

-76-

-77-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward	R
<p><i>Note that the text of the Standard System of Measuring Building Work (seventh edition) and that of the Standard Method of Measuring Building Work for Africa 2015 (first edition) is the same</i></p> <p><i>The latest version of the General Preambles for Trades should be referred to should the General Preambles for Trades 2017 be revised in future</i></p> <p>Supplementary preambles and/or specifications are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles</p> <p>The contractor's prices for all items throughout these bills of quantities shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications</p> <p><u>STRUCTURE OF THIS PRELIMINARIES BILL</u></p> <p>Section A : A recital of the headings of the individual clauses in the aforementioned JBCC Minor Works Agreement</p> <p>Section B : A recital of the headings of the individual clauses in the aforementioned JBCC General Preliminaries</p> <p>Section C : Any special clauses to meet the particular circumstances of the project</p> <p><u>PRICING OF PRELIMINARIES</u></p> <p>Should the contractor select Option A in the contract data for the adjustment of preliminaries, the amounts entered against the relevant items in these preliminaries are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)</p> <p style="text-align: center;">-----</p>	
Carried Forward	R
<p>Section No. 1 Preliminaries and General Bill No. 1 Preliminaries</p>	

-79-

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward		R
<u>SECTION A: PRINCIPAL BUILDING AGREEMENT</u>		
<u>Definitions (A1)</u>		
1	Definitions and interpretation (clause 1) F:..... V:..... T:.....	Item
<u>Objective and Preparation (A2 to A14)</u>		
2	Offer acceptance and performance (clause 2) F:..... V:..... T:.....	Item
3	Documents (clause 3) F:..... V:..... T:.....	Item
4	Design responsibility (clause 4) F:..... V:..... T:.....	Item
5	Employer's agents (clause 5) F:..... V:..... T:.....	Item
6	Site representative (clause 6) F:..... V:..... T:.....	Item
7	Compliance with regulations (clause 7) F:..... V:..... T:.....	Item
8	Works risk (clause 8) F:..... V:..... T:.....	Item
9	Indemnities (clause 9) F:..... V:..... T:.....	Item
10	Works insurances (clause 10) F:..... V:..... T:.....	Item
11	Liability insurances (clause 11) F:..... V:..... T:.....	Item
Carried Forward		R
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries		

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
12	Effecting insurance (clause 12)F:..... V:..... T:.....	Item	
13	NO CLAUSE	N/A	
14	Security (clause 14)F:..... V:..... T:.....	Item	
<u>Execution (A15-A23)</u>			
15	Preparation for and execution of the works (clause 15) fixed F:..... V:..... T:.....	Item	
16	Access to the works (clause 16)F:..... V:..... T:.....	Item	
17	Contract instructions (clause 17)F:..... V:..... T:.....	Item	
18	Setting out of the works (clause 18)F:..... V:..... T:.....	Item	
19	Assignment (clause 19)F:..... V:..... T:.....	Item	
20	Nominated subcontractors (clause 20)F:..... V:..... T:.....	Item	
21	Selected subcontractors (clause 21)F:..... V:..... T:.....	Item	
22	Employer's Direct Contractors (clause 22) F:..... V:..... T:.....	Item	
23	Contractor's Domestic Sub-Contractors (Clause 23) F:..... V:..... T:.....	Item	
Carried Forward			R
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
<u>Completion (A24-A30)</u>			
24	Practical completion (clause 24)F:..... V:..... T:.....	Item	
25	Works completion (clause 25)F:..... V:..... T:.....	Item	
26	Final completion (clause 26)F:..... V:..... T:.....	Item	
27	Latent defects liability period (clause 27)F:..... V:..... T:.....	Item	
28	Sectional completion (clause 28)F:..... V:..... T:.....	Item	
29	Revision of date of practical completion (clause 29)F:..... V:..... T:.....	Item	
30	Penalty for non-completion (clause 30)F:..... V:..... T:.....	Item	
<u>Payment (A31 - A35)</u>			
31	Interim payment to the contractor (clause 31)F:..... V:..... T:.....	Item	
32	Adjustment to the contract value (clause 32)F:..... V:..... T:.....	Item	
33	Recovery of expense and loss (clause 33)F:..... V:..... T:.....	Item	
34	Final account and final payment (clause 34)F:..... V:..... T:.....	Item	
Carried Forward			R
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
35	Payment to other parties (clause 35) F:..... V:..... T:.....	Item	
<u>Cancellation (A36-A39)</u>			
36	Cancellation by employer - contractor's default (clause 36)F:..... V:..... T:.....	Item	
37	Cancellation by employer - loss and damage (clause 37)F:..... V:..... T:.....	Item	
38	Cancellation by contractor - employer's default (clause 38)F:..... V:..... T:.....	Item	
39	Cancellation - cessation of the works (clause 39)F:..... V:..... T:.....	Item	
<u>Dispute (A40)</u>			
40	Dispute Settlement (clause 40) F:..... V:..... T:.....	Item	
<u>Substitute Provisions (A41)</u>			
41	State clauses (Clause 41) F:..... V:..... T:.....	Item	
<u>THE SCHEDULE</u>			
42	Pre-tender information (clause 42) F:..... V:..... T:.....	Item	
Carried Forward			R
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward		R	
<u>42.1 CONTRACTING AND OTHER PARTIES</u>			
42.1.1			
Employer	Independent Development Trust (IDT) 30 Brown Street 9th Floor, Nedbank Building Mbombela, Mpumalanga 1200		
Physical address	30 Brown Street 9th Floor, Nedbank Building Mbombela, Mpumalanga		
Code	1200		
Telephone	+27 13 756 5536		
E-mail	sabeloM@idt.org.za		
42.1.2			
Principal Agent	Pasqa Consultants cc		
Agent's service	Principal Agent & Quantity Surveyors		
Postal address	18 Ehmke Street, Mbombela		
Code	1200		
Telephone	+27 13 753 3658		
E-mail	tiaan@qsc.co.za		
Carried Forward		R	
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p><u>42.2 CONTRACT DETAILS</u></p> <p>42.2.1 Works description</p> <p>In general the works comprise of the following:</p> <p>Refurbishments and new roof of 24 Existing Classrooms. Refurbishment and new roof of Classrooms Refurbishment of ceilings of Classrooms Repainting and plastering of walls, windows and doors of Classrooms. New tiles to Classrooms</p> <p>42.2.2 Site description</p> <p>Nkulungwana Primary School</p> <p style="padding-left: 40px;">Site is located at: Bushbuckridg Mpumalanga Province 1280</p> <p>GPS Coordinates -24.82 059 53 63 31.14 01 29 38</p> <p>42.2.3 Work or installations by direct contractors:</p> <p style="text-align: center;">N/A</p> <p>42.2.4 This agreement is for a Government contract No. IDTMPU-CONT-WP3.2B/2-DOE PROG</p> <p>42.2.5 Possession of the site is intended to be given on To be confirmed</p> <p>42.2.6 Period for the commencement of the Works after the Contractor takes possession of the site</p> <p style="text-align: center;">Working days (7) Seven</p>	
Carried Forward	R
<p>Section No. 1 Preliminaries and General Bill No. 1 Preliminaries</p>	

Brought Forward		R	
42.2.7 Intended date of practical completion and the penalty per calendar day for :			
Excluding builders and public holidays.			
Penalty: R 1 296.31 per calendar day			
An additional penalty of R 1 000.00 per calender day for not achieving works completion as per clause 25.4 will be applied for the project as a whole.			
42.2.8 For the works in sections : Intended date of practical completion and the penalty per calender day			
Section 1			
...TBC..... Date			
R..... Penalty Amount			
Section 2			
...TBC..... Date			
R..... Penalty Amount			
Section 3			
...TBC..... Date			
R..... Penalty Amount			
Section 4			
...TBC..... Date			
R..... Penalty Amount			
42.2.9 The law applicable to this agreement shall be that of			
South Africa			
Carried Forward		R	
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward		R
<u>42.3 INSURANCES</u>		
43.3.1 Contracts works insurance to be effected by :		
	Contractor	
For the sum of:	Contract Sum plus 20%	
With a deductible of:	Maximum of R20 000-00 for any one occurrence	
43.3.2 Supplementary insurance is required		
	SASRIA	
	Yes	
43.3.3 Public Liability Insurance to be effected by :		
	Contractor	
For the sum of	R 2 000 000-00	
with the deductible of	Max of R 20 000-00	
<u>42.4 DOCUMENTS</u>		
42.4.1 Waiver of the Contractor's lien or right of continuing possession is required.		
	Yes, no Payment Guarantee will be implemented by the Employer	
42.4.2 Construction document and drawings copies to be supplied to the Contractor free of charge.		
	N/A	
42.4.3 Bills of Quantities/Schedule of Rates drawn up in accordance with:		
	Standard System of Measuring Building Work 2015/ Revised Seventh edition	
Carried Forward		R
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries		

Brought Forward		R	
42.4.4	On acceptance of the tender the bills of quantities/lump sum document is to be submitted within working days 3 <i>Number of</i>		
42.4.5	JBCC Engineering General Conditions are to be included in the contract documents. No		
42.4.6	The contract value is to be adjusted using escalation adjustment indices No Where JBCC CPAP is to be used <i>Base Month</i> N/A		
42.4.7	Details of changes made to the provisions of JBCC standard documentation. Refer to IDT contract data		
Carried Forward		R	
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R	
<u>SECTION B: PRELIMINARIES</u>				
<u>Definitions and interpretation (B1)</u>				
43	Definition and interpretation (B1.1 - B1.4.6) F:..... V:..... T:.....	Item		
<u>Documents (B2)</u>				
44	Checking of documents (B2.1)F:..... V:..... T:.....	Item		
45	Provisional bills of quantities (B2.2)F:..... V:..... T:.....	Item		
46	Availability of construction documentation (B2.3) F:..... V:..... T:.....	Item		
47	Interests of agents (B2.4)F:..... V:..... T:.....	Item		
48	Priced documents (B2.5)F:..... V:..... T:.....	Item		
49	Tender submission (B2.6)F:..... V:..... T:.....	Item		
<u>The site (B3)</u>				
50	Defined works area (B3.1)F:..... V:..... T:.....	Item		
51	Geotechnical investigation (B3.2)F:..... V:..... T:.....	Item		
52	Inspection of the site (B3.3)F:..... V:..... T:.....	Item		
53	Existing premises occupied (B3.4)F:..... V:..... T:.....	Item		
Carried Forward			R	
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries				

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R	
54	Previous work - dimensional accuracy (B3.5)F:..... V:..... T:.....	Item		
55	Previous work - defects (B3.6)F:..... V:..... T:.....	Item		
56	Services - known (B3.7)F:..... V:..... T:.....	Item		
57	Services - unknown (B3.8)F:..... V:..... T:.....	Item		
58	Protection of trees etc (B3.9)F:..... V:..... T:.....	Item		
59	Articles of value (B3.10)F:..... V:..... T:.....	Item		
60	Inspection of adjoining properties etc (B3.11)F:..... V:..... T:.....	Item		
<u>Management of contract (B4)</u>				
61	Management of the works (B4.1)F:..... V:..... T:.....	Item		
62	Programme for the works (B4.2) F:..... V:..... T:.....	Item		
63	Progress meetings (B4.3)F:..... V:..... T:.....	Item		
64	Technical meetings (B4.4)F:..... V:..... T:.....	Item		
65	Labour and Plant records (B4.5) F:..... V:..... T:.....	Item		
Carried Forward			R	
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries				

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
<u>Samples, Shop Drawings and Manufacturer's Instructions (B5)</u>			
66	Samples of materials (B5.1)F:..... V:..... T:.....	Item	
67	Workmanship samples (B5.2)F:..... V:..... T:.....	Item	
68	Shop drawings (B5.3) F:..... V:..... T:.....	Item	
69	Compliance with Manufacturer's Instructions (B5.4) F:..... V:..... T:.....	Item	
<u>Temporary works and plant (B6)</u>			
70	Deposits and fees (B6.1)F:..... V:..... T:.....	Item	
71	Enclosure of the works (B6.2)F:..... V:..... T:.....	Item	
72	Advertising (B6.3)F:..... V:..... T:.....	Item	
73	Plant, equipment, sheds and offices (B6.4)F:..... V:..... T:.....	Item	
74	Main notice board (B6.5)F:..... V:..... T:.....	Item	
75	Subcontractors' notice board (B6.6) F:..... V:..... T:.....	Item	
Carried Forward			R
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward		R	
<u>Temporary services (B7)</u>			
76	Location (B7.1)F:..... V:..... T:.....	Item	
77	Water (B7.2) Option [A] / [B] ? shall apply F:..... V:..... T:.....	Item	
78	Electricity (B7.3) Option [A] / [B] ? shall apply F:..... V:..... T:.....	Item	
79	Telecommunication facilities (B7.4) F:..... V:..... T:.....	Item	
80	Ablution facilities (B7.5) Option [A] / [B] ? shall apply F:..... V:..... T:.....	Item	
<u>Prime cost amounts (B8)</u>			
81	Responsibility for prime cost amounts (B8.1)F:..... V:..... T:.....	Item	
<u>Attendance on N/S Subcontractors (B9)</u>			
82	General attendance (B9.1)F:..... V:..... T:.....	Item	
83	Special attendance (B9.2)F:..... V:..... T:.....	Item	
84	Commissioning - Fuel, water and power (B9.3)F:..... V:..... T:.....	Item	
Carried Forward			
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward		R	
<u>Financial aspects (B10)</u>			
	Statutory taxes, duties and levies (B10.1)F:..... V:..... T:.....	Item	
85	Payment of preliminaries (B10.2) Option [A] / [B] ? shall apply		
	F:..... V:..... T:.....	Item	
86	Adjustment of preliminaries (B10.3)F:..... V:..... T:.....	Item	
87	Payment certificate cash flow (B10.4)F:..... V:..... T:.....	Item	
<u>General (B11)</u>			
88	Protection of works (B11.1)F:..... V:..... T:.....	Item	
89	Protection/isolation of existing/sectionally occupied works (B11.2)F:..... V:..... T:.....	Item	
90	Security of the Works (B11.3) F:..... V:..... T:.....	Item	
91	Notice before covering work (B11.4)F:..... V:..... T:.....	Item	
92	Disturbance (B11.5) F:..... V:..... T:.....	Item	
93	Environmental Disturbance (B11.6) F:..... V:..... T:.....	Item	
Carried Forward			
Section No. 1 Preliminaries and General Bill No. 1 Preliminaries			

