

Item No		Quantity	Amount R
	<p><u>SECTION ONE</u></p> <p><u>BILL NO. 1</u></p> <p><u>PRELIMINARIES</u></p> <p><u>NOTES TO PRELIMINARIES</u></p> <p>1.0 These Preliminaries comprise the following:</p> <p>1.01 Part A - The JBCC Principal Building Agreement Edition 6.2 May 2018 as amended by these bills of quantities</p> <p>1.02 Part B - The JBCC General Preliminaries Edition 6.2 May 2018 as amended by these bills of quantities</p> <p>1.03 Part C - Additional Preliminaries to meet the particular circumstances of this project</p> <p>2.0 Where references are made to clauses in any of the above sections, they will be identified by the prefix A, B or C followed by the clause number.</p> <p>3.0 Tenderers are referred to the above mentioned documents for the full intent and meaning of each clause thereof. These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not applicable to this contract, such modifications / corrections or additions as are necessary, are given as far as possible under each relevant clause heading.</p> <p>4.0 No claim whatsoever shall be entertained in respect of errors or omissions in pricing due to brevity of descriptions of items in these bills of quantities which are fully described when read in conjunction with the relevant clauses of the said Preliminaries and Preambles.</p>		
	Carried Forward		
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<p style="text-align: right;">Brought Forward</p> <p>5.0 The tenderer shall allow opposite each of the clauses whatever costs and charges he may consider necessary for the carrying out, complying with and due observance of the provisions, conditions and requirements set out herein.</p> <p>Only priced items will be considered in respect of any adjustment of this section. Any items left unpriced shall be deemed to be covered against other items throughout these bills of quantities and no claim for any extras arising out of the tenderer's omission to price any item will be entertained.</p> <p>6.0 Where modifications or amendments as described are made, such modifications and/or amendments shall supersede any conflicting provision in the relevant clauses of the Principal Building Agreement and the tenderer shall make due allowance for whatever costs and charges he may consider necessary for the carrying out and observance of the provisions of the clauses as modified and/or amended.</p> <p>7.0 Any item not applicable to this contract is marked N/A.</p> <p>8.0 Should the contractor select Option A in terms of clause D4.0 in the Contract Data for the purpose of adjustment of the preliminaries, the amount entered into the amount column in these preliminaries is to be divided into one or more of the three categories provided namely Fixed (F), Value Related (V) and Time Related (T).</p>	R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 P&Gs - Part A</p>	R	

	Brought Forward	R	
	<u>PART A - PRINCIPAL BUILDING AGREEMENT</u>		
	<u>INTERPRETATION</u>		
1	<p>CLAUSE 1.0 DEFINITIONS AND INTERPRETATIONS</p> <p>Clause 1.1 The following definition is amended:</p> <p style="padding-left: 40px;">The definition of practical completion is amplified by the addition of the following after the words "for the intended purpose"</p> <p style="padding-left: 40px;">"and without derogating from the generality of the foregoing, the works and sections thereof shall not be considered to be complete or be capable of being effectively used for the intended purpose, and shall accordingly not be considered to have reached a state of practical completion, if any of the specific requirements as recorded in the Contract Data have not been met"</p> <p>Clause 1.2 is amended by the addition of the following clauses:</p> <p>1.2.6 "No waiver or relaxation of any of the provisions or terms of this agreement (or any agreement or other document issued or executed pursuant to or in terms of this agreement) shall operate as an estoppel against a party in respect of any of its rights in terms of this agreement. No failure by a party to enforce any provision of this agreement shall constitute a waiver of such provisions or affect in any way such party's rights to require the performance of such provision at any time in the future, nor shall a waiver of a subsequent breach nullify the effectiveness of the provision itself"</p> <p>1.2.7 "If the contractor constitutes a joint venture consortium or other unincorporated grouping of two or more persons:</p> <p style="padding-left: 40px;">1.2.8.1 these persons are deemed to be jointly and severally liable to the employer for the performance of this agreement;</p> <p style="padding-left: 40px;">1.2.8.2 these persons shall notify the employer of their leader who has authority to bind the contractor and each of these persons; and</p> <p style="padding-left: 40px;">1.2.8.3 the contractor shall not alter its composition or legal status without the prior written consent of the employer"</p>	Item	
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2	<p>CLAUSE 2.0 LAWS, REGULATIONS AND NOTICES</p> <p>Clause 2.0 is amended by the addition of the following clauses:</p> <p>2.5 Health and Safety Specification - the contractor shall comply with the requirements of the Occupational Health & Safety Act (85/1993) as amended by Occupational Health & Safety Amendment Act (181/1993) and the July 2014 Construction Regulations (refer Clause 8 Section One hereof). The employer will appoint an independent safety officer who will, in consultation with the contractor, draw up and agree the construction phase health and safety plan / specification. This health and safety specification will form an integral part of the principal contract document (making up Annexure "M") and will be copied to all subcontractors for inclusion, as modified, within their respective scope of works</p> <p>2.6 The contractor acknowledges that the undertaking given in this clause constitutes an agreement in terms of Section 37/20 of the Occupational Health & Safety Act and its regulations, whereby all responsibility for health and safety matters relating to the services performed under this agreement shall be the obligation of the service provider. The contractor shall comply with all the laws and regulations which may be relevant to the services performed under this agreement, it being recorded that the presence of the contractor's employees, representatives, authorised subcontractors, machinery, plant equipment and vehicles at the employer's premises shall always be subject to the provisions of the OHS Act and of all other relevant legislation, codes of practice, directives, health and safety rules and security measures and will adhere to and obey all directives and instructions given by the employer in this regard.</p> <p>2.7 Environmental Impact Assessment Regulations - the contractor shall comply with Regulations 1182 and 1183, 1997.</p> <p>2.8 Noise Control Regulations - the contractor shall comply with Regulations 1999</p> <p>2.9 The employer reserves the right to pay direct (i.e. not through the contractor) for all or any permanent connections to local or other authority services, for which provisional amounts have been included within the selected subcontract bill / section hereof. In the event of the employer paying direct for these charges, the contractor will not be entitled to a ten percent (10%) mark-up in terms of Clause A26.4. All such provisional amounts included in the contract sum will be</p>	Item	
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	omitted.			
2.10	<p>The employer and their agents, will not engage directly or indirectly with any Business Forums, local labour groups or any other similar entities (hereafter collectively referred to as Business Forums). Any discussions and / or negotiations with such Business Forums shall be conducted between the contractor and the Business Forum at their own discretion. The contractor is to ensure that the site and the access to the site remains a safe working environment for themselves, their subcontractors, the employer and their agents. The contractor shall appoint a Community Liaison Officer (CLO) to assist with any and all negotiations with the Business Forums as is appropriate. The contractor is to submit a copy of the appointment letter for the CLO to the Principal Agent prior to the commencement of any discussions and / or negotiations with the Business Form.</p> <p>Tenderers are advised that notwithstanding any provisions to the contrary contained in the contract, pending the circumstances an extension of time without cost may be granted at the Principal Agent's discretion in the event that a Business Forum prevents, for any reason, normal construction activities from being carried out on site. No claims will be entertained due to variances in the expected production and / or quality achieved by any subcontractor appointed following engagement with a Business Forum. The contractor will remain responsible for providing adequate supervision of all labour, and will remain responsible for the production and quality of work produced. All costs associated with this clause are to be priced accordingly and included in their preliminaries.</p>			
3	CLAUSE 3.0 OFFER AND ACCEPTANCE		Item	
4	CLAUSE 4.0 CESSION AND ASSIGNMENT		Item	
5	CLAUSE 5.0 DOCUMENTS		Item	
		Carried Forward	R	
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	<p>Clause 5.0 is amended as follows :</p> <p>i) Clause 5.6 is amended by the addition of the following at the end thereof:</p> <p>"Outside of this, the contractor shall be deemed to have made appropriate allowances for plotting and printing of construction information for itself and for issuing to subcontractors"</p> <p>ii) The addition of Clause 5.7</p> <p>"All contract drawings for this project will be issued electronically and the contractor shall be deemed to have received such contract drawings on the date that such contract drawings have been dispatched electronically"</p>		
6	<p>CLAUSE 6.0 EMPLOYER'S AGENTS</p> <p>Clause 6.5 is amended by deleting the last sentence thereof. The contractor shall have no opportunity to reasonably object on the employers appointment of another principal agent.</p>	Item	
7	<p>CLAUSE 7.0 DESIGN RESPONSIBILITY</p>	Item	
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	Brought Forward	R	
	<p>Clause 7.0 is amended as follows :</p> <p>i) Clause 7.1 is amended by the addition of the following :</p> <p>Notwithstanding the provisions of Clause 7.1 hereof, where the contractor undertakes the design responsibility of any aspect of the works, he shall, in accordance with Annexure "H" hereof, indemnify and hold free the employer and his agents from responsibility for any claim or proceeding whatsoever due to fault in the design, detailing, calculations, etc., to the extent undertaken by the contractor. In such instance and with regard to those aspects of work as listed on Annexure "H", the provisions of Clause 7.0 shall not apply.</p> <p>In respect of design responsibility undertaken by any nominated or selected subcontractor, such subcontractor shall similarly, in accordance with Annexure "I" hereof, indemnify and hold free the employer, his agents and the contractor from responsibility for any claim or proceeding whatsoever due to fault in the design, detailing, calculations, etc., to the extent undertaken by the subcontractor.</p> <p>ii) The addition of Clause 7.4</p> <p>"If the contractor fails to obtain the necessary design warranties and/or indemnities from the subcontractors, the design responsibility shall be deemed to devolve upon the contractor"</p> <p><u>INSURANCE AND SECURITY</u></p> <p>8 CLAUSE 8.0 WORKS RISK</p> <p>9 CLAUSE 9.0 INDEMNITIES</p> <p>Clause 9.2.7 is amended as follows:</p> <p>Following the words principal agent, the following is to be added:</p> <p>The Contractor shall act with due care or diligence in accordance with the contractual obligations and shall under no circumstances be relieved or indemnified in any manner whatsoever should the contractor have acted negligently or without the required skill, due care and diligence.</p> <p>10 CLAUSE 10.0 INSURANCES</p>	<p>Item</p> <p>Item</p> <p>Item</p>	
	Carried Forward	R	
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	Brought Forward	R	
	<p>Clause 10.0 is amended by the addition of the following:</p> <p>10.12 The contractor shall effect, as a minimum, the following insurances:</p> <p>a) Insurance to comply with the provisions of the Compensation for Occupational Injuries and Diseases Act 1993.</p> <p>b) Employers Liability Insurance for no less than R10 million</p> <p>) All risks cover on all construction plant and allied equipment including site huts and temporary accommodation including plant and machinery hired, leased or loaned. The Employers interests are to be noted. Furthermore the contractor shall effect and maintain for the duration of the contract Motor Vehicle Liability Insurance company:</p> <p>d) Insurance in accordance with the Multilateral Motor Vehicle Accident fund No 93 of 1989 as amended.</p> <p>e) Balance of Third Party Motor Risks including passenger Liability</p> <p>10.13 Where called upon to do so, the party/ies responsible for effecting the various insurances, shall complete the relevant sections of Annexure "K" - "Declaration Of Insurance" attached</p>		
11	<p>CLAUSE 11.0 SECURITIES</p> <p><u>EXECUTION</u></p>	Item	
12	<p>CLAUSE 12.0 OBLIGATION OF THE PARTIES</p> <p>Clause 12.0 is amended as follows:</p>	Item	
	Carried Forward	R	
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<p style="text-align: right;">Brought Forward</p> <p>i) Clause 12.2.1 shall be amended by the addition of the following:</p> <p>In addition, the contractor shall acquaint himself with any limitations or restrictions on working space, any restrictions imposed by existing buildings adjoining the site, any restrictions imposed by any authorities and any limitations on the availability of water, power and sewerage facilities.</p> <p>Access to the works shall be strictly confined to that permitted by the principal agent. The contractor shall be solely responsible for maintaining such access and reinstating same upon completion. No claim whatsoever shall be entertained due to the access not being trafficable due to weather conditions and the like.</p> <p>No claims for extras arising from the contractor having failed to comply with this clause will be entertained.</p> <p>ii) Clause 12.2.2 shall be amended by replacing the phrase "...fifteen (15) working days..." in the first sentence with the phrase "...seven (7) working days...".</p> <p>iii) Clause 12.2.6 is deleted in its entirety and replaced with the following:-</p> <p>Immediately on award of the contract and prior to commencement on site, the contractor, in conjunction with the principal agent, shall agree the working programme covering the first month of the construction period. During the course of the first month of the construction period, the contractor shall prepare and draw up for the principal agent's approval, a working programme for the balance of the works in accordance with the dates given herein, for possession, sectional completion and practical completion and shall be in sufficient details to enable the principal agent to monitor the progress of the works.</p> <p>The principal agent shall have the right to modify such programme to accommodate changes necessary, in his opinion, for co-ordinating the project as a whole. Any cost implications relating to such modification, shall be dealt with in accordance with the provisions of the agreement.</p> <p>The contractor shall be responsible at all times for maintaining the accuracy, validity and reasonableness of the programme, and the implementation thereof.</p>	R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 P&Gs - Part A</p>	R	

<p style="text-align: right;">Brought Forward</p> <p>The programme shall be compiled based on the critical path method of programming and the critical activities are to be clearly highlighted.</p> <p>Documentation will not be available in complete detail at the commencement stage. However the contractor, in consultation with the principal agent, shall plan the works on provisional information, to an agreed level of detail relating to the level of detailed information available and with sufficient scope to include future detail, without disrupting the basic logic as initially agreed.</p> <p>The quantities contained in this document are provisional and shall be utilized as a guide only for the drawing up of the programme.</p> <p>Where assumptions are made in regard to programming aspects, such assumptions shall be agreed by the contractor and the principal agent, and suitably recorded in the programme.</p> <p>Should circumstances change to the extent where the contractor is of the opinion that changes to the programme are required, then the contractor shall submit a written request to the principal agent for such changes, clearly identifying the reasons for requiring such change. The contractor and principal agent shall thereafter agree such changes, if any.</p> <p>Should the principal agent be of the opinion that the programme requires revisions, and notwithstanding the fact that a request for such revision has not been received from the contractor, the principal agent shall be entitled to instruct the contractor to revise the programme accordingly, unless the contractor can submit reasonable justification for not doing so.</p> <p>Any acceleration and/or special measures sanctioned by the principal agent together with associated effects shall be incorporated in a revision to the programme.</p> <p>The contractor and the principal agent shall, at regular intervals not exceeding two weeks, agree the state of progress of the works relative to the latest agreed revision of the programme. Such agreement shall include the recording of actual commencement and completion dates for each activity and shall constitute the official record of the progress at such point in time.</p> <p>In addition to and based on the programme systems and format dictated above, the contractor shall devise detailed working programmes. These shall be drawn on a regular basis (at least</p>	R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 P&Gs - Part A</p>	R	

<p style="text-align: right;">Brought Forward</p> <p>monthly), to the satisfaction of the principal agent.</p> <p>Such working programmes shall at all times relate to the constraints of the current programme.</p> <p>iv) Clause 12.2.10 is deleted in its entirety.</p> <p>v) Clause 12.2.13 is amended by the addition of the following:</p> <p>The names and CV's of the contractor's proposed management team(Including but not limited to Contracts manager, site agent, foreman, MEPDF Coordinator etc shall be submitted to the principal agent prior to commencement on site and, after the principal agent's agreement on the composition and competence thereof has been obtained, no changes shall be made nor shall any member of the said team be removed from the project while remaining in the employ of the contractor, without the principal agent's prior written approval.</p> <p>vi) Clause 12.2.18 is amended by the addition of the following:</p> <p>The contractor shall erect, maintain, alter as necessary and remove at completion:</p> <p>1.0 Offices accommodation for meetings held on site as per the following requirements:</p> <ul style="list-style-type: none"> • Office to be air conditioned • Scanner <p>2.0 The following equipment / information is to be provided and maintained for use of the professional team:</p> <ul style="list-style-type: none"> • A3 lever arch file with the latest full set of Architectural, civil, structural, electrical, mechanical and fire drawings. <p>3.0 One main notice boards of an approved design as instructed by the principal agent.</p> <p>4.0 The contractor shall have on site available additional hard hats, reflective vests (PPE equipment) as necessary in the event the Clients visitors should visit site.</p>	R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 P&Gs - Part A</p>	R	

		Brought Forward	R	
	vii) The addition of the following clauses			
	12.2.22 "The contractor shall designate a competent person to administer, control and regularly update subcontractor's delivery schedules, long lead items, shop drawing schedules, material / technical submittals, samples submittals and document submittals. This person shall be based full time on site for the construction period "			
	12.2.23 "The contractor shall have a suitably qualified and experienced mechanical, electrical, plumbing and fire services (MEPDF) coordinator as part of the contractor's site management team. This coordinator shall be available once major mechanical, electrical, plumbing and fire services (MEPDF) subcontractors have been appointed and must be based full time on site from commencement of first fix installation inside the buildings up to and including the date of practical completion "			
13	<p>CLAUSE 13.0 SETTING OUT</p> <p>Clause 13.2 is amended by the addition of the following clauses:</p> <p>13.2.5 "The contractor shall notify the principal agent if any encroachment of adjoining foundation, buildings, structures, pavements, boundaries, services, etc exist in order that the necessary arrangements may be made for the rectification of any such encroachments"</p> <p>13.2.6 "The contractor shall continuously perform tolerance control checks throughout the construction period and report on these at regular intervals to the principal agent in a format approved by the principal agent"</p> <p>13.2.7 "Should the contractor fail to comply with this requirement to the satisfaction of the principal agent, progressively as the works is constructed, the employer shall be entitled to commission other parties to do so on the contractor's behalf and at the contractor's expense. The contractor shall provide general attendance and all reasonable assistance to such parties"</p>		Item	
14	CLAUSE 14.0 NOMINATED SUBCONTRACTORS		Item	
15	CLAUSE 15.0 SELECTED SUBCONTRACTORS		Item	
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16	<p style="text-align: right;">Brought Forward</p> <p>CLAUSE 16.0 DIRECT CONTRACTORS</p> <p>Clause 16.0 is amended as follows :</p> <p>(i) Clause 16.1.1 is amended by adding the words "...employer's employees or tenants..." after the word "...direct contractor..." in the first sentence, and by the addition of the following wording:</p> <p>In addition, the employer shall have the right to send his own employees or direct contractors on to the works for the purpose of installing tenant installations and requirements and any other special installations and systems. The contractor is to allow against the relevant items as described in this Clause, for any costs, as no additional claims will be entertained due to the presence on the works of such direct contractors, employers, employees or tenants.</p> <p>(ii) Clause 16.1.2 is amended by the addition of the following wording :</p> <p>The contractor shall not be entitled to any percentage profit or discount on the value of any work executed by direct contractors but shall nevertheless allow these direct contractors and the employer's employees to have access to the works, allocate reasonable space in the building for the storage of their materials, tools and equipment, and co-ordinate via the principal agent, the work of such direct contractors as necessary, all to the satisfaction of the principal agent. The contractor shall allow the direct contractors, etc., to use free of charge, the latrine accommodation and water and power supply on the site, and shall not in any way hinder or prevent the execution of their work.</p>	R Item	
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<p style="text-align: right;">Brought Forward</p> <p>(iii) The addition of the following Clause 16.1.4:</p> <p>The contractor is advised that the following works may be carried out by the employer and / or his direct contractors and/or the employer's employees whether contained in this agreement or not, and/or tenants and the value of such work is not included in the principal building agreement:</p> <p>Furniture Curtaining PABX system Radio and television installation, slot bases, etc. Kitchen and catering equipment Computer installations, data cabling, etc Artwork, paint murals, etc. Burglar alarm, security and access control installations Public address installation Signage, graphics and the like in public areas Standby generators Refrigeration equipment and refrigeration piping Specialist lighting other than that provided by the electrical subcontractor Closed circuit television installation Energy management systems Installations carried out by the employer in the normal course of his business Landscaping and irrigation LPG gas MATV system UPS Point of sale equipment and installation PV installation</p> <p>The contractor should allow for early occupation for the installation of these facilities, specifically computer rooms(s), to enable the direct contractors to finish their first and second fix items on or before practical / sectional completion of the works.</p> <p>A detailed schedule indicating the anticipated early occupation dates for the various items shall be agreed between the contractor and the principal agent.</p>	R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 P&Gs - Part A</p>	R	

