

Prototype Covered Assembly 560 Pupils (Painted Steel Option)

[illegible]

Item No		Quantity	Rate	Amount	
	<u>BILL NO. 2</u>				
	<u>EARTHWORKS</u>				
	Tenderers are advised to refer to the Model Preambles for trades before pricing these provisional Bill of Quantities.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Nature of ground</u>				
	Descriptions of excavations shall be deemed to include all ground conditions classifiable as "Earth/ Soft Material" and where conditions of a more difficult character are encountered these will be measured separately				
	<u>Removal of excavated material</u>				
	Descriptions for removal of surplus excavated material shall be deemed to be spread and level where directed on site directly from the excavations or, alternatively, from stock piles situated on the building site				
	<u>Filling</u>				
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material.				
	<u>EXCAVATION, FILLING, ETC. OTHER THAN BULK</u>				
	<u>EXCAVATION, ETC.:</u>				
	<u>Excavation in earth not exceeding 2m deep below natural, reduced or made up ground level</u>				
2/1	Reduced levels under floors	m3	108	66.00	7 128.00
2/2	Holes	m3	16	80.00	1 280.00
	<u>Extra over trench and hole excavations in earth for excavation</u>				
2/3	Intermediate Rock (Provisional)	m3	2	275.00	550.00
2/4	Hard rock (Provisional)	m3	2	440.00	880.00

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Item No			Quantity	Rate	Amount
	BILL NO. 3				
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>				
	Tenderers are advised to refer to the Model Preambles for trades before pricing these provisional Bill of Quantities.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Cost of tests</u>				
	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 to the approval of the architect. (Test cubes are measured separately)				
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
	<u>25MPa/19mm concrete</u>				
3/1	Bases	m3	16	1 350.00	21 600.00
	<u>TEST CUBES</u>				
3/2	Allow for all necessary concrete test cubes size 150 x 150 x 150mm cast from batches of concrete required as specified, made, stored, cured and tested in accordance with SABS Methods 861 and 863, including use of approved cube moulds, transporting to an approved testing laboratory for testing, paying all charges and submitting reports to the Engineer.		Item		500.00
	<u>REINFORCEMENT</u>				
	<u>High tensile steel reinforcement to structural concrete work</u>				
3/3	Bars of varying diameter (Provisional)	t	2.02	11 500.00	23 230.00
				R	45 330.00
	Carried to Summary				
	Bill No. 3 Concrete, Formwork & Reinforcement				

Item No			Quantity	Rate	Amount
	BILL NO 4				
	<u>PRECAST CONCRETE</u>				
	Tenderers are advised to refer to the Model Preambles for trades before pricing these provisional Bill of Quantities.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>PRECAST AND BRICK PAVING</u>				
	Paving to be laid in accordance to the Concrete Masonry Associations Specifications				
	<u>Standard grey interlocking roadstone paving on and including 25mm thick layer of river sand</u>				
4/1	60mm Paving laid to falls	m2	507	245.00	124 215.00
	<u>PRECAST KERBS</u>				
	<u>Precast Concrete finished smooth on exposed surfaces including bedding, cutting and pointing</u>				
4/2	Kerb (SABS 927 Fig 4) 45 x 125mm unreinforced concrete footing, 250 x 250mm triangular concrete haunching at back of each joint and 300 x 150mm concrete infill in front with cement grouted joints, including excavation, backfilling etc.	m	112	130.00	14 560.00
	<u>SURFACE WATER CHANNELS</u>				
	<u>"LG Green" or other approved stormwater channels, wet pressed on and including 20Mpa concrete and all necessary excavations, formwork, etc</u>				
4/3	Type SW4 Stormwater channel	m	42	577.50	24 255.00
				R	163 030.00
Bill No. 4 Precast Concrete					

Item No		Quantity	Rate	Amount	
BILL NO. 5					
ROOF COVERINGS ETC					
Tenderers are advised to refer to the Model Preambles for trades before pricing these provisional Bill of Quantities.					
PROFILED METAL SHEETING AND ACCESSORIES					
<u>0,6mm "IBR" Z275 spelter galvanised troughed sheet steel with "globalcoat" finish on one side in single lengths fixed to steel purlins and 0,6mm galvanised sheet steel accessories with "globalcoat" finish on one side</u>					
5/1	Roof covering with pitch not exceeding 25 degrees	m2	380	227.70	86 526.00
Carried to Summary				R	86 526.00
Bill No. 5 Roof Coverings					