-94-

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p>12.1.4 Defined works area (B3.1)</p> <p>Works description</p> <p>In general the works comprise of the following:</p> <p>Renovation of: 4 x (4 x Classroom block).</p> <p>Refurbishment of: Borehole, Water reticulation, Septic Tank, and Soak-away.</p> <p>Refurbishment of: 24 x Water-borne toilets.</p>	
<p>12.1.5 Geotechnical investigation (B3.2)</p> <p>N/A</p>	
<p>12.1.6 Existing premises occupied (B3.4)</p> <p>YES</p>	
<p>12.1.7 Previous work - dimensional accuracy [3.1]</p> <p>N/A</p>	
<p>12.1.8 Previous work - defects [3.2]</p> <p>N/A</p>	
<p>12.1.9 Services - known (B3.7)</p> <p>NO</p>	
<p>12.1.10 Protection of trees (B3.9)</p> <p>NO</p>	
<p>12.1.11 Inspection of adjoining properties [3.3]</p> <p>N/A</p>	
Carried Forward	R
<p>Section No. 1 Preliminaries and General Bill No. 1 Preliminaries</p>	

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward		R	
12.1.12 Enclosure of the works (B6.2)			
YES			
12.1.13 Offices (B6.4.3)			
Site offices required			
12.1.14 Main notice board (B6.5)			
NO			
12.1.15 Subcontractors notice board (B6.6)			
A notice board is required			
NO			
12.1.16 Water [7.2]			
Option A (by contractor)	Yes		
Option B (by employer - free of charge)	No		
Option C (by employer - metered)	No		
12.1.17 - Electricity [7.3]			
Option A (by contractor)	Yes		
Option B (by employer - free of charge)	No		
Option C (by employer - metered)	No		
12.1.18 - Telecommunications [7.4]			
Telephone	Yes		
Facsimile	Yes		
E-mail	Yes		
Carried Forward		R	
Section No. 1			
Preliminaries and General			
Bill No. 1			
Preliminaries			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward		R	
12.1.19 - Ablution facilities [7.5]			
Option A (by contractor)	Yes		
Only approved chemical toilets will be allowed.			
Option B (by employer)	No		
12.1.20 Protection of existing/sectionally occupied works (B11.2)			
YES			
12.1.21 Special attendance (B9.2)			
N/A			
12.1.22 Protection of the works (B11.1)			
All existing and new			
12.1.23 Disturbance (B11.5)			
Noise disturbance during the day needs to be taken into account			
12.1.24 Environmental Disturbance (B11.6)			
Removal of Asbestos structures/materials should be done in accordance with the latest Occupational Health and Safety Act, Asbestos Regulations.			
<u>Post tender information (B12.2)</u>			
12.2.1 Payment of preliminaries			
Alternative selected:	Option A/B		
12.2.2 Adjustment of preliminaries			
Alternative selected: :	Option A/B		
12.2.3 Additional agreed preliminaries items			
.....-			
.....-			
.....-			
Carried Forward		R	
Section No. 1			
Preliminaries and General			
Bill No. 1			
Preliminaries			

R

	Brought Forward		R	
	SECTION C: SPECIFIC PRELIMINARIES			
101	<p>Warranties for materials and workmanship</p> <p>Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the entity supplying the materials and/or executing the work and shall deliver same to the principal agent on final completion of the contract</p> <p>The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of practical completion and that any defects that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written notice to do so</p> <p>The warranty will not be enforced if the work is damaged by defects in the execution of the works, in which case the responsibility for replacement shall rest entirely with the contractor</p> <p>F:..... V:..... T:.....</p>	Item		
102	<p>Overtime</p> <p>Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the employer</p> <p>F:..... V:.....T:.....</p>	Item		
	Carried Forward		R	
	Section No. 1 Preliminaries and General Bill No. 1 Preliminaries			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward		R	
103	<p>Cooperation of the 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 contract value does not exceed the budget</p> <p>F:..... V:..... T:.....</p>	Item		
104	<p>Overloading</p> <p>The contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works or temporary works eg scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc to the principal agent for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agent's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the contractor at his sole expense</p> <p>F:..... V:..... T:.....</p>	Item		
105	<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		
	Carried Forward		R	
	<p>Section No. 1</p> <p>Preliminaries and General</p> <p>Bill No. 1</p> <p>Preliminaries</p>			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward		R
106	<p>Testing of flat roof waterproofing for watertightness</p> <p>Flat roof waterproof areas shall be flooded and kept "ponded" for at least forty eight (48) hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing</p> <p>F:..... V:..... T:.....</p> <p>Health and safety</p> <p>Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works (refer to Annexure ? for a copy of the relevant specification) and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the provisions of the aforementioned health and safety specification [2.1]</p> <p>The contractor shall:</p> <ol style="list-style-type: none"> 1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Cooperate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the employer's health and safety specification 	Item	
	Carried Forward		R
	<p>Section No. 1 Preliminaries and General Bill No. 1 Preliminaries</p>		

-102-

-103-

-104-

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R	
<u>SUPPLEMENTARY PREAMBLES</u>		
<p>NOTE: Contractors are advised to study the Model Preambles for Trades and PW371</p> <p>-----</p> <p>All Tenderers will be deemed to have visited the site prior to submitting their tender to determine the nature and extent of the alteration and demolition work and the value of the materials to be recovered. No claim for a variation in the credit allowance for recoverable materials in respect of demolition items will be considered.</p> <p>All sizes and dimensions stated herein are approximate and deemed only sufficient to identify the item of work concerned.</p> <p>In taking down and removing existing work the utmost care must be taken to avoid any structural or other damage to the remaining portions of the building and the Contractor shall provide all shoring, needling, strutting, etc to ensure the stability of all structures during the alteration/demolition work. The Contractor will be held solely responsible for the safety and stability of the buildings for the whole period of the contract and must make good any damage at his own expense.</p> <p>Existing services must be maintained at all times to the existing buildings. If it is found necessary to disconnect any service then suitable temporary or alternate services must be provided to the existing buildings.</p> <p>Special care shall be exercised during the progress of the work to ensure that any electrical installation, water supply pipes, telephone and other services which may be encountered are not interfered with and notice must be given to the Principal agent if any disconnection or alterations become necessary.</p> <p>The Contractor shall cover up and protect from injury all work not removed and shall make good at his own expense any damage that may occur.</p> <p>Any water supply or other piping, etc that may be encountered and found necessary to disconnect or cut</p>		
Carried Forward	R	
<p>Section No. 2 Renovation of 4-Classroom Block: Block A Bill No. 1 Alterations</p>		

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p>are to be effectually stopped off and any new connections that may be necessary shall be made with the proper fittings to the satisfaction of the Principal Agent. Where sanitary fittings, geysers, etc are to be removed the Contractor shall allow for removing all exposed waste or water supply pipes to the nearest suitable junction or connection and stopping off, as well as for making good plaster, screeds, etc.</p> <p>Prices for the removal of concrete slabs, etc must include for removal of reinforcement, screeds, membrane waterproofing, conduits, etc.</p> <p>Prices for the removal of concrete surface beds, etc must include for removal of reinforcement, screeds, conduits, damp proof membrane, etc. The Contractor is to note that removal of the existing floor finishes such as vinyl, carpets, ceramic tiles, etc has been measured separately.</p> <p>Taking down existing walls is to include for skirtings, cornices, conduits, pipes, brick or concrete fins, lintels, etc built into the structure and for making good walls, floors, ceilings, etc as described. The Contractor is to note that items for the removal of joinery, etc such as shelves, pelmets, curtain rails, pinning boards, signage, etc has been measured separately.</p> <p>Removal of doors, windows, fittings, etc is to include for their removal complete with frames, ironmongery, glass, quadrants, architraves, skirtings, burglar bars and all accessories to walls, reveals, around openings, for cutting out cills, etc, for hacking up flooring at openings and for making good.</p> <p>Removal of sanitary fittings is to include for the removal and blocking off of service pipes, taps, traps, fixing brackets, cisterns, etc complete.</p> <p>Building up of existing openings where given in number shall be deemed to include preparing existing surfaces all round, brickwork properly toothed and bonded to existing and shot pinned to concrete, wedging up and unless otherwise stated making good finishes on both sides to match existing.</p> <p>Allow for watering the works sufficiently to prevent nuisance from dust.</p>	
Carried Forward	R
<p>Section No. 2 Renovation of 4-Classroom Block: Block A Bill No. 1 Alterations</p>	

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
<p>OLD MATERIALS TO BE CARTED AWAY: Old materials from the alterations, except where described to be re-used or handed over, as well as all rubbish, rubble, debris etc., must be regularly carted from the site and not be allowed to accumulate on or around the site.</p> <p>OLD MATERIALS NOT TO BE RE-USED: None of the old materials are to be used for new work except where specifically described as being set aside for re-use.</p> <p>OLD MATERIALS TO BECOME THE PROPERTY OF THE CONTRACTOR: Old materials from alterations, except where described to be re-used or handed over, become the property of the Contractor who must allow credit for same in the Final Summary.</p> <p>HANDING OVER OF MATERIALS: Where certain materials or articles from demolitions or articles are described as to be handed over by the Contractor to the Regional Representative or Representative/Agent, 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 held liable to the Department for the full replacement value thereof, which amount will be deducted from any monies due to the Contractor.</p> <p style="text-align: center;">-----</p> <p><u>REMOVAL OF EXISTING WORK</u></p> <p><u>Break up and removing reinforced concrete including cutting off and removing reinforcement</u></p>			
1	Single door and frame from brickwork	No	4
Carried Forward			R
<p>Section No. 2 Renovation of 4-Classroom Block: Block A Bill No. 1 Alterations</p>			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>Taking out and removing glass and mirrors</u>			
2	Carefully remove cracked or broken glazing in panes exceeding 0,1m2 and not exceeding 0,5m2 in existing metal windows and doors including scraping out putty on reveals and prepare windows and or doors to receive new glazing (New glazing elsewhere measured)	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>			
3	30mm Granolithic from floors	m2	56
<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>			
4	Gypsum plasterboard ceilings including cornices, timber bandering, etc	m2	135
<u>Taking down and removing roofs, etc.</u>			
5	Remove existing fascia boards	m	72
6	Remove existing barge boards	m	19
<u>Taking down and removing ceilings, etc.</u>			
7	Carefully remove damaged sections of existing gypsum ceiling boards including removal of damaged bandering and prepare existing to receive new (New boards elsewhere measured)	m2	5
<u>Taking out and removing classroom fittings</u>			
8	1200 x 4000mm Long Chalkboard glued to timber framework	No	3
9	Pin-up Board	No	1
<u>PREPARATORY WORK TO EXISTING SURFACES</u>			
10	Saw cut in pannels	m	5
Carried Forward			R
Section No. 2 Renovation of 4-Classroom Block: Block A Bill No. 1 Alterations			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
11	Prepare floor to receive tile finish	m2	224
	<u>Carefully hack out and remove cracked plaster to walls exceeding 1,0m2 and prepare surface of wall to receive new plaster (New plaster elsewhere measured)</u>		
12	Screed	m2	135
	<u>SERVICING EXISTING ITEMS</u>		
	<u>Servicing existing windows</u>		
13	Carefully examine hinges, handles and stays to steel windows, replace putty to glazing of steel windows and fully service same to facilitate smooth functionality, all to the satisfaction of the Principal Agent, overall size of window 300 x 300mm high	No	10
	<u>Servicing existing writing boards</u>		
14	Carefully examine hinges to steel boards, fully service same to facilitate smooth functionality, all to the satisfaction of the Principal Agent.	No	20
	<u>Wash down with high pressure low volume water jet</u>		
15	On existing external facebrick walls	m2	364
	<u>Fix and service of existing windows to work properly</u>		
16	Replace window stays, handles, etc	No	20
	<u>MAKING GOOD OF FINISHES ETC</u>		
	<u>Examination and repair of existing roof covering</u>		
17	Carefully examine existing roof sheeting, make good any defective sheets and check roof screws/bolts and replace where necessary and prepare roof covering to receive new paint, to ensure water tightness of roofs. (Paint to be measured elsewhere)	m2	493
Carried Forward to Summary of Section No. 2			R
Section No. 2			
Renovation of 4-Classroom Block: Block A			
Bill No. 1			
Alterations			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No		Quantity	Rate	Amount
	<u>BILL NO. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Cost of tests</u>			
	<p>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 Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)</p>			
	<u>Formwork</u>			
	<p>Description 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</p> <p>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> <p>Formworks to soffits of solid etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described</p>			
	Carried Forward			
	<p>Section No. 2 Renovation of 4-Classroom Block: Block A Bill No. 2 Concrete, Formwork and Reinforcement</p>			
			R	