<p style="text-align: right;">Brought Forward</p> <p>iv) The addition of the following Clauses:</p> <p>16.1.5 "Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials"</p> <p>16.1.6 "Allow the use of personnel welfare facilities, where provided"</p> <p>16.1.7 "Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation"</p> <p>16.1.8 "Permit the direct contractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right while it remains erected on the site"</p>	R	
<p>17 CLAUSE 17.0 CONTRACT INSTRUCTIONS</p> <p>Clause 17.0 is amended by the addition of the following clauses:</p> <p>17.1.21 Acceleration</p> <p>17.6 Contract Instructions issued by the principal agent or delegated agent. The contractor is required to scan and email all contract Instructions to the Principal agent, Architect and Quantity surveyor, and/or all services consultants where applicable within 24 hours of receipt of said instruction, if this procedure is not strictly adhered to, payment of such instruction will not be certified accordingly.</p> <p>The contractor shall record all instructions and report same in weekly Contract Instruction tracking schedules issued to the principal agent. The principal agent shall determine the Contract Instruction format and only contract instructions issued on the agreed format shall be recognised.</p>	Item	
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		Brought Forward	R
	<u>COMPLETION</u>		
18	CLAUSE 18.0 INTERIM COMPLETION		Item
19	CLAUSE 19.0 PRACTICAL COMPLETION		Item
	<p>Clause 19.3 is amended by the addition of the following Clause:</p> <p>19.3.5 "Notwithstanding the provisions of Clauses 19.3.1 and 19.3.2 any defects occurring after the issue of the list for practical completion requiring remedial work that will in the opinion of the principal agent cause disruption, will cause the issue of the certificate of practical completion to be withheld until such defects have been rectified to the satisfaction of the principal agent"</p> <p>Clause 19.6 is deleted and replaced by the following Clause:</p> <p>19.6 "If the contractor does not achieve practical completion by the applicable date for practical completion, then the employer may with the prior written agreement of the contractor (which shall not be unreasonably delayed or withheld), be entitled to take possession, in its entirety or parts thereof of the works and the site. The employer shall occupy and operate the building as if practical completion has been achieved, (but practical completion shall not be deemed to have taken place and the applicable certificate of practical completion shall not be issued)</p> <p>Such possession, occupation and operation by the employer shall not in any way whatsoever diminish or reduce the contractor's responsibility in terms of this agreement which in this event shall continue to be applied as if practical completion had not been achieved save that the penalty as contained in the contract data shall be reduced. The reduction in penalty will be calculated based on the revenue generating area being taken prior to the achievement of practical completion expressed as a percentage of the total revenue producing area. (Definition of revenue producing area is to be in strict compliance with SAPOA).The contractor shall complete the works in a manner which will least interfere with the employer's occupation and operation of the building, including working after hours, if necessary"</p>		
20	CLAUSE 20.0 COMPLETION IN SECTIONS		Item
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21	<p>CLAUSE 21.0 DEFECTS LIABILITY AND FINAL COMPLETION</p> <p>Clause 21.0 is amended by the addition of the following clauses:</p> <p>21.6.3 The contractor shall complete the items on the list for completion and list for final completion by the expiry of the defects liability period, ninety (90) calendar days from the date of practical completion achievement.</p> <p>Should the contractor not complete the list for completion or list for final completion within the time frame 90 days from Practical Completion), a penalty of five thousand rand (R 5 000 ex Vat) per calendar day shall be applied until achievement of final completion and issuance of the final completion certificate.</p> <p>The contractor shall be responsible to complete all items on the list for completion and list for final completion, failing which, the penalty shall be applied in full and shall remain in full force and effect until achievement and issuance of the final completion certificate.</p> <p>21.13 The certificate of final completion will not be issued until the as built drawings, guarantees and maintenance instructions/manuals in terms of Clause C5.1 hereof has been lodged and approved to the satisfaction of the principal agent and client.</p>	Item
22	CLAUSE 22.0 LATENT DEFECTS LIABILITY PERIOD	Item
23	<p>CLAUSE 23.0 REVISION OF THE DATE FOR PRACTICAL COMPLETION</p> <p>Clause 23.0 is amended as follows :</p> <p>i) Clause 23.2.12 is deleted in its entirety.</p>	Item
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<p style="text-align: right;">Brought Forward</p> <p>ii) Clause 23.1.1 shall be amended by the addition of the following:</p> <p>Revision to the date of practical completion in respect of adverse weather conditions will only be considered by the principal agent, to the extent that the actual recorded adverse weather on site affected work on a critical activity during the course of the contract.</p> <p>ii) Clause 23.4.2</p> <p>Twenty (20) working days shall be replaced with ten (10) working days.</p> <p>iii) Clause 23.5</p> <p>Forty (40) working days shall be replaced with Twenty (20) working days.</p> <p>iv) The addition of the following clauses</p> <p>23.9 "Revision to the date for practical completion shall only be considered when work on the critical path of the approved programme for the works is delayed"</p> <p>23.10 "Notwithstanding anything to the contrary, the contractor shall not be entitled to a revision to the date for practical completion for delays arising from Municipal or other interruptions in energy supply to the site"</p> <p>23.11 "Irrespective of whether or not the principal agent rules that the contractor is entitled to a revision of the date for practical completion, the principal agent shall nevertheless at any time, be entitled to issue a contract instruction to accelerate the progress of the remaining work, to ensure that the works are completed by the date for practical completion</p> <p>Upon receipt of such instruction, the contractor shall take necessary steps to ensure that the works are completed timeously, including the provision by him of additional resources, plant, manpower, etc and the working of overtime or additional overtime beyond that contemplated at the time</p>	R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 P&Gs - Part A</p>	R	

<p style="text-align: right;">Brought Forward</p> <p>of tender (at all times adhering to the regulations and requirements of all authorities) and by all other adequate and proper means and methods. The contractor shall prove that such steps are being taken if called upon to do so</p> <p>The contractor's entitlement to compensation arising out of or in respect of any revision to the date for practical completion that may have been granted by the principal agent, or alternatively, where the principal agent has instructed the contractor to accelerate shall be adjudicated strictly in terms of Clause 26.9.4 hereof.</p> <p>23.12 For the avoidance of doubt, any extension to a Contractual Completion Date shall be reduced to the extent of any concurrent delay for which the Contractor is responsible. The burden of proof rests upon the Contractor in order to prove his delay when an event would have occurred on the critical path showing effect to time and completion</p> <p>23.13 The Contractor is to clearly show and indicate in a line item or several in the programme, the Terminal Float allowance for the project. The Terminal Float belongs to the project and not either party being the Employer and/or the Contractor. The Contractor will provide a detailed Returnable schedule stipulating the Terminal Float duration provisions and what events are foreseen to be covered under the Terminal Float including Contractor's Risk, any Project Risk that a reasonable and experienced Contractor can foresee on the project. The Principal Agent and the Contractor will agree on the conditions set out that will reduce the Terminal Float. The Terminal Float will be managed by the Contractor and Principal Agent at agreed intervals on the reporting period stipulated where, any delays to the project that has been incurred during the reporting period will be assessed based on the stipulated conditions of float adjustment as set out in the terms agreed by the principal agent and contractor. This will then be agreed between the Principal Agent and the Contractor that the Terminal Float will be reduced (provided such justification complies) in order to meet the Contractual Completion Date.</p>	R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 P&Gs - Part A</p>	R	

		Brought Forward	R
24	<p>CLAUSE 24.0 PENALTY FOR LATE OR NON-COMPLETION</p> <p><u>PAYMENT</u></p>		Item
25	<p>CLAUSE 25.0 PAYMENT</p> <p>Clause 25.0 is amended as follows :</p> <p>i) Clause 25.3.2 shall be amended by adding the following:</p> <p>Application by the contractor for the inclusion of materials and goods in an interim payment certificate shall be set out in accordance with Annexures "E" and "F" hereof, separating materials and goods into the work groups as defined in the CPAP (if applicable).</p> <p>ii) Clause 25.10 shall be amended replacing the phrase "...fourteen (14) calendar days..." in the first sentence with the phrase "...twenty one (21) calendar days...".</p> <p>iii) Clause 25.10 shall further be amended by the addition of the following at the end of this clause:</p> <p>"subject to the contractor giving the employer a tax invoice for the amount due"</p> <p>iv) Clause 25.13 shall be deleted and replaced with the following clause:</p> <p>Clause 25.13</p> <p>"The contractor shall pay all subcontractors within seven (7) calendar days of the due date for payment by the employer [CD] and provide proof thereof to the principal agent within five (5) working days of the subcontractor payment due date."</p> <p>v) The addition of the following clause:</p> <p>29.19 "Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance"</p>		Item
		Carried Forward	R
<p>Section No. 1 Bill No. 1 P&Gs - Part A</p>			

<p>26</p>	<p style="text-align: right;">Brought Forward</p> <p>CLAUSE 26.0 ADJUSTMENT TO THE CONTRACT VALUE AND FINAL ACCOUNT</p> <p>Clause 26.0 is amended as follows:</p> <p>i) The addition of Clause 26.2.5</p> <p>The contractor shall notify the principal agent within (5) working days of any contract instruction for which, in his opinion, reasonable compensation can not be made in terms of Clause 26.2.1 to 26.2.4.</p> <p>Failure to issue notice will mean that the contract value will be adjusted on terms of Clause 26.2.1 to 26.2.4.</p> <p>ii) Clause 26.4.1 is amended by addition of the following at the end of this clause:</p> <p>"The employer reserves the right to pay direct (i.e. not through the contractor) for all or any permanent connections to local or other authority services, for which provisional amounts have been included within the contract documents. In the event of the employer paying direct for these charges, the contractor will not be entitled to a ten percent (10%) mark-up [26.4.1]. All such provisional amounts included in the contract sum will, as a result, be omitted"</p> <p>iii) Clause 26.6 shall be amended by replacing the phrase "...forty (40) working days..." in the first sentence with the phrase "...twenty (20) working days..."</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 P&Gs - Part A</p>	<p>R</p> <p>Item</p>	
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<p style="text-align: right;">Brought Forward</p> <p>iv) Clause 26.9.5 is amended by the addition of the following :</p> <p>In accordance with Clause 3.4.4 of the CPAP, the value of equipment in specialist work (e.g. cooling towers, data controlled supervising equipment, etc.) and imported materials / labour requiring adjustment outside of the CPAP, are to be listed in the tender enquiry document or to be separately listed by the tenderer at the time of tender.</p> <p>For the purposes of such listing, attached Annexure "J" has been provided.</p> <p>The value of such equipment in specialist work shall be stated, together with the required basis of adjustment (e.g. SEIFSA, proven costs, etc.,) and the relevant base indices where applicable.</p> <p>In respect of imported materials / labour, the following shall be stated :</p> <ul style="list-style-type: none"> • description of materials, plant, equipment, labour, etc. • country of origin • foreign currency amount and the applicable rate of exchange ruling • as at the date of submission of the tender • the cost, insurance and freight value of the imported materials, • etc., expressed in Rands <p>At the date of acceptance of the tender, the contractor shall further provide a copy of the importation documentation / quotes, substantiating the imported values, currency, etc. as above.</p> <p>The contractor's price adjustment requirements as set out above shall be recorded in Annexure "J" hereto, failing which, it shall be deemed that all such equipment in specialist work and imported materials / labour shall be subject to adjustment in terms of the CPAP, if applicable.</p>	R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 P&Gs - Part A</p>	R	

		Brought Forward	R
	v) The addition of the following clause:		
	26.14 Tenant installations'/users' requirements delayed		
	There is a possibility that certain works related to tenant installations'/users' requirements may have to be delayed and may consequently not be executed prior to practical completion		
	The employer reserves the right to omit such work without compensation to the contractor for loss of profit or any other loss which the contractor may suffer as a result of such omission		
	Should the contractor be instructed to do so he shall execute this work under the conditions pertaining to this agreement on the basis that a separate amount for preliminaries pertinent to this work (if applicable) is agreed to between the contractor and the principal agent and on condition that instruction to proceed with such work is given to him within a period of three (3) calendar months after the date of practical completion of the works		
27	CLAUSE 27.0 RECOVERY OF EXPENSE AND/OR LOSS		Item
	<u>SUSPENSION AND TERMINATION</u>		
28	CLAUSE 28.0 SUSPENSION BY THE CONTRACTOR		Item
29	CLAUSE 29.0 TERMINATION		Item
	Clause 29.0 is amended by addition of the following clause :		
	29.1.4 Provide proof of payment to subcontractors in terms of clause 25.13		
	<u>DISPUTE RESOLUTION</u>		
30	CLAUSE 30.0 DISPUTE RESOLUTION		Item
	Carried Forward to Summary of Section No.		R
	Section No. 1		
	Bill No. 1		
	P&Gs - Part A		

Item No		Quantity	Rate	Amount R
	<u>PART B - GENERAL PRELIMINARIES (JBCC EDITION 6.2 MAY 2018)</u>			
	<u>1.0 DEFINITIONS AND INTERPRETATION</u>			
1	CLAUSE 1.1 DEFINITIONS	Item		
2	CLAUSE 1.2 INTERPRETATION	Item		
	<u>2.0 DOCUMENTS</u>			
3	CLAUSE 2.1 CHECKING OF DOCUMENTS	Item		
	These provisional bills of quantities contain pages as scheduled in the Index.			
	No alteration, erasure, amendment, note, deletion, insertion, omission or addition is to be made to this document. Any such alteration, etc., made will not be recognised, but the reading of these bills of quantities, as prepared by the quantity surveyor, will be adhered to.			
	The tenderer shall check the numbers of the pages of the tender documents and should any be missing or duplicated, or the reproduction is indistinct, or if any doubt exists as to the intent or meaning of any description, or where the contract documents contain any obvious errors, the tenderer shall notify the principal agent forthwith thereof and the principal agent shall promptly give a written directive.			
	No claim whatsoever shall be entertained in respect of errors in pricing due to brevity of descriptions of items in the bills which are fully described when read in conjunction with the relevant "Standard Preambles."			
	Carried Forward			R
	Section No. 1 Bill No. 2 P&Gs - Part B			

	Brought Forward		R
	<p>The rates contained in the priced bills of quantities shall apply irrespective of the final quantities of the different classes and kinds of work actually executed. No claims for extras, loss of profit, variation of rates or other similar claims will be entertained as a result of any variations whatsoever between the contract sum and the final value of the works.</p> <p>Budgetary Allowances and Provisional Sums contained herein may be omitted or reduced at the principal agent's discretion and the contractor shall not be entitled to claim for any loss by way of reduction or omission of any discounts, or percentage relating to Budgetary Allowances or Provisional Sums or any loss of profit related thereto</p>		
4	<p>CLAUSE 2.2 PROVISIONAL BILLS OF QUANTITIES</p> <p>The quantities in provisional bills of quantities are an indication of the works to be executed and are subject to remeasurement</p>	Item	
5	<p>CLAUSE 2.3 AVAILABILITY OF CONSTRUCTION DOCUMENTATION</p>	Item	
6	<p>CLAUSE 2.4 ORDERING OF MATERIALS AND GOODS</p>	Item	
	<p><u>3.0 PREVIOUS WORK AND ADJOINING PROPERTIES</u></p>		
7	<p>CLAUSE 3.1 PREVIOUS WORK - DIMENSIONAL ACCURACY</p> <p>Clause 3.1 is amended by the addition of the following at the end of the paragraph:</p> <p>"In the event that the contractor fails to notify the principal agent to the contrary, it is deemed that the works is dimensionally accurate"</p>	Item	
8	<p>CLAUSE 3.2 PREVIOUS WORK - DEFECTS</p>	Item	
9	<p>CLAUSE 3.3 INSPECTION OF ADJOINING PROPERTIES</p>	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 2 P&Gs - Part B</p>		

Brought Forward			R
	<u>4.0 THE SITE</u>		
10	CLAUSE 4.1 HANDOVER OF SITE IN STAGES	Item	
11	CLAUSE 4.2 ENCLOSURE OF THE WORK	Item	
12	CLAUSE 4.3 GEOTECHNICAL AND OTHER INVESTIGATION	Item	
13	CLAUSE 4.4 ENCROACHMENTS	Item	
14	CLAUSE 4.5 EXISTING PREMISES OCCUPIED	Item	
15	CLAUSE 4.6 SERVICES-KNOWN	Item	
	<u>5.0 MANAGEMENT OF CONTRACT</u>		
16	CLAUSE 5.1 MANAGEMENT OF THE WORKS	Item	
	Clause 5.1 is amended as follows:		
	The additional of the clause 5.3.1		
	5.1.1 The contractor is responsible for the management of the schedule of information required for the successful completion of the project.		
17	CLAUSE 5.2 PROGRESS MEETINGS	Item	
18	CLAUSE 5.3 TECHNICAL MEETINGS	Item	
	Clause 5.3 is amended as follows:		
	Carried Forward		R
	Section No. 1 Bill No. 2 P&Gs - Part B		

	Brought Forward			R
	<p>The additional of the clause 5.3.1</p> <p>5.3.1 The contractor shall ensure that a updated photo diary is kept and maintained at all times.</p>			
	<p><u>6.0 SAMPLES, SHOP DRAWINGS AND MANUFACTURER'S INSTRUCTIONS</u></p>			
19	<p>CLAUSE 6.1 SAMPLES OF MATERIALS</p>	Item		
20	<p>CLAUSE 6.2 WORKMANSHIP SAMPLES</p>	Item		
21	<p>CLAUSE 6.3 SHOP DRAWINGS</p>	Item		
	<p>Clause 6.3 is amended as follows:</p> <p>The additional of the clause 6.3.3</p> <p>6.3.3 The contractor shall ensure that all shop drawings required for the works in terms of this Contract, all subcontracts and/or any principal agent's instruction, are prepared and submitted timeously in accordance with the following procedure:</p> <ul style="list-style-type: none"> • Three prints of shop drawings of all fabricated work, working or setting out drawings, shop details and schedules shall be submitted to the principal agent or delegated agent for approval. Such work shall not be carried out until such approval has been given. • Shop drawings shall be submitted to the principal agent for approval and the contractor is to allow the principal agent a reasonable check period (minimum two weeks) from the date of receipt of shop drawings, before returning the drawings to the contractor in accordance with the works programme. 			
	Carried Forward			R
	<p>Section No. 1 Bill No. 2 P&Gs - Part B</p>			

