3	MC-30 Cutback bitumen	m ²	192		
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Tack coat

4	30% Stable-grade emulsion	m ²	192		
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PAVING ETC

300 x 300mm Tac-Pave in-situ system, yellow colour, applied to existing surfaces all in accordance to manufacturer's instructions.

5	Paving to platform surfaces	m ²	338		
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300 x 300 x 30 mm Guidance tactile pavers on 20mm - 30mm thick compacted cement/riversand bed n base course and subgrade, conforming to SANS 1200

6	Paving to walkways	m ²	285		
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Carried to Collection

R

Section No. 3
 Platforms
 Contract
 Part C2: Pricing Data

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

[illegible]

**Refurbishments and Upgrades to Mzimhlophe Train Station
Prasa South Gauteng Region Corridor 3**

Item No		Quantity	Rate	Amount R
	<u>SECTION NO. 3</u>			
	<u>BILL NO 2</u>			
	<u>STREET FURNITURE</u>			
	<u>FOLLOWING IN PLATFORM FURNITURE</u>			
	<u>Galvanised steel furniture</u>			
7	Perforated galvanised steel seat 1800mm long with two legs mounted to 500 x 500 x 500mm 25 Mpa concrete base including excavation, carting away and concrete. Including filling both steel legs with concrete as per Architectural detail	No	15	
8	Perforated galvanised steel litter bin 497mm Diameter x 815mm high with one leg mounted to 500 x 500 x 500mm 25 Mpa concrete base including excavation, Carting away and concrete. Including filling both steel legs with concrete as per Architectural detail	No	15	
Carried Forward to Summary of Section No. 3				R
Section No. 3				
Street Furniture				
Contract				
Part C2: Pricing Data				

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

[illegible]

SECTION NO.4 : ELECTRICAL WORK

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

[illegible]

PRASA MZIMHLOPHE STATION ELECTRICAL PROVISIONAL BOQ					
LV Reticulation					
Item	Description	Unit	QTY	Cost	Total Cost
	<p>Distribution Boards</p> <p>Refurbish the following distribution boards, including all equipment, complete with all accessories. Installation shall include fixing, accessories and earthing.</p> <p>The price shall include for all fixing materials, circuit terminations, lugs, cable straps and any other items necessary for the complete installation. The price shall also include liaison with the board manufacturer, obtaining shop drawings for approval by the engineer, and the preparation and provision of detailed legend cards, as per the specification.</p>				
1	Main KIOSK - PC	Lot	1	R 100 000,00	R 100 000,00
2	Ticket Office - 18 Way - PC	Lot	1	R 15 000,00	R 15 000,00
3	Security Office DB 18 Way - PC	Lot	0	R 15 000,00	
4	160A MDB New - PC	Lot	1	R 80 000,00	R 80 000,00
5	Stall Distribution Boards refurb - PC	Lot	0		
6	Toilet Distribution Boards - PC	Lot	0	R 3 000,00	
7	Platform Distribution Boards - PC	Lot	2	R 25 000,00	R 50 000,00
	<p>Power Cabling</p> <p>Supply and install the following cables laid on cable tray, pulled in a sleeve or in a trench, including all fixings and accessories. The cables shall be 600/1000V/ PVC/SWA/PVC/ECC with copper conductors. Complete with terminations</p>				
8	50mm ² x 4 core ecc cable	m	80		
9	35mm ² x 4 core ecc cable	m	20		
10	25mm ² x 4 core ecc cable	m	20		
11	16mm ² x 4 core ecc cable	m	80		
12	Joining Kits PC Sum	Lot	1		
	<p>Standby Generator</p> <p>Supply, Rig and Install following Standby Generator, including all equipment, complete with all accessories. Installation shall include fixing, plinth, accessories and earthing.</p>				
13	Containerized 100kVA complete with Day tank and Automatic Transfer Switch	Lot	1		