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. 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"			
<u>REINFORCED CONCRETE</u>			
<u>25MPa/19mm concrete</u>			
1	100mm Thick Aprons, including thickening	m3	9
<u>TEST BLOCKS</u>			
2	Making and testing 150 x 150 x 150mm concrete strength test cube	No	4
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
3	Aprons	m2	91
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>Fabric reinforcement</u>			
4	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	91
Carried Forward to Summary of Section No. 2			R
Section No. 2			
Renovation of 4-Classroom Block: Block A			
Bill No. 2			
Concrete, Formwork and Reinforcement			

-112-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>BILL NO. 4</u>			
<u>CARPENTRY AND JOINERY</u>			
Tenderers are advised to study the Model Preambles for Trades before pricing this Bill			

<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Particle board</u>			
Particle board shall comply with the following specifications:			
a) SABS 1300 Particle board: exterior and flooring type			
b) SABS 1301 Particle board: interior type			
<u>Joinery</u>			
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc			
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
<u>Fixing</u>			
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
<u>Decorative laminating finish</u>			
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			

Carried Forward			R
Section No. 2 Renovation of 4-Classroom Block: Block A Bill No. 4 Carpentry and Joinery			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

<p style="text-align: right;">Brought Forward</p> <p><u>ROOFS, ETC</u></p> <p><u>Plate nailed timber roof truss construction</u></p> <p>The following is applicable in respect of roof trusses:</p> <p>Trusses are at maximum 1,10m centres</p> <p>Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,1m maximum centres.</p> <p>Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm brandering.</p> <p>All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.</p> <p>Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.</p> <p>All joints to be close fitted butt joints.</p> <p>Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.</p> <p>The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.</p> <p>Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawings in tender document) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.</p> <p><u>ROOF CONSTRUCTION</u></p>	<p style="text-align: right;">R</p>
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Renovation of 4-Classroom Block: Block A Bill No. 4 Carpentry and Joinery</p>	<p style="text-align: right;">R</p>

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>Sawn softwood</u>			
1	38 x 114mm Wall plates	m	5
<u>Sundries</u>			
2	Two coats creosote on sawn timbers	m2	90
<u>EAVES, VERGES, ETC.</u>			
<u>"Everite Flexit" pressed nutec-cement</u>			
3	12 x 225 x 3600mm Long Fascias including galvanised steel H-profile jointing strips	m	72
4	200 x 80 x 3000mm Long Barge board including galvanised steel H-profile jointing strips	m	19
Carried Forward to Summary of Section No. 2			R
Section No. 2			
Renovation of 4-Classroom Block: Block A			
Bill No. 4			
Carpentry and Joinery			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No		Quantity	Rate	Amount
	<u>BILL NO. 5</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	Tenderers are advised to study the Model Preambles for Trades before pricing this Bill			

	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres and where described as "bolted" the bolts have been given elsewhere.			
	<u>INSULATION</u>			
	<u>"Aerolite" insulation</u>			
1	75mm Insulation closely fitted and laid on top of branderling between roof timbers etc	m2	224	
	<u>NAILED UP CEILINGS</u>			
	<u>6,4mm "Rhino" gypsum plasterboard with H-type pressed steel jointing strips</u>			
2	Ceilings including 38 x 38mm sawn softwood branderling at 400mm centres	m2	136	
3	Extra over ceiling for 650 x 650mm trap door of 38 x 50mm wrought softwood rebated framing with one 38 x 50mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	4	
	Carried Forward			
	Section No. 2			
	Renovation of 4-Classroom Block: Block A			
	Bill No. 5			
	Ceilings, Partitions and Access flooring			
			R	

-117-

-118-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>Approved</u>			
2	"Solid Blesbok" 460/313 four lever lockset	No	4
<u>SUNDRIES</u>			
3	38mm Diameter rubber door stop plugged and screwed to wall or floor	No	4
<u>HINGES, BOLTS, ETC.</u>			
<u>General</u>			
4	100mm Mild steel butterfly hinges	No	8
<u>WINDOWS HANDLES AND STAYS</u>			
5	Window stays, handles, etc	No	20
<u>WRITING BOARDS, PINNING BOARD, ETC</u>			
<u>Witting board, PVC white board, aluminium framed, and including markers, removal brush and chemicals.</u>			
6	3 600 x 1 140mm high consisting of two fixed panels each 2 400 x 1 140mm high complete.	No	4
<u>Aluminium framed carpet bulletin board, "Parrot" or similar approved.</u>			
7	Pin boards 2 400 x 1 200mm	No	4
<u>Install existing boards</u>			
8	Witting boards	No	4
<u>LETTERS, NAME PLATES, ETC</u>			
<u>Approved 150 x 150 x 3mm thick PVC standard safety signage</u>			
9	"Fire extinguisher" sign plugged	No	4
Carried Forward			R
Section No. 2 Renovation of 4-Classroom Block: Block A Bill No. 6 Ironmongery			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward			R
10	"Arrow" sign plugged	No	4	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Renovation of 4-Classroom Block: Block A				
Bill No. 6				
Ironmongery				

-121-

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward		R	
<u>Striking plates for door frames</u>			
Striking plates to be of chromium-plated type, unless otherwise described			
<u>Burglar bars to steel windows</u>			
All opening sections shall be filled with type B1 burglar bars, Unless otherwise described			
<u>Furniture to steel windows</u>			
All steel type windows shall be fitted with solid brass furniture			
<u>Glazing beads to steel windows</u>			
Where so described, windows are to be fitted with 10 x 10mm aluminium glazing beads, mitred around and screwed to window frame with chromium-plated countersunk screws at maximum 150mm centres			
<u>WELDED SCREENS, GATES, ETC</u>			
<u>Screens and gates to doors</u>			
1	Single gate and frame size, 914 x 2 032mm high formed of 50 x 50 x 2,5mm mild steel hollow section frame, middle rails and 12 x 12mm stiles, gate welded to walls	No	4
Carried Forward to Summary of Section No. 2		R	
Section No. 2			
Renovation of 4-Classroom Block: Block A			
Bill No. 7			
Metalwork			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>BILL NO. 8</u> <u>PLASTERING</u> NOTE: Tenderers are advised to study the Model Preambles for Trades and PW371 before pricing this Bill. ----- <u>SUPPLEMENTARY PREAMBLES</u> <u>Method</u> The method to be used shall be either the monolithic method or the bonded method <u>Preparation</u> For granolith applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolith applied immediately thereafter. For granolith to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc. is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolith <u>Mix</u> Granolith shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolith exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolith			
Carried Forward			
Section No. 2 Renovation of 4-Classroom Block: Block A Bill No. 8 Plastering		R	

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p><u>Panels</u></p> <p>Granolith shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolith. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p> <p>Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints</p> <p><u>Laying</u></p> <p>Monolithic granolith shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p> <p>Bonded granolith shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolith. The granolith shall be thoroughly compacted and lightly wood floated to the required levels</p> <p>After wood floating, the monolithic and bonded granolith shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolith shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying</p> <p><u>Colour</u></p> <p>Coloured granolith shall be tinted with an approved colouring pigment mixed into a true and even colour</p>	
Carried Forward	R
<p>Section No. 2 Renovation of 4-Classroom Block: Block A Bill No. 8 Plastering</p>	

-125-

-126-

-127-

-128-

-129-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward			R
	<u>One coat water based galvanised iron primer and two coats UV-resistant water based alkyd roof paint, on galvanised steel</u>			
4	Corrugated roofs (measured on flat)	m2	325	
	<u>ON FIBRE-CEMENT</u>			
	<u>Prepare and apply one undercoat and two finishing coats of Acrylic PVA emulsion paint</u>			
5	On fascias and barge boards	m	91	
	<u>ON WOOD</u>			
	<u>Prepare, stop and apply three coats polyurethane clear eggshell varnish lightly sanded down between coats</u>			
6	On doors	m2	25	
7	Cornices	m	120	
	<u>PREPARATORY WORK TO EXISTING WORK</u>			
	<u>Previously painted plastered surfaces</u>			
	Surfaces shall be thoroughly washed down 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 finished smooth			
	<u>Previously painted metal surfaces</u>			
	Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal			
	Carried Forward			R
Section No. 2 Renovation of 4-Classroom Block: Block A Bill No. 12 Paintwork				

-131-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

SECTION SUMMARY - Renovation of 4-Classroom Block: Block A					Amount
Bill No		Page No			
1	Alterations	109			
2	Concrete, Formwork and Reinforcement	111			
3	Roof Coverings, etc	112			
4	Carpentry and Joinery	115			
5	Ceilings, Partitions and Access flooring	117			
6	Ironmongery	120			
7	Metalwork	122			
8	Plastering	125			
9	Tiling	126			
10	Plumbing and Drainage	127			
11	Glazing	128			
12	Paintwork	131			
Carried to Final Summary				R	
Section No. 2 Renovation of 4-Classroom Block: Block A					

-133-

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

<p style="text-align: center;">Brought Forward</p> <p>All Tenderers will be deemed to have visited the site prior to submitting their tender to determine the nature and extent of the alteration and demolition work and the value of the materials to be recovered. No claim for a variation in the credit allowance for recoverable materials in respect of demolition items will be considered.</p> <p>All sizes and dimensions stated herein are approximate and deemed only sufficient to identify the item of work concerned.</p> <p>In taking down and removing existing work the utmost care must be taken to avoid any structural or other damage to the remaining portions of the building and the Contractor shall provide all shoring, needling, strutting, etc to ensure the stability of all structures during the alteration/demolition work. The Contractor will be held solely responsible for the safety and stability of the buildings for the whole period of the contract and must make good any damage at his own expense.</p> <p>Existing services must be maintained at all times to the existing buildings. If it is found necessary to disconnect any service then suitable temporary or alternate services must be provided to the existing buildings.</p> <p>Special care shall be exercised during the progress of the work to ensure that any electrical installation, water supply pipes, telephone and other services which may be encountered are not interfered with and notice must be given to the Principal agent if any disconnection or alterations become necessary.</p> <p>The Contractor shall cover up and protect from injury all work not removed and shall make good at his own expense any damage that may occur.</p> <p>Any water supply or other piping, etc that may be encountered and found necessary to disconnect or cut are to be effectually stopped off and any new connections that may be necessary shall be made with the proper fittings to the satisfaction of the Principal Agent. Where sanitary fittings, geysers, etc are to be removed the Contractor shall allow for removing all exposed waste or water supply pipes to the nearest suitable junction or connection and stopping off, as well</p>	<p style="text-align: center;">R</p>
<p style="text-align: center;">Carried Forward</p> <p>Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 1 Alterations</p>	<p style="text-align: center;">R</p>

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

<p style="text-align: right;">Brought Forward</p> <p>as for making good plaster, screeds, etc.</p> <p>Prices for the removal of concrete slabs, etc must include for removal of reinforcement, screeds, membrane waterproofing, conduits, etc.</p> <p>Prices for the removal of concrete surface beds, etc must include for removal of reinforcement, screeds, conduits, damp proof membrane, etc. The Contractor is to note that removal of the existing floor finishes such as vinyl, carpets, ceramic tiles, etc has been measured separately.</p> <p>Taking down existing walls is to include for skirtings, cornices, conduits, pipes, brick or concrete fins, lintels, etc built into the structure and for making good walls, floors, ceilings, etc as described. The Contractor is to note that items for the removal of joinery, etc such as shelves, pelmets, curtain rails, pinning boards, signage, etc has been measured separately.</p> <p>Removal of doors, windows, fittings, etc is to include for their removal complete with frames, ironmongery, glass, quadrants, architraves, skirtings, burglar bars and all accessories to walls, reveals, around openings, for cutting out cills, etc, for hacking up flooring at openings and for making good.</p> <p>Removal of sanitary fittings is to include for the removal and blocking off of service pipes, taps, traps, fixing brackets, cisterns, etc complete.</p> <p>Building up of existing openings where given in number shall be deemed to include preparing existing surfaces all round, brickwork properly toothed and bonded to existing and shot pinned to concrete, wedging up and unless otherwise stated making good finishes on both sides to match existing.</p> <p>Allow for watering the works sufficiently to prevent nuisance from dust.</p> <p>OLD MATERIALS TO BE CARTED AWAY: Old materials from the alterations, except where described to be re-used or handed over, as well as all rubbish, rubble, debris etc., must be regularly carted from the site and not be allowed to accumulate on or around the site.</p>	<p style="text-align: right;">R</p>
<p style="text-align: right;">Carried Forward</p> <p>Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 1 Alterations</p>	<p style="text-align: right;">R</p>

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
<p>OLD MATERIALS NOT TO BE RE-USED: None of the old materials are to be used for new work except where specifically described as being set aside for re-use.</p> <p>OLD MATERIALS TO BECOME THE PROPERTY OF THE CONTRACTOR: Old materials from alterations, except where described to be re-used or handed over, become the property of the Contractor who must allow credit for same in the Final Summary.</p> <p>HANDING OVER OF MATERIALS: Where certain materials or articles from demolitions or articles are described as to be handed over by the Contractor to the Regional Representative or Representative/Agent, 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 held liable to the Department for the full replacement value thereof, which amount will be deducted from any monies due to the Contractor.</p> <p style="text-align: center;">-----</p> <p><u>REMOVAL OF EXISTING WORK</u></p> <p><u>Break up and removing reinforced concrete including cutting off and removing reinforcement</u></p>			
1	Single door and frame from brickwork	No	4
<p><u>Taking out and removing glass and mirrors</u></p>			
2	Carefully remove cracked or broken glazing in panes exceeding 0,1m ² and not exceeding 0,5m ² in existing metal windows and doors including scraping out putty on reveals and prepare windows and or doors to receive new glazing (New glazing elsewhere measured)	No	5
Carried Forward			R
<p>Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 1 Alterations</p>			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>Hacking up/off and removing granolithic, screeds, plaster, etc from concrete or brickwork and preparing surfaces for new screeds, plaster, etc</u>			
3	30mm Granolithic from floors	m2	50
<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>			
4	Gypsum plasterboard ceilings including cornices, timber bandering, etc	m2	135
<u>Taking down and removing roofs, etc.</u>			
5	Remove existing fascia boards	m	72
6	Remove existing barge boards	m	19
<u>Taking down and removing ceilings, etc.</u>			
7	Carefully remove damaged sections of existing gypsum ceiling boards including removal of damaged brandering and prepare existing to receive new (New boards elsewhere measured)	m2	5
<u>Taking out and removing classroom fittings</u>			
8	1200 x 4000mm Long Chalkboard glued to timber framework	No	3
9	Pin-up Board	No	1
<u>PREPARATORY WORK TO EXISTING SURFACES</u>			
10	Saw cut in pannels	m	5
11	Prepare floor to receive tile finish	m2	224
<u>Carefully hack out and remove cracked plaster to walls exceeding 1,0m2 and prepare surface of wall to receive new plaster (New plaster elsewhere measured)</u>			
12	Screed	m2	135
Carried Forward			R
Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 1 Alterations			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