Item No	Quantity	Rate	Amount
<u>BILL NO. 6</u>			
<u>STRUCTURAL STEELWORK</u>			
<u>PREAMBLES</u>			
Tenderers are advised to refer to the Model Preambles for trades before pricing these provisional Bill of Quantities.			
<u>SUPPLEMENTARY PREAMBLES</u>			
Descriptions of bolts shall be deemed to include nuts and washers.			
Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include dending, threading, nuts and washers and embedding in concrete.			
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.			
Structural steelwork shall comply with the requirements of SABS 1200H and the relevant project specifications.			
<u>Steekwork</u>			
All steelwork			
a) All structural steelwork shall be fabricated and erected in accordance with SABS 1200H			
b) Welds shall conform to SABS 0167 - 1984 and 044 specifications			
c) All Dimensions shall be checked on site before shop drawings commence. All Engineers drawings to be read in conjunction with Architects drawings. Any discrepancies shall be bought to the attention of the Engineer.			
d) A complete set of shop drawings shall be submitted to the Engineer for approval before fabrication commences.			
e) All structural steelwork shall be grade S355JR			
f) All structural bolts shall be Grade 4.8 unless otherwise stated.			
g) Where temporary bracing or propping is necessary, the contractor shall be responsible for the design, erection, maintenance and removal (where necessary) of such supports.			
Carried Forward		R	
Bill No. 6			
Structural Steel			

<p style="text-align: right;">Brought Forward</p> <p>If splices in trusses are required because of transport, proposal of this shall be submitted to the Engineer at an early stage for written approval.</p> <p><u>Corrosion Protection</u></p> <p>Corrosion Protection shall consist of:</p> <p>a) Remove all slag from welded joints to expose the steelwork.</p> <p>b) Brush steelwork with a rotary wire brush to S.I.S 3.5 standard.</p> <p>c) Apply one coat (30 Micron) red lead primer in accordance with SABS 681.</p> <p>d) Apply one coat (30 Micron minimum) multi purpose undercoat in accordance with SABS 681. Use type II if paint is applied within 16 hours of application of red lead primer, otherwise use type I.</p> <p>e) Apply one coat of Alkyd base enamel (30 Micron) to Architects colour specification. Damaged areas of paint shall be made good on site in accordance with SABS 0120.</p> <p>f) Where applicable, grout shall be provided under base plates before any primary loads applied to the structure</p> <p>g) The angle iron supporting the brick walls must be painted as follows:</p> <p>Remove all slag from welded joints to expose the steelwork.</p> <p>Brush steelwork with a rotary wire brush to S.I.S 3.5</p> <p>Apply one coat PA 10 etch primer, one coat Alkyd undercoat and one coat Alkyd topcoat.</p> <p><u>Traceability of steel</u></p> <p>All steel to be marked with manufacturer's test certificate number to ensure full traceability and to facilitate re-use of the steel members.</p>		R	
<p>Carried Forward</p> <p>Bill No. 6 Structural Steel</p>		R	

Brought Forward			R	
<u>Marking steelwork</u>				
Completed components shall be marked with a durable and distinguishing erection mark, section size, steel grade and manufacturer`s test certificate number in such a way as not to damage the component. Marking shall be in a discrete location. Hardstamping may be used unless noted otherwise.				
<u>Testing of welds</u>				
10% of all fillet welds and 100% of butt welds to be subjected to non destructive testing.				
Fabricate, supply, deliver and erect including shop and site painting as described.				
<u>GALVANISED STEEL COLUMNS AND BEAMS</u>				
<u>Welded columns in single lengths with flat base, cap, bearer and connection plates cast into concrete base with and including fishtail lugs etc</u>				
200 x 100 x 4.0 Rectangular hollow section	kg	1 810.00	27.00	48 870.00
152.4 x 3.0 Circular hollow column	kg	572.32	27.00	15 452.64
<u>PURLINS, GIRTHS, BRACING, ETC</u>				
<u>Cold formed lipped channel with connection plates welded to rafters. (Steel rafters elsewhere measured)</u>				
150 x 75 x 2.0 x 2.0 Galvanized CFLC purlins	kg	1 242.36	27.00	33 543.72
50 x 50 x 4mm Bracings including cleats, bolts, welding etc	kg	136	27.00	3 672.00
<u>TRUSSES, GIRDERS, ETC</u>				
<u>Rafters and beams with flat bearer gusset and connection plates:</u>				
Girder formed of 90 x 90 x 8mm thick top chord, 80 x 80 x 8mm thick bottom chord, 50 x 50 x 4mm thick diagonal, vertical and general bracing, 80 x 80 x 8mm thick vertical bracing as detailed on drawing no. AFR 171C-PD-003 Rev.C annexured to these Bills of Quantities	kg	2 040	27.00	55 080.00
Carried Forward			R	156 618.36
Bill No. 6 Structural Steel				

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[illegible]

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Bill No	FINAL SUMMARY	Page No	Amount
1/1	Preliminaries	-1-	60 453.92
1/2	Earthworks	-3-	48 612.00
1/3	Concrete, Formwork & Reinforcement	-4-	45 330.00
1/4	Precast Concrete	-5-	163 030.00
1/5	Roof Coverings	-6-	86 526.00
1/6	Structural Steel	-10-	195 583.16
1/7	Provisional Sums	-11-	10 500.00
	Sub-Total		R 610 035.08
	<u>Contingencies</u>		
	Add : Contingencies (@ 10%)		R 61 003.51
	Sub-Total		R 671 038.59
	Value Added Tax (15%)		R 100 655.79
	Carried to Form of Tender		R 771 694.38