14	Full Tank of Diesel upon Commissioning	Lot	1		
Lift Installations Power Supply					
15	Power Allowance for lift Installation - PC	Lot	0		
Total Ex VAT					

PRASA MZIMHLOPHE STATION ELECTRICAL PROVISIONAL BOQ					
LIGHTING					
Item	Description	Unit	QTY	Cost	Total Cost
	LIGHTING				
1	16 Amp, single lever light Switch - white including wall box (Chased)	Lot	6		
2	5 Amp, 3 pin, unswitched socket outlet to fit deep round conduit boxes	Lot	25		
3	Prisma LED panel Sidelift flicker free driver + PMMA LG + Prisma Diffuser - 4000 Lumens - 600x600 Recessed	Lot	15		
4	Prisma LED panel Sidelift flicker free driver + PMMA LG + Prisma Diffuser - 4000 Lumens - 600x600 Recessed with Battery Backup	Lot	10		
5	1578mm Surface Mounted fitting 53W LED complete with microwave sensor with 70'000hr operation warranty	Lot	50		
6	Led Industrial Bulkhead fitting with unpainted marine grade high pressure die cast aluminium backing with non discolouring injection moulded high impact acrylic diffuser, IP66. 4370 lm 32W, Neutral white 740 with 10kv surge protection	Lot	40		
7	Pole Top LED 37-54W, 3506-5219 lumen Natural White 740, with recessed daylight, Aluminium Spigot and cover , high impact Acrylic Protector IP55 including 5m Pole and 3 m stub	Lot	24		
8	Stair Lighting Solar type 40W LED Street Lamp	Lot	8		
8	Exit Sign/Running Man c/w battery backup including lamps	Lot	10		
10	2,5mm² x 3 (Red, Black & Green) - Housewire	m	800		
11	25mm diameter PVC conduit	m	1000		
Total Ex VAT					

PRASA MZIMHLOPHE STATION ELECTRICAL PROVISIONAL BOQ					
SMALL POWER					
Item	Description	Unit	QTY	Cost	Total Cost
	SMALL POWER				
1	16 Amp, single Switched Socket Outlet - white including 4x4 wall box chased	No	20		
2	16 Amp, single Switched Socket Outlet - white on Power Skirting	No	40		
3	20 Amp, DP Isolator - complete with conduit to outlet box below- including 4x4 wall box chased	No	4		
4	4mm ² x 3 (Red, Black & Green) - Housewire	m	500		
5	25mm diameter PVC conduit	m	1500		
6	2 compartment PVC Power Skirting	m	50		
7	500VA single phase UPS	Lot	4		
8	To provide the earthing and testing of the electrical installation in accordance with the General Specification, regulations and the requirements of the local authority. All circuits shall be earthed in accordance with the wiring code. Where the earth conductor is joined at the terminal block, the wires shall be soldered together so that removal of the equipment shall not result in an interruption of the earth continuity of the conductors.	Lot	1		
Total Ex VAT					

PRASA MZIMHLOPHE STATION ELECTRICAL PROVISIONAL BOQ

SUMMARY

Item	Description	Cost
1	LV Reticulation	
2	Lighting	
3	Small Power	
Sub Total Ex VAT		
VAT @ 15%		
Total Inc VAT		

SECTION NO.5 : MECHANICAL WORK

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

[illegible]

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>SECTION NO. 5</u> <u>BILL NO. 1</u> <u>HVAC INSTALLATION</u>				
1,0	Supply and install the following extract air fan complete with electronic and electrical wiring up to isolator supplied by electrical contractor, speed controllers, support brackets, AND ALL NECESSARY MOUNTING ACCESSORIES				
1,1	FAN EF - 120 l/s wall mounted fans				
	Supply	No	3		
	Install	No	3		
2,0	Supply and install the following AC units (<i>DX system</i>), complete with matching refrigerant tubing, condensate drainage, mounting brackets, thermostats, remote controllers, electronic and electrical wiring upto isolator supplied by electrical contractor and ALL MOUNTING ACCESSORIES NECESSARY				
2,1	Inverter type Wall mounted units, cooling load 2.2kW, heating load 2.5kW with outdoor unit, refrigerant tubing, condensate drainage and all necessary accessories.				
	Supply	No	3		
	Install	No	3		
3,0	General				
3,1	Stripping of existing air conditioning system	Item	1		
3,2	Testing and commissioning of the above system to the complete satisfaction of the Mechanical engineer and client	item	1		
3,3	Preparation and supply of handover documents	item	1		
3,4	Production of shop drawings and schematics	item	1		
TOTAL					
VAT @ 15%					
GRAND TOTAL					