	Brought Forward			R
13	Plaster	m2	180	
	<u>SERVICING EXISTING ITEMS</u>			
	<u>Servicing existing windows</u>			
14	Carefully examine hinges, handles and stays to steel windows, replace putty to glazing of steel windows and fully service same to facilitate smooth functionality, all to the satisfaction of the Principal Agent, overall size of window 300 x 300mm high	No	10	
	<u>Servicing existing writing boards</u>			
15	Carefully examine hinges to steel boards, fully service same to facilitate smooth functionality, all to the satisfaction of the Principal Agent.	No	20	
	<u>Wash down with high pressure low volume water jet</u>			
16	On existing external facebrick walls	m2	364	
	<u>Fix and service of existing windows to work properly</u>			
17	Replace window stays, handles, etc	No	20	
	<u>MAKING GOOD OF FINISHES ETC</u>			
	<u>Examination and repair of existing roof covering</u>			
18	Carefully examine existing roof sheeting, make good any defective sheets and check roof screws/bolts and replace where necessary and prepare roof covering to receive new paint, to ensure water tightness of roofs. (Paint to be measured elsewhere)	m2	493	
Carried Forward to Summary of Section No. 3				R
Section No. 3				
Renovation of 4-Classroom Block: Block B				
Bill No. 1				
Alterations				

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No		Quantity	Rate	Amount
	<u>BILL NO. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Cost of tests</u>			
	<p>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 Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)</p>			
	<u>Formwork</u>			
	<p>Description 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</p> <p>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> <p>Formworks to soffits of solid etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described</p>			
	Carried Forward			
	<p>Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 2 Concrete, Formwork and Reinforcement</p>			
			R	

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p>Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. 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"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Cost of tests</u></p> <p>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 Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)</p> <p><u>Formwork</u></p> <p>Description 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</p> <p>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> <p>Formworks to soffits of solid etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described</p>	
Carried Forward	R
<p>Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 2 Concrete, Formwork and Reinforcement</p>	

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. 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"			
<u>REINFORCED CONCRETE</u>			
<u>25MPa/19mm concrete</u>			
1	100mm Thick Aprons, including thickening	m3	9
<u>TEST BLOCKS</u>			
2	Making and testing 150 x 150 x 150mm concrete strength test cube	No	4
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
3	Aprons	m2	91
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>Fabric reinforcement</u>			
4	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	91
Carried Forward to Summary of Section No. 3			R
Section No. 3			
Renovation of 4-Classroom Block: Block B			
Bill No. 2			
Concrete, Formwork and Reinforcement			

-142-

Item No	Quantity	Rate	Amount
<u>BILL NO. 4</u>			
<u>CARPENTRY AND JOINERY</u>			
Tenderers are advised to study the Model Preambles for Trades before pricing this Bill			

<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Particle board</u>			
Particle board shall comply with the following specifications:			
a) SABS 1300 Particle board: exterior and flooring type			
b) SABS 1301 Particle board: interior type			
<u>Joinery</u>			
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc			
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
<u>Fixing</u>			
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
<u>Decorative laminating finish</u>			
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			

Carried Forward			R
Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 4 Carpentry and Joinery			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R	
<p><u>ROOFS, ETC</u></p> <p><u>Plate nailed timber roof truss construction</u></p> <p>The following is applicable in respect of roof trusses:</p> <p>Trusses are at maximum 1,10m centres</p> <p>Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,1m maximum centres.</p> <p>Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm brandering.</p> <p>All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.</p> <p>Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.</p> <p>All joints to be close fitted butt joints.</p> <p>Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.</p> <p>The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.</p> <p>Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawings in tender document) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.</p> <p><u>ROOF CONSTRUCTION</u></p>		
Carried Forward	R	
<p>Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 4 Carpentry and Joinery</p>		

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>Sawn softwood</u>			
1	38 x 114mm Wall plates	m	5
<u>Sundries</u>			
2	Two coats creosote on sawn timbers	m2	90
<u>EAVES, VERGES, ETC.</u>			
<u>"Everite Flexit" pressed nutec-cement</u>			
3	12 x 225 x 3600mm Long Fascias including galvanised steel H-profile jointing strips	m	72
4	200 x 80 x 3000mm Long Barge board including galvanised steel H-profile jointing strips	m	19
Carried Forward to Summary of Section No. 3			R
Section No. 3			
Renovation of 4-Classroom Block: Block B			
Bill No. 4			
Carpentry and Joinery			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No		Quantity	Rate	Amount
	<u>BILL NO. 5</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	Tenderers are advised to study the Model Preambles for Trades before pricing this Bill			

	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres and where described as "bolted" the bolts have been given elsewhere.			
	<u>INSULATION</u>			
	<u>"Aerolite" insulation</u>			
1	75mm Insulation closely fitted and laid on top of branderling between roof timbers etc	m2	224	
	<u>NAILED UP CEILINGS</u>			
	<u>6,4mm "Rhino" gypsum plasterboard with H-type pressed steel jointing strips</u>			
2	Ceilings including 38 x 38mm sawn softwood branderling at 400mm centres	m2	56	
3	Extra over ceiling for 650 x 650mm trap door of 38 x 50mm wrought softwood rebated framing with one 38 x 50mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	4	
	Carried Forward			
	Section No. 3			
	Renovation of 4-Classroom Block: Block B			
	Bill No. 5			
	Ceilings, Partitions and Access flooring			
			R	

-147-

-148-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>Approved</u>			
2	"Solid Blesbok" 460/313 four lever lockset	No	4
<u>SUNDRIES</u>			
3	38mm Diameter rubber door stop plugged and screwed to wall or floor	No	4
<u>HINGES, BOLTS, ETC.</u>			
<u>General</u>			
4	100mm Mild steel butterfly hinges	No	8
<u>WINDOWS HANDLES AND STAYS</u>			
5	Window stays, handles, etc	No	20
<u>WRITING BOARDS, PINNING BOARD, ETC</u>			
<u>Witting board, PVC white board, aluminium framed, and including markers, removal brush and chemicals.</u>			
6	3 600 x 1 140mm high consisting of two fixed panels each 2 400 x 1 140mm high complete.	No	4
<u>Aluminium framed carpet bulletin board, "Parrot" or similar approved.</u>			
7	Pin boards 2 400 x 1 200mm	No	4
<u>Install existing boards</u>			
8	Witting boards	No	4
<u>LETTERS, NAME PLATES, ETC</u>			
<u>Approved 150 x 150 x 3mm thick PVC standard safety signage</u>			
9	"Fire extinguisher" sign plugged	No	4
Carried Forward			R
Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 6 Ironmongery			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward			R
10	"Arrow" sign plugged	No	4	
Carried Forward to Summary of Section No. 3				R
Section No. 3				
Renovation of 4-Classroom Block: Block B				
Bill No. 6				
Ironmongery				

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>BILL NO. 7</u>			
<u>METALWORK</u>			
For preambles see " Specification of materials and method to be used - PW 371"			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Primer</u>			
All surfaces of steelwork to be painted with one coat approved factory etch primer before leaving the workshop of the Manufacturer and all scratches, chips or blemishes to be made good on site after erection. All rates tendered must make provision for this as no claim will afterwards be entertained.			
<u>Bolts, etc.</u>			
Descriptions of bolts shall be deemed to include nuts and washers			
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork and concrete			
Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
<u>Door frames</u>			
Unless otherwise described, the following shall be applicable on all door frames:			
<ul style="list-style-type: none"> - Frames shall be double rebated suitable for 40mm thick doors - One jamb of all frames for single doors shall be factory prepared for striking plate of mortice lock 			
Carried Forward			R
Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 7 Metalwork			

Brought Forward			R
<u>Striking plates for door frames</u>			
Striking plates to be of chromium-plated type, unless otherwise described			
<u>Burglar bars to steel windows</u>			
All opening sections shall be filled with type B1 burglar bars, Unless otherwise described			
<u>Furniture to steel windows</u>			
All steel type windows shall be fitted with solid brass furniture			
<u>Glazing beads to steel windows</u>			
Where so described, windows are to be fitted with 10 x 10mm aluminium glazing beads, mitred around and screwed to window frame with chromium-plated countersunk screws at maximum 150mm centres			
<u>WELDED SCREENS, GATES, ETC</u>			
<u>Screens and gates to doors</u>			
1	Single gate and frame size, 914 x 2 032mm high formed of 50 x 50 x 2,5mm mild steel hollow section frame, middle rails and 12 x 12mm stiles, gate welded to walls	No	4
Carried Forward to Summary of Section No. 3			R
Section No. 3			
Renovation of 4-Classroom Block: Block B			
Bill No. 7			
Metalwork			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>BILL NO. 8</u>			
<u>PLASTERING</u>			
NOTE: Tenderers are advised to study the Model Preambles for Trades and PW371 before pricing this Bill. -----			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Method</u>			
The method to be used shall be either the monolithic method or the bonded method			
<u>Preparation</u>			
For granolith applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolith applied immediately thereafter. For granolith to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc. is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolith			
<u>Mix</u>			
Granolith shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolith exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolith			
Carried Forward			R
Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 8 Plastering			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p><u>Panels</u></p> <p>Granolith shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolith. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p> <p>Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints</p> <p><u>Laying</u></p> <p>Monolithic granolith shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p> <p>Bonded granolith shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolith. The granolith shall be thoroughly compacted and lightly wood floated to the required levels</p> <p>After wood floating, the monolithic and bonded granolith shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolith shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying</p> <p><u>Colour</u></p> <p>Coloured granolith shall be tinted with an approved colouring pigment mixed into a true and even colour</p>	
Carried Forward	R
<p>Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 8 Plastering</p>	

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>SCREEDS</u>			
<u>Screeds steel trowelled on concrete</u>			
1	30mm Thick to floors and landings	m2	130
<u>GRANOLITHIC</u>			
<u>Untinted granolithic on concrete</u>			
2	45mm Average Thick on floors and landings to fall	m2	5
Carried Forward to Summary of Section No. 3			R
Section No. 3			
Renovation of 4-Classroom Block: Block B			
Bill No. 8			
Plastering			

-156-

-157-

-158-

-159-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward			R
	<u>One coat water based galvanised iron primer and two coats UV-resistant water based alkyd roof paint, on galvanised steel</u>			
4	Corrugated roofs (measured on flat)	m2	325	
	<u>ON FIBRE-CEMENT</u>			
	<u>Prepare and apply one undercoat and two finishing coats of Acrylic PVA emulsion paint</u>			
5	On fascias and barge boards	m	91	
	<u>ON WOOD</u>			
	<u>Prepare, stop and apply three coats polyurethane clear eggshell varnish lightly sanded down between coats</u>			
6	On doors	m2	25	
7	Cornices	m	120	
	<u>PREPARATORY WORK TO EXISTING WORK</u>			
	<u>Previously painted plastered surfaces</u>			
	Surfaces shall be thoroughly washed down 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 finished smooth			
	<u>Previously painted metal surfaces</u>			
	Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal			
	Carried Forward			R
Section No. 3 Renovation of 4-Classroom Block: Block B Bill No. 12 Paintwork				

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward				R
<u>PAINTWORK ETC TO PREVIOUSLY PAINTED WORK</u>				
Note: All paintwork to be "Dulux" or similar approved product				
<u>ON METAL</u>				
<u>Prepare and apply one undercoat and two finishing coats of gloss paint on metalworks</u>				
8	On windows	m2	20	
<u>ON PLASTERBOARD</u>				
<u>One coat primer and two coats interior quality PVA emulsion paint</u>				
9	On ceilings and cornices	m2	224	
Carried Forward to Summary of Section No. 3				R
Section No. 3				
Renovation of 4-Classroom Block: Block B				
Bill No. 12				
Paintwork				

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

SECTION SUMMARY - Renovation of 4-Classroom Block: Block B					Amount
Bill No		Page No			
1	Alterations	138			
2	Concrete, Formwork and Reinforcement	141			
3	Roof Coverings, etc	142			
4	Carpentry and Joinery	145			
5	Ceilings, Partitions and Access flooring	147			
6	Ironmongery	150			
7	Metalwork	152			
8	Plastering	155			
9	Tiling	156			
10	Plumbing and Drainage	157			
11	Glazing	158			
12	Paintwork	161			
Carried to Final Summary				R	
Section No. 3 Renovation of 4-Classroom Block: Block B					