<p style="text-align: center;">Brought Forward</p> <ul style="list-style-type: none"> • All submissions shall be prepared in accordance with the contract drawings and specifications and/or any principal agent's instructions and any deviation shall be specifically highlighted in writing, with a detailed explanation of the reason for such deviation, together with any cost and/or time implications. <p>Delays in approval of shop drawings due to non-compliance with drawings, specifications and/or principal agent's instructions, shall not constitute ground for any claims for delay, extension of time and the like.</p> <ul style="list-style-type: none"> • When the principal agent advises that shop drawings have been approved, such drawings shall immediately be submitted to the principal agent so that the principal agent's stamp of approval may be appended thereto. Thereafter, four prints of the approved shop drawings, setting out drawings and schedules shall be furnished to the principal agent. As many prints of the approved shop drawings and schedules as required, shall also be furnished to the works. No work shall be performed in accordance with drawings and/or catalogues not stamped with the principal agent's approval. • The contractor, sub-contractor or supplier, as the case may be, shall be responsible for ensuring that all dimensions affecting shop drawings conform to the dimensions of built work. • The principal agent's approval of shop drawings is limited to checking conformity with specification and shall not relieve the contractor, subcontractor or supplier of his responsibility for design, erection or installation fit, nor does it vary his contractual or delictual obligations and liabilities. • Should the contractor, subcontractor or 		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 1 Bill No. 2 P&Gs - Part B</p>		R	

	Brought Forward			R
	<p>supplier be of the opinion that corrections to shop drawings made by the principal agent constitute a change to the scope of work, then he shall immediately advise the principal agent in writing of this, together with the cost and/or programme implications thereof, in order to obtain the principal agent's directive.</p> <p>The addition of clause 6.3.4</p> <p>6.3.4 "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 week check period from the date of the receipt of all shop drawings and/or catalogue data</p> <p>All submissions shall be on dates as indicated in the above schedule and sufficiently in advance to permit the contractor and subcontractors 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"</p>			
22	<p>CLAUSE 6.4 COMPLIANCE WITH MANUFACTURERS' INSTRUCTION</p> <p>7.0 DEPOSITS AND FEES</p>	Item		
23	<p>CLAUSE 7.1 DEPOSIT AND FEES</p> <p>8.0 TEMPORARY SERVICES</p>	Item		
24	CLAUSE 8.1 WATER	Item		
25	CLAUSE 8.2 ELECTRICITY	Item		
26	CLAUSE 8.3 ABLUTIONS AND WELFARE FACILITIES	Item		
	Carried Forward			R
	<p>Section No. 1 Bill No. 2 P&Gs - Part B</p>			

	Brought Forward		R
27	<p>CLAUSE 8.4 COMMUNICATION FACILITIES</p> <p>Clause 8 is amended by the addition of the following clause:</p> <p>8.5 "The contractor shall agree the location of all temporary services with the principal agent before installation and on completion remove the same and make good [8.1, 8.2, 8.3, 8.4]"</p> <p>9.0 PRIME COST AMOUNTS</p>	Item	
28	<p>CLAUSE 9.1 RESPONSIBILITY FOR PRIME COST AMOUNTS</p> <p>10.0 ATTENDANCE ON SUBCONTRACTORS</p>	Item	
29	<p>CLAUSE 10.1 GENERAL ATTENDANCE</p> <p>Clause 10.1 shall be amended by the addition of the following:</p> <p>The contractor shall allow all nominated and selected subcontractors reasonable usage of hoisting facilities whilst they remain erected.</p> <p>The provision and erection of scaffolding by the contractor as required for the execution of works, shall be done in the best interests of the project, whereby nominated and selected subcontractors shall be afforded the opportunity to use the erected scaffolding by prior agreement with the contractor.</p>	Item	
30	<p>CLAUSE 10.2 SPECIAL ATTENDANCE</p> <p>11.0 GENERAL</p>	Item	
31	CLAUSE 11.1 PROTECTION OF THE WORKS	Item	
32	CLAUSE 11.2 PROTECTION / ISOLATION OF EXISTING WORKS AND WORK OCCUPIED IN SECTIONS	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 2 P&Gs - Part B</p>		

Brought Forward			R
33	CLAUSE 11.3 SECURITY OF THE WORKS	Item	
34	CLAUSE 11.4 NOTICE BEFORE COVERING WORK	Item	
35	CLAUSE 11.5 DISTURBANCE	Item	
	<p>Clause 11.5 is amplified by the addition of the following at the end of this clause.</p> <p>All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the construction period or contract value whatsoever"</p> <p>Clause 11.6 is amended by the addition of the following at the end of this clause.</p> <p>"The contractor shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution during the construction period due inter alia to noise, artificial light, wind-blown sand, dust, deposits or mud, etc</p> <p>The contractor is to ensure that all roads which border the site and used by the contractor during the execution of the works are kept clean and free of any dirt or debris caused by the execution of the works"</p>		
36	CLAUSE 11.6 ENVIRONMENTAL DISTURBANCE	Item	
37	CLAUSE 11.7 WORKS CLEANING AND CLEARING	Item	
38	CLAUSE 11.8 VERMIN	Item	
39	CLAUSE 11.9 OVERHAND WORK	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 2 P&Gs - Part B</p>		

	Brought Forward		R
40	CLAUSE 11.10 TENANT INSTALLATIONS	Item	
41	CLAUSE 11.11 ADVERTISING	Item	
Carried Forward to Summary of Section No.			R
Section No. 1			
Bill No. 2			
P&Gs - Part B			

Item No		Quantity	Rate	Amount R
<u>PART C - ADDITIONAL PRELIMINARIES</u>				
The following clauses are additional to, or augment the clauses contained in Part A and B.				
<u>1.0 THE SITE</u>				
1	<p>CLAUSE 1.1 UNAUTHORISED PERSONS ON SITE</p> <p>The contractor shall at all times strictly exclude all unauthorized persons from the works.</p> <p>No workmen are to be allowed under any circumstances to sleep or deposit any personal effects on the premises. The contractor must provide any necessary independent shelters or sheds required for any workmen or watchmen left on the site.</p> <p>Furthermore, the contractor shall take all measures necessary to ensure that no unauthorised workmen are allowed into the building at any time without the specific permission of the principal agent.</p>	Item		
2	<p>CLAUSE 1.2 ACCESS TO SITE</p> <p>Access to the site shall be restricted to enter and exit through one point only or as directed by the principal agent.</p>	Item		
3	<p>CLAUSE 1.3 MAINTENANCE OF ROADS AND SERVICES</p> <p>The contractor shall keep the approaches to the site clear of mud, other debris and the like caused by the contractor or any subcontractors.</p>	Item		
4	<p>CLAUSE 1.4 USE OF BORROW PITS AND DUMP SITES</p>	Item		
Carried Forward				R
Section No. 1 Bill No. 3 P&Gs - Part C				

	Brought Forward		R
	<p>All borrow pits and dump site areas proposed to be used by the contractor shall be subject to prior approval by the principal agent.</p> <p>The contractor shall also be restricted in respect of the manner in which the borrow pits and dump sites will be used and shall be liable to work within the constraints reasonably set by the principal agent. All green star principal are to be strictly adhered to.</p>		
5	<p>CLAUSE 1.5 SURVEY BEACONS</p> <p>The contractor’s attention is drawn to the provisions of Sections 35 and 36 of the Land Survey Act (Act 9 of 1927) in terms of which he will be responsible for the safety of any survey beacons and bench marks and of any plot boundary pegs encountered on the site as well as for all costs incurred in the replacement of moved or damaged survey beacons and bench marks or plot boundary pegs by a Registered Land Surveyor.</p>	Item	
	<p><u>2.0 FINANCIAL ASPECTS</u></p>		
6	<p>CLAUSE 2.1 FIXED PRICE TENDERS</p> <p>Tenderers shall, in respect of general builder’s work (i.e. excluding budgetary allowances and provisional sums allowed for subcontract works), offer a fixed price option in lieu of adjustment in terms of the CPAP in which case, all variations in costs, inter alia costs of labour and materials, taxes (excluding VAT), currency fluctuations, exchange rates, transport charges, plant, overheads, preliminaries, etc., after submission of the offer, shall be to the contractor’s account. Rates shall remain fixed, irrespective of any increase or decrease in the final value of the works and shall remain so for the duration of the contract and also for any extended contract period that may be granted by the principal agent.</p>	Item	
7	<p>CLAUSE 2.2 PRICING OF PRELIMINARIES</p>	Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 3 P&Gs - Part C</p>		

<p style="text-align: center;">Brought Forward</p> <p>These bills of quantities have been formulated in the conventional manner, whereby the preliminaries have been included as a separate section, in order to enable tenderers to price their site establishment costs, site management, etc.</p> <p>In pricing the preliminaries, tenderers are required to price the relevant items individually, as a single lump sum preliminaries amount will not be accepted.</p> <p>In the event that a tenderer elects not to price the preliminaries section as contained within these bills of quantities, then it will be deemed that all relevant preliminaries costs have been included within the rates as tendered within the measured bills of quantities. Adjustment of the preliminaries will, in this instance, only be by way of remeasured final quantities applied to tendered rates. Tenderers acknowledge that by pricing the preliminaries in this way, they will forfeit any claim for the independent adjustment of preliminaries costs arising out of an extension of the construction period granted in terms of Clause A23.0.</p>		R	
<p>8 CLAUSE 2.3 PRICING OF BILLS</p> <p>Tenderers are to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the Standard System of Measurement) patterns, models and templates, plant, temporary works, returning of packing, duties, taxes, imposts, establishment charges, overheads, profit and all other obligations arising out of the agreement.</p>	Item		
<p style="text-align: center;">Carried Forward</p> <p>Section No. 1 Bill No. 3 P&Gs - Part C</p>		R	

<p style="text-align: center;">Brought Forward</p> <p>Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the tenderer's omission to price any item will be entertained.</p> <p>Prices for all plant, temporary works, services and other items provided shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary.</p> <p>The contractor shall execute work during "overtime" hours as necessary in order to complete the project within the agreed construction period and shall provide such resources and work such overtime hours as necessary. Costs for the execution of this work under these conditions shall be included within the contract sum.</p>		R	
<p>9 CLAUSE 2.4 NATURE OF PROJECT IN RELATION TO PRICING</p> <p>Tenderers are advised that the nature of this contract is such that the detail design will evolve in parallel with construction.</p> <p>The Tenderer acknowledges that he is aware that the project detail design and related planning and production of drawings are in an embryonic stage and that the appointments of major selected/nominated subcontractors have yet to take place and that notwithstanding this, the rates and prices contained herein, shall remain of full force and effect.</p>	Item		
<p>10 CLAUSE 2.5 COSTS OF CLAIMS</p>	Item		
<p style="text-align: center;">Carried Forward</p> <p>Section No. 1 Bill No. 3 P&Gs - Part C</p>		R	

	Brought Forward			R
	<p>All costs incurred by the contractor in the preparation of claims to the satisfaction of the principal agent and/or quantity surveyor shall be borne by the contractor. In order to assist the principal agent in adjudicating a claim in terms of clause A26.6, the contractor shall provide a written opinion on all claims, including those submitted by selected/nominated subcontractors, pertaining to reduced time available for execution of the relevant work, out-of-sequence working, lack of access or claims of a similar nature.</p> <p><u>3.0 INSURANCES</u></p>			
11	<p>CLAUSE 3.1 SATISFACTION OF CONTRACTOR AS TO SCOPE OF INSURANCES</p> <p>All insurances to be effected by the Contractor.</p> <p>Where the contractor is responsible for the appointment of sub-contractors, then the contractor shall:</p> <ul style="list-style-type: none"> i) ensure that potential and appointed subcontractors are aware of the whole content of Clause A10.0 ii) ensure the compliance of subcontractor with this Clause where applicable. 	Item		
12	<p>CLAUSE 3.2 CLAIMS UNDER INSURANCE ARRANGED BY THE EMPLOYER</p> <p>All insurances to be effected by the Contractor.</p> <p><u>4.0 HANDOVER, GUARANTEES AND MAINTENANCE INSTRUCTIONS / MANUALS</u></p>	Item		
13	<p>CLAUSE 4.1 AS BUILT DRAWINGS</p>	Item		
	Carried Forward			R
	<p>Section No. 1 Bill No. 3 P&Gs - Part C</p>			

<p style="text-align: center;">Brought Forward</p> <p>Copies of the structural engineer's drawings showing the positions of construction breaks and the extent of individual concrete pours are to be maintained by the contractor for record purposes and are to be submitted to the structural engineers for their records, at the end of the project.</p> <p>The contractor shall be required to ensure that, at the end of the project, copies of the plumbing, drainage and fire services reticulation layouts, showing the position of main pipe runs, the positions of stopcocks and all other salient information, are submitted to the principal agent.</p> <p>All such as-built drawings are required to be lodged prior to the issue of the certificate of final completion (refer Clause A21.0 hereof).</p>		R	
<p>14 CLAUSE 4.2 GUARANTEES AND MAINTENANCE INSTRUCTIONS / MANUALS</p> <p style="text-align: center;">Carried Forward</p> <p>Section No. 1 Bill No. 3 P&Gs - Part C</p>	Item	R	

<p style="text-align: center;">Brought Forward</p> <p>The contractor shall obtain and hand over to the principal agent two weeks prior to practical completion, all relevant guarantees and operating and maintenance manuals, as required by the principal agent or provided by manufacturers, suppliers or subcontractors.</p> <p>The contractor shall ensure that all warranties and guarantees received are fully ceded to the employer on practical completion, failing which, the issue of the practical completion certificate and the release of construction guarantee, will be withheld until this is satisfactorily completed.</p> <p>The guarantees shall state that workmanship, materials and installations are guaranteed for a specified period reckoned from the date of practical completion of the works and that any defects in the workmanship, materials and installation that may arise during that period, shall be made good at the expense of the contractor / subcontractors doing the work, upon written notice from the principal agent or the employer to do so.</p>		R	
<p>15 CLAUSE 4.3 SECURITY AT COMPLETION</p> <p>At completion, the contractor shall leave the works secure with all accesses locked. The contractor shall account for and hand over to the principal agent all keys, properly labelled with an itemised schedule to be signed by the principal agent as receipt.</p>	Item		
<p><u>5.0 GENERAL IN RESPECT OF SPECIALIST INSTALLATIONS</u></p> <p>Note : The contractor is to ensure that the following requirements, as stated in the subcontractor documentation in respect of specialist equipment and services installations by specialist subcontractors under his control, are adhered to:</p>			
<p>16 CLAUSE 5.1 TESTS AND INSPECTIONS PRIOR TO COMPLETION</p>	Item		
<p style="text-align: center;">Carried Forward</p> <p>Section No. 1 Bill No. 3 P&Gs - Part C</p>		R	

<p>17</p>	<p style="text-align: center;">Brought Forward</p> <p>CLAUSE 5.2 PERFORMANCE OF INSTALLATION</p> <p>All specialist plant and equipment, subject to the principal agent’s sole discretion, is subject to acceptance tests, which shall be arranged in the works of the subcontractor / supplier within 10 days of notification that such plant or equipment is available for testing . The subcontractor shall inform the principal agent in writing, indicating the exact dates for these acceptance tests during the course of the last month of manufacture of such plant or equipment.</p> <p>The appropriate consultant (Agent) via the principal agent, will be required to witness and accept, as well confirm same in writing to the client.</p> <p>In the event that the principal agent or his representatives cannot witness such tests, the employer may:</p> <p>i) appoint a specialist inspection organisation to witness such tests at his expense on behalf of the principal agent or his representatives.</p> <p style="text-align: center;">OR</p> <p>ii) accept the subcontractor’s certificate testifying as to the quality and performance of the specialist plant / equipment so supplied.</p> <p>Should no inspection have been made by the date indicated by the subcontractor as set out above, the equipment will be deemed as accepted and packed accordingly for delivery.</p> <p>The final acceptance will take place on site in the presence of the subcontractor responsible for the commissioning of the equipment. The principal agent’s representative shall also be present.</p> <p>The subcontractor shall demonstrate to the principal agent the full scope of operation of the installation and shall ensure that he is</p> <p style="text-align: center;">Carried Forward</p> <p>Section No. 1 Bill No. 3 P&Gs - Part C</p>	<p>Item</p>	<p>R</p>	
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18	<p style="text-align: center;">Brought Forward</p> <p>satisfied that the principal agent is fully aware of all the operational aspects of the installation prior to handover at practical completion stage.</p> <p>The principal agent's shall be afforded access at all reasonable times to such part of the works on site or at the subcontractor's premises or the premises of the manufacturer of component parts, as may be necessary for the purpose of inspecting, examining and testing the materials, workmanship and performance of any plant or equipment for the works.</p> <p>The subcontractor shall be responsible for the tests required by any local statute, building regulation, etc.</p> <p>Any breakdown or mechanical failure and any damage or consequential losses which may arise from such breakdown, mechanical or structural failure, will be the responsibility of the subcontractor.</p> <p>The efficiency of the design is the responsibility of the subcontractor who shall ensure that the quality of workmanship and the installation of equipment meets the requirements of the specification and is done in such a manner that the equipment performance meets with the figures published by the manufacturers an/or suppliers. The subcontractor, by entering into this contract, shall be deemed to have offered his services, workmanship, materials and equipment to meet the requirements of the specification and shall further be deemed to have ensured that the suppliers and manufacturers of the equipment installed by him under this contract, have manufactured and supplied such equipment to perform within the recommended limits of the manufacturer's design and performance figures, as well as to comply with the specification supplied.</p> <p>CLAUSE 5.3 GUARANTEE</p>	Item	R	
	<p style="text-align: center;">Carried Forward</p> <p>Section No. 1 Bill No. 3 P&Gs - Part C</p>		R	

<p style="text-align: center;">Brought Forward</p> <p>The subcontractor shall guarantee the complete installation for a period of one year from the date of acceptance of the installation by the principal agent against defects as a result of patent or latent defects of the design and apparatus, as well as against faulty materials and workmanship. The guarantee must provide that all parts, spares, consumables and appurtenances that become defective during the guarantee period, be replaced free of charge of any nature to the employer. The costs of labour and transportation required to replace such part of a defective installation, shall be borne by the subcontractor and shall be included in his guarantee.</p> <p>The expiry of the one year guarantee period shall in no way relieve the subcontractor of any of his obligations and/or responsibilities in respect of latent defects in terms of Clause A22.0 hereof.</p> <p>The subcontractor shall cede to the employer the remainder of any equipment guarantee which he has received from his suppliers and which extends beyond the period of twelve months mentioned herein.</p>		R	
<p>19 CLAUSE 5.4 COMMISSIONING AND TESTING</p> <p>The subcontractor shall commission and test the entire installation at his own expense, including provision of all test equipment. Such testing is to be done in the presence of the principal agent, who shall have been notified of the dates and approximate duration of the tests, sufficiently in advance so as to allow attendance at such tests</p>	Item		
<p><u>6.0 GENERAL</u></p> <p>20 CLAUSE 6.1 MEDIA RELEASES, ADVERTISING, ETC.</p>	Item		
<p style="text-align: center;">Carried Forward</p> <p>Section No. 1 Bill No. 3 P&Gs - Part C</p>		R	

	Brought Forward		R	
	<p>All rights of publication of articles in the media, together with any advertising relating to, or in any way connected with this project, shall vest with the employer.</p> <p>The contractor together with his subcontractors shall not, without the written consent of the employer, cause any statement or advertisement to be printed, screened or aired by the media.</p>			
21	<p>CLAUSE 6.2 METHOD STATEMENT</p> <p>The contractor shall produce, when required to do so by the principal agent, a method statement outlining the methods of construction and labour and plant resources that he proposes to use in the execution of the works. Any approval given or observation made by the principal agent shall not relieve the contractor of his sole responsibility to adopt the methods of construction and to provide the labour and plant resources necessary for the due and proper timeous execution of the works.</p>	Item		
22	<p>CLAUSE 6.3 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, scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc., to the principal agent for their approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agents 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>	Item		
23	<p>CLAUSE 6.4 STRUCTURAL SAFETY</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 Bill No. 3 P&Gs - Part C</p>			