ITEM NO.	DESCRIPTION	UNIT	QTY	TOTAL RATE	AMOUNT R c
	<u>SECTION NO. 5</u> <u>BILL NO. 2</u> <u>FIRE INSTALLATION</u>				
1,00	<u>General</u>				
1,1	Allow for Client instruction in the use and maintenance of all fire services equipment as required by the Manufacturers and the specification	Item	1		
1,2	Allow for the Production and submittal of Operation & Maintenance Manuals and record information, workshop drawings and 'As-Built' drawings.	Item	1		
2	<u>Fire Plan</u> Design, manufacture, works testing, supply and delivery to site, moving into position, erection, connecting up, site testing, witness testing, proving to the inspectors, demonstrating to the Employer and maintenance of the complete installation as per conditions of contract and the specification and on drawings.				
	<u>Fire Hydrants</u>				
2,1	65mm hydrant valve with handwheel opening mechanism & fittings. Supply Install	No. No.	4 4		
	<u>Fire Hose Reels</u>				
2,2	Standard Wall Mounted Type Fire Hose Reel to comply with SANS 543 Fire hose reels shall be fitted with a 30m long reinforced red rubber hose of internal diameter of 20mm nominal bore, with a 4.8mm internal diameter chromium plated brass nozzle and isolating valve. Fire hose reel pipes above ground shall be colour coded signal red A11. Complete with double door hose reel cabinet Supply Install	No. No.	1 1		
2,3	Galvanised mild steel pipe treated with galvafruid paint and two coats of firemen red signal paint A11. Pipework to be complete with supports, bends, unions to make a complete installation				
2.3.1	25mm	m	5		
2.3.2	50mm	m	30		
2.3.3	100mm	m	500		
3,0	<u>Fire extinguishers</u>				
3,1	Fire extinguishers complete with supports & fittings. 4,5kg DCP fire extinguishers Supply Install	No. No.	2 2		
3,20	Fire extinguishers complete with supports & fittings. 5kg CO2 fire extinguishers Supply Install	No. No.	2 2		