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>BILL NO. 1</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
NOTE: Contractors are advised to study the Model Preambles for Trades and PW371 -----			
<p>All Tenderers will be deemed to have visited the site prior to submitting their tender to determine the nature and extent of the alteration and demolition work and the value of the materials to be recovered. No claim for a variation in the credit allowance for recoverable materials in respect of demolition items will be considered.</p> <p>All sizes and dimensions stated herein are approximate and deemed only sufficient to identify the item of work concerned.</p> <p>In taking down and removing existing work the utmost care must be taken to avoid any structural or other damage to the remaining portions of the building and the Contractor shall provide all shoring, needling, strutting, etc to ensure the stability of all structures during the alteration/demolition work. The Contractor will be held solely responsible for the safety and stability of the buildings for the whole period of the contract and must make good any damage at his own expense.</p> <p>Existing services must be maintained at all times to the existing buildings. If it is found necessary to disconnect any service then suitable temporary or alternate services must be provided to the existing buildings.</p> <p>Special care shall be exercised during the progress of the work to ensure that any electrical installation, water supply pipes, telephone and other services which may be encountered are not interfered with and notice must be given to the Principal agent if any disconnection or alterations become necessary.</p> <p>The Contractor shall cover up and protect from injury all work not removed and shall make good at his own expense any damage that may occur.</p>			
Carried Forward			R
Section No. 4 Renovation of 4-Classroom Block: Block C Bill No. 1 Alterations			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p>Any water supply or other piping, etc that may be encountered and found necessary to disconnect or cut are to be effectually stopped off and any new connections that may be necessary shall be made with the proper fittings to the satisfaction of the Principal Agent. Where sanitary fittings, geysers, etc are to be removed the Contractor shall allow for removing all exposed waste or water supply pipes to the nearest suitable junction or connection and stopping off, as well as for making good plaster, screeds, etc.</p> <p>Prices for the removal of concrete slabs, etc must include for removal of reinforcement, screeds, membrane waterproofing, conduits, etc.</p> <p>Prices for the removal of concrete surface beds, etc must include for removal of reinforcement, screeds, conduits, damp proof membrane, etc. The Contractor is to note that removal of the existing floor finishes such as vinyl, carpets, ceramic tiles, etc has been measured separately.</p> <p>Taking down existing walls is to include for skirtings, cornices, conduits, pipes, brick or concrete fins, lintels, etc built into the structure and for making good walls, floors, ceilings, etc as described. The Contractor is to note that items for the removal of joinery, etc such as shelves, pelmets, curtain rails, pinning boards, signage, etc has been measured separately.</p> <p>Removal of doors, windows, fittings, etc is to include for their removal complete with frames, ironmongery, glass, quadrants, architraves, skirtings, burglar bars and all accessories to walls, reveals, around openings, for cutting out cills, etc, for hacking up flooring at openings and for making good.</p> <p>Removal of sanitary fittings is to include for the removal and blocking off of service pipes, taps, traps, fixing brackets, cisterns, etc complete.</p> <p>Building up of existing openings where given in number shall be deemed to include preparing existing surfaces all round, brickwork properly toothed and bonded to existing and shot pinned to concrete, wedging up and unless otherwise stated making good finishes on both sides to match existing.</p>	
Carried Forward	R
<p>Section No. 4 Renovation of 4-Classroom Block: Block C Bill No. 1 Alterations</p>	

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
<p>Allow for watering the works sufficiently to prevent nuisance from dust.</p> <p>OLD MATERIALS TO BE CARTED AWAY: Old materials from the alterations, except where described to be re-used or handed over, as well as all rubbish, rubble, debris etc., must be regularly carted from the site and not be allowed to accumulate on or around the site.</p> <p>OLD MATERIALS NOT TO BE RE-USED: None of the old materials are to be used for new work except where specifically described as being set aside for re-use.</p> <p>OLD MATERIALS TO BECOME THE PROPERTY OF THE CONTRACTOR: Old materials from alterations, except where described to be re-used or handed over, become the property of the Contractor who must allow credit for same in the Final Summary.</p> <p>HANDING OVER OF MATERIALS: Where certain materials or articles from demolitions or articles are described as to be handed over by the Contractor to the Regional Representative or Representative/Agent, 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 held liable to the Department for the full replacement value thereof, which amount will be deducted from any monies due to the Contractor.</p> <p style="text-align: center;">-----</p> <p><u>REMOVAL OF EXISTING WORK</u></p> <p><u>Break up and removing reinforced concrete including cutting off and removing reinforcement</u></p>			
1	Single door and frame from brickwork	No	4
Carried Forward			R
<p>Section No. 4 Renovation of 4-Classroom Block: Block C Bill No. 1 Alterations</p>			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
<u>Taking out and removing glass and mirrors</u>			
2	Carefully remove cracked or broken glazing in panes exceeding 0,1m2 and not exceeding 0,5m2 in existing metal windows and doors including scraping out putty on reveals and prepare windows and or doors to receive new glazing (New glazing elsewhere measured)	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>			
3	30mm Granolithic from floors	m2	50
<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>			
4	Gypsum plasterboard ceilings including cornices, timber bandering, etc	m2	135
<u>Taking down and removing roofs, etc.</u>			
5	Remove existing fascia boards	m	72
6	Remove existing barge boards	m	19
<u>Taking down and removing ceilings, etc.</u>			
7	Carefully remove damaged sections of existing gypsum ceiling boards including removal of damaged bandering and prepare existing to receive new (New boards elsewhere measured)	m2	5
<u>Taking out and removing classroom fittings</u>			
8	1200 x 4000mm Long Chalkboard glued to timber framework	No	3
9	Pin-up Board	No	1
<u>PREPARATORY WORK TO EXISTING SURFACES</u>			
10	Saw cut in pannels	m	5
Carried Forward			R
Section No. 4 Renovation of 4-Classroom Block: Block C Bill No. 1 Alterations			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward			R
11	Prepare floor to receive tile finish	m2		
	<u>Carefully hack out and remove cracked plaster to walls exceeding 1,0m2 and prepare surface of wall to receive new plaster (New plaster elsewhere measured)</u>			
12	Screed	m2	135	
13	Plaster	m2	180	
	<u>SERVICING EXISTING ITEMS</u>			
	<u>Servicing existing windows</u>			
14	Carefully examine hinges, handles and stays to steel windows, replace putty to glazing of steel windows and fully service same to facilitate smooth functionality, all to the satisfaction of the Principal Agent, overall size of window 300 x 300mm high	No	10	
	<u>Servicing existing writing boards</u>			
15	Carefully examine hinges to steel boards, fully service same to facilitate smooth functionality, all to the satisfaction of the Principal Agent.	No	20	
	<u>Wash down with high pressure low volume water jet</u>			
16	On existing external facebrick walls	m2	364	
	<u>Fix and service of existing windows to work properly</u>			
17	Replace window stays, handles, etc	No	20	
	<u>MAKING GOOD OF FINISHES ETC</u>			
	<u>Examination and repair of existing roof covering</u>			
18	Carefully examine existing roof sheeting, make good any defective sheets and check roof screws/bolts and replace where necessary and prepare roof covering to receive new paint, to ensure water tightness of roofs. (Paint to be measured elsewhere)	m2	493	
	Carried Forward to Summary of Section No. 4			R
	Section No. 4			
	Renovation of 4-Classroom Block: Block C			
	Bill No. 1			
	Alterations			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>SECTION NO. 4</u>			
<u>BILL NO. 2</u>			
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Cost of tests</u>			
<p>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 Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)</p>			
<u>Formwork</u>			
<p>Description 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</p>			
<p>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>			
<p>Formworks to soffits of solid etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described</p>			
Carried Forward			R
Section No. 4 Renovation of 4-Classroom Block: Block C Bill No. 2 Concrete, Formwork and Reinforcement			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. 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"			
<u>REINFORCED CONCRETE</u>			
<u>25MPa/19mm concrete</u>			
1	100mm Thick Aprons, including thickening	m3	9
<u>TEST BLOCKS</u>			
2	Making and testing 150 x 150 x 150mm concrete strength test cube	No	4
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
3	Aprons	m2	91
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>Fabric reinforcement</u>			
4	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	91
Carried Forward to Summary of Section No. 4			R
Section No. 4			
Renovation of 4-Classroom Block: Block C			
Bill No. 2			
Concrete, Formwork and Reinforcement			

-170-

Item No	Quantity	Rate	Amount
<u>BILL NO. 4</u>			
<u>CARPENTRY AND JOINERY</u>			
Tenderers are advised to study the Model Preambles for Trades before pricing this Bill			

<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Particle board</u>			
Particle board shall comply with the following specifications:			
a) SABS 1300 Particle board: exterior and flooring type			
b) SABS 1301 Particle board: interior type			
<u>Joinery</u>			
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc			
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
<u>Fixing</u>			
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
<u>Decorative laminating finish</u>			
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			

Carried Forward			R
Section No. 4 Renovation of 4-Classroom Block: Block C Bill No. 4 Carpentry and Joinery			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R	
<u>ROOFS, ETC</u>		
<u>Plate nailed timber roof truss construction</u>		
The following is applicable in respect of roof trusses:		
Trusses are at maximum 1,10m centres		
Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,1m maximum centres.		
Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm brandering.		
All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.		
Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.		
All joints to be close fitted butt joints.		
Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.		
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.		
Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawings in tender document) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.		
<u>ROOF CONSTRUCTION</u>		
Carried Forward	R	
Section No. 4		
Renovation of 4-Classroom Block: Block C		
Bill No. 4		
Carpentry and Joinery		

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>Sawn softwood</u>			
1	38 x 114mm Wall plates	m	5
<u>Sundries</u>			
2	Two coats creosote on sawn timbers	m2	90
<u>EAVES, VERGES, ETC.</u>			
<u>"Everite Flexit" pressed nutec-cement</u>			
3	12 x 225 x 3600mm Long Fascias including galvanised steel H-profile jointing strips	m	72
4	200 x 80 x 3000mm Long Barge board including galvanised steel H-profile jointing strips	m	19
Carried Forward to Summary of Section No. 4			R
Section No. 4			
Renovation of 4-Classroom Block: Block C			
Bill No. 4			
Carpentry and Joinery			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No		Quantity	Rate	Amount
	<u>BILL NO. 5</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	Tenderers are advised to study the Model Preambles for Trades before pricing this Bill			

	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres and where described as "bolted" the bolts have been given elsewhere.			
	<u>INSULATION</u>			
	<u>"Aerolite" insulation</u>			
1	75mm Insulation closely fitted and laid on top of branderling between roof timbers etc	m2	224	
	<u>NAILED UP CEILINGS</u>			
	<u>6,4mm "Rhino" gypsum plasterboard with H-type pressed steel jointing strips</u>			
2	Ceilings including 38 x 38mm sawn softwood branderling at 400mm centres	m2	56	
3	Extra over ceiling for 650 x 650mm trap door of 38 x 50mm wrought softwood rebated framing with one 38 x 50mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	4	
	Carried Forward			
	Section No. 4			
	Renovation of 4-Classroom Block: Block C			
	Bill No. 5			
	Ceilings, Partitions and Access flooring			
			R	

-175-

-176-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>Approved</u>			
2	"Solid Blesbok" 460/313 four lever lockset	No	4
<u>SUNDRIES</u>			
3	38mm Diameter rubber door stop plugged and screwed to wall or floor	No	4
<u>HINGES, BOLTS, ETC.</u>			
<u>General</u>			
4	100mm Mild steel butterfly hinges	No	8
<u>WINDOWS HANDLES AND STAYS</u>			
5	Window stays, handles, etc	No	20
<u>WRITING BOARDS, PINNING BOARD, ETC</u>			
<u>Witting board, PVC white board, aluminium framed, and including markers, removal brush and chemicals.</u>			
6	3 600 x 1 140mm high consisting of two fixed panels each 2 400 x 1 140mm high complete.	No	4
<u>Aluminium framed carpet bulletin board, "Parrot" or similar approved.</u>			
7	Pin boards 2 400 x 1 200mm	No	4
<u>Install existing boards</u>			
8	Witting boards	No	4
<u>LETTERS, NAME PLATES, ETC</u>			
<u>Approved 150 x 150 x 3mm thick PVC standard safety signage</u>			
9	"Fire extinguisher" sign plugged	No	4
Carried Forward			R
Section No. 4 Renovation of 4-Classroom Block: Block C Bill No. 6 Ironmongery			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward			R
10	"Arrow" sign plugged	No	4	
Carried Forward to Summary of Section No. 4				R
Section No. 4				
Renovation of 4-Classroom Block: Block C				
Bill No. 6				
Ironmongery				

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>BILL NO. 7</u>			
<u>METALWORK</u>			
For preambles see " Specification of materials and method to be used - PW 371"			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Primer</u>			
All surfaces of steelwork to be painted with one coat approved factory etch primer before leaving the workshop of the Manufacturer and all scratches, chips or blemishes to be made good on site after erection. All rates tendered must make provision for this as no claim will afterwards be entertained.			
<u>Bolts, etc.</u>			
Descriptions of bolts shall be deemed to include nuts and washers			
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork and concrete			
Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
<u>Door frames</u>			
Unless otherwise described, the following shall be applicable on all door frames:			
<ul style="list-style-type: none"> - Frames shall be double rebated suitable for 40mm thick doors - One jamb of all frames for single doors shall be factory prepared for striking plate of mortice lock 			
Carried Forward			R
Section No. 4 Renovation of 4-Classroom Block: Block C Bill No. 7 Metalwork			

-180-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>BILL NO. 8</u>			
<u>PLASTERING</u>			
NOTE: Tenderers are advised to study the Model Preambles for Trades and PW371 before pricing this Bill. -----			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Method</u>			
The method to be used shall be either the monolithic method or the bonded method			
<u>Preparation</u>			
For granolith applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolith applied immediately thereafter. For granolith to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc. is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolith			
<u>Mix</u>			
Granolith shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolith exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolith			
Carried Forward			R
Section No. 4 Renovation of 4-Classroom Block: Block C Bill No. 8 Plastering			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p><u>Panels</u></p> <p>Granolith shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolith. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p> <p>Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints</p> <p><u>Laying</u></p> <p>Monolithic granolith shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p> <p>Bonded granolith shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolith. The granolith shall be thoroughly compacted and lightly wood floated to the required levels</p> <p>After wood floating, the monolithic and bonded granolith shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolith shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying</p> <p><u>Colour</u></p> <p>Coloured granolith shall be tinted with an approved colouring pigment mixed into a true and even colour</p>	
Carried Forward	R
<p>Section No. 4 Renovation of 4-Classroom Block: Block C Bill No. 8 Plastering</p>	

