

Amount

31.8(A).2 Ninety seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion

31.8(A).3 Ninety nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 34.6

31.8(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate

Alternative B

31.8(B) Where security is a payment reduction in terms of 14.7 the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

31.8(B).1 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion

31.8(B).2 Ninety seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion

31.8(B).3 Ninety nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 34.6

31.8(B).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate

Clause 31.12 is amended by deleting the following:

Payment shall be subject to the employer giving the contractor a tax invoice for the amount due

F: V: T:

A32 ADJUSTMENT TO THE CONTRACT VALUE

Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:

"due to no fault of the contractor"

F: V: T:

31 Clause 32.0

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A33 RECOVERY OF EXPENSE AND LOSS

32 Clause 33.0

Item

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A34 FINAL ACCOUNT AND FINAL PAYMENT

33 Clause 34.0

Clause 34.1 is amended by removing "#" next to 34.1

Clause 34.2 is amended by removing "#" next to 34.2

Clause 34.8 is amended by deleting the words "where security as a fixed construction guarantee in terms of 14.4 has been selected or where payment reduction has been applied in terms of 14.7.1"

Clause 34.13 is amended by replacing "seven (7) calendar days" with "twenty one (21) calendar days" and deleting the words "subject to the employer giving the contractor a tax invoice for the amount due"

Item

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A35 PAYMENT TO OTHER PARTIES

34 Clause 35.0

Item

F: V: T:

CANCELLATION

A36 CANCELLATION BY EMPLOYER - CONTRACTOR'S DEFAULT

35 Clause 36.0

Clause 36.1 is amended by the addition of the following clauses:

36.1.3 refuses or neglects to comply strictly with any of the conditions of contract

36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa

36.1.5 in the judgement of the employer, has engaged in corrupt or fraudulent practices

in competing for or in executing the contract

Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "principal agent" with "employer"

Clause 36.0 is amended by the addition of the following clause:

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36.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever

F: V: T:

A37 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE

36 Clause 37.0

Clauses 37.3.5 is amended by replacing "ninety (90) with "one hundred and twenty (120)"

Clause 37.0 is amended by the addition of the following clause:

37.5 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever

F: V: T:

A38 CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT

37 Clause 38.0

Clauses 38.5.4 is amended by replacing "ninety (90) with "one hundred and twenty (120)"

Clause 38.0 is amended by the addition of the following clause:

38.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever

F: V: T:

A39 CESSATION - CANCELLATION OF THE WORKS

38 Clause 39.0

Clauses 39.3.5 is amended by the addition of the following at the end of the sentence "within one hundred and twenty (120) working days of completion of such a report"

F: V: T:

A40 DISPUTE SETTLEMENT

39 Clause 40.0

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Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years"

Clause 40.6 is amended by removing the reference to:

No clause

Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following:

Whether or not mediation resolves the dispute, the parties shall bear their own cost concerning the mediation and equally share the costs of the mediator and related costs

Item

F: V: T:

SUBSTITUTE PROVISIONS

A41 STATE CLAUSES

40 Clause 41.0

Item

F: V: T:

CONTRACT VARIABLES

THE SCHEDULE

A42 PRE-TENDER INFORMATION

41 Clause 42.0

Tenderers are referred to the Contract Data

Item

F: V: T:

SECTION B: JBCC PRELIMINARIES

1: DEFINITIONS AND INTERPRETATION

42 Definitions and interpretation

See also clause A1.0 of Section A for additional an/or amended definitions which shall apply to this Section

Item

F: V: T:

2: DOCUMENTS

43 2.1 Checking of documents

Item

F: V: T:

44 2.2 Provisional bills of quantities

Item

F: V: T:

45 2.3 Availability of construction documentation

Item

F: V: T:

46 2.4 Interests of agents

Item

F: V: T:

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47	2.5 Priced documents	Item
	F: V: T:	
48	2.6 Tender submission	
	Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Invitation to Bid: (PA-32)"	Item
	F: V: T:	
	3: THE SITE	
49	3.1 Defined works area	
	Bidders attention is drawn to the Architectural and Engineers drawings appended elsewhere in this Bid Document for details. Bidders are to note that all areas and facilities required by the contractor for the effective completion of the works in accordance with the contractual parameters and specifications, will be required to be sourced contiguous to the site at the expense of the contractor. No claims whatsoever in this regard will be entertained as pricing for all necessary requirements will be deemed to have been priced for as required.	Item
	F: V: T:	
50	3.2 Geotechnical investigation	Item
	F: V: T:	
51	3.3 Inspection of the site	Item
	F: V: T:	
52	3.4 Existing premises occupied - Not Applicable	Item
	F: V: T:	
53	3.5 Previous work - dimensional accuracy	Item
	F: V: T:	
54	3.6 Previous work - defects	
	The contractor on becoming aware of a defect in work previously executed shall forthwith notify the principal agent and request a contract instruction regarding any defect in the existing works. Should same not be carried out including the provision evidence indicating the damage prior to commencement of operations in the area i.e. photographs, reports etc., same shall be regarded as damage to the existing works by the contractor, and rectification of same shall be for the contractors account. The onus is therefore on the contractor to create and maintain a detailed photographic record of the existing facilities in order to ensure that any defects are timeously brought to the attention of the principal agent prior to commencement of works in the specific area.	Item
	F: V: T:	
55	3.7 Services - known	Item
	F: V: T:	
56	3.8 Services - unknown	Item
	F: V: T:	

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57	3.9 Protection of trees	Item
	F: V: T:	
58	3.10 Articles of value	Item
	F: V: T:	
59	3.11 Inspection of adjoining properties	Item
	F: V: T:	
	<u>4: MANAGEMENT OF CONTRACT</u>	
60	4.1 Management of the works	Item
	F: V: T:	
61	4.2 Programme for the works	Item
	F: V: T:	
62	4.3 Progress meetings	Item
	F: V: T:	
63	4.4 Technical meetings	Item
	F: V: T:	
64	Project Steering Committee meetings	
	The contractor must provide access to the site and a dedicated and secured meeting space for project steering committee members for the duration of the project.	Item
	F: V: T:	
65	4.6 Labour and plant records	Item
	F: V: T:	
	<u>5: SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS</u>	
66	5.1 Samples of materials	Item
	F: V: T:	
67	5.2 Workmanship samples	Item
	F: V: T:	
68	5.3 Shop drawings	

Clause 5.3 is amended by the addition of the following:

Clause 5.3.3 - General responsibilities - The contractor shall provide a person or persons who shall be available immediately upon commencement of the contract, whose responsibility will be:

a) To familiarise himself with all drawings produced for construction purposes. This will involve a clear understanding of services and element co-ordination, in order that sub-contractors can be properly briefed.