4,00	Statutory Fire Signage Supply and install photoluminescent signs (in Anodised aluminium frames) on all areas indicating the escape routes and equipment location. The installation shall comply to SANS 1186. The signs shall be mechanically fixed on walls and soffits.				
4,1	E1/E2 (190mm high)	No.	4		
4,2	E3 (190mm high)	No.	5		
4,3	E6 (190mm high)	No.	2		
4,4	E16/E19 (190mm high)	No.	4		
4,5	F17/F20 (190mm high)	No.	1		
4,6	F13 (190mm high)	No.	4		
4,70	F30 (190mm high)	No.	4		
	Total to Summary Page				
	vat 15%				
	Grand Total				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<p><u>SECTION NO. 5</u> <u>BILL NO. 3</u> <u>PLUMBING AND DRAINAGE</u></p> <p>All rates supplied in this Bill of Quantities will be deemed to include scaffolding to any height and fixing of cold and hot water pipes up to and including roof height. All pipes suspended from concrete slabs, roof, ceiling, etc. shall be deemed to include in the rates, all necessary hanger brackets, threaded rod (irrespective of the suspension length), nuts, washers, anchors and drilling of holes in the concrete slab. For the complete supply, delivery and installation of supply piping, as specified, piping to include piping between geysers on roof. All cold and hot water pipes are to be chased into walls except where pipes are to be surface-mounted on wall face or run in ceiling voids or inside ducts, and fixed with standard type pipe saddlers and brackets at 1000mm maximum.</p> <p>HOT & COLD WATER PIPING</p> <p>Hard drawn copper pipes to SANS 460 and SANS 1067 with capillary type soldered joints to SANS 1067 done in accordance with the manufacturer's specifications, and installed in accordance with SANS 10400 and SANS 10252-1:2004, including couplers in the running length, and all necessary supports, fixing, brackets, saddlers, holderbats, etc, and colour-coded in accordance with SANS 10140-3:2003: Straight hot water copper piping not chased in walls but surface-mounted fixed to walls, or in ceiling voids or in service ducts are to be insulated with thermaflex material, clad in 0,5mm galvanised muffs secured with 10mm galvanised strapping and seal, throughout the length of pipe inclusive of fittings. Valves, strainers and flanges will not be insulated.</p>				
1	PIPING - COPPER				
1.1	Ø28mm pipe	m	60		
1.2	Ø22mm pipe	m	32		
1.3	Ø15mm pipe	m	30		
2	FITTINGS				
	Extra over copper pipework for capillary type soldered fittings				
2.1	Ø28mm Equal T-piece	No	2		
2.2	Ø22mm Equal T-piece	No	8		
2.3	Ø28mm Elbow: 90°	No	8		
2.4	Ø22mm Elbow: 90°	No	8		
2.5	Ø15mm Elbow: 90°	No	50		
2.6	Reducer: Ø28mm x Ø22mm	No	2		
2.8	Reducer: Ø28mm x Ø15mm	No	0		
2.9	Reducer: Ø22mm x Ø15mm	No	12		

2.10	Pipe clamps and hangers	Sum	1		
2,11	Hot water pipe insulation	Sum	1		
3	VALVES - COPPER				
3.1	Ø25mm isolating ball valve with lever on cold and hot water main pipes	No	1		
3.2	Ø20mm isolating ball valve with lever on cold and hot water main pipes	No	2		
3.3	Flexible connector to sanitary fittings	No	10		
3.4	15mm diameter stopcock/angle valve on cold and hot water pipe to sanitary appliance or sink	No	12		
4	Instant boiling water unit with White Epoxy Powder Coated outer case, and a two-way tap, complete with twin-chamber technology. Unit to be installed in accordance with manufacturer's installation instruction manual and (optional) equipped with Water Filtration Kit. Capacity: 15 litres Element Rating: 2.4 kW	Set	2		
5	STORAGE TANKS				
5,1	Supply and install a 1 000 litres vertical Jojo pvc tank mounted on a concrete plinth and install complete with all valve accessories.	Sum	1		
5,2	Allow for connection of the Jojo tank to the water reticulation for domestic use.	Sum	1		
5,3	1.5 l/s @ 4.5 bars domestic water pumps duty and standby are required to be installed complete with the necessary suction/ delivery pipework, valves, control equipment, pressure switches control panel and pressure vessel.	Sum	1		
SUBTOTAL					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>SECTION NO. 5</u> <u>BILL NO. 3</u> <u>PLUMBING AND DRAINAGE</u> These bills of quantities form part of and must be read in conjunction with the Technical Specifications and Drawings, which contain the full descriptions of the work to be done and material and equipment to be used. Unless otherwise described in these bills of quantities, reference should be made to the Technical Specifications for the full meaning of descriptions of work to be done and materials and equipment to be used in this service. All materials, equipment, fixings, brackets, etc, are to be supplied by the Contractor unless otherwise stated. SANITARY DRAINAGE PIPING Polyvinyl Chloride (PVC) pipe including couplers in the running length, installed in accordance with SANS 10400 and SANS 10252-2:2004				
1	PIPING				
1.1	Ø50mm uPVC pipe	m	40		
1.2	Ø110mm uPVC pipe	m	70		
2	FITTINGS				
2.1	Ø50mm fitting; 90°elbow	No	21		
2.2	Ø110mm fitting; 90°elbow	No	26		
2.3	Ø110mm x Ø110mm x Ø110mm fitting; 87.5° swept entry, lateral branch junction	No	8		
2.4	Ø50mm vent one way valve	No	6		
2.5	Ø110mm x Ø50mm fitting; concentric reducer	No	8		
3	WASTE TRAPS				
3.1	40mm flexi rubber "P" trap complete with coupling clamps.	No	6		
4	AS BUILT DRAWINGS				
4.1	Submission of 3off 'As Built' drawings indicating the final positioning and layout of the entire sanitary drainage installation as installed on site by the Contractor	Sum	1		
5	Stripping of existing plumbing and drainage	Sum	1		
	SUBTOTAL				
	TOTAL CARRIED FORWARD TO SUMMARY				