Brought Forward			R
24	<p>The contractor shall take all reasonable measures to ensure that all alteration works are structurally practicable and safe. The contractor shall provide and price under the relevant demolition item, for all necessary temporary propping and support which may be required.</p> <p>CLAUSE 6.5 CONDEMNED WORK</p> <p>The contractor shall remove from the site all materials not conforming with the relevant specification and condemned by the principal agent, whether incorporated in the works or not. He shall replace such material and re-execute the affected works in accordance with the contract at his own expense.</p>	Item	
25	<p>CLAUSE 6.6 PHOTOGRAPHIC RECORD</p> <p>A two weekly photographic record is to be provided by the contractor in electronic format, recording the state of progress of the works, with each photograph being suitably annotated with the location and date.</p>	Item	
26	<p>CLAUSE 6.7 MODE OF PROCEDURE</p>	Item	
Carried Forward			R
<p>Section No. 1 Bill No. 3 P&Gs - Part C</p>			

<p style="text-align: center;">Brought Forward</p> <p>Notwithstanding anything to the contrary contained herein, the principal agent at all times reserves the right to direct the order in which the various parts of the contract are to be executed. The contractor shall give priority to any individual section or portion of the works that, in the opinion of the principal agent, requires to be expedited.</p> <p>Should the contractor and/or principal agent be of the opinion that such instruction warrants a revision to the contract programme, then the provisions of Clause A12.2.6 hereof shall apply.</p> <p>Should it appear, in the principal agent’s opinion, that work in any area is not being executed in accordance with the requirements of the programme, the contractor shall provide additional manpower and resources and shall work additional overtime and do everything else required to bring the work back to programme to the satisfaction of the principal agent.</p>		R	
<p>27 CLAUSE 6.8 ROYALTIES, PATENT RIGHTS AND FEES</p> <p>The contractor shall indemnify the principal agent against any action, claim, demand, costs or expenses arising from or incurred by reason of any infringement of letters, patent design, trademark, name, copyright or other protected rights in respect of any machine, plant, work, materials, thing, system or method of using, fixing, working or arrangement used or fixed or supplied by the contractor, but such indemnity shall not cover any use of the equipment or part thereof otherwise than in accordance with the provisions of the specification.</p> <p>All payments and royalties payable in one sum or by instalments or otherwise, shall be included by the contractor in the price and shall be paid by him to those to whom they may be due or payable.</p>	Item		
<p style="text-align: center;">Carried Forward</p> <p>Section No. 1 Bill No. 3 P&Gs - Part C</p>		R	

<p style="text-align: center;">Brought Forward</p> <p>In the event of any claim being made or action brought against the principal agent arising out of the matter referred to in this clause, the contractor shall be promptly notified thereof and may, at his own expense, conduct negotiations for the settlement of the same and/or litigation, that may arise therefrom. The principal agent shall not, unless and until the contractor shall have failed to take over and conduct the negotiations of litigation, make any admission which might be prejudicial thereto.</p> <p>The conduct by the contractor of such negotiations or litigation shall be conditional upon the contractor having first given the principal agent such reasonable security as shall from time to time be required by the principal agent, to cover the amount ascertained or agreed or estimated, as the case may be, or any compensation, damage, expenses and costs for which the principal agent may become liable in respect of such infringement as aforesaid. The principal agent shall, at the request of the contractor, afford all available assistance for the purpose of contesting any such claim or action and shall be repaid the expenses incurred in doing so.</p>		R	
<p>28 CLAUSE 6.9 CONTINUOUS SUPPLY OF ELECTRICITY</p> <p>The contractor shall allow for the provision of suitable standby generated power (where required) including all connection, fuel and maintenance costs to meet the requirement of the contract. (Inclusive of load shedding outages)</p>	Item		
<p style="text-align: center;">Carried Forward</p> <p>Section No. 1 Bill No. 3 P&Gs - Part C</p>		R	

Brought Forward

BREAKDOWN OF THE PRELIMINARIES IN CATEGORIES

The following breakdown of the preliminaries is agreed for the adjustment of preliminaries [26.9.4] in terms of Option "A"

Parts	Fixed Items	Value Related Items	Time Related Items
Part A	R		R
Part B	R		R
Part C			
TOTAL	R	R	0 R

29

CLAUSE 6.10 COMMUNITY LIAISON OFFICER

Item

Payment to the CLO to be carried out by the Principal Contractor.

Carried Forward to Summary of Section No.

Section No. 1
Bill No. 3
P&Gs - Part C

R

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>All queries with regards to the site soil conditions and the soils investigation are to be directed to the engineer and copied to the quantity surveyor.</p> <p>If the contractor considers that any of the excavations are more difficult in nature than excavations in "earth", he shall immediately notify the Engineer and quantity surveyor in writing. If the contractor fails to make such notification, the excavations shall be deemed to be in "earth" and shall be measured, and valued, accordingly.</p> <p>The contractor may, with the prior written permission of the Engineer and in terms of the conditions of contract, use any method he chooses to excavate any class of material, but his chosen method of excavation shall not determine the classification of the materials excavated.</p> <p><u>Protection of services</u></p> <p>Tenderers are to take note of the location of existing services as identified on site, and provide for their protection.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 1 Earthworks</p>			<p style="text-align: right;">R</p>

<p style="text-align: right;">Brought Forward</p> <p><u>Carting away of excavated material.</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include handling and transporting excavated material from site to external loading areas and loading excavated material onto trucks from the loading areas or, alternatively, from stock piles situated on the building site. All material shall be carted off site to a dumping site to be located by the contractor.</p> <p><u>Keeping excavations free of water</u></p> <p>The contractor shall protect the excavations from the ingress of water. Any water which occurs in the excavations, whether as a result of seepage, rain, or other causes, shall immediately be removed by baling, pumping, or other approved means.</p> <p><u>Formwork</u></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><u>Specification</u></p> <p>Where BOQ item descriptions are in conflict with Engineers specification, S0000 "General Notes". Then the Engineers specification is to take preference.</p> <p><u>Testing</u></p> <p>Prices for filling are to include for all necessary density tests in accordance with SABS 1200D.</p> <p><u>SITE CLEARANCE</u></p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 1 Earthworks</p>		R	

		Brought Forward		R
	<u>Site Clearance</u>			
1	Clear the whole site of all grass, roots other vegetation, loose surface boulders, rubble and rubbish including cutting down all trees, bush etc., as well as grubbing existing soil 100mm deep.	m ²	13 728	
	<u>BULK EXCAVATION, FILLING, ETC.</u>			
	Note: All filling whether obtained from the stockpiles or an outside source must be approved by the Civil Engineer.			
	<u>FILLING</u>			
	<u>Earth filling supplied by the contractor over sports field</u>			
2	Shape the imported material G8 and spread, level, water and compact to 93% Mod AASHTO density in layers not exceeding 150mm, and backfill to shape platforms as per Engineer's drawing	m ³	5 500	
	<u>EXCAVATIONS, FILLING, ETC. OTHER THAN BULK</u>			
	<u>Excavation in earth not exceeding 2m deep below or reduced level for:</u>			
3	Trenches	m ³	884	
4	Holes	m ³	155	
	<u>Extra excavation in all materials to provide working space, including consequent backfilling compacted to 93% MOD AASHTO density for removing formwork, etc.</u>			
	<u>Exceeding 0.5m and not exceeding 1.5m deep</u>			
5	For placing and removing formwork to bases, walls etc. against excavated faces	m ²	2 601	
	Carried Forward			R
	Section No. 2 Bill No. 1 Earthworks			

Brought Forward				R
<u>Extra over all excavations for carting away</u>				
6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor. (No allowance made for increase in bulk, to be factored in rate)	m ³	705	
<u>Risk of collapse of excavations</u>				
7	Sides of trench and hole excavations not exceeding 1.5m deep	m ²	2 601	
8	Sides of trench and hole excavations exceeding 1.5m deep	m ²	39	
<u>EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER</u>				
<u>Extra over trench and hole excavations in earth for excavation in</u>				
9	Hard rock	m ³	85	
<u>FILLING ETC</u>				
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 95% Mod AASHTO density</u>				
10	Backfilling to trenches, holes, etc	m ³	356	
<u>Earth filling supplied by the contractor under surface beds</u>				
11	Filling of G2 material in accordance with SABS 1200 ME compacted to 98% MOD. AASHTO density. Max. size 37.5mm, PI<6.	m ³	974	
12	Filling of G5 material in accordance with SABS 1200 ME compacted to 95% MOD. AASHTO density.	m ³	1 198	
Carried Forward				R
Section No. 2 Bill No. 1 Earthworks				

Brought Forward			R
13	Filling of G7 material in accordance with SABS 1200 ME compacted to 95% MOD. AASHTO density.	m ³	18
<u>Compaction of ground surfaces</u>			
14	Trim, level off and compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m ²	2 871
<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 ten years</u>			
15	Poisoning of ground surfaces under floors against termites as described including raking out 50 mm deep v-shaped channel against inner face of walls, etc., and flooding with termite poisoning as described	m ²	2 871
16	To bottoms and sides of trenches, etc.	m ²	3 677
<u>BUDGETARY ALLOWANCE</u>			
17	Budgetary allowance for bulk earthworks	Item	300 000.00
Carried Forward to Summary of Section No.			R
Section No. 2			
Bill No. 1			
Earthworks			

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>The costs of preliminary test prior to approval of the Contractor's materials and mixes shall be born by the Contractor.</p> <p>The cost of subsequent tests shall be borne by the Employer unless the results show that the materials or concrete do not conform with the specific requirements.</p> <p>Should the Engineer require any load tests to be carried out due to the Contractor's failure to comply with specified requirements, the costs of such load test shall be borne by the Contractor.</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 architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the architect. (Test cubes are measured separately)</p> <p>Note: As per SANS 1200D, clause 7. The costs of concrete test cubes shall be included in the rates for all concrete. Tests requested by the Engineer shall be paid for by the Employer subject to the Principle Agents written authorisation.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 2 Concrete, Formwork and Reinforcement</p>			<p style="text-align: right;">R</p>

<p style="text-align: center;">Brought Forward</p> <p><u>Concrete</u></p> <p>Where concrete is described as "cast against excavated surfaces" the Contractor is to allow in his rates for additional concrete to make up this tolerance/overbreak. The final net volumes of concrete shall be measurable from drawings only and no claims with regard to additional concrete to compensate for tolerances shall be entertained</p> <p>Contractors are to include for any supplementary materials, placing, pumping, vibration or waste on placed quantities etc.. that are required in order to provide for a fully installed rate. (Net placed volumes are measured in the bills of quantities)</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>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>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 2 Concrete, Formwork and Reinforcement</p>		R	

Brought Forward				R
<u>Specification</u>				
Where BOQ item descriptions are in conflict with Engineers specification, S0000 "General Notes". Then the Engineers specification is to take preference.				
<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
<u>10MPa/19mm concrete</u>				
1	Surface blinding under footings and bases	m ³	50	
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
<u>25 MPa/19mm concrete</u>				
2	Strip footings	m ³	111	
3	Surface beds on waterproofing	m ³	171	
<u>30 MPa/19mm concrete</u>				
4	Strip Footings	m ³	110	
5	Bases	m ³	30	
6	Surface beds on waterproofing	m ³	505	
<u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u>				
<u>25 MPa/19mm concrete</u>				
7	Slabs including beams and inverted beams cast to falls, including penetron admix	m ³	59	
<u>30 MPa/19mm concrete</u>				
8	Ground beams	m ³	94	
Carried Forward				R
Section No. 2 Bill No. 2 Concrete, Formwork and Reinforcement				

Brought Forward			R
9	Columns	m ³ 28	
10	Slabs including beams and inverted beams cast to falls	m ³ 33	
11	Slabs including beams and inverted beams cast to falls, including penetron admix	m ³ 64	
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
12	Tops of beams	m ² 32	
<u>Finishing top surfaces of concrete smooth with a power float</u>			
13	Surface beds, slabs, etc.	m ² 3 352	
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>			
<u>Rough formwork to sides</u>			
14	Bases	m ² 93	
15	Edges, risers, ends and reveals not exceeding 300mm high or wide	m 729	
16	Edges, risers, ends and reveals exceeding 300mm high or wide	m ² 13	
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>Smooth formwork to sides</u>			
17	Rectangular columns, exceeding 3,5m but not exceeding 5m	m ² 112	
18	Rectangular columns, exceeding 8m but not exceeding 9.5m	m ² 230	
Carried Forward			R
Section No. 2 Bill No. 2 Concrete, Formwork and Reinforcement			

Brought Forward			R
19	Beams propped up exceeding 1,5m but not exceeding 3,5m high	m ²	15
20	Beams propped up exceeding 3,5m and not exceeding 5m high	m ²	179
<u>Smooth formwork to soffits</u>			
21	Slabs exceeding 250mm and not exceeding 500mm thick propped up not exceeding 3.5m high to falls	m ²	480
<u>Smooth formwork to sides and soffits</u>			
22	Isolated beam, propped up not exceeding 3.5m	m ²	161
<u>Special formwork to circular and partly circular columns</u>			
23	400mm diameter columns not exceeding 3.5m high above bearing level	No	8
<u>Boxing in smooth formwork to form</u>			
24	20 x 20mm Chamfers along top or bottom edges	m	546
25	20 x 20mm Chamfers along top or bottom edges, circular on plan	m	278
26	20 x 20mm Vertical chamfers at corners	m	990
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u>			
<u>Smooth formwork to soffits</u>			
27	Extra over smooth formwork, degree of accuracy II, for slabs exceeding 250mm but not exceeding 500mm thick propped up not exceeding 3.5m high	m ²	480
<u>MOVEMENT JOINTS, ETC.</u>			
Carried Forward			R
Section No. 2 Bill No. 2 Concrete, Formwork and Reinforcement			

Brought Forward			R
<u>Isolation joints with polyethylene joint former "SONDOR" or similar approved between vertical concrete surfaces, all to Structural Engineer's approval)</u>			
28	10mm Soft joints not exceeding 200mm high	m	572
29	Rake out softboard for a depth of 10mm	m	572
30	Apply 10mm x 10mm Polyurethane joint sealant (Flexothane 1 by ABE or similar approved)	m	518
<u>Saw cut joints</u>			
31	Machine cut open joint 3mm wide x 50mm deep in top of concrete surface bed including short length, etc.	m	756
32	Cut and ream existing joint 10mm x 20mm deep in existing concrete surface bed and prepare to take backing chord and sealant	m	867
33	NOM. 10mm diameter "CORDEX: backing strip by "SONDOR" or similar approved.	m	426
34	Apply 10mm x 10mm Polyurethane joint sealant (Flexothane 1 by ABE or similar approved)	m	426
<u>HOLDING DOWN BOLTS</u>			
<u>Note: the rate below will be for installation only, the bolts will be supplied by the steel Sub-Contractor</u>			
<u>Galvanised steel holding down bolts cast into concrete</u>			
35	M20 L-shaped bolts cast into concrete at exact position required	No	112
<u>NON SHRINK GROUT</u>			
Carried Forward			R
Section No. 2 Bill No. 2 Concrete, Formwork and Reinforcement			

Brought Forward			R
<u>25Mpa non shrink grout under base plates</u>			
36	25mm Thick under 600 x 200mm base plates including chamfering edges	No	14
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>High tensile steel reinforcement to structural concrete work</u>			
37	Bars of various diameters	t	66.19
38	R10-01 Stools at 800mm centers both ways	No	20
<u>Fabric reinforcement</u>			
39	Type 195 fabric reinforcement in concrete surface beds, slabs, etc	m ²	5
40	Type 245 fabric reinforcement in concrete surface beds, slabs, etc	m ²	666
41	Type 395 fabric reinforcement in concrete surface beds, slabs, etc	m ²	20
42	Type 500 fabric reinforcement in concrete surface beds, slabs, etc.	m ²	1 969
43	Type 617 fabric reinforcement in concrete surface beds, slabs, etc.	m ²	216
Carried Forward to Summary of Section No.			R
Section No. 2			
Bill No. 2			
Concrete, Formwork and Reinforcement			

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick.</p> <p><u>Hollow walls etc</u></p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour.</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.</p> <p><u>Cavity Ties</u></p> <p>All cavity ties to be plastic Posi-ties (or similar approved) and are to be included in brickwork rates.</p> <p><u>Sundries</u></p> <p>All brickwork items are deemed to include for hoop iron ties / straps as required. No separate item will be measured or paid for.</p>			
	<p>Carried Forward</p>			R
	<p>Section No. 2 Bill No. 3 Masonry</p>			

Brought Forward			R
<u>FOUNDATIONS</u>			
<u>"CORO MAXI" 90mm Brickwork of NFX bricks (min. 14MPa nominal compressive strength) in class II mortar</u>			
1	Half brick walls	m ²	200
2	One brick walls	m ²	159
<u>SUPERSTRUCTURE</u>			
<u>Brickwork of common clay NFP bricks in class II mortar</u>			
3	Half brick walls	m ²	293
4	One brick walls	m ²	1 543
<u>Extra over for Facebrick walls</u>			
5	Extra over for single skin Roan Satin FBX Facebrick	m ²	763
<u>BRICKWORK SUNDRIES</u>			
<u>Bagging of 1:3 cement and sand mixture to the outer face of the inner skin of external walls, including two coats "Brixéal" Bitumen emulsion waterproofing coating</u>			
6	To external one brick walls	m ²	1 344
<u>Galvanised hoop iron cramps, ties, etc</u>			
7	30 x 1,6mm Cramp 500mm long with one end fixed to timber and other end built into brickwork	No	582
<u>Joint forming material in movement joints</u>			
8	10mm Bitumen impregnated fibre board built in vertically through brick walls not exceeding 300mm wide	m	1 127
Carried Forward			R
Section No. 2 Bill No. 3 Masonry			

Brought Forward			R
<u>Brickwork reinforcement</u>			
9	75mm Wide reinforcement built in horizontally	m	1 384
10	150mm Wide reinforcement built in horizontally	m	5 747
<u>Prestressed fabricated concrete lintels</u>			
11	110 x 70mm Lintels in lengths not exceeding 3m	m	265
<u>FACE BRICKWORK</u>			
<u>Brick-on-edge header course copings, sills, etc of fair face bricks, pointed with recessed joints on all exposed faces</u>			
12	Roan Satin FBX Facebrick on edge window cill with solid brick to ends	m	155
13	Roan Satin FBX Facebrick on edge roller course above windows	m	155
Carried Forward to Summary of Section No.			R
Section No. 2			
Bill No. 3			
Masonry			

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 4</u></p> <p><u>WATERPROOFING</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>General</u></p> <p>PREPARATION : All surfaces to receive waterproofing are to be thoroughly cleaned down to remove grease spots, concrete laitance, etc., wire brushed and free from dust and loose material and thoroughly dry before commencement of any waterproofing.</p> <p>SPECIALIST WATERPROOFER : The waterproofer shall apply the waterproofing and secondary materials in accordance with application techniques which are approved by the manufacturer of the waterproofing.</p>			
	Carried Forward			R
	<p>Section No. 2 Bill No. 4 Waterproofing</p>			