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b) To provide comprehensive lists of shop drawings to be prepared by relevant sub-contractors.

c) To check all shop drawings for sufficiency prior to submission. It is expected that such checking will include all co-ordination and pro-active resolution of any conflicting services and elements. It is also noted that resolution of co-ordination problems will require attendance at services and element co-ordination meetings called by the principal agent and when necessary.

Clause 5.3.4 - Procedures - The contractor shall, at his own expense, prepare and submit one reproducible print of shop drawings of all fabricated work, working or setting out drawings, shop details and schedules and such work shall not be performed by the contractor until approval has been given. The contractor shall take cognisance of and adhere to the Project Document Numbering System.

The contractor shall present a complete schedule showing the sequence of submission of shop drawings, including submission dates, for all trades and the scheduled dates for approval of all drawings. This schedule shall take into account a two weeks check period from the date of the receipt of all shop drawings and/or catalogue data.

All submissions shall be on dates as indicated in the above schedule and sufficiently in advance to permit the contractor to meet fabrication deadlines; no claim for extensions to the construction period will be granted to the contractor by reason of his failure in this respect.

The contractor shall submit four copies of catalogues and data for approval. The contractor shall check all submissions for conformity with the contract drawings and specifications and correct any errors, omissions or deviations before submission.

All submissions shall bear the contractor's dated stamp of approval as evidence that they have been so checked and corrected by the contractor. Any drawings, schedule or catalogue submitted without this stamp will not be considered and will be returned unapproved.

When the principal agent advises the contractor that shop drawings have been approved, he shall immediately submit to the principal agent the original transparencies of such drawings so that the principal agent's stamp of approval may be appended thereto. Thereafter the contractor shall furnish to the principal agent four prints of the approved shop drawings, setting out drawings and schedules. The contractor shall also furnish as many prints of the approved shop drawings and schedules as may be required for use on the site. No work shall be performed from any shop drawings and/or catalogues not stamped with the principal agent's approval.

The contractor shall be responsible for ensuring that all dimensions conform to the dimensions of built work.

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If the submissions differ from the requirements of the contract, the contractor shall make specific mention of each difference in his letter of transmission with a request for substitution, together with his reasons for same, in order that, if acceptable, suitable action may be taken by the principal agent. Otherwise the executing of the work shall be in strict accordance with the requirements of the contract.

Corrections of shop drawings by the principal agent shall not change the scope of work. Should any such correction be considered to constitute a change of scope of work, the contractor shall notify the principal agent in writing within not more than seven (7) calendar days of such change and shall not proceed with the fabrication until so authorised by the principal agent. Claims for change of scope made after performance of the work constituting the claimed change of scope will not be considered.

Unless otherwise agreed with the principal agent, shop drawings shall be prepared to show all details of installation, including reticulation, fixing, etc. of all components and assemblies, or if the contractor desires to deviate from the design these drawings shall be all to accordance with the above procedures and at the contractors expense.

Item

F: V: T:

69 5.4 Compliance with manufacturer's instructions

Item

F: V: T:

6: TEMPORARY WORKS AND PLANT

70 6.1 Deposits and fees

Item

F: V: T:

71 6.2 Enclosure of the works

Item

F: V: T:

72 6.3 Advertising

Item

F: V: T:

73 6.4 Plant, equipment, sheds and offices

Item

F: V: T:

74 6.5 Main notice board

Item

F: V: T:

75 6.6 Subcontractors' notice board - Not Applicable

Item

F: V: T:

7: TEMPORARY SERVICES

76 7.1 Location

Item

F: V: T:

77 7.2 Water

Item

F: V: T:

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78 7.3 Electricity

F: V: T:

Item

79 7.4 Telecommunication facilities

Clause 7.4 is amended by deleting it in its entirety and replacing with the following:

The contractor shall provide telecommunication facilities as required for his staff as well as for the agents of the employer when on site and shall be liable for all costs related thereto.

Item

F: V: T:

80 7.5 Ablution facilities

Clause 7.5 is amended by deleting it in its entirety and replacing with the following:

Ablution facilities shall be provided by the contractor shall be provided for the use of all persons on the site. The contractor shall maintain such facilities in a thoroughly clean and tidy condition and make good damage thereto at his own expense.

Item

F: V: T:

8: PRIME COST AMOUNTS

81 8.1 Responsibility for Prime Cost Amount

Clause 8.1 is amended by deleting it in its entirety and replacing with the following:

All prime cost amounts are for materials and goods delivered to the site. The contractor shall make provision in his rates for taking delivery, unloading, checking against invoices and/or delivery notes, getting in, unpacking, storing, hoisting and fixing of such materials and goods on taking delivery as any materials and goods subsequently found missing or damaged shall be replaced at the contractor's expense.

Item

F: V: T:

9: ATTENDANCE ON N/S SUBCONTRACTORS

82 9.1 General attendance

F: V: T:

Item

83 9.2 Special attendance

Clause 9.2 is amended by deleting it in its entirety and replacing with the following:

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The contractor shall make provision in his rates for special attendance on each n/s sub-contractor. Special attendance such as unloading, storing, placing in position, providing special power supplies, specific hoisting, craneage and scaffolding requirements, provision of temporary casing and/or other specific protection of the works, special security and clearing away rubbish are to be determined by the tenderer and shall be deemed to be included in rates for attendance.

Item

F: V: T:

84 9.3 Commissioning - fuel, water and electricity

Item

F: V: T:

10: FINANCIAL ASPECTS

85 10.1 Statutory taxes, duties and levies

Item

F: V: T:

86 10.2 Payment for preliminaries

Item

F: V: T:

87 10.3 Adjustment of preliminaries

Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) working days of taking possession of the site" with "when submitting his priced bills of quantities / lump sum document"

Item

F: V: T:

88 10.4 Payment certificate cash flow

Item

F: V: T:

11: GENERAL

89 11.1 Protection of the works

Item

F: V: T:

90 11.2 Protection / isolation of existing / sectionally occupied works

Item

F: V: T:

91 11.3 Security of the works

Item

F: V: T:

92 11.4 Notice before covering work

Item

F: V: T:

93 11.5 Disturbance

Item

F: V: T:

94 11.6 Environmental disturbance

Item

F: V: T:

95 11.7 Works cleaning and clearing

Item

F: V: T:

96 11.8 Vermin

Item

F: V: T:

97 11.9 Overhand work

Item

F: V: T:

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98	11.10 Instruction manuals and guarantees F: V: T:	Item
99	11.12 As built information F: V: T:	Item
100	11.13 Tenant installations F: V: T:	Item
<u>12: SCHEDULE OF VARIABLES</u>		
101	Schedule of Variables F: V: T: This schedule contains all variables referred to in this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these Preliminaries Spaces requiring information must be filled in, shown as "not applicable" or deleted and not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross-referenced to the applicable clause of the schedule. Key cross reference clauses are italicised in [] brackets <u>12.1 PRE TENDER INFORMATION</u> <u>12.1.1 Provisional Bills of Quantities</u> [2.2] The quantities are provisional: NO <u>12.1.2 Availability of construction documentation</u> [2.3] Construction documentation is complete: YES The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and how they are to be executed <u>12.1.3 Interest of agents</u> [2.4] Details: None <u>12.1.4 Defined works area</u> [3.1] Details: As defined in the tender drawings issued <u>12.1.5 Geotechnical investigation</u> [3.2] Details: Yes – as attached <u>12.1.6 Existing premises occupied</u> [3.4] Specific requirements: Not Applicable <u>12.1.7 Previous work - dimensional accuracy</u> [3.5] Details:	Item
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Details: Whilst every effort has been made to ensure the dimensional accuracy of existing works on site, the onus rests on the Tenderer to ensure that same is checked and pricing is done accordingly. No further claims in this regard will be entertained.

12.1.8 Previous work - defects

[3.6] Details: Refer to Item 3.6

12.1.9. Services - known

[3.7] Details: As defined in the tender drawings issued

12.1.10 Protection of trees

[3.9] Specific requirements: Existing trees to be protected as per Architect's drawings

12.1.11 Inspection of adjoining properties

[3.11] Specific requirements:

Before commencing the works the principal agent and the contractor shall arrange with the owners of adjacent buildings and properties and representatives of local authorities to inspect, inter alia, the buildings, structures, pavings, kerbs, channels and fences. The contractor shall record all conditions that the works could affect and copy the principal agent accordingly. The contractor shall pay particular attention to cracks, defects and existing levels related to structures, pavings, kerbs, channels and fences which later could be claimed to have been caused or disturbed by the works

Where instructed by the principal agent, levels and photographs shall be taken by the contractor and the cost thereof shall be for the employer's account. Certified copies shall be lodged with the principal agent

12.1.12 Enclosure of the works

[6.2] Specific requirements:

The contractor is responsible to supply, erect and maintain the site hoarding in a neat and secure fashion to ensure the proper security and safety of the works from the public and unauthorised persons.

The Bidder is to price for all necessary hoarding etc. under this item that will be required in respect of his preliminary planned programme of works to be submitted with the Bid. All hoarding required will be deemed to be included in the pricing of this item.

The Bidder is advised that any and all measured quantities for hoarding etc. within the Bills of Quantities will be supplementary to the above, and will only be included in the value for payment when occasioned at the request for additional/specific hoarding by the Principal Agent.

12.1.13 Offices

[6.4.3] Specific requirements:

The contractor shall provide, maintain and remove on completion of the works an office for the exclusive use of the principal agent.

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12.1.14 Main notice board [6.5]

Specific requirements:

The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice boards as per architect's drawing (available upon request).

12.1.15 Subcontractors' notice board

[6.6] Notice boards are not permitted

Specific requirements: N/A

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: NO

E-mail: YES

12.1.19 Ablution facilities

[7.5] Option A (by contractor): YES

Option B (by employer): NO

12.1.20 Protection of existing/sectionally occupied works

[11.2] Protection is required: YES.

The contractor shall provide all reasonable temporary measures to protect/isolate the existing and/or sections of the occupied works and remove such measures on completion. No additional claims whatsoever will be entertained.

12.1.21 Special attendance

[9.2] Special attendance will be deemed priced within the contract rates, whether specifically itemised or not. Tenderers are to ensure that all requirements in relation to the works to be completed by specialist sub-contractors are catered for within the tendered rates, as no further correspondence or claims in this regard will be entered into.

12.1.22 Protection of works

[11.1] Specific requirements:

Protection of the existing and completed works at all times will be a requirement of this Contract

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12.1.23 Disturbance

[11.5] Specific requirements:

The contractor shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent. Pricing for same shall be allowed for in the Preliminaries notwithstanding any items measured in the Bills of Quantities, which shall be expended only as directed by the Principal Agent.

During the above times, the use of noise generating equipment such as compressors, pneumatic breakers, power tools and the like, or the conducting of noise-intensive operations on site is strictly prohibited. The Contractor shall price under this item for strict adherence to this and no further claims in respect of standing time will be entertained. For the purposes of this contract, standing time is defined as time during which plant, machinery, tools and human resources employed on or for the purposes of the project (including those employed by the main contractor and all nominated, selected, domestic or direct contractors) are on site and idle (unable to proceed with works) due to no fault of the contractor and/or nominated, selected, domestic and direct contractors.

12.1.24 Environmental disturbance

[11.6] Specific requirements: Not Applicable

12.2 POST TENDER INFORMATION

12.2.1 Payment of preliminaries

[10.2] Option A: (prorated)

Option B: (calculates)

12.2.2 Adjustment of preliminaries

[10.3] Option A: (three categories)

Option B: (detailed breakdown)

12.2.3 Additional agreed preliminaries items

12.2.3 Additional agreed preliminaries items

Details: As stated in the contract data

SECTION C: SPECIFIC PRELIMINARIES

C1 CONTRACT DRAWINGS

102 The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and the manner in which they are to be executed

Should any part of the drawings not be clearly intelligible to the tenderer he shall, before submitting his tender, obtain clarification in writing from the principal agent

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	<u>C2 PREAMBLES</u>	
103	The document "General Preambles for Trade 2017" is obtainable from the The Association of South African Quantity Surveyors, and shall be read in conjunction with the bills of quantities document and be referred to for the full descriptions of work to be done and materials to be used F: V: T:	Item
	<u>C3 TRADE NAMES</u>	
104	Wherever a trade name for any product has been described in the bills of quantities, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for F: V: T:	Item
	<u>C4 IMPORTED MATERIALS AND EQUIPMENT</u>	
105	Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations (refer to Schedule of Imported Materials and Equipment to be completed by tenderer) Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the Contract Price Adjustment Provisions (if applicable) F: V: T:	Item
	<u>C5 VIEWING THE SITE IN SECURITY AREAS</u>	
106	The site is not situated in a security area. F: V: T:	Item
	<u>C6 COMMENCEMENT OF WORKS IN SECURITY AREAS</u>	
107	Not Applicable F: V: T:	Item
	<u>C7 ENTRANCE PERMITS TO SECURITY AREAS</u>	
108	Not Applicable F: V: T:	Item
	<u>C8 SECURITY CHECK OF PERSONNEL</u>	
109	The principal agent may require the contractor to have his personnel and workmen, or a certain number of them, security classified In the event of the principal agent requesting the removal of a person or persons from the works for security reasons, the contractor shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the works and the site and/or to any document or information relating to the works F: V: T:	Item
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C9 PROHIBITION ON TAKING OF PHOTOGRAPHS