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>SCREEDS</u>			
<u>Screeds steel trowelled on concrete</u>			
1	30mm Thick to floors and landings	m2	130
<u>GRANOLITHIC</u>			
<u>Untinted granolithic on concrete</u>			
2	45mm Average Thick on floors and landings to fall	m2	5
Carried Forward to Summary of Section No. 4			R
Section No. 4			
Renovation of 4-Classroom Block: Block C			
Bill No. 8			
Plastering			

-184-

-185-

-186-

-187-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward			R
	<u>One coat water based galvanised iron primer and two coats UV-resistant water based alkyd roof paint, on galvanised steel</u>			
4	Corrugated roofs (measured on flat)	m2	325	
	<u>ON FIBRE-CEMENT</u>			
	<u>Prepare and apply one undercoat and two finishing coats of Acrylic PVA emulsion paint</u>			
5	On fascias and barge boards	m	91	
	<u>ON WOOD</u>			
	<u>Prepare, stop and apply three coats polyurethane clear eggshell varnish lightly sanded down between coats</u>			
6	On doors	m2	25	
	<u>PREPARATORY WORK TO EXISTING WORK</u>			
	<u>Previously painted plastered surfaces</u>			
	Surfaces shall be thoroughly washed down 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 finished smooth			
	<u>Previously painted metal surfaces</u>			
	Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal			
	<u>PAINTWORK ETC TO PREVIOUSLY PAINTED WORK</u>			
	Note: All paintwork to be "Dulux" or similar approved product			
	Carried Forward			R
	Section No. 4 Renovation of 4-Classroom Block: Block C Bill No. 12 Paintwork			

-189-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

SECTION SUMMARY - Renovation of 4-Classroom Block: Block C					Amount
Bill No		Page No			
1	Alterations	167			
2	Concrete, Formwork and Reinforcement	169			
3	Roof Coverings, etc	170			
4	Carpentry and Joinery	173			
5	Ceilings, Partitions and Access flooring	175			
6	Ironmongery	178			
7	Metalwork	180			
8	Plastering	183			
9	Tiling	184			
10	Plumbing and Drainage	185			
11	Glazing	186			
12	Paintwork	189			
Carried to Final Summary				R	
Section No. 4 Renovation of 4-Classroom Block: Block C					

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>SECTION NO. 5</u>			
<u>BILL NO. 1</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
NOTE: Contractors are advised to study the Model Preambles for Trades and PW371 -----			
<p>All Tenderers will be deemed to have visited the site prior to submitting their tender to determine the nature and extent of the alteration and demolition work and the value of the materials to be recovered. No claim for a variation in the credit allowance for recoverable materials in respect of demolition items will be considered.</p> <p>All sizes and dimensions stated herein are approximate and deemed only sufficient to identify the item of work concerned.</p> <p>In taking down and removing existing work the utmost care must be taken to avoid any structural or other damage to the remaining portions of the building and the Contractor shall provide all shoring, needling, strutting, etc to ensure the stability of all structures during the alteration/demolition work. The Contractor will be held solely responsible for the safety and stability of the buildings for the whole period of the contract and must make good any damage at his own expense.</p> <p>Existing services must be maintained at all times to the existing buildings. If it is found necessary to disconnect any service then suitable temporary or alternate services must be provided to the existing buildings.</p> <p>Special care shall be exercised during the progress of the work to ensure that any electrical installation, water supply pipes, telephone and other services which may be encountered are not interfered with and notice must be given to the Principal agent if any disconnection or alterations become necessary.</p> <p>The Contractor shall cover up and protect from injury all work not removed and shall make good at his own</p>			
Carried Forward			R
Section No. 5 Renovation of 4-Classroom Block: Block D Bill No. 1 Alterations			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p>expense any damage that may occur.</p> <p>Any water supply or other piping, etc that may be encountered and found necessary to disconnect or cut are to be effectually stopped off and any new connections that may be necessary shall be made with the proper fittings to the satisfaction of the Principal Agent. Where sanitary fittings, geysers, etc are to be removed the Contractor shall allow for removing all exposed waste or water supply pipes to the nearest suitable junction or connection and stopping off, as well as for making good plaster, screeds, etc.</p> <p>Prices for the removal of concrete slabs, etc must include for removal of reinforcement, screeds, membrane waterproofing, conduits, etc.</p> <p>Prices for the removal of concrete surface beds, etc must include for removal of reinforcement, screeds, conduits, damp proof membrane, etc. The Contractor is to note that removal of the existing floor finishes such as vinyl, carpets, ceramic tiles, etc has been measured separately.</p> <p>Taking down existing walls is to include for skirtings, cornices, conduits, pipes, brick or concrete fins, lintels, etc built into the structure and for making good walls, floors, ceilings, etc as described. The Contractor is to note that items for the removal of joinery, etc such as shelves, pelmets, curtain rails, pinning boards, signage, etc has been measured separately.</p> <p>Removal of doors, windows, fittings, etc is to include for their removal complete with frames, ironmongery, glass, quadrants, architraves, skirtings, burglar bars and all accessories to walls, reveals, around openings, for cutting out cills, etc, for hacking up flooring at openings and for making good.</p> <p>Removal of sanitary fittings is to include for the removal and blocking off of service pipes, taps, traps, fixing brackets, cisterns, etc complete.</p> <p>Building up of existing openings where given in number shall be deemed to include preparing existing surfaces all round, brickwork properly toothed and bonded to existing and shot pinned to concrete, wedging up and unless otherwise stated making good finishes on both</p>	
Carried Forward	R
<p>Section No. 5 Renovation of 4-Classroom Block: Block D Bill No. 1 Alterations</p>	

<p style="text-align: right;">Brought Forward</p> <p>sides to match existing.</p> <p>Allow for watering the works sufficiently to prevent nuisance from dust.</p> <p>OLD MATERIALS TO BE CARTED AWAY: Old materials from the alterations, except where described to be re-used or handed over, as well as all rubbish, rubble, debris etc., must be regularly carted from the site and not be allowed to accumulate on or around the site.</p> <p>OLD MATERIALS NOT TO BE RE-USED: None of the old materials are to be used for new work except where specifically described as being set aside for re-use.</p> <p>OLD MATERIALS TO BECOME THE PROPERTY OF THE CONTRACTOR: Old materials from alterations, except where described to be re-used or handed over, become the property of the Contractor who must allow credit for same in the Final Summary.</p> <p>HANDING OVER OF MATERIALS: Where certain materials or articles from demolitions or articles are described as to be handed over by the Contractor to the Regional Representative or Representative/Agent, 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 held liable to the Department for the full replacement value thereof, which amount will be deducted from any monies due to the Contractor.</p> <p>-----</p> <p><u>REMOVAL OF EXISTING WORK</u></p>	<p style="text-align: right;">R</p>
<p style="text-align: right;">Carried Forward</p> <p>Section No. 5 Renovation of 4-Classroom Block: Block D Bill No. 1 Alterations</p>	<p style="text-align: right;">R</p>

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>Break up and removing reinforced concrete including cutting off and removing reinforcement</u>			
1	Single door and frame from brickwork	No	4
<u>Taking out and removing glass and mirrors</u>			
2	Carefully remove cracked or broken glazing in panes exceeding 0,1m2 and not exceeding 0,5m2 in existing metal windows and doors including scraping out putty on reveals and prepare windows and or doors to receive new glazing (New glazing elsewhere measured)	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>			
3	30mm Granolithic from floors	m2	50
<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>			
4	Gypsum plasterboard ceilings including cornices, timber bandering, etc	m2	135
<u>Taking down and removing roofs, etc.</u>			
5	Remove existing fascia boards	m	72
6	Remove existing barge boards	m	19
<u>Taking down and removing ceilings, etc.</u>			
7	Carefully remove damaged sections of existing gypsum ceiling boards including removal of damaged bandering and prepare existing to receive new (New boards elsewhere measured)	m2	5
<u>Taking out and removing classroom fittings</u>			
8	1200 x 4000mm Long Chalkboard glued to timber framework	No	3
9	Pin-up Board	No	1
Carried Forward			R
Section No. 5 Renovation of 4-Classroom Block: Block D Bill No. 1 Alterations			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward			R
	<u>PREPARATORY WORK TO EXISTING SURFACES</u>			
10	Saw cut in pannels	m	5	
11	Prepare floor to receive tile finish	m2	224	
	<u>Carefully hack out and remove cracked plaster to walls exceeding 1,0m2 and prepare surface of wall to receive new plaster (New plaster elsewhere measured)</u>			
12	Screed	m2	135	
13	Plaster	m2	180	
	<u>SERVICING EXISTING ITEMS</u>			
	<u>Servicing existing windows</u>			
14	Carefully examine hinges, handles and stays to steel windows, replace putty to glazing of steel windows and fully service same to facilitate smooth functionality, all to the satisfaction of the Principal Agent, overall size of window 300 x 300mm high	No	10	
	<u>Servicing existing writting boards</u>			
15	Carefully examine hinges to steel boards, fully service same to facilitate smooth functionality, all to the satisfaction of the Principal Agent.	No	20	
	<u>Wash down with high pressure low volume water jet</u>			
16	On existing external facebrick walls	m2	364	
	<u>Fix and service of existing windows to work properly</u>			
17	Replace window stays, handles, etc	No	20	
	<u>MAKING GOOD OF FINISHES ETC</u>			
	Carried Forward			R
	Section No. 5			
	Renovation of 4-Classroom Block: Block D			
	Bill No. 1			
	Alterations			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward				R
<u>Examination and repair of existing roof covering</u>				
18	Carefully examine existing roof sheeting, make good any defective sheets and check roof screws/bolts and replace where necessary and prepare roof covering to receive new paint, to ensure water tightness of roofs. (Paint to be measured elsewhere)	m2	493	
Carried Forward to Summary of Section No. 5				R
Section No. 5 Renovation of 4-Classroom Block: Block D Bill No. 1 Alterations				

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>BILL NO. 2</u>			
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Cost of tests</u>			
<p>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 Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)</p>			
<u>Formwork</u>			
<p>Description 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</p>			
<p>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>			
<p>Formworks to soffits of solid etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described</p>			
Carried Forward			R
Section No. 5 Renovation of 4-Classroom Block: Block D Bill No. 2 Concrete, Formwork and Reinforcement			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. 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"			
<u>REINFORCED CONCRETE</u>			
<u>25MPa/19mm concrete</u>			
1	100mm Thick Aprons, including thickening	m3	9
<u>TEST BLOCKS</u>			
2	Making and testing 150 x 150 x 150mm concrete strength test cube	No	4
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
3	Aprons	m2	91
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>Fabric reinforcement</u>			
4	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	91
Carried Forward to Summary of Section No. 5			R
Section No. 5			
Renovation of 4-Classroom Block: Block D			
Bill No. 2			
Concrete, Formwork and Reinforcement			

-199-

Item No	Quantity	Rate	Amount
<u>BILL NO. 4</u>			
<u>CARPENTRY AND JOINERY</u>			
Tenderers are advised to study the Model Preambles for Trades before pricing this Bill			

<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Particle board</u>			
Particle board shall comply with the following specifications:			
a) SABS 1300 Particle board: exterior and flooring type			
b) SABS 1301 Particle board: interior type			
<u>Joinery</u>			
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc			
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes			
<u>Fixing</u>			
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
<u>Decorative laminating finish</u>			
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			

Carried Forward		R	
Section No. 5 Renovation of 4-Classroom Block: Block D Bill No. 4 Carpentry and Joinery			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R	
<u>ROOFS, ETC</u>		
<u>Plate nailed timber roof truss construction</u>		
The following is applicable in respect of roof trusses:		
Trusses are at maximum 1,10m centres		
Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,1m maximum centres.		
Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm brandering.		
All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.		
Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.		
All joints to be close fitted butt joints.		
Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.		
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.		
Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawings in tender document) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.		
<u>ROOF CONSTRUCTION</u>		
Carried Forward	R	
Section No. 5		
Renovation of 4-Classroom Block: Block D		
Bill No. 4		
Carpentry and Joinery		

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>Sawn softwood</u>			
1	38 x 114mm Wall plates	m	5
<u>Sundries</u>			
2	Two coats creosote on sawn timbers	m2	90
<u>EAVES, VERGES, ETC.</u>			
<u>"Everite Flexit" pressed nutec-cement</u>			
3	12 x 225 x 3600mm Long Fascias including galvanised steel H-profile jointing strips	m	72
4	200 x 80 x 3000mm Long Barge board including galvanised steel H-profile jointing strips	m	19
Carried Forward to Summary of Section No. 5			R
Section No. 5			
Renovation of 4-Classroom Block: Block D			
Bill No. 4			
Carpentry and Joinery			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No		Quantity	Rate	Amount
	<u>BILL NO. 5</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	Tenderers are advised to study the Model Preambles for Trades before pricing this Bill			

	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres and where described as "bolted" the bolts have been given elsewhere.			
	<u>INSULATION</u>			
	<u>"Aerolite" insulation</u>			
1	75mm Insulation closely fitted and laid on top of branderling between roof timbers etc	m2	224	
	<u>NAILED UP CEILINGS</u>			
	<u>6,4mm "Rhino" gypsum plasterboard with H-type pressed steel jointing strips</u>			
2	Ceilings including 38 x 38mm sawn softwood branderling at 400mm centres	m2	56	
3	Extra over ceiling for 650 x 650mm trap door of 38 x 50mm wrought softwood rebated framing with one 38 x 50mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	4	
	Carried Forward			
	Section No. 5			
	Renovation of 4-Classroom Block: Block D			
	Bill No. 5			
	Ceilings, Partitions and Access flooring			

