

PART 2: PRICING DATA

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C2.1 Pricing instructions: Option B

1. The *conditions of contract*

1.1. How the contract prices work and assesses it for progress payments

Clause 11 in NEC3 Engineering and Construction Contract, June 2005 and 2013 (ECC) Option B states:

Identified and defined terms	11	
	11.2	<p>(21) The Bill of Quantities is the <i>bill of quantities</i> as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.</p> <p>(22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether work is subcontracted or not excluding the cost of preparing quotations for compensation events.</p> <p>(28) The Price for Work Done to Date is the total of</p> <ul style="list-style-type: none"> the quantity of the work which the <i>Contractor</i> has completed for each item in the Bill of Quantities multiplied by the rate and a proportion of each lump sum which is the proportion of the work covered by the item which the <i>Contractor</i> has completed. <p>Completed work is work without Defects which would either delay or be covered by immediately following work.</p> <p>(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the Bill of Quantities.</p>

This confirms that Option B is a re-measurement contract and the bill comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

1.2. Function of the Bill of Quantities

Clause 55.1 in Option B states, "Information in the Bill of Quantities is not Works Information or Site Information". This confirms that instructions to do work or how it is to be done are not included in the Bill, but in the Works Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Works in accordance with the Works Information". Hence the *Contractor* does **not** Provide the Works in accordance with the Bill of Quantities. The Bill of Quantities is only a pricing document.

1.3. Guidance before pricing and measuring

Employers preparing tenders or contract documents, and tendering contractors are advised to consult the sections dealing with the bill of quantities in the NEC3 Engineering and Construction Contract (June 2005) Guidance Notes before preparing the *bill of quantities* or before entering rates and lump sums into the *bill*.

Historically bill of quantities based contracts in South Africa have been influenced by the different approaches of the civil engineering and building sectors of the industry through their respective discipline based standard forms of contract and methods of measurement. This is particularly apparent in the approach to the Preliminary and General bill. On the other hand, because ECC caters for a number of disciplines in the same contract, including electrical works, a different approach not currently found in local methods of measurement to the Preliminary & General bill items may have been used.

The NEC approach to the P & G bill assumes use will be made of method related charges for Equipment applied to Providing the Works based on durations shown in the Accepted Programme, fixed charges for the use of Equipment that is required throughout the construction phase, time related charges for people working in a supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing work items typically included in other parts of the bill.

2. Measurement and payment

2.1. Symbols

The units of measurement described in the Bill of Quantities are metric units abbreviated as follows:

Abbreviation	Unit
%	percent
h	hour
ha	hectare
kg	kilogram
kl	kilolitre
km	kilometre
km-pass	kilometre-pass
kPa	kilopascal
kW	kilowatt
l	litre
m	metre
mm	millimetre
m ²	square metre
m ² -pass	square metre pass
m ³	cubic metre
m ³ -km	cubic metre-kilometre
MN	meganewton
MN.m	meganewton-metre
MPa	megapascal

No.	number
Prov sum ¹	provisional sum
PC-sum	prime cost sum
R/only	Rate only
sum	Lump sum
t	ton (1000kg)
W/day	Work day

2.2. General assumptions

- 2.2.1. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.
- 2.2.2. The Prices and rates stated for each item in the Bill of Quantities shall be treated as being fully inclusive of all work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.
- 2.2.3. Clause 63.13 in Option B provides that these rates and Prices may be used as a basis for assessment of compensation events instead of Defined Cost.
- 2.2.4. Where this contract requires detailed drawings, designs or other information to be provided, and no rates or prices are included in the *bill* specifically for such matters, then the *Contractor* is deemed to have allowed for all costs associated with such requirements within the tendered rates and Prices in the Bill of Quantities.
- 2.2.5. An item against which no Price is entered will be treated as covered by other Prices or rates in the *bill of quantities*. If a number of items are grouped together for pricing purposes, this will be treated as a single lump sum.
- 2.2.6. The quantities contained in the Bill of Quantities may not be final and do not necessarily represent the actual amount of work to be done. The quantities of work assessed and

¹ Provisional Sums should not be used unless absolutely unavoidable. Rather include specifications and associated bill items for the most likely scope of work, and then change later using the compensation event procedure if necessary. This is because tenderers cannot programme effectively for unknown scopes of work

certified for payment by the *Project Manager* at each assessment date will be used for determining payments due and not the quantities given in the Bill of Quantities.