- 110 In terms of article 119 of the Defence Act, 44 of 1957, it is prohibited to sketch or to take photographs of any military site or installation or any building or civil works thereon or to be in possession of a camera or other apparatus used for taking of photographs except when authorized thereto by or on behalf of the Minister

The same prohibition is also applicable to all correctional institutions in terms of article 44.1(e) of the Correctional Services Act 8 of 1959

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C10 HIV/AIDS AWARENESS

- 111 It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department of Public Works and Infrastructure that must be read together with and is deemed to be incorporated under this Section of the Bills of Quantities. Provision for pricing of HIV/AIDS awareness is made under items C10.1 to C10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained

The contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of Clause A 31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment

F: V: T:

C10.1 AWARENESS CHAMPION

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

F: V: T:

C10.2 AWARENESS WORKSHOPS

- 113 Selection and appointment of a competent Service Provider approved by the principal agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification

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C10.3 POSTERS, BOOKLETS, VIDEOS, ETC.

- 114 Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification

Item

F: V: T:

C10.4 ACCESS TO CONDOMS

- 115 Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification

Item

F: V: T:

C10.5 MONITORING

- 116 Monitoring HIV/AIDS awareness of workers, providing the principal agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification

Item

F: V: T:

C11 : OCCUPATIONAL HEALTH AND SAFETY ACT

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

Item

F: V: T:

C12 COMMUNITY LIAISON OFFICER (CLO)

- 118 The contractor shall employ a Community Liaison Officer (CLO) for the full duration of the contract. Allow an amount of R8 500,00 (Eight Thousand Five Hundred Rand) per month for CLO remuneration

Item

F: V: T:

C13 IMPLEMENTATION OF LABOUR INTENSIVE WORK

- 119 The contractor shall employ local labourers as per part C3: Scope of Works for work identified and marked as "LI" on these bills of quantities. The contractor shall enter into an employment agreement with all workers and provide certified copies of such agreements and identity documents of the workers to the principal agent within 28 calendar days Provision for pricing of compliance with the aforementioned is made under this clause and it is explicitly pointed out that all requirements in respect of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained

Item

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C14 USE OF LOCAL SMME's

120

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprises (SMME's) involved in the project. This is required to be done through the use of both traditional building techniques and labour intensive construction techniques careful and considered construction planning.

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

(a) SMME's involvement of at least 30% of the contract value to be locally sourced.

F: V: T:

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SECTION NO. 1
BILL NO. 1
PRELIMINARIES
COLLECTION

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Unit Quantity Rate Amount

SECTION NO. 2

BILL NO. 1

EARTHWORKS (PROVISIONAL)

(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)

<u>Key:</u>	<u>Location Description:</u>
Un/A	Unallocated
Item	Item Location
A&B	A&B: Main & Cleaners
C	C: Power & Water Mgt
D	D1&D2: Residences
E	E: Refuse Room

The bidder is referred to the relevant clauses in the ASQS General Preambles for Trades (2017 Edition), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.

Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.

SUPPLEMENTARY PREAMBLES

Working at Heights

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/alterd. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

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Bill No. 1
Earthworks (provisional)

121
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Unit Quantity Rate Amount

Labour Intensive (LI)

Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills.

Nature of ground

The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'

A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities.

Carting away of excavated material

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, and dumping at registered dumpsites.

Bulking

No allowance has been made for bulking

Testing

Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material

Prices for filling are to include for all necessary density tests in accordance with the relevant section of SANS

Carried to Collection

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Bill No. 1

Earthworks (provisional)

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				Unit	Quantity	Rate	Amount
<u>Drawings:</u>							
Tenderers are to note that where descriptions include references to drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from failure to comply with any of the above will be entertained.							
<u>EXCAVATIONS ETC</u>							
<u>Excavations in earth not exceeding 2m deep</u>							
1	Trenches (LI)			m ³	848		
	A&B 230	C 30	D 547				
	E 41						
2	Reduced levels under floors. (LI)			m ³	128		
	A&B 22	C 2	D 102				
	E 2						
3	Holes. (LI)			m ³	105		
	A&B 105						
<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			m ³	628		
	A&B 426	C 33	D 126				
	E 43						
<u>Risk of collapse of excavations</u>							
5	Sides of trench and hole excavations not exceeding 1,5m deep (LI)			m ²	1 754		
	A&B 780	C 81	D 792				
	E 101						
<u>Keeping excavations free of water</u>							
6	Keeping excavations free of water			Item			
	Item 1						
<u>Back excavation of vertical sides of excavations in earth for working space including backfilling compacted to 93% Mod AASHTO density</u>							
7	Exceeding 500mm and not exceeding 1 500mm deep for placing and removing formwork to walls etc., away from excavated face (LI)			m ²	1 744		
	A&B 780	C 81	D 782				
	E 101						
Carried to Collection						R	
Bill No. 1							
Earthworks (provisional)							

					Unit	Quantity	Rate	Amount
<u>Extra over trench and hole excavations in earth for excavation in</u>								
8	Soft rock (LI)				m ³	105		
	A&B 33	C 4	D 65					
	E 3							
9	Hard rock				m ³	53		
	A&B 17	C 2	D 32					
	E 2							
<u>Extra over excavation in earth for working space for excavation in soft rock</u>								
10	Exceeding 500mm and not exceeding 1 500mm deep for placing and removing formwork to walls, etc, against excavated face. (LI)				m ²	174		
	A&B 78	C 8	D 78					
	E 10							
<u>Extra over excavation in earth for working space for excavation in hard rock</u>								
11	Exceeding 500mm and not exceeding 1 500mm deep for placing and removing formwork to walls, etc, against excavated face.				m ²	87		
	A&B 39	C 4	D 39					
	E 5							
<u>Extra over trench and hole excavation in earth for breaking up and removing</u>								
12	Brickwork (LI)				m ³	5		
	A&B 5							
13	Unreinforced concrete (LI)				m ³	3		
	A&B 3							
14	Reinforced concrete (LI)				m ³	2		
	A&B 2							
<u>FILLING ETC OTHER THAN BULK</u>								
<u>Selected earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 93% Mod AASHTO density</u>								
15	Backfilling to trenches, holes, etc				m ³	453		
	A&B 135	C 11	D 292					
	E 15							