PRASA MZIMHLOPHE STATION MECHANICAL PROVISIONAL BOQ

SUMMARY

Item	Description	Cost
1	HVAC	
2	Fire Installation	
3	Plumbing and Drainage	
	VAT @ 15%	
	Total Inc VAT	

SECTION NO.6 : ELECTRONICS

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

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PRASA MZIMHLOPHE STATION ELECTRONICS PROVISIONAL BOQ					
FIRE DETECTION					
Item	Description	Unit	QTY	Cost	Total Cost
	Fire Detection				
1	Addressable Smoke Detectors	Lot	35		
2	Addressable Smoke Detectors + Void LED	Lot	15		
3	Addressable Heat Detectors	Lot	4		
4	Addressable Manual Call Point (Breakglass)	Lot	5		
5	Addressable Relay Unit	Lot	8		
6	Addressable Loop Beacon	Lot	4		
7	Addressable Loop Sounder	m	5		
8	Power Supply 24V	Lot	4		
9	Fire Cables - PH30/30 minutes rated	m	1900		
10	Fire Cables - PH120/120 minutes rated	m	500		
11	4 Loop Fire Panel	Lot	1		
12	Installation & Commissioning	Lot	1		
Total Ex VAT					

PRASA MZIMHLOPHE STATION ELECTRONICS PROVISIONAL BOQ EQUIPMENT					
Item	Description	Unit	QTY	Cost	Total Cost
	Equipment				
1	Digital Voice Evac/PA System compliant with Prasa Railcom System complete with 40 x 30W Outdoor Speakers and all mounting Brackets. Include 43U Mounting Rack	No	1		
2	5M steel Mounting poles complete with 2 m Stubs for mounting of Voice Evac/PA System Speakers	Lot	20		
3	PH30 Voice Evacuation Cabling including IP66 Rated Junction Boxes	m	5400		
4	Integration of Detection System with other Services/System - Engineer AutoFill	No	1		
5	Alarm System complete with 6 x panic buttons - Ticket Office - Engineer Autofill	Lot	2		
6	Ticket Office Counter Inductive Loop complete with goose neck counter top microphone, driver, amplifier and signage in compliance with IEC60118-4:2014. Loop to be in PVC Conduit in floor screed under tiling where client stands	Lot	1		
7	Intrusion Detection System with Infrared Motion sensors in Ticket Offices complete with 8 zone control panel, Led Keypad with Battery Backup, 6 x panic Buttons and Internal Siren	Lot	1		
Total Ex VAT					

PRASA MZIMHLOPHE STATION ELECTRONICS PROVISIONAL BOQ

SUMMARY

Item	Description	Cost
1	Fire Detection	
2	Equipment	
Sub Total Ex VAT		
VAT @ 15%		
Total Inc VAT		

SECTION NO.7 : ACCESS CONTROL

Refurbishments and Upgrades to Mzimhlophe Train Station Prasa South Gauteng Region Corridor 3