<p style="text-align: right;">Brought Forward</p> <p><u>Materials</u></p> <p>GENERAL : All waterproofing to be layed in accordance with SABS 021-1973 "The Waterproofing of Buildings".</p> <p>BITUMEN : Bitumen primer is to be spread at a rate of 0,3 litres per m² and allowed to dry before the waterproof sheeting is laid.</p> <p>WATERPROOF SHEETING : Tenderers must allow for the design, supply and installation of all waterproofing for areas included . Tenderers are to include for the preparation of the substrate in accordance with manufacturers specifications.</p> <p>Proprietary waterproofing specifications available to tenderers include, but is not limited to, Derbigum, Index, Bituthene. Any proposed specification, which must have a proven track record, shall be submitted to the Principal Agent for comment and record purposes. The sub-contractor shall be an approved applicator of the chosen system/specification. The manufacturer is required to do regular inspections and be present at all flood and drench tests.</p> <p><u>Protection</u></p> <p>All necessary precautions are to be taken for the protection of completed work.</p> <p><u>Prices</u></p> <p>Prices are to include for all preparation of surfaces to receive waterproofing, preparation of surfaces between layers and for cleaning off on completion.</p> <p>Prices are to include for lapping and sealing, etc. and all cutting and waste.</p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 4 Waterproofing</p>		R	

Brought Forward			R
<u>Waterproofing guarantee</u>			
GUARANTEE : The Contractor shall furnish a 10 year waterproofing guarantee for all the waterproofing including flashings, outlets and other details installed.			
<u>DAMPPROOFING OF WALLS AND FLOORS</u>			
<u>One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course</u>			
1	375 micron "Consol Plastics Brikgrip DPC" In walls	m ²	536
2	In cavities, in lintels, under copings, under sills, etc.	m ²	18
<u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
3	Under surface beds	m ²	2 873
<u>Two coats bitumen emulsion waterproof coating</u>			
4	On inside face of external walls	m ²	1 344
<u>MEMBRANE WATERPROOFING</u>			
<u>WATERPROOFING TO ROOF SLABS</u>			
<u>Apply one layer of Derbigum SP4 laid staggered on one layer of Derbigum SP3 with side and end laps to be fully sealed together by torch on fusion to primed surfaces, complete, as per manufacturers details or equally approved.</u>			
5	Surfaces of roofs including turn ups	m ²	552
<u>TRIANGULAR FILLET</u>			
Carried Forward			R
Section No. 2 Bill No. 4 Waterproofing			

	Brought Forward			R
	<u>50 x 50mm triangular screed fillet against walls, etc.</u>			
6	On roof slabs	m	139	
	<u>PROTECTIVE AND DRAINAGE LAYERS</u>			
	<u>Clean crushed stone dressing free of pyrite or other contaminants, of 19mm stone evenly spread with larger stones around outlets</u>			
7	50mm Thick on waterproofing to flat roofs	m ²	480	
	<u>WATERPROOFING TO SHOWERS</u>			
	<u>Superlaykold Rubberized bitumen emulsion set in 80 gsm polyester stitch bonded cloth finished with a coarse sand blinding</u>			
8	On shower walls	m ²	92	
9	On shower floors	m ²	300	
	<u>"Polyglass Adeso Spider P" self adhesive membrane followed by a single layer "Superlaykold" Rubberized bitumen emulsion set on 80g/m² polyester stitch bonded cloth finished with a coarse sand blinding</u>			
10	On shower floors	m ²	11	
	<u>WATERSTOPS, SEALING STRIPS, JOINT SEALANTS, ETC</u>			
	<u>Approved two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc</u>			
11	10 x 10mm in isolation joints in concrete & Brickwork, including reaming out soft board.	m	297	
12	Sealing between concrete and brick surfaces, not exceeding 300 mm wide	m	1 727	
	Carried Forward			R
	Section No. 2 Bill No. 4 Waterproofing			

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 5</u></p> <p><u>ROOF COVERINGS, CLADDINGS, ETC.</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Note:</p> <p>Profiled galvanised sheet iron roofing to be fixed in strict accordance with manufacturer's specifications and instructions. The Tenderer's specific attention is drawn to the fact that periodic inspections will be made by the relevant manufacturers and any costs arising there from due to non-compliance with specifications and recommendations will be to the Contractor's account. The tenderer should note that unless otherwise specified all sheeting and cladding is to be continuous lengths with no end laps Tenderers are to note the lengths of sheets and are to include for milling on site where necessary. The Tenderer is to ascertain the specific requirements with the relevant supplier and include all costs in connection therewith</p> <p><u>Pricing of bills</u></p> <p>The tenderer is to include in his pricing for executing the installation in conjunction with other services as no claim for co-ordination will be entertained at a later stage</p> <p>Tenderers are advised to inspect the drawings issued with this enquiry and to satisfy themselves as to the nature and requirements of the sub-contract. No extras will be allowed due to the sub-contractors failure in this respect.</p> <p>The descriptions contained in these Bills of Quantities are to be read in conjunction with the drawings, and are intended as a means of identifying the various facets of the work, the drawings take precedent over descriptions & quantities contained in this Bill. Tenderers shall allow for all costs in connection with</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 5 Roof Coverings, Claddings, Etc</p>			<p style="text-align: right;">R</p>

<p style="text-align: center;">Brought Forward</p> <p>the various items taking full cognisance of drawings and the Bill of Quantities descriptions.</p> <p>The Contractor shall be responsible for adequately protecting his work during installation and shall provide a suitable protective covering to be removed when so directed by the Main Contractor.</p> <p>Quantities contained in these Bills of Quantities are only indicative of the actual final quantities required and shall not be used for ordering purposes. The Sub-contractor must calculate the correct amount of materials required from the Architect's drawings with waste and rake cutting included in the rates. Final measurement shall be made from Architects construction drawings.</p> <p>All quantities are measures net on the undeveloped surface area as defined in the Standard System of Measurement Edition 7, should a contractor overlap sheets then this is deemed to be included in their tendered rates</p> <p>Rates are deemed to be fixed for the duration of the contract and escalation should be included in the rates, no claims for price increases will be entertained.</p> <p><u>Flashings</u></p> <p>As part of the design supply nature of this bill, the Tenderer is responsible for designing, measuring, pricing and installing all flashings necessary to provide a water tight building.</p> <p>A marked up drawing must be sent to the Architect prior to any installation on site for his verification/approval</p> <p>No claim for extra flashings will be certified unless the Architect specifically requests them in writing to the Principle Agent.</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 5 Roof Coverings, Claddings, Etc</p>		R	

<p style="text-align: center;">Brought Forward</p> <p><u>Cleaning of roof, etc.</u></p> <p>All debris, etc., arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners and sealants, mandrels from pop rivets, off-cuts of flashings and sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc., shall not be left on the roof or in the gutters Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc</p> <p><u>Handling & Storage</u></p> <p>The Contractor shall ensure that all materials used on site for cladding, etc are transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the Contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 5 Roof Coverings, Claddings, Etc</p>		R	

<p style="text-align: center;">Brought Forward</p> <p><u>Inspection prior to installation or erection</u></p> <p>Before commencing installation, the contractor shall verify that the following items have been checked and accepted The entire structure or the portion thereof to be sheeted has been correctly aligned, leveled and grouted Purlins and sheeting rails are at the correct spacing and are within the specified tolerances The corners of the roof are square and the wall framework is perpendicular or as specified No protrusions such as bolt heads, splice plates, cleats, etc., appear on the face of the framework All members to which roofing and cladding are to be fixed in aesthetically sensitive areas are true and square Paint and any other materials that may be incompatible with the sheeting, have been painted over or so dealt with that direct contact with the sheeting is avoided The contact faces between the purlins or the girts and the cladding in the same plane. Should the alignment be inadequate, the Contractor shall request instructions from the Engineer before proceeding with the fixing of the cladding</p> <p><u>Guarantee</u></p> <p>The manufacturer shall comply with ISO9002 Quality Management System sheeting shall be laid in strict accordance with the manufacturer's specifications by an approved Contractor.</p> <p>A written and approved ten year guarantee shall be supplied at time of tender and a certificate of site workmanship and water tightness shall be issued after final inspection by the manufacturer.</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 5 Roof Coverings, Claddings, Etc</p>		R	

Brought Forward				R
<u>ROOF SHEETING AND ACCESSORIES</u>				
<u>0.53mm Thick 700mm cover SAFLOK 700 COLORPLUS interlocking concealed fix roof covering, fixed to steel purlins on galvanised steel trusses, spacing to engineers specifications by means of a SL 700 clip 35 clips secured to purlins in combination with a suitable class SAFINTRA approved water head self-tapping fasteners with roof insulation, in strict accordance with manufacturers specifications.</u>				
<u>Roof Sheeting Coating : AZ150. Roof Pitch : 3 degrees.</u>				
1	Roof sheeting fixed at 3 degree pitch	m ²	1 348	
<u>ROOF INSULATION</u>				
<u>75mm Factorylite with white metalized foil finish laid on galvanised wire (to be included in rate) at 300mm centres in accordance with manufacturers specifications. R-Value - 1.92</u>				
2	To underside of roof sheeting at 3 degree pitch	m ²	1 348	
<u>PROFILED METAL SIDE CLADDING</u>				
<u>0,53mm Thick 700mm cover SAFLOK 700 COLORPLUS interlocking concealed fix roof sheets, fixed to steel structure to form vertical cladding. Sheet Coating : AZ150. Side cladding rolled on site in continuous lengths fixed to steel girts using class 4 fasteners, in strict accordance with manufacturer's specifications - Or similar appoved</u>				
3	Side cladding fixed to girt rails	m ²	445	
Carried Forward				R
Section No. 2 Bill No. 5 Roof Coverings, Claddings, Etc				

Brought Forward				R
<u>ROOF FLASHINGS</u>				
Note: the onus is on the Tenderer to design, measure price and install all flashings in their Tender submission for a water tight building				
<u>Flashings to suit sheeting profile</u>				
4	Barge flashing, 460 mm girth, three times bent, including closures.	m	139	
5	Drip flashing, 150mm mm girths bent three times.	m	130	
<u>RAINWATER DISPOSAL</u>				
<u>GUTTERING</u>				
<u>Seamless Aluminium pre-painted gutters to match roof and side sheeting colour</u>				
6	200 x 200mm including brackets	m	51	
<u>DOWN PIPES</u>				
<u>uPVC rainwater pipes including all required flashing, brackets, fixing and cutting holes into gutters for downpipes etc</u>				
7	110mm diameter rainwater pipes including holderbats fixed to wall	m	40	
8	Extra over 160mm rainwater pipe for 45° bend to suit	No	16	
9	Extra over 160mm rainwater pipe for 90° bend to suit	No	16	
10	Extra over for stop ends to gutter	No	2	
11	Extra over for stop ends to downpipes	No	18	
12	Extra over for outlets	No	9	
Carried Forward				R
Section No. 2 Bill No. 5 Roof Coverings, Claddings, Etc				

		Brought Forward		R
	<u>GEBERIT HDPE PIPES</u>			
13	160mm Diameter pipes cast in concrete columns	m	58	
	<u>Geberit "Balcony Drain Type" fullbore or similar approved outlets including standard 200mm x 200mm grating and adaptor</u>			
14	160mm Diameter vertical outlet type including casting into position on slab	No	14	
Carried Forward to Summary of Section No.				R
Section No. 2				
Bill No. 5				
Roof Coverings, Claddings, Etc				

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 6</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete.</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere.</p> <p><u>Decorative thermosetting plastic laminate covering</u></p> <p>Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish</p> <p><u>Extension of Scope of Work</u></p> <p>The items set out below comprise a part of the total requirements only. The client reserves the right to negotiate extensions to the current scope of work with the successful tenderer under his contract or to issue subsequent tenderers or to negotiate with other potential contractors for such extensions to current scope.</p> <p><u>Measurements</u></p> <p>These Bills of Quantities are provisional and are only indicative of the actual quantities required and should not be used for ordering purposes.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 6 Carpentry and Joinery</p>			<p style="text-align: right;">R</p>

<p style="text-align: right;">Brought Forward</p> <p><u>Protection</u></p> <p>The tenderer will be required to protect his work during the course of construction, which protection shall be adequate for the purpose to the full approval of the Principal Agent. Such protection shall only be removed on written instruction.</p> <p><u>Description</u></p> <p>The description and dimensions of the following items are intended as a means of identifying the items only and are not intended as full descriptions. Tenders are to refer to drawings and make enquiries as no extras will be entertained due to the tenderers failure to do so. The Tenderer shall allow for all costs in his rates to satisfy the above requirements.</p> <p><u>Site Visit</u></p> <p>The tenderer will be deemed to have visited the site to ascertain site conditions and the scope of works.</p> <p><u>Site Measurements</u></p> <p>Measurements are to be taken on site prior to the manufacture of any items.</p> <p><u>Prices</u></p> <p>Prices for all items are to include for site measurements, fabrication, transport, suspension systems, fixing to structural grids, timber trusses and concrete, scaffolding, protection and finishing complete for painting by others.</p> <p><u>SKIRTINGS</u></p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 6 Carpentry and Joinery</p>		R	

Brought Forward				R
	<u>Meranti Skirting</u>			
1	22mm x 125mm Meranti skirting plugged to wall including polysulphide sealant between wall and top of skirting (Auditorium)	m	182	
	<u>FIRE DOORS</u>			
	<u>Kiln dried horizontal slatted 120 minute fire door supplied pre-hung in mild steel door frame with stainless steel hinges</u>			
2	D7 - Single fire door, size 813mm wide x 2,032mm high x 44mm thick	No	3	
	<u>INTERNAL DOORS, ETC.</u>			
	<u>Semi-solid hardwood horizontal routed meranti door by specialists. 86mm x 53mm rebated solid meranti timber frame, door sections to suit door size hardwood quadrant to be provided to both sides</u>			
3	D2 - Single door, size 900 x 2032mm high	No	7	
4	D5 - Single door, size 920 x 2032mm high including 600mm x 150mm high GRILLE	No	18	
5	D6 - Single door, size 813 x 2032mm high	No	15	
	<u>Solid hardwood horizontal routed meranti door by specialists. 86mm x 42mm rebated solid meranti timber frame, door sections to suit 813 x 2032 door size hardwood quadrant to be provided to both sides</u>			
6	D4 - Single door, size 813 x 2032mm high including 600mm x 150mm high GRILLE	No	5	
	Carried Forward			R
	Section No. 2 Bill No. 6 Carpentry and Joinery			

	Brought Forward			R
	<u>Solid Hardwood Horizontal Routed Meranti Doors by specialists with rebated meeting stiles. 86mm x 53mm rebated solid meranti timber frame door sections to suit double door size. Hardwood Quadrant to be provided to both sides.</u>			
7	D3 - Double door, size 1626mm wide x 2,032mm high	No	3	
	Carried Forward to Summary of Section No.			R
	Section No. 2			
	Bill No. 6			
	Carpentry and Joinery			

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 7</u></p> <p><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere</p> <p><u>Ceilings</u></p> <p>Unless otherwise described ceilings shall be deemed to be horizontal</p>			
	<p>Carried Forward</p>			R
	<p>Section No. 2 Bill No. 7 Ceilings, Partitions and Access Flooring</p>			

<p style="text-align: right;">Brought Forward</p> <p><u>Bulkheads</u></p> <p>Bulkheads are defined as those portions of ceilings which are stepped down from the general ceiling level in a particular room or area and which generally occur along the perimeter. Their purpose is either to conceal services or to create architectural features</p> <p>Bulkheads have only been described as such where they conform to the above definition and where the horizontal or vertical dimensions do not exceed 1200mm. Where these dimensions are more than 1200mm such portions of ceilings have been included in the appropriate general items of ceilings</p> <p>Descriptions shall be deemed to include any additional studs at ends and intersections, corner beads, cornices at junctions with ceilings, jointing compound, tape, etc.</p> <p>Unless otherwise described bulkheads shall be deemed to be horizontal along the length</p> <p><u>Supplementary Preambles</u></p> <p>Installation of ceilings, suspension systems, partitioning, etc. to be strictly in accordance with the manufacturer's specifications.</p> <p><u>User note</u></p> <p>The following preamble to be included in the bills of quantities after confirmation of the basic design of the ceilings, lighting, air conditioning, etc.</p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 7 Ceilings, Partitions and Access Flooring</p>		R	

<p style="text-align: center;">Brought Forward</p> <p>Electrical light fittings, diffusers, panels etc are generally "lay-in" units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof).</p> <p><u>Measurements</u></p> <p>These Bills of Quantities are provisional and are only indicative of the actual quantities required and should not be used for ordering purposes.</p> <p><u>Protection</u></p> <p>The tenderer will be required to protect his work during the course of construction, which protection shall be adequate for the purpose to the full approval of the Principal Agent. Such protection shall only be removed on written instruction.</p> <p><u>Description</u></p> <p>The description and dimensions of the following items are intended as a means of identifying the items only and are not intended as full descriptions. Tenders are to refer to drawings and make enquiries as no extras will be entertained due to the tenderers failure to do so. The Tenderer shall allow for all costs in his rates to satisfy the above requirements.</p> <p><u>Site Measurements</u></p> <p>Measurements are to be taken on site prior to the manufacture of any items.</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 7 Ceilings, Partitions and Access Flooring</p>		R	

<p style="text-align: right;">Brought Forward</p> <p><u>Prices</u></p> <p>Prices for all items are to include for site measurements, fabrication, transport, suspension systems, fixing to structural grids, timber trusses and concrete, scaffolding, protection and finishing complete for painting by others.</p> <p><u>Note:</u></p> <p>Cornices, mouldings and trims shall be deemed to include for mitres, intersections and any grooves or shaping detail in the ruining lengths.</p> <p><u>Suspension of Ceilings and Bulkheads</u></p> <p>The successful tenderer will be responsible for the method of suspension of the ceilings, ceiling features, beams, etc. and will be liable for any claim which may be made against the Employer by any person whatsoever or any loss or damage whatsoever which the Employer may suffer arising out of any defects in the suspension system.</p> <p>Tenderers are to allow in their prices for employing an appropriate qualified responsible party/person to check and verify structural design of all suspension systems to ceilings and ceiling features. The signature of such responsible party/person to be on all shop details relating to ceiling suspension system for submission to the Architect/Structural Engineer for approval.</p> <p>The successful tenderer is to indemnify the Employer, Professional Team and Principal Contractor against any failure / defect in the design, detailing, calculation, manufacturing and erection of the ceiling suspension system.</p> <p>The contractor to ensure adequate design indemnity cover for the responsible party/person to be employed for verifying such suspension systems.</p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 7 Ceilings, Partitions and Access Flooring</p>		R	

	Brought Forward			R
	<p><u>Recommendation for Ceiling Inspections</u></p> <p>All off site fabrication and on site erection of suspension systems to be checked and verified by the Architect/Structural Engineer and the tenderer is to give adequate notice to the Architect/Structural Engineer in order for such inspections to take place.</p> <p><u>Steel components</u></p> <p>All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121.</p> <p><u>FLUSH PLASTERED SUSPENDED CEILINGS</u></p> <p><u>Supply and install JUMBO 9 mm JUMBO Plasterboard 3500mm JUMBO main tees at 1200mm centres in one direction and 1200mm JUMBO cross tees at 400mm centres perpendicular to main tees. Main tees to be suspended at 1200mm centres by means of 25 x 25 x 0.6mm galvanised steel angle, hangers fixed to bulb of main tee with wafer tek screws/steel pop rivets and to slab with 6 x 30mm express nails and washers. Fit 9mm JUMBO Plasterboard to the underside of grid system with tapered edge of board facing down with 25mm drywall screws at 150mm centres. Apply 50mm JUMBO tape to all joints and finish the entire ceiling with 3-5mm JUMBO Skimming Plaster. Tested in Accordance with SANS 266:2003 Gypsum Plasterboard.</u></p>			
1	Ceilings suspended not exceeding 2m below soffit	m ²	118	
	Carried Forward			R
	<p>Section No. 2 Bill No. 7 Ceilings, Partitions and Access Flooring</p>			