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					Unit	Quantity	Rate	Amount
	<u>Earth filling of G5 filling supplied by the contractor, compacted to 93% Mod AASHTO density in layers not exceeding 150mm thick, all in accordance with the relevant part of SANS</u>							
16	Backfilling to trenches, holes, etc				m ³	229		
	A&B 80	C 7	D 132					
	E 10							
17	Under floors, steps, pavings, etc.				m ³	174		
	A&B 88	C 9	D 71					
	E 6							
	<u>Compaction of surfaces</u>							
18	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, adding G5 material where necessary and compacting to 93% Mod AASHTO density				m ²	1 099		
	A&B 644	C 51	D 370					
	E 34							
	<u>Prescribed density tests on filling</u>							
19	Modified AASHTO Density test				No	88		
	A&B 62	C 2	D 22					
	E 2							
	<u>SOIL POISONING</u>							
	<u>Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for Five (5) years in accordance with SANS 10400</u>							
20	Under floors etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming (LI)				m ²	1 099		
	A&B 644	C 51	D 370					
	E 34							
21	To bottoms and sides of trenches etc. (LI)				m ²	2 586		
	A&B 1095	C 106	D 1252					
	E 133							

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BILL NO. 1
EARTHWORKS (PROVISIONAL)
COLLECTION

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Unit Quantity Rate Amount

SECTION NO. 2

BILL NO. 2

CONCRETE, FORMWORK AND REINFORCEMENT

(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)

<u>Key:</u>	<u>Location Description:</u>
Un/A	Unallocated
Item	Item Location
A&B	A&B: Main & Cleaners
C	C: Power & Water Mgt
D	D1&D2: Residences
E	E: Refuse Room

The bidder is referred to the relevant clauses in the ASAQs General Preambles for Trades (2017 Edition), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.

Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.

SUPPLEMENTARY PREAMBLES

Working at Heights:

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/alterd. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

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Bill No. 2

Concrete, Formwork And Reinforcement

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Unit Quantity Rate Amount

Labour Intensive (LI)

Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills.

Cost of tests

The costs of making, storing and testing of concrete test cubes as required under the relevant part of SANS, 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).

Concrete

Rates for concrete shall be deemed to include for all necessary transportation, hoisting, etc. to render a perfect, sound and stable installation all to the satisfaction of the Structural Engineer.

Bidders are to note that delay claims related to the supply of concrete decking, reinforcement, etc. will not be entertained and are thus urged to take cognisance of quantities required and secure supply accordingly

Formwork

Formwork to soffits of solid slabs etc. shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to soffits of slabs, beams, etc. shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described

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	Unit	Quantity	Rate	Amount
Formwork to sides of bases, pile caps, ground beams, etc. will only be compensated where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be compensated 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>General Notes : Temporary Support Work and Back Propping Specifications and Requirements:</u> All temporary support work (formwork and back-propping, etc) is the responsibility of the Contractor's own appointed 'Temporary Works' registered structural engineer/approved competent person (TWE). It is also the contractor's (TWE) responsibility to review the Principle Structural Engineers (PSE) construction layouts and develop the appropriate formwork support (back-propping, etc) execution plan. The formwork execution plan is to be developed in consultation with the (PSE) and final approval is required from the (PSE) prior to the execution of this plan. The contractor's (TWE) is also responsible to inspect and approve the erected formwork (back-propping, etc) prior to pouring concrete on site. He is also required to 'green tag' the approved formwork, indicating that it is safe to pour concrete. He is also required to 'fill in and sign off' the formwork in the on-site Health and Safety File indicating that he has inspected, approved and 'green tagged' the formwork and it is safe to pour the concrete. This 'sign-off' must occur each and every time the Contractor intends to pour any of the suspended concrete floor slabs. The Contractor's own appointed 'Temporary Works' structural engineer/approved competent person (TWE) must also carry his own professional indemnity (PI) insurance for 'Temporary Structural Works'. Proof of this insurance must be submitted to the Principal Agent / Project Manager for approval. <u>As per Construction Regulations 2014: Temporary Formwork and Support work of OHS ACT 1993</u> "A Contractor must appoint a temporary works designer in writing to design, inspect and approve the erected temporary works on site before use". The Contractor must submit this information inclusive of his (TWE) proof of (PI) to the Project Manager for approval.				
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Concrete, Formwork And Reinforcement				
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	Unit	Quantity	Rate	Amount
"A Contractor must ensure that all temporary works operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose". A contractor shall ensure that : "All formwork and support work structures are to be adequately designed, erected, supported, braced and maintained by a competent person so that they will be capable of supporting all anticipated vertical and lateral loads that may be applied to them and also that no loads are imposed onto the structure that the structure is not designed to withstand". This is the responsibility of the Contractor's own appointed 'Temporary Works' registered structural engineer/approved competent person (TWE) and he has to submit the necessary documentation confirming the above requirements to the Principal Agent / Project Manager for approval. "All the designs of formwork and temporary support work structures are done with a close reference to the structural design drawings issued and where any uncertainty exists, the structural designer (PSE) should be consulted". The contractors (TWE) is required to submit their formwork execution plan the (PSE) for approval prior to pouring any concrete on site. "Detailed activity specific drawings pertaining to the design of formwork or support work structures are kept on the site and are available on request by an inspector, contractor, client, client's agent or employee". The Project Manager must ensure that the Contractor has this information available on site at all times. "All equipment used in the formwork or support work structure are carefully examined and checked for suitability by a competent person, before being used". This is the responsibility of the Contractor's own appointed 'Temporary Works' registered structural engineer/approved competent person (TWE) and he has to 'sign-off' accordingly. "All formwork and support work structures are inspected by a competent person immediately before, during and after the placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work structure has been removed and the results have been recorded in a register and made available on site". This is the responsibility of the PBC's own appointed 'Temporary Works' registered structural engineer/approved competent person (TWE) and he has to 'sign-off' accordingly.				
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Concrete, Formwork And Reinforcement				

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"The Contractor must ensure that his Temporary Works Engineer (TWE) submits a temporary works drawing or any other relevant document including construction sequences and method statements" to the (PSE) for review, comment and approval.

As highlighted above, the principle building contractor (Contractor) has to develop his construction programme with due consideration for the above construction regulations and the PSE's final approval of the Contractor's temporary formwork and back-propping execution plan.

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

Drawings:

Tenderers are to note that where descriptions include references to drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from failure to comply with any of the above will be entertained.

UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (PROVISIONAL)

15MPa/19mm concrete (Provisional)

- 1 Surface blinding under footings and bases

A&B 13 C 1 D 12
E 2

m³ 28

25MPa/19mm concrete (Provisional)

- 2 Pad footings

A&B 1

m³ 1

REINFORCED CONCRETE CAST ON/IN FORMWORK IN FOUNDATIONS (PROVISIONAL)

25MPa/19mm concrete (Provisional)

- 3 Strip footings

A&B 53 C 11 D 64
E 14

m³ 142

- 4 Bases

A&B 22 D 2

m³ 24

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Bill No. 2

Concrete, Formwork And Reinforcement

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		Unit	Quantity	Rate	Amount
<u>30MPa/19mm concrete (Provisional)</u>					
5	Walls in foundations	m ³	2		
	A&B 2				
6	Columns in foundations including 25 x 25mm chamfered edges all round	m ³	1		
	A&B 1				
<u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u>					
<u>30MPa/19mm concrete</u>					
7	Surface beds	m ³	92		
	A&B 35 C 6 D 48				
	E 3				
8	Slabs including beams and inverted beams	m ³	37		
	A&B 37				
9	Walls	m ³	9		
	A&B 9				
10	Plinths	m ³	3		
	C 1 D 2				
<u>TEST CUBES</u>					
11	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	Sets	52		
	A&B 29 C 3 D 18				
	E 2				
<u>CONCRETE SUNDRIES</u>					
<u>Finishing top surfaces of concrete smooth with a woodfloat to a degree of accuracy 2</u>					
12	Tops of beams, walls, etc.	m ²	25		
	A&B 25				
<u>Finishing top surfaces of concrete rough with a powerfloat to a degree of accuracy 2</u>					
13	Surface beds, slabs, etc. (LI)	m ²	1 210		
	A&B 755 C 51 D 370				
	E 34				
<u>40MPa Cementitious non-shrink grout</u>					
14	Bedding approximately 25mm thick under 320 x 320mm base plate including chamfered edges all round	No	15		
	A&B 15				
15	Bedding approximately 25mm thick under 200 x 200mm base plate including chamfered edges all round	No	8		
	D 8				

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					Unit	Quantity	Rate	Amount
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>								
<u>(CPAP WORK GROUP NO. 111)</u>								
<u>Rough formwork to sides</u>								
16	Strip footings (Provisional). (LI)				m ²	341		
	A&B 145	C 16	D 158					
	E 22							
17	Bases (Provisional). (LI)				m ²	62		
	A&B 45	D 17						
18	Surface beds				m ²	7		
	A&B 2	D 5						
19	Walls in foundations (Provisional). (LI)				m ²	10		
	A&B 10							
20	Rectangular shaped columns in foundations (Provisional). (LI)				m ²	13		
	A&B 13							
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>								
<u>(CPAP WORK GROUP NO. 111)</u>								
<u>Smooth formwork to sides</u>								
21	Walls with total height not exceeding 3,5m above bearing level. (LI)				m ²	38		
	A&B 38							
22	Stub columns with total height not exceeding 3,5m above bearing level. (LI)				m ²	12		
	A&B 12							
23	Inverted beams. (LI)				m ²	32		
	A&B 32							
24	Edges, risers, ends and reveals not exceeding 300mm high. (LI)				m	230		
	A&B 181	C 17	D 17					
	E 15							
<u>Smooth formwork to soffits</u>								
25	Slabs not exceeding 250mm thick propped up exceeding 1.5m and not exceeding 3.5m high				m ²	140		
	A&B 140							
<u>Smooth formwork to sides and soffits</u>								
26	Beams propped up exceeding 1.5m and not exceeding 3.5m high. (LI)				m ²	10		
	A&B 10							
<u>Boxing out smooth formwork to form</u>								
27	500mm x 170mm High horizontal projection to side along bottom edge				m	7		
	A&B 7							

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Concrete, Formwork And Reinforcement

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					Unit	Quantity	Rate	Amount
<u>MOVEMENT JOINTS, ETC</u>								
<u>Two layers "Malthoid" in slip joints between horizontal concrete and brick surfaces including cement mortar bed</u>								
28	Not exceeding 300mm wide				m	823		
	A&B	447	C	52	D	293		
	E	31						
<u>Expansion joints with 10mm thick Jointex joint filler and polysulphide sealant between vertical concrete and brick surfaces</u>								
29	Not exceeding 300mm high				m	823		
	A&B	447	C	52	D	293		
	E	31						
<u>Saw-cut joints</u>								
30	8 x 50mm Saw-cut joints in top of concrete				m	240		
	A&B	138	C	13	D	79		
	E	10						
<u>REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)</u>								
<u>Mild steel reinforcement to structural concrete work</u>								
31	8mm diameter bars				Tonnes	0.55		
	A&B	0.55						
<u>High tensile steel reinforcement to structural concrete work</u>								
32	10mm diameter bars.				Tonnes	3.18		
	Un/A	0.07	A&B	3.11				
33	12mm diameter bars.				Tonnes	18.83		
	Un/A	2.99	A&B	10.69	D	5.15		
34	16mm diameter bars.				Tonnes	4.97		
	Un/A	0.26	A&B	4.71				
<u>Fabric reinforcement</u>								
35	Ref 193 fabric reinforcement in concrete surface beds etc.				m ²	1 099		
	A&B	644	C	51	D	370		
	E	34						

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SECTION NO. 2

BILL NO. 2

CONCRETE, FORMWORK AND REINFORCEMENT

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Concrete, Formwork And Reinforcement

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Unit Quantity Rate Amount

SECTION NO. 2

BILL NO. 3

PRECAST CONCRETE

(CPAP WORK GROUP NO. 112 UNLESS OTHERWISE STATED)

<u>Key:</u>	<u>Location Description:</u>
Un/A	Unallocated
Item	Item Location
A&B	A&B: Main & Cleaners
C	C: Power & Water Mgt
D	D1&D2: Residences
E	E: Refuse Room

The bidder is referred to the relevant clauses in the ASAQS General Preambles for Trades' (2017 Edition), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.

Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.

SUPPLEMENTARY PREAMBLES

Working at Heights

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/alterd. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

Carried to Collection

R

Bill No. 3
Precast Concrete

136

km RJ Rm.

Unit	Quantity	Rate	Amount
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Labour Intensive (LI)

Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills.

Sizes

Blocks, sills, etc measured linear shall be made in suitable lengths. Large size setting out drawings shall be prepared where necessary and submitted to the principal agent for approval before moulds are made

General

Drawings:

Tenderers are to note that where descriptions include reference drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from any of the above will be entertained.