R

-204-

-205-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>Approved</u>			
2	"Solid Blesbok" 460/313 four lever lockset	No	4
<u>SUNDRIES</u>			
3	38mm Diameter rubber door stop plugged and screwed to wall or floor	No	4
<u>HINGES, BOLTS, ETC.</u>			
<u>General</u>			
4	100mm Mild steel butterfly hinges	No	8
<u>WINDOWS HANDLES AND STAYS</u>			
5	Window stays, handles, etc	No	20
<u>WRITING BOARDS, PINNING BOARD, ETC</u>			
<u>Witting board, PVC white board, aluminium framed, and including markers, removal brush and chemicals.</u>			
6	3 600 x 1 140mm high consisting of two fixed panels each 2 400 x 1 140mm high complete.	No	4
<u>Aluminium framed carpet bulletin board, "Parrot" or similar approved.</u>			
7	Pin boards 2 400 x 1 200mm	No	4
<u>Install existing boards</u>			
8	Witting boards	No	4
<u>LETTERS, NAME PLATES, ETC</u>			
<u>Approved 150 x 150 x 3mm thick PVC standard safety signage</u>			
9	"Fire extinguisher" sign plugged	No	4
Carried Forward			R
Section No. 5 Renovation of 4-Classroom Block: Block D Bill No. 6 Ironmongery			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward			R
10	"Arrow" sign plugged	No	4	
Carried Forward to Summary of Section No. 5				R
Section No. 5				
Renovation of 4-Classroom Block: Block D				
Bill No. 6				
Ironmongery				

-208-

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward		R	
<u>Striking plates for door frames</u>			
Striking plates to be of chromium-plated type, unless otherwise described			
<u>Burglar bars to steel windows</u>			
All opening sections shall be filled with type B1 burglar bars, Unless otherwise described			
<u>Furniture to steel windows</u>			
All steel type windows shall be fitted with solid brass furniture			
<u>Glazing beads to steel windows</u>			
Where so described, windows are to be fitted with 10 x 10mm aluminium glazing beads, mitred around and screwed to window frame with chromium-plated countersunk screws at maximum 150mm centres			
<u>WELDED SCREENS, GATES, ETC</u>			
<u>Screens and gates to doors</u>			
1	Single gate and frame size, 914 x 2 032mm high formed of 50 x 50 x 2,5mm mild steel hollow section frame, middle rails and 12 x 12mm stiles, gate welded to walls	No	4
Carried Forward to Summary of Section No. 5		R	
Section No. 5			
Renovation of 4-Classroom Block: Block D			
Bill No. 7			
Metalwork			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>BILL NO. 8</u>			
<u>PLASTERING</u>			
NOTE: Tenderers are advised to study the Model Preambles for Trades and PW371 before pricing this Bill. -----			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Method</u>			
The method to be used shall be either the monolithic method or the bonded method			
<u>Preparation</u>			
For granolith applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolith applied immediately thereafter. For granolith to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc. is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolith			
<u>Mix</u>			
Granolith shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolith exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolith			
Carried Forward			R
Section No. 5 Renovation of 4-Classroom Block: Block D Bill No. 8 Plastering			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p><u>Panels</u></p> <p>Granolith shall be laid in panels not exceeding 14m² for monolithic finishes, not exceeding 9,5m² for bonded finishes and not exceeding 6m² for all external granolith. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width</p> <p>Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints</p> <p><u>Laying</u></p> <p>Monolithic granolith shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels</p> <p>Bonded granolith shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolith. The granolith shall be thoroughly compacted and lightly wood floated to the required levels</p> <p>After wood floating, the monolithic and bonded granolith shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated</p> <p><u>Curing, seasoning and protection</u></p> <p>Granolith shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying</p> <p><u>Colour</u></p> <p>Coloured granolith shall be tinted with an approved colouring pigment mixed into a true and even colour</p>	
Carried Forward	R
<p>Section No. 5 Renovation of 4-Classroom Block: Block D Bill No. 8 Plastering</p>	

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>SCREEDS</u>			
<u>Screeds steel trowelled on concrete</u>			
1	30mm Thick to floors and landings	m2	130
<u>GRANOLITHIC</u>			
<u>Untinted granolithic on concrete</u>			
2	45mm Average Thick on floors and landings to fall	m2	5
Carried Forward to Summary of Section No. 5			R
Section No. 5			
Renovation of 4-Classroom Block: Block D			
Bill No. 8			
Plastering			

-213-

-214-

-215-

-216-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward			R
	<u>One coat water based galvanised iron primer and two coats UV-resistant water based alkyd roof paint, on galvanised steel</u>			
4	Corrugated roofs (measured on flat)	m2	325	
	<u>ON FIBRE-CEMENT</u>			
	<u>Prepare and apply one undercoat and two finishing coats of Acrylic PVA emulsion paint</u>			
5	On fascias and barge boards	m	91	
	<u>ON WOOD</u>			
	<u>Prepare, stop and apply three coats polyurethane clear eggshell varnish lightly sanded down between coats</u>			
6	On doors	m2	25	
	<u>PREPARATORY WORK TO EXISTING WORK</u>			
	<u>Previously painted plastered surfaces</u>			
	Surfaces shall be thoroughly washed down 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 finished smooth			
	<u>Previously painted metal surfaces</u>			
	Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal			
	<u>PAINTWORK ETC TO PREVIOUSLY PAINTED WORK</u>			
	Note: All paintwork to be "Dulux" or similar approved product			
	Carried Forward			R
	Section No. 5 Renovation of 4-Classroom Block: Block D Bill No. 12 Paintwork			

-218-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

SECTION SUMMARY - Renovation of 4-Classroom Block: Block D					Amount
Bill No		Page No			
1	Alterations	196			
2	Concrete, Formwork and Reinforcement	198			
3	Roof Coverings, etc	199			
4	Carpentry and Joinery	202			
5	Ceilings, Partitions and Access flooring	204			
6	Ironmongery	207			
7	Metalwork	209			
8	Plastering	212			
9	Tiling	213			
10	Plumbing and Drainage	214			
11	Glazing	215			
12	Paintwork	218			
Carried to Final Summary				R	
Section No. 5 Renovation of 4-Classroom Block: Block D					

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 6</u>			
	NOTE: Tenderers are advised to study the Model Preambles for Trades and PW371 before pricing this Bill. -----			
	<u>BILL NO. 1</u>			
	<u>GENERAL ALTERATIONS</u>			
	<u>Carefully take out and remove piping, sanitary fittings, etc including disconnecting piping from fittings and making good floor and wall finishes (to be re-used elsewhere)</u>			
1	Cistern with flush valve, from an existing water closet	No	20	
	<u>Taking out and removing doors, windows, etc including thresholds, sills, etc including making good face brickwork on both sides</u>			
2	Timber single door and frame 813 x 2032mm high	No	24	
	<u>Taking out and removing doors, windows, etc including thresholds, sills, etc including making good face brickwork on both sides</u>			
3	Steel single door and frame 813 x 2032mm high	No	4	
	<u>Taking out and removing piping, sanitary fittings, etc including disconnecting piping from fittings and making good floor and wall finishes</u>			
4	Water Closet lids	No	20	
5	Urinal 2m long	No	2	
6	Copper pipe in wall, including connections	m	5	
7	PVC pipe in wall, including connections	m	5	
8	Drainage pipes, including excavation	m	10	
	Carried Forward			
	Section No. 6 Minor Renovation of 24 Toilets (22 Seats and 2 Urinals) Bill No. 1 Alterations		R	

-221-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No		Quantity	Rate	Amount
	<u>BILL NO. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Cost of tests</u>			
	<p>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 Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)</p>			
	<u>Formwork</u>			
	<p>Description 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</p> <p>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> <p>Formworks to soffits of solid etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described</p>			
	Carried Forward			
	<p>Section No. 6 Minor Renovation of 24 Toilets (22 Seats and 2 Urinals) Bill No. 2 Concrete, Formwork and Reinforcement</p>			
			R	

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<p>Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. 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"</p> <p><u>UNREINFORCED CONCRETE</u></p> <p><u>15MPa/19mm concrete</u></p>			
1	Ramps including thickenings (Provisional)	m3	6
<p><u>REINFORCED CONCRETE</u></p> <p><u>25MPa/19mm concrete</u></p>			
2	Aprons including thickening	m3	6
<u>TEST BLOCKS</u>			
3	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	4
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
4	Ramps to falls (Provisional)	m2	39
<u>FORMWORK</u>			
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>			
5	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	5
<u>REINFORCEMENT (PROVISIONAL)</u>			
Carried Forward			R
<p>Section No. 6 Minor Renovation of 24 Toilets (22 Seats and 2 Urinals) Bill No. 2 Concrete, Formwork and Reinforcement</p>			

-224-

-225-

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
<u>Plate nailed timber roof truss construction</u>			
The following is applicable in respect of roof trusses:			
Trusses are at maximum 1,05m centres			
Roof covering is IBR roof sheeting on 50 x 75mm purlins at 1,2m maximum centres.			
Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm brandering.			
All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.			
Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.			
All joints to be close fitted butt joints.			
Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.			
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabricaton commences.			
Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawing No.'s AB -001 and 002) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained			
<u>Sundries</u>			
1	Two coats creosote on sawn timbers	m2	39
<u>EAVES , VERGES , ETC</u>			
Carried Forward			R
Section No. 6 Minor Renovation of 24 Toilets (22 Seats and 2 Urinals) Bill No. 3 Carpentry and Joinery			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward				R
<u>"Everite Flexit" pressed nutec-cement</u>				
2	12 x 225mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	39	
<u>DOORS, ETC</u>				
<u>40mm hollow core flush doors with commercial</u>				
<u>Wrought meranti</u>				
3	Meranti framed batten external single door (PC R2200.00/No)	No	4	
<u>Approved solid core flush doors with hardwood edges and 3,2mm standard hardboard covering on both sides, hung to steel frames</u>				
4	40mm Door 813 x 2032mm high	No	20	
Carried Forward to Summary of Section No. 6				R
Section No. 6				
Minor Renovation of 24 Toilets (22 Seats and 2 Urinals)				
Bill No. 3				
Carpentry and Joinery				

-228-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>"Union - AL5022-E10" or similar approved</u>			
3	152 x 152mm anodised aluminium plate with female/ male/paraplegic symbol	No	2
<u>SUNDRIES</u>			
<u>"Union - AL8730AS" or similar approved</u>			
4	38mm Diameter rubber door stop plugged	No	24
Carried Forward to Summary of Section No. 6			
Section No. 6			R
Minor Renovation of 24 Toilets (22 Seats and 2 Urinals)			
Bill No. 4			
Ironmongery			

-230-

-231-

-232-

-233-

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p><u>Fixing of pipes</u></p> <p>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</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm 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. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained</p> <p><u>Exposed concrete surfaces</u></p> <p>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</p> <p><u>Excavations</u></p> <p>No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling</p> <p>"Soft rock" and "hard rock" shall be as defined in "Earthworks"</p> <p><u>Laying, backfilling, bedding, etc. of pipes</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions</p>	
Carried Forward	R
<p>Section No. 6 Minor Renovation of 24 Toilets (22 Seats and 2 Urinals) Bill No. 8 Plumbing and Drainage (Provisional)</p>	

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward			R
<p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : 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 SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding</p> <p><u>Flush pans</u></p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc.</u></p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Waste unions</u></p> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <p><u>SANITARY FITTINGS</u></p> <p><u>"Vaal" or similar approved</u></p>			
1	Toilet lids and flaps	No	20
<p><u>FIRE APPLIANCES ETC</u></p> <p><u>"Chubb" or similar approved</u></p>			
2	4,5kg Carbon dioxide fire extinguisher	No	2
<p style="text-align: right;">Carried Forward to Summary of Section No. 6</p> <p>Section No. 6 Minor Renovation of 24 Toilets (22 Seats and 2 Urinals) Bill No. 8 Plumbing and Drainage (Provisional)</p>			R

-236-

-237-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>One coat primer and two coats exterior quality PVA emulsion paint</u>			
2	On fascias and bargeboards	m	39
<u>ON WOOD</u>			
<u>Prepare and apply one coat wood primer, one undercoat and one finishing coat alkyd enamel paint in colours which have a value of 7 or less on the Munsell system in accordance with SABS 1091</u>			
3	On doors	m2	24
<u>ON METAL</u>			
<u>Spot priming defects in pre primed surfaces with zinc chromate primer and applying one undercoat and two coat high gloss enamel paint on steel</u>			
4	On door frames	m2	38
5	On windows with burglar bars	m2	3
<u>Finish to floor</u>			
6	Two coats wax polish on vinyl flooring	m2	87
Carried Forward to Summary of Section No. 6			R
Section No. 6			
Minor Renovation of 24 Toilets (22 Seats and 2 Urinals)			
Bill No. 10			
Paintwork			

-239-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 7</u>			
	<u>EXTERNAL WORKS</u>			
	<u>BILL NO. 1</u>			
	<u>APRONS AND CHANNELS</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Nature of ground</u>			
	The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "hard rock" or "soft rock"			
	<u>Carting away of excavated material</u>			
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site			
	<u>EARTHWORKS</u>			
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
1	Aprones	m3	5	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
2	Soft rock	m3	1	
3	Hard rock	m3	1	
	<u>Extra over all excavations for carting away</u>			
4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	5	
	Carried Forward		R	
	Section No. 7			
	External Works			
	Bill No. 1			
	Aprons			