Brought Forward				R
	<p><u>Supply & fit JUMBO 12mm JUMBO MR Plasterboard Pelican Systems JUMBO MR ceiling system with 12mm thick tapered edge plasterboard fixed at right angles to 35mm JUMBO galvanised steel main and cross tees at 450mm centres, using 25mm drywall screws at 150mm centres. All joints to be taped and plastered with JUMBO Jointing Plaster and prepared for decoration, all in accordance with the manufacturer`s instructions. Tested in Accordance with SANS 266:2003 Gypsum Plasterboard.</u></p>			
2	<p>Ceilings suspended exceeding 1m and not exceeding 2m below concrete soffits</p>	m ²	154	
	<p><u>LAY-IN CEILINGS SUSPENDED FROM CONCRETE SLAB</u></p> <p><u>ThermoCeil vinyl-clad 6 mm calcium silicate panels, aluminium foil backed and with 25 mm thick fire-retardant polystyrene glued to the back, shall be used. Ceiling panels measuring 1,200 × 600 × 31 mm shall be laid on a pre-painted white exposed T-tee suspension system, shot-nailed to the reinforced concrete slab.</u></p>			
3	<p>Lay in ceiling suspended not exceeding 2m below slab.</p>	m ²	89	
Carried Forward				R
<p>Section No. 2 Bill No. 7 Ceilings, Partitions and Access Flooring</p>				

Brought Forward				R
<u>BULKHEADS</u>				
<u>Flush plastered gypsum plasterboard suspended bulkheads</u>				
4	Rectangular bulkheads against wall 500mm wide x 200mm high minimum, suspended not exceeding 1m below concrete soffits	m	63	
<u>TRAPDOORS, ETC.</u>				
<u>Trapdoors fixed to ceiling, including cut-out, etc.</u>				
5	Extra over ceiling for Access Panel comprising matt white powder coated aluminium T-frame 580 x 580mm, including screw fixing through stalk of T-frame into 38 x 38mm softwood branderling / supporting sub-frame	No	14	
<u>CORNICES, ETC.</u>				
<u>Cornice fixed to brickwork, etc.</u>				
6	Supply and install Pelican PS 35 (35 x 35) Aluminium Shadowline pre-painted steel white Shadowline Wall Trim to perimeter of rooms fixed at 450mm centres with wall anchors.	m	726	
Carried Forward to Summary of Section No.				R
Section No. 2				
Bill No. 7				
Ceilings, Partitions and Access Flooring				

Item No		Unit	Quantity	Rate	Amount R
	<p><u>BILL NO. 8</u></p> <p><u>FLOOR COVERINGS, WALL LININGS, ETC</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Pricing of Bills</u></p> <p>The tenderer is to include in his pricing for executing the installation in conjunction with other services as no claim for co-ordination will be entertained at a later stage.</p> <p>Tenderers are advised to inspect the drawings issued with this enquiry and to satisfy themselves as to the nature and requirements of the contract. No extras will be allowed due to the Contractor's failure in this respect.</p> <p>The Contractor shall be responsible for adequately protecting his work during installation and shall provide a suitable protective covering to be removed when so directed by the Project Manager</p> <p>Quantities contained in these Bills of Quantities are only indicative of the actual final quantities required and shall not be used for ordering purposes.</p> <p>The descriptions contained in these Bills of Quantities are intended as a means of identifying the various facets of the work. Tenderers shall allow for all costs in connection with the various items taking full cognizance of drawings, schedule of finishes and the Bills of Quantities descriptions.</p> <p>Final measurement shall be made from construction drawings or from measurements taken on site.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 8 Floor coverings, wall linings, etc</p>				<p style="text-align: right;">R</p>

		Brought Forward			R
	<p><u>Fixing</u></p> <p>Floor coverings shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, etc</p> <p>All carpets where required to be ramped up to meet level of tiling.</p> <p><u>FLOOR COVERINGS</u></p> <p><u>500 x 500 Heavy commercial structured needle punched carpet tiles</u></p>				
1	On floors		m ²	57	
	<p><u>VAPOUR STOP</u></p> <p><u>Apply two coats of TAL, or similar approved vapour stop, and fully blind off the vapour stop surface with TAL or similar approved aggregate, in strict accordance with the manufacturer's specification.</u></p>				
2	On floors		m ²	65	
<p>Carried Forward to Summary of Section No.</p> <p>Section No. 2 Bill No. 8 Floor coverings, wall linings, etc</p>					R

Item No	<u>BILL NO. 9</u>	Quantity	Rate	Amount R
	<u>IRONMONGERY</u>			
	<u>SUPPLY, TRANSPORT AND INSTALL ONLY THE FOLLOWING IRONMONGERY</u>			
	<u>All ironmongery to be Stainless Steel</u>			
	<u>HINGES, BOLTS, ETC</u>			
	ASSA ABLOY or similar approved			
1	1.5 pairs per leaf of UNION 8352-100FLSS SS flush ball bearing butt hinge 100x75x3mm	No	10	
2	1.5 pairs of UNION 8352-100SS201 2BB 102X76X3mm hinge, SS CE PAIRS, 4 X UNION RH7024 patent fixing screw - nickel plated	No	21	
3	1 pairs of UNION 8352-100SS201 2BB 102X76X3mm hinge, SS CE PAIRS	No	15	
4	3 pairs of UNION 8352-100SS201 2BB 102x76x3mm Hinge ss CE Pairs	No	6	
	<u>HANDLES</u>			
	ASSA ABLOY or similar approved			
5	UNION 6109-06SS SS sandpiper lever handle on rose 19mm (Pairs)	No	10	
6	1 of UNION SS5D96L22-05SS 22mm diameter tubular ss dove pull handle on 152x228mm back plate - Euro cylinder	No	7	
7	1 of UNION SS5023R-05-228W 152x228mm stainless steel push plate RH - Euro cylinder	No	7	
	Carried Forward			R
	Section No. 2 Bill No. 9 Ironmongery			

Brought Forward			R
8	UNION PH5320-19-300CFSS to be installed horizontally externally.	No	12
9	SSD93-22-06 Blank 228x76mm backplate	No	27
10	SS76X228-06 Blank 228x76mm plate	No	27
<u>LOCKS</u>			
ASSA ABLOY or similar approved			
11	UNION 2X18SCMKD double cylinder profile MKD SC	No	17
12	UNION SS5305-05SS escutcheon on rose profile (Pairs)	No	10
13	UNION SS5305-73SS escutcheon on rose (Pairs)	No	12
14	UNION SS5305-75SS escutcheon on rose bathroom (Pairs)	No	15
15	Deadbolt - UNION L-2215-78SS/SL UNION E/P cylinder upright lock	No	10
16	Deadlock - 1 of UNION L-2115-78SS Euro cylinder deadlock stainless steel	No	7
17	Deadbolt - UNION SS2016SS Bathroom Deadbolt - stainless steel	No	27
<u>DOOR CLOSERS</u>			
ASSA ABLOY or similar approved			
18	1 of ASSA ABLOY DCA120-40 straight mounting plate for ASSA ABLOY door closers, 1 of ASSA ABLOY DC200 R&P closer en 2-4 sil	Each	3.00
19	1 of ASSA ABLOY DC200 R&P closer en 2-4 sil	No	7
Carried Forward			R
Section No. 2 Bill No. 9 Ironmongery			

Brought Forward			R
<u>SUNDRIES</u>			
ASSA ABLOY or similar approved			
20	1 of UNION J-882-SIL single panic bolt push bar 900mm	No	3
21	UNION 87001SS floor door stop satin ss	No	23
22	UNION AL8208-150AS anodised silver flush bolt	No	6
23	UNION SS5089-150W Kick plate 150x800mm works	No	26
24	UNION SS5023-06-228W 152x228mm stainless steel push plate - blank	No	5
25	UNION 37651AS Paraplegic facility indicator bolt AS	No	6
<u>SIGNAGE</u>			
26	UNION SP5066-06SSE11 FEMALE SIGN 152x152x1.2 ss	No	3
27	UNION SP5066-06SSE10 Male sign 152x152x1.2 ss	No	3
28	UNION SP5066-06SSE14 Paraplegic sign 152x152x1.2 ss	No	6
<u>BATHROOM FITTINGS</u>			
29	UNION SS8025SS Hat & Coat Hook with buffer	No	35
Carried Forward to Summary of Section No.			R
Section No. 2			
Bill No. 9			
Ironmongery			

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 10</u></p> <p><u>STRUCTURAL STEELWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>General</u></p> <p>Drawings issued with this tender document are preliminary and subject to change, contractors are required to check with the Engineer regarding any changes in specification, detail or design, prior to fabrication and/or erection of steelwork.</p> <p>Where temporary bracing or propping is necessary, the tenderer shall be responsible for the design, maintenance and removal of such supports, as may be required.</p> <p>All structural steelwork shall be fabricated and erected in accordance with SANS 2001-CSI, SABS 1200HA, SANS 0162-1993, the latest National Building Regulations (SANS 10400-2011) and the project specifications.</p> <p><u>Descriptions</u></p> <p>Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete.</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.</p> <p><u>Welding</u></p> <p>All welding to be as per SANS 044, SABS 0167 - 1984 and to Engineer's requirements.</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 10 Structural Steelwork</p>			R

<p style="text-align: center;">Brought Forward</p> <p><u>Drawings</u></p> <p>Tenderers are referred to Engineers drawings as listed in each section 'Contract Data - B4.0'. Any further queries should be directed to the Engineer.</p> <p>Drawings issued with this tender are preliminary and subject to change, contractors are required to check with the Engineer regarding any changes in detail or design prior to construction.</p> <p><u>Shop Drawings</u></p> <p>Tenderers will be required to supply electronic & 2 paper copies of full detail "shop drawings" indicating sections and dimensions for approval by the Structural Engineer & Architect, prior to any work being "put in hand".</p> <p><u>Painting</u></p> <p>The proof of submission and certificate of compliance is to be handed over to the Principal Agent which ensures the guarantee is in place for the Client and their representatives.</p> <p>The tenderer is required to price for "shop priming" and paint to all the structural steel elements including anchors, bolts, etc, unless otherwise described as galvanised. After erection has been completed, the steelwork is to be examined, all unpainted steelwork at site connections is to be primed and damaged primer & paintwork is to be touched up.</p> <p><u>Tests</u></p> <p>All standard tests (as required to meet the project specifications, etc) are deemed to be included in the tenderers rates and no extra claims in this regard will be entertained.</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 10 Structural Steelwork</p>		R	

<p style="text-align: center;">Brought Forward</p> <p><u>Final Dimensions for Manufacture</u></p> <p>The successful Tenderer will be required to check and verify all final measurements on site prior to the commencement of any work to be "put in hand". All discrepancies will need to be reported to the Principal Contractor and Structural Engineer.</p> <p><u>Engineers Notes</u></p> <p>General Notes:</p> <ol style="list-style-type: none"> 1. This drawing provides information related to the form of works when completed, together with guidance—where fundamental to the design—for the sequence of construction. This drawing does not purport to include any necessary precautions, items, or components required for construction safety. All such precautions must be taken, and items or components supplied, by the contractor. 2. All work shall be in accordance with SABS 1200 G (Concrete) and SANS 10400, in conjunction with NHBRC standards. 3. No construction shall commence until the municipality, relevant authority, property owner, or wayleave provider has granted approval of the drawings. 4. Read these drawings in conjunction with the architectural drawings, all relevant specifications, and service drawings. Any uncertainties in the specifications or on the drawings must be reported to the engineer as soon as possible. Any discrepancies between the specifications and the drawings must be reported to the engineer. 5. All dimensions, levels, and existing services are to be verified and clearly marked before any work can begin. 		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 10 Structural Steelwork</p>		R	

<p style="text-align: center;">Brought Forward</p> <p><u>Steelwork Notes :</u></p> <ol style="list-style-type: none"> 1. Structural steelwork shall comply with the requirements of SABS 1200H, SANS 10160 Parts 1 & 2, and the project specification. 2. All steelwork shall be grade S355JR unless otherwise noted (U.O.N.). 3. All fixing bolts for structural steelwork shall be M20 grade 8.8 bolts unless otherwise noted (U.O.N.). 4. All welds shall be 6 mm continuous fillet welds unless otherwise noted (U.O.N.). 5. Workshop drawings shall be submitted to the engineer and architect for approval prior to fabrication. 6. All steelwork shall be sandblasted to SA 2.5 and painted with a zinc-rich primer and two finishing coats (total DFT = 150 microns). 7. All steelwork shall be hot-dip galvanized (heavy duty) to ISO 1461. Galvanized surfaces shall be cleaned with Plascon "GalvKleen" using Scotchbrite pads (or similar approved), rinsed with clean water, and allowed to dry. 8. Repairs to hot-dip galvanizing shall be carried out using GalvPatch, applied in accordance with the manufacturer's instructions. 9. All dimensions shall be checked on site. 		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 10 Structural Steelwork</p>		R	

Brought Forward				R
<p><u>THIS BOQ IS A TEMPLATE GUIDE FOR TENDERERS SUBMISSIONS</u></p> <p><u>ALL MEMBER SIZES, DESCRIPTIONS & QUANTITIES ARE THE RESPONSIBILITY OF THE TENDERER AND WILL NOT BE SUBJECT TO REMEASURE UNLESS ARCHITECTURAL DESIGN CHANGES OCCUR.</u></p> <p><u>ITEMS REQUIRED TO BE GALVANISED SHOULD BE IDENTIFIED AND PRICED</u></p> <p><u>PURLINS AND GIRTS SHOULD BE PRE-GALVANISED</u></p> <p><u>GALVANISED STEEL ROOFS</u></p>				
1	165x6.0 C.H.S	t	12.70	
2	102x3.0 C.H.S	t	5.85	
3	50x50x4mm SAG L	t	1.09	
4	60x60x6mm False Rafter	t	0.31	
5	76x3.5 C.H.S	t	1.41	
6	175x75x20x2.5 CLP	t	8.81	
7	50x50x4mm L Cleat, 125mm long with 2M16 Bolts	No	298	
8	100x133 T EX. including 4M20 Grade 8.8 Bolts	No	154	
<p><u>GALVANISED STEEL GRAND STANDS</u></p> <p><u>Welded portal frames with flat bearer, gusset and connection plates and angle cleats, bolted to concrete</u></p>				
9	Grand stand framework, per engineer's design, excluding seats	t	27.58	
Carried Forward				R
<p>Section No. 2 Bill No. 10 Structural Steelwork</p>				

Brought Forward				R
10	Grand stand vastrap plates, per engineer's design, excluding seats	t	6.32	
	<u>CONNECTIONS</u>			
11	Steel plates, connections, bolts, nuts, etc.	t	4.53	
	<u>GALVANISING</u>			
	<u>NOTE: the below item is deemed to be designed, measured, included and priced by the Tenderer</u>			
12	Extra over for hot dip galvanising	t		
	<u>PAINTING</u>			
	<u>Proposed coating system for new mild steel for the internal of a warehouse where the coating will be exposed to a C3 corrosive environment, and where a 10 year material warranty is required</u>			
	<u>Surface preperation</u>			
	Remove all oil , grease and soluble salts by washing with Carboclean 250 and rinsing with potable water to a water break free surface. Remove all loose rust, rust scale and loose or flaking paint by scraping with flat scrapers followed by wire brushing of the rusty areas to St2 of the International Standard ISO 8501-1:1988 followed by sandpapering the existing paint with medium (80-grit)sandpaper to feather edge sharp edges, remove chalking and provide a key. Any mill scale must be removed. The use of small power tools fitted with medium to coarse grinding discs would combine wire brushing and sanding and speed up surface cleaning. Remove dust & prime.			
	<u>As per paint specification attached with Tender</u>			
13	On all steel columns, beams, etc.	t	33.19	
	Carried Forward			R
	Section No. 2 Bill No. 10 Structural Steelwork			

Brought Forward				R
	<p><u>Alternate corrosion protection paint specification :</u> <u>Apply one coat "Plascon" zinc phosphate primer (U.C. 182) in the workshop. DFT = 35 micromillimeters. Apply one coat "Merit Universal" undercoat (UC1) on site, DFT = 25 micromillimeters. Apply one coat "Plascon Universal Super Enamel" on site, DFT = 25 micromillimeters.</u></p>			
14	On all steel columns, beams, etc.	t		Rate Only
	<u>BOLTS, FASTENERS, ETC</u>			
15	Supply only - 20mm Diameter holding down bolts, Main contractor to cast in	No	112	
	<u>BUDGETARY ALLOWANCE</u>			
16	Provide the amount of R286 784.25 (Two Hundred and Eighty Six Thousand Seven Hundred and Eighty Four and Twenty Five) for structural steel allowance.		Item	286 784.25
Carried Forward to Summary of Section No.				R
Section No. 2				
Bill No. 10				
Structural Steelwork				

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 11</u></p> <p><u>METALWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions of bolts, anchors, etc</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete</p> <p>Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><u>ALUMINIUM WINDOWS, DOORS, ETC</u></p>			
	<p>Carried Forward</p>			R
	<p>Section No. 2 Bill No. 11 Metalwork</p>			

Brought Forward				R
<u>Aluminium doors and frames</u>				
<u>Window Description</u> : Extruded aluminium framed window sections shall be fabricated from alloy 6063 or 6061 in temper T5 or T6, all in accordance with the latest edition of BS EN 755. Ventilators shall be pivot hung, outward opening, on stainless steel friction hinges.				
<u>Glazing</u> : 6.38 mm normal strength sand-blasted laminated safety glass shall comply with SANS 1263 Part 1 & 2, with the name of the manufacturer permanently marked on each pane, visible after glazing, in accordance with SANS 10400 Part N Schedule 1 and SANS 10137:2002.				
<u>Ironmongery</u> : 305 stainless steel friction hinges shall be fitted to ventilators. Wedgeless handles shall be by "Wispeco."				
<u>Window Finish</u> : Powder coating shall be Interpon D1025, SANS 1796 compliant, Qualicoat Class 1 compliant powder (60-80 µ), applied by an Interpon-approved applicator in strict accordance with SANS 1578. A 15-year project warranty certificate shall be supplied. Colour: Matt charcoal. All aluminium shall be pre-treated in accordance with SANS 1796 to ensure excellent adherence properties.				
1	W01 (600 x 600)	No	27	
2	W02 (2400 x 600)	No	2	
3	W02 (2400 x 450)	No	4	
4	W03 (600 x 1800)	No	7	
5	W03 (1200 x 1800)	No	2	
6	W04 (1800 x 1500)	No	1	
Carried Forward				R
Section No. 2 Bill No. 11 Metalwork				