PRECAST CONCRETE COPINGS ETC

**"LG Green" or equally approved precast concrete
louvre block wall etc. Finished smooth on exposed
surfaces, including bedding, jointing and pointing:**

1	'GB102' 190 x 190 x 190mm Grille blocks. (LI)	m ²	70
	A&B 63 E 7		

Carried to Collection

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Bill No. 3

Precast Concrete

137

Len RY Rstr.

		Unit	Quantity	Rate	Amount
<u>PRECAST CONCRETE SILLS,ETC</u>					
<u>"LG Green" or equally approved precast concrete sills etc. Finished smooth on exposed surfaces, including bedding, jointing and pointing:</u>					
2	295 x 85mm Precast concrete cill blocks with and including bedding, drip moulds in approved mortar. (LI)	m	79		
A&B	55 D 24				
Carried to Collection					R
Bill No. 3					
Precast Concrete					
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SECTION NO. 2
BILL NO. 3
PRECAST CONCRETE
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hm RJ R.m.

Unit Quantity Rate Amount

SECTION NO. 2

BILL NO. 4

MASONRY

(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED)

<u>Key:</u>	<u>Location Description:</u>
Un/A	Unallocated
Item	Item Location
A&B	A&B: Main & Cleaners
C	C: Power & Water Mgt
D	D1&D2: Residences
E	E: Refuse Room

The bidder is referred to the relevant clauses in the ASAQS General Preambles for Trades (2017 Edition), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.

Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.

Further to the above, all masonry work to comply with the following Regulations:

SANS 2001-CM1 Construction Works: Masonry walling

SANS 227 Burnt clay masonry units

SANS 1215 Concrete masonry units

SANS 1090 Mortar

SUPPLEMENTARY PREAMBLES:

Working at Heights:

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/alterd. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

Carried to Collection

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Bill No. 4

Masonry

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	Unit	Quantity	Rate	Amount
<u>Labour Intensive (LI)</u>				
Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills.				
<u>BRICKWORK</u>				
<u>Sizes in descriptions</u>				
Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick				
<u>Bagged and sealed walls</u>				
Walls described as 'bagged and sealed' shall be deemed to include having the outer face of the inner most skin bagged with 1:6 cement and sand mixture and sealed with two coats "ABE" or equally approved bitumen emulsion waterproofing coating				
<u>Face bricks</u>				
Bricks shall be ordered timeously to obtain uniformity in size and colour				
<u>Pointing</u>				
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.				
<u>Drawings:</u>				
Tenderers are to note that where descriptions include references to drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from failure to comply with any of the above will be entertained.				
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Bill No. 4				141
Masonry				
53				Ln RJ R-11.

		Unit	Quantity	Rate	Amount
<u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u>					
<u>Brickwork of "Corobrik" or equally approved NFX bricks (14 MPa nominal compressive strength) in class II mortar</u>					
1	Piers	m ³	1		
	A&B 1				
2	Half brick walls bagged and sealed. (LI)	m ²	75		
	A&B 41 D 34				
3	One brick walls bagged and sealed. (LI)	m ²	601		
	A&B 283 C 44 D 255				
	E 19				
4	Two brick walls bagged and sealed. (LI)	m ²	12		
	A&B 12				
<u>BRICKWORK IN SUPERSTRUCTURE:</u>					
<u>Brickwork of "Corobrik" or equally approved NFP bricks (14 MPa nominal compressive strength) in class II mortar</u>					
5	Piers	m ³	5		
	A&B 5				
6	Half brick linings to concrete. (LI)	m ²	16		
	A&B 16				
7	Half brick walls. (LI)	m ²	228		
	A&B 127 D 101				
8	Half brick walls in beamfilling. (LI)	m ²	112		
	A&B 70 C 9 D 26				
	E 7				
9	One brick walls bagged and sealed. (LI)	m ²	328		
	D 328				
10	One brick walls (LI)	m ²	1 563		
	A&B 1014 C 86 D 338				
	E 125				
11	Two brick walls (LI)	m ²	4		
	A&B 4				
<u>BRICKWORK SUNDRIES</u>					
<u>Brickwork reinforcement:</u>					
12	75mm wide reinforcement built in horizontally. (LI)	m	963		
	A&B 599 C 42 D 287				
	E 35				
13	150mm wide reinforcement built in horizontally. (LI)	m	10 578		
	A&B 5806 C 461 D 3661				
	E 650				

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					Unit	Quantity	Rate	Amount
<u>Prestressed fabricated lintels:</u>								
14	110 x 175mm lintels in lengths not exceeding 3,0m. (LI)				m	265		
	A&B 119	C 7	D 135					
	E 4							
15	110 x 175mm lintels in lengths exceeding 3,0m and not exceeding 4,5m. (LI)				m	11		
	C 7	E 4						
16	110 x 175mm lintels in lengths exceeding 4,5m and not exceeding 6m. (LI)				m	11		
	A&B 11							
<u>Turning pieces to lintels etc.</u>								
17	110mm Wide turning piece to lintels etc. (LI)				m	183		
	A&B 124	C 7	D 48					
	E 4							
<u>Joint forming material in movement joints</u>								
18	10mm Bitumen impregnated fibre board built in vertically through brick walls. (LI)				m ²	326		
	A&B 27	C 5	D 291					
	E 3							
<u>Galvanised hoop iron cramps, ties, etc.</u>								
19	30 x 1,6mm Wall tie 500mm long wrapped around bar reinforcement and fixed to clay common bricks with and including "Hilti" or equally approved nails. (LI)				No	7 643		
	A&B 3960	D 3683						
20	30 x 1,6mm Roof tie 1,5m long with one end built into brickwork and other end fixed to timber. (LI)				No	298		
	A&B 196	C 16	D 78					
	E 8							
21	30 x 1,6mm Wall tie 500mm long with one end shot pinned to concrete and other end built into brickwork				No	48		
	A&B 48							
<u>FACE BRICKWORK</u>								
<u>"Corobrik Roan Satin FBX" or equally approved face bricks to be constructed in stretcher bond with recessed horizontal and vertical joints</u>								
22	Extra over brickwork for face brickwork in foundations (Provisional) (LI)				m ²	378		
	A&B 283	C 13	D 75					
	E 7							
23	Extra over brickwork for face brickwork. (LI)				m ²	1 768		
	A&B 1019	C 86	D 538					
	E 125							