- 2.2.7. The short descriptions of the items of payment given in the *bill of quantities* are only for the purposes of identifying the items. More detail regarding the extent of the work entailed under each item is provided in the Works Information.

2.3. Departures from the *method of measurement*

2.4. Amplification of or assumptions about measurement items

For the avoidance of doubt the following is provided to assist in the interpretation of descriptions given in the *method of measurement*. In the event of any ambiguity or inconsistency between the statements in the *method of measurement* and this section, the interpretation given in this section shall be used.

C2.2 The *bill of quantities*

No.	Preliminaries and Generals	Unit	Quantity	Rate	Amount
	Bill No. 1				
	Fixed charged and value related items				
1	<u>Contractual Requirements:</u> Contractual Requirements	sum	1		
2	<u>Establishment of facilities for contractor:</u> Ablution and latrine facilities	sum	1		
3	Tools and equipment	sum	1		
4	<u>Other Fixed-charge Obligations:</u> Occupational Health and Safety.	sum	1		
5	<u>TIME RELATED ITEMS</u> Occupational Health and Safety.	mon	1		
6	Ablution and latrine facilities.	mon	1		
7	<u>Supervision:</u> Supervision for the duration of Construction.	mon	1		
8	Accommodation	mon	1		
9	<u>BILL NO. 2</u> ALTERATIONS <u>REMOVAL OF EXISTING WORK</u> Take out existing single steel door complete and prepare to receive new door (else where measured)	sum	2		
10	Take out existing double steel door complete and prepare to receive new door (else where measured)	sum	3		
11	<u>MAKE GOOD FINISHES, ETC</u> Fill holes greater than 5mm diameter must be filled with poxy	sum	1		
	<u>PAINTING</u>				

15	<u>ON INTERNAL FLOATED PLASTER SURFACES</u> <u>Prepare walls, and paint with o Eggshell paint</u> <u>with UC1, 2 minimum coat deep colour to</u> <u>architects choice:</u> - On interior walls.	m ²	30		
16	Paint to steel doors and frames	m ²	5		
17	<u>Safe Steel double door with steel frame,</u> <u>complete with hinges, handles, locks and cabin</u> <u>hooks as shown on drawings to suit opening size:</u> 912 mm x 2100 mm high overall.		5		
The total carried forward (excluding VAT):					
Vat @ 15%					
Total Price (including VAT):					

Description of the Works: Remove and Replacement of 4no. Safety Doors at Vryheid Various Relay Rooms

NO	PRELIMINARIES AND GENERALS	UNIT	QTY	RATE	AMOUNT
	<u>BILL NO. 1</u>				
	<u>FIXED CHARGED AND VALUE RELATED ITEMS</u>				
	<u>Contractual requirements:</u>				
1.	Contractual requirements.	sum	1		
	<u>Establishment of facilities for contractor:</u>				
2.	- Ablution and latrine facilities.	sum	1		
3.	Tools and equipment.	sum	1		
	<u>Other Fixed-charge Obligations:</u>				
4.	Occupational Health and Safety.	sum	1		
	<u>TIME RELATED ITEMS</u>				
5.	Occupational Health and Safety.	mon	1		
6.	Ablution and latrine facilities.	mon	1		
	<u>Supervision:</u>				
7.	- Supervision for the duration of Construction.	mon	1		
8.	Accommodation	mon	1		
	<u>BILL NO. 2</u>				
	ALTERATIONS				
	<u>REMOVAL OF EXISTING WORK</u>				

	<u>Take out and remove doors, windows, etc from brickwork</u>				
	<u>Take out/off and remove sundry metalwork</u>				
	-				
9	Take out existing single steel door complete and prepare to receive new door (else where measured)	sum	2		
10	Take out existing double steel door complete and prepare to receive new door (else where measured)	sum	3		
	<u>MAKE GOOD FINISHES, ETC</u>				
	-				
11	Fill holes greater than 5mm diameter must be filled with poxy	sum	1		
	<u>PAINTING</u>				
	<u>ON INTERNAL FLOATED PLASTER SURFACES</u>				
	<u>Prepare walls, and paint with o Eggshell paint with UC1, 2 minimum coat deep colour to architects choice:</u>				
	-				
15	On interior walls.	m ²	30		
16	Paint to steel doors and frames	m ²	5		
	METALWORK				
	<u>Safe Steel double door with steel frame, complete with hinges, handles, locks and cabin hooks as shown on drawings to suit opening size:</u>				
17	912 mm x 2100 mm high overall.	No.	5		
	TOTAL CARRIED FORWARD				R -