Brought Forward			R
<p>Window Description : Extruded aluminium framed fixed window sections shall be fabricated from alloy 6063 or 6061 in temper T5 or T6, all in accordance with the latest edition of BS EN 755.</p> <p>Glazing : 6.38 mm normal strength clear safety glass shall comply with SANS 1263 Part 1 & 2, with the name of the manufacturer permanently marked on each pane, visible after glazing, in accordance with SANS 10400 Part N Schedule 1 and SANS 10137:2002.</p> <p>Ironmongery : N/A</p> <p>Window Finish : Powder coating shall be Interpon D1025, SANS 1796 compliant, Qualicoat Class 1 compliant powder (60-80 µ), applied by an Interpon-approved applicator in strict accordance with SANS 1578. A 15-year project warranty certificate shall be supplied. Colour: Matt charcoal. All aluminium shall be pre-treated in accordance with SANS 1796 to ensure excellent adherence properties.</p>			
7	W05 (1800 x 2380)	No	1
8	W06 (2400 x 2380)	No	2
9	W07 (4840 x 2380)	No	1
10	W08 (2400 x 850)	No	42
<p>Frame : Extruded aluminium sliding door frame sections shall be fabricated from alloy 6063 or 6061 in temper T5 or T6, all in accordance with the latest edition of BS EN 755.</p> <p>Door : Extruded aluminium framed sliding door sections and kickplate shall be supplied and installed by specialists. 6.38 mm normal strength clear laminated safety glass shall comply with SANS 1263</p>			
Carried Forward			R
<p>Section No. 2 Bill No. 11 Metalwork</p>			

<p style="text-align: center;">Brought Forward</p> <p>Part 1 & 2, with the name of the manufacturer permanently marked on each pane, visible after glazing, in accordance with SANS 10400 Part N Schedule 1 and SANS 10137:2002. All glazing shall be completed with 45° glazing beads.</p> <p>Finish : Powder coating shall be Interpon D1025, SANS 1796 compliant, polyester Class 1 powder (60-80 μ thick), applied by a Qualicoat-compliant applicator in strict accordance with SANS 1578. A 15-year project warranty shall be supplied. Colour: Black. All aluminium shall be pre-treated in accordance with SANS 1796 to ensure excellent adherence properties.</p> <p>Ironmongery : ASSA ABLOY or Similar Approved</p> <p>Track 52 × 52 mm aluminium extrusion track. Track length to suit 2100 mm wide double sliding door with wheels. Nylon wheels.</p> <p>Track Fixing Brackets to be used for face mounting or track to be drilled for soffit mounting. Mounting system to be done by specialist.</p> <p>Fascia Aluminium fascia to be as per chosen mounting system by specialist.</p> <p>Hangers Aluminium concealed hangers to be used as per specialist specification.</p> <p>Channel 20 × 21 mm aluminium channel to specialist specification, to be lugged into concrete floor with a flush finish.</p> <p>Electronic Door Operator ASSA ABLOY SL 500-2, 150 mm high × 123 mm deep, or similar, to be installed by specialist. Power supply maximum 250 W.</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 11 Metalwork</p>		R	

Brought Forward				R
11	D01 (5400 x 2380)	No	1	
	<u>BALUSTRADES</u>			
	<u>Wecrolock</u>			
12	Wecrolock Balustrade, 1m high	m	129	
	<u>STEEL GATES</u>			
	<u>Galvanised Steel Gates</u>			
	Hot dipped galvanised steel gate to be priced in accordance with the architects drawing. Drawing No : CW 09 Rev B.			
	No further claims will be accepted for any items missed/not priced on the above mentioned drawing.			
13	G01 (900 x 2270)	No	5	
	<u>LOCKERS</u>			
	<u>Supply, deliver and install change room lockers</u>			
14	<u>SA03</u> "Greenfield" or similar approved epoxy coated lockers - 450 x 450 with L1 HASP and staple	No	30	
	<u>BENCHES</u>			
	Carried Forward			R
	Section No. 2 Bill No. 11 Metalwork			

Brought Forward				R
	<u>Supply, deliver and install steel framed benches with meranti slatted timber seats</u>			
15	<u>SA04</u> "Greenfield" or similar approved 1200mm x 635mm meranti slatted timber seat (WS002) fixed to powder coated grey heavy duty angle iron bench frame(FAD002).	No	4	
	<u>STEEL CORNER TOOL</u>			
16	60mm steel corner tool to be fixed to concrete surface beds, sample to be provided for approval.	m	493	
Carried Forward to Summary of Section No.				R
Section No. 2				
Bill No. 11				
Metalwork				

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 12</u></p> <p><u>PLASTERING</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Notes</u></p> <p>These Bills of Quantities are provisional and are only indicative of the actual final quantities required and should not be used for ordering purposes.</p> <p>All paint used must be applied in strict accordance with manufacturer's instructions.</p> <p><u>Protection</u></p> <p>The contractor will be required to protect his work during the course of construction, which protection shall be adequate for the purpose to the full approval of the Architect. Such protection shall only be removed on written instruction.</p> <p><u>Description</u></p> <p>The description and dimensions of the following items are intended as a means of identifying the items only and are not intended as full descriptions. The Tenderer shall allow for all costs in his rates to satisfy the above requirements as no extras shall be entertained due to the contractors failure to do so.</p> <p>V-Joints or the like between brick and concrete surfaces shall be deemed to be included in the external plaster on walls rate.</p> <p><u>SCREEDS</u></p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 12 Plastering</p>			<p style="text-align: right;">R</p>

Brought Forward				R
<u>Screeds on wood / power floated concrete</u>				
1	Average 25mm thick	m ²	649	
2	Average 100mm thick to falls and currents to receive waterproofing	m ²	491	
3	3mm self-levelling screed	m ²	57	
<u>INTERNAL PLASTER</u>				
<u>One coat (5:1) cement plaster on brickwork</u>				
4	On walls	m ²	2 854	
5	On narrow widths	m ²	83	
<u>One coat gypsum skim plaster to concrete soffits</u>				
6	On soffits	m ²	53	
<u>FEATURE WALL ALLOWANCE</u>				
<u>Feature wall Allowance</u>				
7	Feature wall allowance	Item		77 000.00
<u>EXTERNAL PLASTER</u>				
<u>One coat (5:1) cement plaster on brickwork</u>				
8	On walls	m ²		
9	On narrow widths	m ²	23	
<u>One coat (5:1) cement plaster on concrete finished with a wood float</u>				
10	On columns	m ²	303	
Carried Forward to Summary of Section No.				R
Section No. 2				
Bill No. 12				
Plastering				

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 13</u></p> <p><u>TILING</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions and Quantities</u></p> <p>The descriptions of the items in this document are intended as a means of locating and identifying the items only and are not intended as full descriptions and specifications of items. Quantities contained in these Bills of Quantities are indicative only and shall not be used for ordering purposes.</p> <p>The Descriptions contained in these Bills of Quantities are to be read in conjunction with the tender drawings and are not intended as a means of identifying the various facets of the works. Tenderers shall allow for all costs in connection with the various items taking full cognizance of the tender drawings, specifications and descriptions in the Bills of Quantities.</p> <p><u>Prices</u></p> <p>All quantities are measured net, based on actual areas shown on the drawings. Pricing must allow for all wastage, cutting, holes, drilling and protection of existing finishes, during the progress of the works and allow for cleaning off upon completion.</p> <p><u>Final Measurement</u></p> <p>Final site measurements and requirements shall be made using the latest revision of construction issue drawings.</p>			
	<p>Carried Forward</p>			R
	<p>Section No. 2 Bill No. 13 Tiling</p>			

<p style="text-align: right;">Brought Forward</p> <p><u>Protection</u></p> <p>The contractor will be required to protect his work during the course of construction and installation, which protection shall be adequate for the purpose, to the full approval of the Principal Agent. Such protection shall only be removed upon written instruction from the Principal Agent.</p> <p>Should the tenderer decide that the above mentioned minimum specification is not sufficient and additional protection is required, the tenderer will obtain approval from the Architect prior to tender submission for any such additional protection and include for the same in this tender.</p> <p>Tenderers are to allow for all costs associated with the above mentioned requirements, as no extras will be entertained due to the tenderers failure to do so.</p> <p>Should the contractor not make a seperate allowance for protection, it will be deemed included within their rates and no claims will be entertained in this regard.</p> <p><u>Supplier Contact Details</u></p> <p>Tenders are required to familiarise themselves with the suppliers terms and conditions at the time of tender. Particularly payment and delivery conditions are to be noted to avoid any delays, and no claim relating to payment of suppliers will be entertained at a later stage.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Tiling Adhesive</u></p> <p>The Tenderers are to submit to the Principal Agent a full specification regarding the tile adhesive and grouting before any construction starts, for his written approval. Tenderers are to allow for this in their rates as no claims will be entertained in this regard.</p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 13 Tiling</p>		R	

		Brought Forward		R
<u>Substrate preparation</u>				
Tenderers are to note that it has been assumed that tiling will generally be fixed with adhesive to one of the following substrates:				
Existing concrete surface beds / slabs				
New concrete surface beds / slabs				
Brickwork				
Concrete columns and walls				
<u>WALL TILING</u>				
<u>Supply and install 600 x 300 x 6.5 mm glazed ceramic tiles to be installed to ceiling height and around window reveals, with 3 mm straight joints and fixed using 3 mm spacers, TAL Pro-Bond adhesive, and TAL wall and floor white grout. Square aluminium strips shall be provided on two sides of the tiling. Tiles shall be laid in a horizontal pattern. (PC R 250/m2)</u>				
Supply and install to plastered walls				
1	Supply	m ²	1 201	
2	Waste	m ²	1 201	
3	Adhesive & grout	m ²	1 201	
4	Labour	m ²	1 201	
5	Profit	m ²	1 201	
<u>FLOOR TILING</u>				
		Carried Forward		R
Section No. 2				
Bill No. 13				
Tiling				

Brought Forward				R
<p><u>Supply and install 600 x 600 mm full-bodied anti-slip porcelain tiles shall be fixed with Goldstar 6, or similar approved porcelain tile adhesive, and grouted with TAL or similar approved wall and floor grout, using 5 mm spacers. Tile colour shall be approved by the architect. Movement joints shall be provided around the perimeter of all floors and shall be located in both directions at a maximum of 3-metre centres for each application. (PC R 250/m2)</u></p> <p>Supply and install to power floated floors</p>				
6	Supply	m ²	300	
7	Waste	m ²	300	
8	Adhesive & grout	m ²	300	
9	Labour	m ²	300	
10	Profit	m ²	300	
<p><u>Supply and install 600 x 600 mm full-bodied porcelain tiles shall be fixed with Goldstar 6, or similar approved porcelain tile adhesive, and grouted with TAL or similar approved wall and floor grout, using 5 mm spacers. Tile colour shall be approved by the architect. Movement joints shall be provided around the perimeter of all floors and shall be located in both directions at a maximum of 3-metre centres for each application. (PC R 250/m2)</u></p> <p>Supply and install to power floated floors</p>				
11	Supply	m ²	349	
12	Waste	m ²	349	
13	Adhesive & grout	m ²	349	
14	Labour	m ²	349	
Carried Forward				R
<p>Section No. 2 Bill No. 13 Tiling</p>				

Brought Forward				R
15	Profit	m ²	349	
	Supply and install 100mm high skirting to match floor finish			
16	Supply	m	634	
17	Waste	m	634	
18	Adhesive & grout	m	634	
19	Labour	m	634	
20	Profit	m	634	
	<u>300x300mm Non-slip full body Mosaic tiles, laid on powerfloated concrete, including all adhesives, spacers, grout and wastage complete (PC R550/m2)</u>			
	Supply and install to powerfloated shower floors and plastered walls			
21	Supply	m ²	11	
22	Waste	m ²	11	
23	Adhesive & grout	m ²	11	
24	Labour	m ²	11	
25	Profit	m ²	11	
	<u>SUNDRIES</u>			
	<u>Aluminium corner protectors, stair nosings, expansion, joint strips, etc.</u>			
26	12mm Aluminium straight edge trims	m	761	
27	Polysales Tile Cap TC48SA or similar approved	m	114	
Carried Forward				R
	Section No. 2 Bill No. 13 Tiling			

		Brought Forward		R
28	Aluminium wood grip matt silver carpet trim by Kirk Marketing or similar approved.	m	2	
29	M.Trim or Similar approved, Aluminium heavy duty movement joint 10mm black infill to accommodate 10mm floor tile.	m	364	
Carried Forward to Summary of Section No.				R
Section No. 2				
Bill No. 13				
Tiling				

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 14</u></p> <p><u>PLUMBING AND DRAINAGE</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Stormwater channels</u></p> <p>Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, disposal of surplus material on site, concrete, formwork and reinforcement, etc</p> <p><u>Manholes, grid inlets, catchpits and sumps</u></p> <p>All manholes, grid inlets, catchpits and sumps are to be priced complete including necessary excavation, concrete base, brickwork, bending, ring beams and backfill. Covers and frames are measured separately.</p> <p><u>Soak-away drain</u></p> <p>Descriptions of soak-away drain shall be deemed to include excavation, stone filling graded 75mm diameter nominal railway ballast, "Bidim" geofabric filter blanket over stone, 300mm earthfilling over and disposal of surplus material on site</p>			
	<p>Carried Forward</p>			R
	<p>Section No. 2 Bill No. 14 Plumbing and Drainage</p>			

<p style="text-align: right;">Brought Forward</p> <p><u>Septic tanks</u></p> <p>Descriptions of proprietary type septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions and disposal of surplus material on site</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0)</p> <p>Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8)</p> <p>Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8)</p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals, etc are to be sealed against adjacent surfaces with approved silicone</p> <p><u>uPVC pipes and fittings</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings</p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 14 Plumbing and Drainage</p>		R	

<p style="text-align: center;">Brought Forward</p> <p><u>uPVC pressure pipes and fittings</u></p> <p>Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings</p> <p>Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>High density polyethylene (HDPE) pipes and fittings</u></p> <p>Pipes shall be type IV and of the class specified with "Plasson" or "Alprene" compression fittings</p> <p><u>"Polycop" polypropylene pipes</u></p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or where so described "Polylock" compression fittings</p> <p>Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard "Maksal" pipes of the class described. 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</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 14 Plumbing and Drainage</p>		R	

<p style="text-align: center;">Brought Forward</p> <p>Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained</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>Paper wrapping to pipes</u></p> <p>Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings</p> <p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere)</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 14 Plumbing and Drainage</p>		R	

<p style="text-align: center;">Brought Forward</p> <p><u>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.</u></p> <p>Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with 20% overlaps</p> <p>Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including mastic, tape, "Layflat" sheeting, securing of same, etc</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p> <p><u>Laying, backfilling, bedding, etc of pipes</u></p> <p>Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled</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 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE : Stormwater drainage</p> <p>Pipe trenches, etc shall be backfilled in accordance with Clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200DB : Earthworks (Pipe trenches)</p> <p>Pipes shall be bedded in accordance with Clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB : Bedding (Pipes)</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 14 Plumbing and Drainage</p>		R	

<p style="text-align: center;">Brought Forward</p> <p><u>As-built drawings</u></p> <p>Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere)</p> <p><u>Classification of excavated materials</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"</p> <p>If the contractor considers that any of the excavations are more difficult in nature than excavations in "earth", he shall immediately notify the Engineer and quantity surveyor in writing. If the contractor fails to make such notification, the excavations shall be deemed to be in "earth" and shall be measured, and valued, accordingly.</p> <p>The contractor may, with the prior written permission of the Engineer and in terms of the conditions of contract, use any method he chooses to excavate any class of material, but his chosen method of excavation shall not determine the classification of the materials excavated.</p> <p><u>Carting away of excavated material</u></p> <p>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</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 14 Plumbing and Drainage</p>		R	

<p style="text-align: right;">Brought Forward</p> <p><u>Testing</u></p> <p>The cost for density tests on filling shall be allowed for in the compaction and filling rates as per Clause 7 SANS 1200D</p> <p><u>Excavations</u></p> <p>Tenderers are to note Over break in excavations is expected due to the nature of the insitu material. There shall be NO ADDITIONAL PAYMENT for additional backfill material required to backfill any trench to completed levels. The rates tendered under the relevant excavation items in the Bill of Quantities shall include for making up overbreak.</p> <p>The rates tendered under the relevant items in the Bill of Quantities shall include for battering or shoring and no additional payment will be made for making the excavations safe.</p> <p><u>Measurements and Bills of Quantities</u></p> <p>All measurements will be Net on plan measured off construction drawings and all costs are to include for longitudinal lengths and required falls within the tendered rates. Any additional lengths due to falls and longitudinal requirements is to be included in the tendered rates and not the quantities.</p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 14 Plumbing and Drainage</p>		R	

Brought Forward			R
<u>WATER STORAGE</u>			
<u>TANK INSTALLATION</u>			
<u>Supply and install water storage tanks as per manufacturer's specification and recommendation</u>			
1	10,000 Litre elevated "Jojo" tanks including bib taps, HDPE pipes connected to bib taps and all "Jojo" associated items supplied and installed complete. Tanks to be on installed on 10m high steel supports (Steel supports measured elsewhere)	No	3
2	54,000 Litre elevated Sectional Steel tank including bib taps, HDPE pipes connected to bib taps and all steel tank associated items supplied and installed complete. Tanks to be on installed on 10m high steel supports (Steel supports measured elsewhere)	No	1
Carried Forward			R
Section No. 2 Bill No. 14 Plumbing and Drainage			

Brought Forward				R
<u>STORMWATER DRAINAGE</u>				
<u>Class 34 uPVC pressure pipes including couplings supplied and laid in trenches on class B bedding and including excavations in earth, risk of collapse, selected backfilling from excavated material and carting away surplus material to a location within free haul distance off the site</u>				
3	160mm diameter pipes exceeding 1m not exceeding 2m deep	m	50	
4	200mm diameter pipes exceeding 1m not exceeding 2m deep	m	83	
5	250mm diameter pipes exceeding 1m not exceeding 2m deep	m	60	
6	300mm diameter pipes exceeding 1m not exceeding 2m deep	m	3	
7	355mm diameter pipes exceeding 1m deep and not exceeding 2m deep	m	77	
<u>Subsoil Drainage</u>				
8	<u>160mm diameter perforated rain, laid to fall within 300x300 gravel drain, wrapped in A4</u>	m	944	
9	Extra over for 45 degree junctions	No	20	
<u>Dished Concrete Channel</u>				
10	300mm wide surface water channel (SWC 4) by L.G Green or similar approved. Joints to be sealed appropriately.	m	191	
<u>Manholes, catchpits, etc</u>				
All manholes, catchpits, etc. to the Civil Engineer's satisfaction and in accordance with their detail drawings				
Carried Forward				R
Section No. 2 Bill No. 14 Plumbing and Drainage				

Brought Forward			R
	<u>Excavate for and construct manhole or grid-inlet structure 450 x 450mm internally of one brick sides in Engineering bricks Type NFXE-14, including step-irons, on 200mm concrete base class 25/19 with mesh ref. 395, the base benched up in class 20/13 concrete finished smooth, with and including 890 x 890 x 200mm thick reinforced concrete top slab with 450Ø opening for cast iron cover and frame. Cover and frame elsewhere measured.</u>		
11	Exceeding 1m deep but not exceeding 2m deep	No	Rate Only
	<u>Excavate for and construct manhole or grid-inlet structure 600 x 600mm internally of one brick sides in Engineering bricks Type NFXE-14, including step-irons, on 200mm concrete base class 25/19 with mesh ref. 395, the base benched up in class 20/13 concrete finished smooth, with and including 1040 x 1040 x 200mm thick reinforced concrete top slab with 600Ø opening for cast iron cover and frame. Cover and frame elsewhere measured.</u>		
12	Exceeding 1m deep but not exceeding 2m deep	No	17
<u>Covers, frames, etc</u>			
<u>Grid Inlets</u>			
13	450 x 450 mm heavy-duty (HD) polymer, tamper-proof grid inlet, including cover and frame, shall be SABS approved.	No	Rate Only
14	600 x 600 mm heavy-duty (HD) polymer, tamper-proof grid inlet, including cover and frame, shall be SABS approved.	No	9
<u>Manhole Covers</u>			
15	450 x 450 mm heavy-duty (HD) polymer manhole cover and frame, all tamper-proof, shall be SABS approved.	No	Rate Only
Carried Forward			R
Section No. 2 Bill No. 14 Plumbing and Drainage			