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Lm RJ

		Unit	Quantity	Rate	Amount
24	Extra over brickwork for brick on edge header course intel. (LI) A&B 87 C 3 D 71 E 3 FACEBRICK COPINGS, CILLS, ETC. <u>Brick-on-edge header course copings, cills, etc. of</u> <u>"Corobrik Roan Satin FBX" or equal approved face</u> <u>bricks pointed with recessed joints on all exposed</u> <u>faces:</u>	m	164		
25	115mm Wide cills set sloping and slightly projecting. (LI) A&B 44 D 24 FIBRE-CEMENT WINDOW SILLS <u>Everite 15mm High Density Nutec fibre cement sill or</u> <u>equal approved with and including metal fixing lugs</u> <u>etc</u>	m	68		
26	15 x 150mm Wide sills set flat and slightly projecting A&B 78 D 48	m	126		

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SECTION NO. 2
BILL NO. 4
MASONRY
COLLECTION

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Unit Quantity Rate Amount

SECTION NO. 2

BILL NO. 5

WATERPROOFING

(CPAP WORK GROUP NO. 120 UNLESS OTHERWISE STATED)

<u>Key:</u>	<u>Location Description:</u>
Un/A	Unallocated
Item	Item Location
A&B	A&B: Main & Cleaners
C	C: Power & Water Mgt
D	D1&D2: Residences
E	E: Refuse Room

The bidder is referred to the relevant clauses in the ASAQS General Preambles for Trades (2017 Edition), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.

Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.

Further to the above:

1. Damp Proof Course Waterproofing to comply: for polyolefin film SANS 952 type B / bituminous felt SANS 248 / mastic asphalt SANS 298.
2. Invoked Waterproof Standard: SANS 952 annex C: Notes on use, installation and protection of film (supplement to SANS 10021) and SANS 10021 The waterproofing of buildings to be considered.
3. Paint on a bituminous-based systems: heavy brush of bituminous based aluminium paint to be one in accordance with SANS 802.
4. SANS regulations to be complied with for all Joint Fillers and Sealants:
 - two-part gun-grade poly-sulphide sealants SANS 110

Carried to Collection

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Bill No. 5

Waterproofing

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RJ

	Unit	Quantity	Rate	Amount
- one part low modulus silicone rubber sealant SANS 1305, type 1 for building joints; one part high modulus fungus proof silicone rubber sealant SANS 1305, type 2 for glazing and sanitary ware - two-part gun grade SANS 1077, type 2 - preformed elastomeric compression joint seals SANS 1023 type 1 5. Seal joints around door and window frames, movement joints, joints between walls and columns, floor joints, and other joints where sealing is indicated to comply with requirements of SANS 204. <u>SUPPLEMENTARY PREAMBLES</u> <u>Working at Heights:</u> Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained. <u>Labour Intensive (LI)</u> Bidders are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the words "Labour Intensive" at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised, or other systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills. <u>Waterproofing</u> Waterproofing of roofs, basements, etc. shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc. with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
Carried to Collection			R	
Bill No. 5				
Waterproofing				

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LM 129 R.m.

	Unit	Quantity	Rate	Amount
<u>Proprietary branded products:</u>				
Proprietary branded products are to be applied in strict accordance with the manufacturers instructions. Should the manufacturers instructions be found not to have been followed in any process relating to the product in relation to, but not limited to transportation, application (rates and methodology), treatment of existing surfaces etc., then all liability for such product shall be transferred to the appointed Main Contractor.				
<u>Drawings:</u>				
Tenderers are to note that where descriptions include references to drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from failure to comply with any of the above will be entertained.				
<u>DAMPPOOFING OF WALLS AND FLOORS</u>				
<u>One layer 250 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</u>				
1 In walls. (LI)	m ²	241		
A&B 60 D 167 E 14				
<u>One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape</u>				
2 Under surface beds. (LI)	m ²	1 099		
A&B 644 C 51 D 370 E 34				
<u>Two coats "Brixal" or equally approved bitumen emulsion waterproof coating</u>				
3 On concrete walls and retaining walls (Provisional) (LI)	m ²	61		
A&B 61				
4 On bagged brick walls (Provisional) (LI)	m ²	467		
A&B 467				
<u>Tal X- Calibur 'X- Shield Vapor Stop' or equally approved applied by manufacturer approved specialist installers in strict accordance with the manufacturers instructions:</u>				
5 On floors	m ²	793		
A&B 278 D 515				
Carried to Collection			R	
Bill No. 5 Waterproofing				148 hm 12 R.N.

				Unit	Quantity	Rate	Amount
<u>Apply two coats "Sika cemflex" or equally approved under tile waterproofing system. Waterproof Membrane applied to full waterproofing area with minimum 300mm laps where necessary, all installed in accordance with manufacturers specification.</u>							
6	On shower walls. (LI)			m ²	233		
	A&B 8	D	225				
7	On shower floors. (LI)			m ²	10		
	A&B 1	D	9				
8	On walls behind basins. (LI)			m ²	21		
	A&B 8	D	13				
<u>WATERPROOFING TO ROOFS, BASEMENTS, ETC</u>							
<u>One layer 'Derbigum SP4' or equally approved waterproofing membrane sealed by means of 'torchfusion' with 100mm side laps and 150mm end laps</u>							
9	On flat roofs. (LI)			m ²	114		
	A&B 114						
10	Tops and sides of inverted beams. (LI)			m ²	29		
	A&B 29						
11	Sealing edges to brickwork or concrete. (LI)			m	134		
	A&B 134						
12	Additional membrane and sealing into 110mm diameter outlet. (LI)			No	2		
	A&B 2						
13	Collar around pipe not exceeding 100mm internal diameter. (LI)			No	2		
	A&B 2						
<u>PROTECTIVE ROOFING PAINT</u>							
<u>Two coats "Silvakote" or equally approved protective coating applied in accordance with manufacturers instructions</u>							
14	On waterproofing to roofs. (LI)			m ²	114		
	A&B 114						
15	On tops and sides of inverted beams. (LI)			m ²	29		
	A&B 29						
<u>SEALING STRIPS, JOINT SEALANTS, ETC</u>							
<u>"Bostik" or equally approved silicone sealant</u>							
16	In joints between frames and walls. (LI)			m	1 124		
	A&B 764	C	12	D	336		
	E 12						

Carried to Collection

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Bill No. 5
Waterproofing

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RJ R-m.
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					Unit	Quantity	Rate	Amount
	<u>Two part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.</u>							
17	8 x 13mm In saw cut joints. (LI)				m	157		
	A&B	66	C	13				
	E	10						
18	10 x 10mm In expansion joints in floors. (LI)				m	447		
	A&B	82	C	52				
	E	31						
19	8 x 13mm In vertical expansion joints in walls including raking out expansion joint filler as necessary. (LI)				m	442		
	A&B	116	C	21				
	E	14						
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Waterproofing								RM R.M.
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