Item No		Quantity	Rate	Amount R
1	Access Control sub-total amount carried from final summary Section 7 (Excluding Value added Tax).	Item		
Carried to Final Summary			R	
Section No. 7 Access Control Contract Part C2: Pricing Data				

PROVISIONAL BOQ MZIMHLOPHE STATION

PRELIMINARY AND GENERAL

Item	Description	QTY	Cost	Total Cost
1	Tansport	1		
2	Labour Monday -Friday- Rate Only	80		
Total Ex VAT				

PROVISIONAL BOQ MZIMHLOPHE STATION

CABLING

Item	Description	QTY	Cost	Total Cost
1	Connector - RJ 45 for CAT 5	80		
2	Server Racks Cabinets 42U - Lockable	1		
3	Connector Boot - RJ45 Grey	80		
4	Cable - CAT 6E U/UTP BC 500m	4		
5	Cable CAT6E UTP 0.57mm Solid Copper	1		
Total Ex VAT				

PROVISIONAL BOQ MZIMHLOPHE STATION				
EQUIPMENT				
Item	Description	QTY	Cost	Total Cost
1	2MP IR IP Lite Eyeball 1080P IR 30m 2.8mm Network Camera, 1/2.7" CMOS image sensor, low illuminance, high image definition, Outputs 2MP (1920 × 1080)@25/30 fps, H.265 codec, high compression ration, ultra-low bit rate, Built-in IR LED, max IR distance: 30 m, ROI, SMART H.264/H.265, flexible coding, applicable to various bandwidth and storage environments, Rotation mode, DWDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes, Intelligent detection: Intrusion, tripwire, Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnected, IP conflict, illegal access, voltage detection, Supports max. 256 GB Micro SD card, built-in Mic, 12V DC/PoE power support, IP67 protection	65		
2	2MP IRIP Lite Bullet 1080P IR 30m 2.8mm Intrusion, tripwire Network Camera, 2MP, 1/2.7" CMOS image sensor, low illuminance, high image definition, Outputs 2MP (1920 × 1080)@25/30 fps, H.265 codec, high compression rate, ultra-low bit rate, Built-in IR LED, max IR distance: 30m, ROI, SMART H.264/H.265, flexible coding, applicable to various bandwidth and storage environments, Rotation mode, DWDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes, Intelligent detection: Intrusion, tripwire, Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnected, IP conflict, illegal, access, voltage detection, Supports max. 256 GB Micro SD card, 12V DC/POE power support, IP67 protection	16		
3	NVR 32 Ch 16 PoE 4K AI+SMD+ANPR. Rack mounted complete with all relevant Software	3		
4	Surveillance Hard Drive 6TB.	3		
5	Rack Mountable 10KVA UPS complete with 1 hour full load capacity on non corrosive batteries - 1 duty and other standby	1		
6	55 Inch HD Monitor Wall Mounted	1		
7	16 Port 10/100 Managed PoE + 2GB TP	4		
8	Anti Vandal Bespoke Solid Steel Poles	2		
Total Ex VAT				

PROVISIONAL BOQ MZIMHLOPHE STATION		
SUMMARY		
Item	Description	Cost
1	P & G	
2	Cabling - Building Cost	
3	Equipment	
Sub Total Ex VAT		
Vat @ 15%		
Total Inc VAT		

**Refurbishments and Upgrades to Mzimhlophe Train Station
Prasa South Gauteng Region Corridor 3**

Section No	<u>SUMMARY OF SECTIONS</u>	Page No	Amount R
1	Preliminaries	20	
2	Building Work	80	
3	Civil Work	85	
4	Electrical Work	86	
5	Mechanical Work	87	
6	Electronics Work	88	
7	Access Control	89	
	Sub Total	R	
<u>CONTINGENCY</u>			
ADD: Construction Contingency (10%)		Item	
	Sub Total	R	
ADD: Value added Tax at 15%		R	
TOTAL CARRIED TO FORM OF TENDER		R	
Contract Part C2: Pricing Data			