<p style="text-align: right;">Brought Forward</p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Cost of tests</u></p> <p>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 Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)</p> <p><u>Formwork</u></p> <p>Description 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</p> <p>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> <p>Formworks to soffits of solid etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described</p> <p>Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. 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"</p>	<p style="text-align: right;">R</p>
<p style="text-align: right;">Carried Forward</p> <p>Section No. 7 External Works Bill No. 1 Aprons</p>	<p style="text-align: right;">R</p>

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>UNREINFORCED CONCRETE</u>			
<u>25MPa/19mm concrete</u>			
5	Aprons	m3	37
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
6	Aprons	m2	38
<u>FORMWORK</u>			
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>			
7	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	380
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>Fabric reinforcement</u>			
8	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	380
Carried Forward to Summary of Section No. 7			R
Section No. 7			
External Works			
Bill No. 1			
Aprons			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No	Quantity	Rate	Amount
<u>BILL NO. 2</u>			
<u>MAIN WATER SUPPLY</u>			
<u>GENERAL REFURBISHMENTS TO EXISTING WATER RETICULATION AND ADDITION OF WATER RETICULATION (PROVISIONAL)</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
NOTE: Contractors are advised to study the Model Preambles for Trades and PW371 <p style="text-align: center;">-----</p> <p>Contractors are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed.</p> <p><u>uPVC pressure pipes and fittings</u></p> <p>Pipes for water supply shall be of the class stated.</p> <p>Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.</p> <p>Pipes of 50mm 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.</p>			
<u>GENERAL ALTERATIONS</u>			
Carried Forward			R
Section No. 7 External Works Bill No. 2 Main Water Supply			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

	Brought Forward			R
	<u>Refurbish existing water reticulation and addition of water reticulation</u>			
1	Water reticulation	m	350	
	<u>MAIN WATER SUPPLY</u>			
	<u>High density polyethylene (HDPE) Class 16 Pipes including fittings</u>			
2	50mm Pipes laid in trenches not exceeding 1m deep including excavation, backfill with 200mm compacted selected fill blanket on bedding cradle of compacted selected granular material and cart away of surplus material etc as per Engineer's specification	m	150	
	<u>WATER TANK INSTALLATION</u>			
	<u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>uPVC pipes and fittings:</u>			
	Soil, waste and vent pipes and fittings shall be solvent weld jointed			
	<u>uPVC pressure pipes and fittings:</u>			
	Pipes for water supply shall be of the class stated			
	Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings			
	Pipes of 50mm 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			
	Carried Forward			R
	Section No. 7			
	External Works			
	Bill No. 2			
	Main Water Supply			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R	
<p><u>Copper pipes:</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p> <p><u>Fixing of pipes</u></p> <p>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</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm 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. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained</p> <p><u>Exposed concrete surfaces</u></p> <p>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</p> <p><u>Excavations</u></p> <p>No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling</p>		
Carried Forward	R	
<p>Section No. 7 External Works Bill No. 2 Main Water Supply</p>		

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward	R
<p>"Soft rock" and "hard rock" shall be as defined in "Earthworks"</p> <p><u>Laying, backfilling, bedding, etc. of pipes</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : 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 SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding</p> <p><u>Flush pans</u></p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc.</u></p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Waste unions</u></p> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <p><u>GATE VALVES :</u></p>	
Carried Forward	R
<p>Section No. 7</p> <p>External Works</p> <p>Bill No. 2</p> <p>Main Water Supply</p>	

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

		Brought Forward			R
	<u>For the supply, delivery and installation of the gate valves (brass) in accordance with the project specification. Complete with connection flanges to connect to UPVC pipework and fittings:</u>				
3	50mm dia (SANS approved)	No	5.00		
	<u>UPVC PIPING</u>				
	<u>Supply, delivery and installation of Class 16 UPVC piping (Measured as provisional) SANS approved in accordance with the project specification. Including all pipe supports as specified in the General Mechanical Specification:</u>				
4	32mm dia (SANS approved) set 2 off	m	20.00		
	<u>UPVC FITTING FOR PIPING</u>				
	Supply, delivery and installation of Class 16 UPVC pipe fittings SANS approved in accordance with the project specification.				
5	50mm dia equal T	No	3.00		
6	50mm dia 90 degree bends	No	8.00		
7	50mm to 50mm dia reducing T	No	4.00		
8	50mm to 32mm dia reducing T	No	4.00		
9	50mm connection to 50mm dia HDPE piping	No	4.00		
10	32mm dia equal T	No	3.00		
11	32mm dia 90 degree bends	No	8.00		
	<u>MAIN WATER SUPPLY</u>				
	<u>GENERAL REFURBISHMENTS TO EXISTING WATER RETICULATION AND ADDITION OF WATER RETICULATION</u>				
		Carried Forward			R
	Section No. 7 External Works Bill No. 2 Main Water Supply				

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

	Brought Forward			R
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>View site</u>			
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained			
	<u>General</u>			
	Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent			
	Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary			
	The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc)			
	<u>GENERAL ALTERATIONS</u>			
	<u>Refurbish existing water reticulation and addition of water reticulation</u>			
12	Water reticulation	m	100	
	<u>PLUMBING AND DRAINAGE</u>			
	<u>SANITARY PLUMBING</u>			
	Carried Forward			R
	Section No. 7 External Works Bill No. 2 Main Water Supply			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward			R
<u>SOIL DRAINAGE</u>			
<u>WATER SUPPLIES</u>			
<u>Class 12 copper pipes</u>			
13	20mm pipes to communication pipe	m	40.00
<u>SUBSOIL DRAINAGE</u>			
14	350 x 350 x 50mm Precast concrete inspection eye marker slab set in ground.	No	8
<u>Extra over Class O copper pipes for capillary fittings.</u>			
15	20mm Fittings	No	16.00
Carried Forward to Summary of Section No. 7			R
Section No. 7			
External Works			
Bill No. 2			
Main Water Supply			

-250-

-251-

Carried to Final Summary

-253-

Brought Forward		R	
BILL NO. 1			
1. The Contractor's attention is drawn specifically to the Principal Building Agreement Clause 20.0 (Nominated Sub-Contractors), Clause 21.0 (Selected Sub-Contractors) and Clause 22 (Work by Others) and to the related Clauses in Bill No. 1 - Preliminaries.			
2. The Contractor's attention is drawn also to the definition of attendance on Nominated or Selected Sub-Contractors and of fuel, power and water for commisioning of mechanical and other specialised installations given in in the JBCC Preliminaries.			
3. Where special attendance includes the provision of hoisting facilities for a Sub-Contractor then the Contractor shall:-			
* Ensure that the capacities of his hoisting equipment are sufficient to deal with the masses and the quantities of the items to be hoisted,			
* Schedule the items of availability of the hoisting equipment for each Sub-Contractor,			
* Provide all necessary personnel to operate the hoisting equipment,			
4. Under no circumstances may any Prime Cost - Provisional Amount, etc. be extended at an amount lower than the amount given in this Bill.			
Carried Forward		R	
Section No. 8 Refurbishment of Existing Borehole Bill No. 1 Provisional Sums			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward	R
<p>1. The Contractor's attention is drawn specifically to the Principal Building Agreement Clause 20.0 (Nominated Sub-Contractors), Clause 21.0 (Selected Sub-Contractors) and Clause 22 (Work by Others) and to the related Clauses in Bill No. 1 - Preliminaries.</p> <p>2. The Contractor's attention is drawn also to the definition of attendance on Nominated or Selected Sub-Contractors and of fuel, power and water for commissioning of mechanical and other specialised installations given in the JBCC Preliminaries.</p> <p>3. Where special attendance includes the provision of hoisting facilities for a Sub-Contractor then the Contractor shall:-</p> <ul style="list-style-type: none"> * Ensure that the capacities of his hoisting equipment are sufficient to deal with the masses and the quantities of the items to be hoisted, * Schedule the times of availability of the hoisting equipment for each Sub-Contractor, * Provide all necessary personnel to operate the hoisting equipment, <p>all to enable the Sub-Contractor to execute the hoisting or lowering of his material, etc. using the facilities provided by the Contractor.</p> <p>4. Under no circumstances may any Prime Cost - Provisional Amount, etc. be extended at an amount lower than the amount given in this Bill.</p> <p><u>NOTES:</u></p> <p>1. This items are provisional, if any of these items are not required or partly used the balance thereof would be returned to the Client as a saving.</p> <p>2. Under no circumstances may any Budgetary Amount, etc. be extended at an amount higher than the amount given in this Bill</p>	
Carried Forward	R
<p>Section No. 8 Refurbishment of Existing Borehole Bill No. 1 Provisional Sums</p>	

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Brought Forward		R	
<u>Refurbishment of Borehole, including pump and electrical equipment and all other connections .etc, by specialist Contractor as per Principal Agent recommendation.</u>			
1	Allow the provisional sum amount of R 150,000.00 (One Hundred and Fifty Thousand Rand) NET exclusive VAT for Selected Borehole Contractor.	Item	150,000.00
2	Profit for Borehole installation	%	
3	Attendance for Borehole Specialist Contractor	%	
<u>Refurbishment of Septic as per Principal Approval.</u>			
4	Allow the budgetary amount of R 60,000.00 (Sixty Thousand Rand) NET for the construction of septic tank as per engineers designs.	Item	60,000.00
5	Profit for Septic refurbishment	%	
6	Profit for Septic refurbishment	%	
<u>Installation of 10 000 litre Steel Stands</u>			
7	Allow the provisional sum amount of R 55,000.00 (Fifty Five Thousand Rand) NET exclusive VAT for design and installation of Structural Steel Stand by Selected Contractor.	Item	55,000.00
8	Profit for tank stand installation	%	
9	Profit for tank stand installation	%	
<u>Refurbishment of electrical fittings by sub-contractor, Contractor as per Principal Agent recommendation.</u>			
10	Allow the provisional sum amount of R 50,000.00 (Fifty Thousand Rand) NET exclusive VAT for Electrical Works contractor.	Item	50,000.00
11	Profit for Electrical works	%	
12	Attendance for Electrical Specialist Contractor	%	
Carried Forward		R	
Section No. 8 Refurbishment of Existing Borehole Bill No. 1 Provisional Sums			

-257-

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 9</u>			
	<u>SOIL INSECTICIDE</u>			
	<u>BILL NO. 1</u>			
	<u>BUDGETARY ALLOWANCES</u>			
	<u>NOTES:</u>			
	<ol style="list-style-type: none"> The Contractor's attention is drawn specifically to the Principal Building Agreement Clause 20.0 (Nominated Sub-Contractors), Clause 21.0 (Selected Sub-Contractors) and Clause 22 (Work by Others) and to the related Clauses in Section 1, Bill No. 1 - Preliminaries The Contractor's attention is drawn also to the definition of attendance on Nominated or Selected Sub-Contractors and of fuel, power and water for commissioning of mechanical and other specialised installations given in the JBCC Preliminaries Where special attendance includes the provision of hoisting facilities for a Sub-Contractor then the Contractor shall:- <ul style="list-style-type: none"> * Ensure that the capacities of his hoisting equipment are sufficient to deal with the masses and the quantities of the items to be hoisted, * Schedule the times of availability of the hoisting equipment for each Sub-Contractor, * Provide all necessary personnel to operate the hoisting equipment, <p>all to enable the Sub-Contractor to execute the hoisting or lowering of his material, etc. using the facilities provided by the Contractor</p> 			
	Carried Forward		R	
	Section No. 9 Budgetary Allowances Bill No. 1 Budgetary Allowances			

NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG

Brought Forward		R	
4.	Under no circumstances may any Provisional Amount, etc. be extended at an amount lower than the amount given in this Bill		
<u>Insecticide Treatment</u>			
1	Allow a budgetary amount of R 35,000.00 (Thirty Five Thousand Rand) for Insecticide Treatment to perimeter and inside roof of buildings	Item	35,000.00
<u>Keep Excavation free from Water</u>			
2	Allow the budgetary amount of R 2,500.00 (Two Thousand Five Hundred Rand) NET for keeping excavations free of water	Item	2,500.00
<u>Testing of Sanitary Plumbing and Water supply</u>			
3	Provide all necessary apparatus, water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Project Manager, replace any defective work free of charge and leave perfect	Item	1,000.00
Carried to Final Summary		R	
Section No. 9 Budgetary Allowances Bill No. 1 Budgetary Allowances			

**NKULUNGWANA PRIMARY SCHOOL
RENOVATIONS
BILLS OF QUANTITIES
IDTMPU-CONT-WP3.2B/2-DOE PROG**

Section No	<u>FINAL SUMMARY</u>	Page No	Amount
1	Preliminaries and General	103	
2	Renovation of 4-Classroom Block: Block A	132	
3	Renovation of 4-Classroom Block: Block B	162	
4	Renovation of 4-Classroom Block: Block C	190	
5	Renovation of 4-Classroom Block: Block D	219	
6	Minor Renovation of 24 Toilets (22 Seats and 2 Urinals)	239	
7	External Works	252	
8	Refurbishment of Existing Borehole	257	
9	Budgetary Allowances	259	
	TOTAL OF BUILDERS WORK		R
	<u>COMMUNITY LIAISON OFFICER</u>		
	Provide the amount of R 7,500.00/month (Seven Thousand Five Hundred Rand per month) for the appointment of community liaison officer	MTH 4.0	
	Sub Total (A)		R
	<u>CONTINGENCY SUM @ 2.5%</u>		
	Allow 2.5% for contingencies to be used at the sole discretion of the principal agent		R
	Sub Total (B)		R
	Value Added Tax @ 15%		R
	TOTAL CONTRACT VALUE		R
	Carried to Form of Tender		R