Brought Forward			R	
16	600 x 600 mm heavy-duty (HD) polymer manhole cover and frame, all tamper-proof, shall be SABS approved.	No	8	
	<u>Sundries</u>			
17	Allow for the testing of new installation		Item	Rate Only
	<u>INTERNAL DOMESTIC RETICULATION</u>			
	<u>HDPE pipes including straight couplers, fittings, bend, junctions, reducers etc in the running lengths, chased into or fixed to walls or fixed to underside of concrete slabs with 'Sikla" or similar approved rubber insert brackets at required centres. Water pipes installed and fixed to purlins to include suitable purlin clip holderbat. NB. Labour bends are deemed to be included in the lineal metre rates</u>			
18	15mm Pipes	m	138	
19	22mm Pipes	m	286	
20	32mm Pipes	m	108	
21	50mm Pipes	m	66	
	<u>Extra over piping for compression fittings</u>			
22	15mm Pipes	m	110	
23	22mm Pipes	m	85	
24	32mm Pipes	m	21	
25	50mm Pipes	m	8	
	<u>Extra over piping for building paper before plastering, tiling etc</u>			
26	15mm Pipes	m	138	
	Carried Forward			R
	Section No. 2 Bill No. 14 Plumbing and Drainage			

Brought Forward			R
27	22mm Pipes	m	286
28	32mm Pipes	m	108
29	50mm Pipes	m	66
<p><u>Valves, non return valves, meters, strainers etc, all to include for adaptors to the equivalent NOMINAL BORE SIZE of piping.</u></p>			
30	15mm diameter ball valve including adaptors to piping	No	30
31	22mm diameter ball valve including adaptors to piping	No	24
32	32mm diameter ball valve including adaptors to piping	m	20
33	50mm diameter ball valve including adaptors to piping	No	4
Carried Forward			R
<p>Section No. 2 Bill No. 14 Plumbing and Drainage</p>			

Brought Forward			R
<u>SOIL DRAINAGE</u>			
<u>SOIL DRAINAGE PIPING AND FITTINGS</u>			
<u>uPVC pipes including couplings, bends, t-junctions and all associated fittings supplied and laid in trenches on class B bedding and including excavations in earth, risk of collapse, selected backfilling from excavated material and carting away surplus material to a location within free haul distance of the site</u>			
34	50mm diameter pipes not exceeding 1m deep	m	51
35	110mm diameter pipes exceeding 1m not exceeding 2m deep	m	54
<u>Extra Over Piping for fittings</u>			
36	50mm Junctions	No	114
37	50mm Access bends	No	76
38	50mm to 110mm Reducers	No	133
39	45° Bend to suit 50mm pipe	No	190
40	90° Bend to suit 50mm pipe	No	20
41	110mm flexible pan connectors	No	40
Carried Forward			R
Section No. 2 Bill No. 14 Plumbing and Drainage			

Brought Forward			R
<u>Class 34 uPVC pipes including couplings, bends, t-junctions and all associated fittings supplied and laid in trenches on class B bedding and including excavations in earth, risk of collapse, selected backfilling from excavated material and carting away surplus material to a location within free haul distance of the site</u>			
42	50mm diameter pipes not exceeding 1m deep	m	67
43	110mm diameter pipes not exceeding 1m deep	m	23
44	110mm diameter pipes exceeding 1m and not exceeding 2m deep	m	77
45	160mm diameter pipes exceeding 1m not exceeding 2m deep	m	267
46	160mm diameter pipes exceeding 2m and not exceeding 3m deep	m	72
<u>Extra over all excavations for excavation in</u>			
47	G5 Imported Selected fill	m ³	185
48	Intermediate material	m ³	60
49	Hard rock	m ³	15
50	Soft rock	m ³	8
<u>Extra over class 34 uPVC sewer and drain pipes for fittings</u>			
51	Rodding eye to suit 110mm diameter pipe externally	No	12
52	Inspection eye to suit 110mm diameter pipe externally	No	20
53	Soil stack to suit 110mm diameter pipe	No	154
Carried Forward			R
Section No. 2 Bill No. 14 Plumbing and Drainage			

Brought Forward			R
54	Vent stack including all associated fittings to suit 110mm diameter pipe	m	50
55	50mm Diameter PVC Condensate drain recessed in wall with 100mm stub including 'P'-Trap below floor slab	No	10
56	45° Bend to suit 110mm pipe	No	16
57	90° Bend to suit 110mm pipe	No	40
58	45° Tee junction to suit 110mm diameter pipe	No	10
59	90° Tee junction to suit 110mm diameter pipe	No	15
<u>GREASE TRAPS, FULL BORE OUTLETS ETC</u>			
<u>'Herbish HB GT4 l/s' or similar approved external grease trap in chamber</u>			
60	Supply and install external grease trap including chamber and all associated accessories	No	1
<u>Floor Drains</u>			
61	"Rofo" or similar approved stainless steel drain including covers and all associated accessories 280mm (H) x NW 100mm	No	8
<u>GULLEYS</u>			
<u>Precast concrete gulley including grating</u>			
62	380 x 575mm Precast concrete gulley including grating and 'P' Trap to 110mm diameter uPVC waste pipe	No	10
<u>MANHOLES & CATCHPITS</u>			
Carried Forward			R
Section No. 2 Bill No. 14 Plumbing and Drainage			

Brought Forward				R
<p><u>Excavate and build 1000mm diameter circular manhole formed from precast concrete splay rebated rings not less than 75mm thick and jointed with suitable watertight joint, built off and including 25Mpa/26mm 250mm thick concrete base and fitted with precast cover and frame (elsewhere) benching up in 20MPa/8mm concrete and finished smooth in 1:1 cement plaster around channels.</u></p> <p><u>To be priced in accordance with Engineers drawing No. 25131 Sewer 205 Rev A</u></p>				
63	Ditto but for depths exceeding 1m and not exceeding 2m deep internally	No	2	
64	Ditto but for depths exceeding 2m and not exceeding 3m deep internally	No	3	
<p><u>COVERS & GRATINGS</u></p> <p><u>Precast concrete covers, etc.</u></p>				
65	500mm Diameter light duty pre-cast concrete cover lid fitted with lifting lugs including recessed pre-cast concrete frame jointed to circular manhole rings	No	4	
66	500mm Diameter heavy duty pre-cast concrete cover lid fitted with lifting lugs including recessed pre-cast concrete frame jointed to circular manhole rings	No	1	
Carried Forward				R
<p>Section No. 2 Bill No. 14 Plumbing and Drainage</p>				

Brought Forward			R
<u>SANITARY FITTINGS AND EQUIPMENT</u>			
<u>SANWARE</u>			
<u>Supply, deliver and install the following sanitary fittings including wastes, traps etc and all associated accessories</u>			
<u>WATER CLOSETS</u>			
67	<u>SF01</u> "Vaal" or similar approved sanitary ware vitreous china "protea paraplegic" 90° outlet pan code 750200 and matching 9 litre cistern code 7116lp complete with lid fitments and purpose made c.p side flush lever left or right. bottom supply must be on the same side as the flush lever.	No	6
68	<u>SF02</u> "Vaal" or similar approved low level afsan pan product code 750600wh "Vaal" or similar approved sanitary ware vitreous china hibiscus elite vandal proof low level cistern (code 7116lv) complete with front push button, lid, fitments and low level flush pipe	No	34
<u>URINALS</u>			
69	<u>SF03</u> "Vaal" sanitaryware vitreous china wall hung "lavatera ti" urinal with top inlet (code 705462) overall size 600 x 385 x 380m. include 38mm c.p. domical grating , spreader with 20mm diameter thread and two hanger brackets including exposed (top inlet) flushvalve FJ6-000 flushmaster or similar approved anti-vac bottle trap plain 1 ½" x 40mm by dutton plastics or similar approved	No	17
Carried Forward			R
Section No. 2 Bill No. 14 Plumbing and Drainage			

		Brought Forward		R
	<u>WASH HAND BASINS</u>			
70	<p><u>WH01</u> <u>Product code 703102, colour white, "Vaal" sanitary ware or similar approved fine fire clay, 550 x 400mm rectangular "springbok" basin with two tap holes (approved taphole stopper to be provided to left hand taphole), integrated overflow and chain stay hole. fitted to wall with semi concealed cast iron brackets code 8118Z0.</u></p> <p><u>*NB* GRADE R BASINS TO BE INSTALLED AT MAXIMUM 750mm HIGH</u></p>	No	26	
71	<p><u>WH02</u> Product code 703102, colour white, "Vaal" sanitary ware or similar approved fine fire clay, 550 x 400mm rectangular "springbok" basin with two tap holes (approved taphole stopper to be provided to left hand taphole), integrated overflow and chain stay hole. fitted to wall with semi concealed cast iron brackets code 8118Z0.</p> <p>(Approved taphole stopper to be provided to left hand taphole)</p>	No	7	
72	<p><u>SW02</u> "Franke" or similar approved surround wall mounted basin with a 150mm splashback. FSWSB - heavy duty surround wall mounted wash hand basin product code 2560010. unit to be manufactured from grade 304 stainless steel 1.2mm thick. unit to include 360 x 320 x 130mm deep pressed bowl with a 40mm waste outlet and a polished outer casing with a removable base plate.</p>	No	2	
		Carried Forward		R
	Section No. 2 Bill No. 14 Plumbing and Drainage			

	Brought Forward			R
73	<p><u>SW03</u> Product code 2620114 "Franke" or similar approved 1500mm x 650mm stainless steel wall bench. to be manufactured from grade 304 stainless steel 1.2mm thick with a 150mm high integral splashback to the rear and left hand side and 50 x 10mm turn down all round.</p> <p>The under side sprayed with bitumastic sound deadening and supported with a 30 x 30 x3mm framework and galvanised mild steel backing sheet. unit fixed 900mm high from the top of the front apron to the finish floor level with anchor bolts. Unit to be provided with stainless steel solid under shelf</p>	No	2	
	<u>SINKS</u>			
74	<p><u>SW01</u> "Franke" or similar approved model "S2" stainless steel catering sink centre double bowl product code - 2620022- l - 1500 x w - 650mm, bowl manufactured from grade 304 stainless steel 1.2mm thick with a 150mm high integral splash back to the rear and right hand side, 50 x 10mm turndown with a beaded edge on the remaining sides. sink with a pressed 500 x 500 x 230mm deep bowl with a 40mm waste outlet . the underside to be sprayed with bitumastic sound deadening and supported with a 30 x 30 x 3mm framework and galvanised mild steel backing sheet. unit fixed 900mm high from the top of the front apron to the finish floor level with anchor bolts. unit to be provided with stainless slatted under shelf l - 1500mm w-420mm product code 2620044</p>	No	1	
	Carried Forward			R
	<p>Section No. 2 Bill No. 14 Plumbing and Drainage</p>			

		Brought Forward		R
<u>SHOWERS</u>				
75	<u>SA 01</u> "Seaqual" or similar approved wetfloor complete - 304 stainless steel 110 x 110 square hole grate - 50mm side outlet	No	8	
76	<u>SA 02</u> "Rofo" or similar approved stainless steel shower trap with slots and square flange (125 square) for tiled floors. unit to be acid corrosion and stain resistant. Product code R0 100	No	8	
77	<u>SA 10</u> "Cobra" or similar approved vandal proof shower head product code KP2-6 , cobra or similar approved including brass shower trap product code 373	No	8	
78	<u>SA10</u> "Cobra" or similar approved brass shower trap product code 373	No	8	
79	<u>SA12</u> "Cobra" or similar approved hand shower set, shower rail 002/1 with sliding hand shower holder minimum 550mm length.	No	2	
<u>MIXERS, TAPS ETC</u>				
80	<u>WH01</u> "Cobra" or similar approved chrome metering pillar tap product code km2-101 with cold index 12 " bsp male inlet sans 226 type 2	No	26	
81	<u>WH02</u> "Cobra" or similar approved - 1 x elbow action 503-21b pillar tap with raised nose and blue indice, 41" turn ceramic disc 21" bsp male connection inlet sans 226 type 2	No	6	
		Carried Forward		R
Section No. 2 Bill No. 14 Plumbing and Drainage				

		Brought Forward		R
82	<u>SW01</u> "Cobra" star extended biptap 21" light pattern product code sku: 206ext-15	No	2	
83	<u>SW02</u> "Cobra" star extended biptap 21" light pattern product code sku: 206ext-15	No	2	
84	<u>SW03</u> "Cobra" star extended biptap 21" light pattern product code sku: 206ext-15	No	4	
85	<u>SA10</u> "Cobra" or similar approved star under tile shower taps product code 138-15	No	16	
86	<u>SA08</u> "Cobra" similar approved standard brass hose wall tap, gully to be provided	No	10	
<u>WASTES, "P" TRAPS ETC</u>				
87	<u>SF03</u> Anti-vac bottle trap plain 1 ½" x 40mm by "Dutton Plastics" or similar approved	No	17	
88	<u>Wash Hand Basin Waste</u> "Cobra" or similar approved, 301 slotted basin waste with plug, chain and stay 62mm diameter flange, 77mm long shank 1 41" bsp male outlet connection	No	32	
89	<u>Wash Hand Basin Trap</u> "Cobra" or similar approved 350 - bottle trap, reseal bottle trap with telescopic basin connection pipe 1 41" bsp female inlet and 1 12" outlet regulator valves to be provided	No	32	
		Carried Forward		R
Section No. 2 Bill No. 14 Plumbing and Drainage				

Brought Forward				R
90	<u>Sink Waste</u> "Franke" slotted sink waste with plug, 86mm diameter flange, 93mm long shank 1 21" bsp male outlet connection	No	6	
91	<u>WC</u> Angle Valvles including flexi hose connectors	No	40	
92	<u>Mixers</u> Angle valves including flexi hose connectors	No	32	
93	<u>Sinks</u> Angle valves including flexi hose connectors	No	6	
<u>ACCESSORIES</u>				
<u>Supply, deliver and install the following fittings</u>				
94	<u>SD01</u> "Serra" or similar approved mild steel white powder coated lockable toilet roll dispenser to hold 3 rolls - colour white (to be confirmed with architect)	No	40	
95	<u>SD02</u> "Franke" or similar approved surface mounted paper towel dispenser STRX600, manufactured from grade 304, 1.5mm stainless steel, satin finished with surface treatment. unit to be provided with cylinder lock and standard key capacity 300-400 towels depending on the type of folding	No	14	
96	<u>SD03</u> "Franke" or similar approved surface mounted soap dispenser strx618, manufactured from grade 304, 1.5mm stainless steel, stain finished with surface treatment. Unit to have a replaceable and refillable 1 litre container which is suitable for liquid, antiseptic soap and a cylinder lock with standard key.	No	14	
Carried Forward				R
Section No. 2 Bill No. 14 Plumbing and Drainage				

		Brought Forward		R
97	<p>SF01 Straight grab rail manufactured from grade 304 stainless steel, satin finish to prevent slipping with diameter 31.8mm product code 2510005 and Paraplegic "CNTXPAR" or similar approved grab rail manufactured from grade 304 stainless steel, satin finish to prevent slipping with diameter 31.8mm product code 2510012</p>	No	6	
98	<p>SA06 "Franke" or similar approved double arm rack soap dish manufactured from polished stainless steel product code 2120089, size 163 x 100mm</p>	No	8	
99	<p>SA07 "Greenfield" or similar approved wall mounted coat rail with chrome plated coat hooks product code BA014</p>	No	8	
100	<p>SA12 "Franke" or similar approved fold down seat mounted to brickwall with adequate supports for paraplegic use - CNTX400A</p>	No	2	
101	<p>SA12 "Franke" or similar approved 90° angle bar - CNTX21</p>	No	4	
102	<p>SB01 "Sera" or similar approved EVE MK2 sani bin colour white - 500mm closed height</p>	No	8	
103	<p>SB02 "Franke" or similar approved surface mounted waste bin STRX605 manufactured from grade 304 1.5mm stainless steel satin finished with surface treatment to be provided with cylinder lock and standard key capacity 34 Litres</p>	No	6	
		Carried Forward		R
<p>Section No. 2 Bill No. 14 Plumbing and Drainage</p>				

Brought Forward				R
	<u>ELECTRIC WATER HEATERS</u>			
	<u>Supply, deliver and install the following fittings</u>			
104	<u>SA11</u> "Franke" stainless steel 5 litre hydro boil product code 2610009 including zip global plus water filtration kit complete to be provided along with all associated accessories	No	2	
	<u>Testing</u>			
105	Testing water pipe system		Item	
Carried Forward to Summary of Section No.				R
Section No. 2				
Bill No. 14				
Plumbing and Drainage				

Item No		Quantity	Rate	Amount R
	<u>BILL NO. 15</u>			
	<u>GLAZING</u>			
	<u>SHOWER SCREENS</u>			
	<u>Obscure toughened safety glass</u>			
1	<u>SA 05</u> 2100mm High x 900mm wide standard pivot shower door, frame to be powder coated white with obscure safety glass inserts, including fixing to walls and floors, sealant, etc. installed complete as per manufacturer's instructions and installed by a competent person as per Architect's specifications.	No	8	
	<u>MIRRORS</u>			
	<u>Mirrors with polished edges</u>			
2	<u>SM01</u> 380 x 600 x 6mm Polished edge glass mirror, fixed with 4 x chrome plated domed mirror screw	No	32	
	Carried Forward to Summary of Section No.			R
	Section No. 2			
	Bill No. 15			
	Glazing			

Item No		Quantity	Rate	Amount R
	<p><u>BILL NO. 16</u></p> <p><u>PAINTWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Notes</u></p> <p>These Bills of Quantities are provisional and are only indicative of the actual final quantities required and should not be used for ordering purposes.</p> <p>All paint used must be applied in strict accordance with manufacturer's instructions. Refer to Annexure M-Preambles.</p> <p><u>Protection</u></p> <p>The Sub-contractor will be required to protect his work during the course of construction, which protection shall be adequate for the purpose to the full approval of the Architect. Such protection shall only be removed on written instruction.</p> <p><u>Descriptions</u></p> <p>The description and dimensions of the following items are intended as a means of identifying the items only and are not intended as full descriptions. The Tenderer shall allow for all costs in his rates to satisfy the above requirements as no extras shall be entertained due to the Sub-contractors failure to do so.</p> <p><u>Paint Specification</u></p> <p>All painting shall be done in accordance with Architect's specifications unless otherwise described</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 16 Paintwork</p>			<p style="text-align: right;">R</p>

<p style="text-align: center;">Brought Forward</p> <p>All painting shall be done in accordance with Architect's specifications unless otherwise described</p> <p><u>Colours</u></p> <p>Unless otherwise described all paintwork shall be deemed to have a colour value in excess of 7 on the Munsell system in accordance with SANS 1091</p> <p><u>Guarantee</u></p> <p>A Project Guarantee Request Sheet must be filled in and passed on to the relevant ICI Dulux representative. Please request this from your specifier consultant. The client/contractor must notify ICI Dulux TWO weeks prior to commencement of the project to facilitate the necessary QA.</p> <p><u>PAINTWORK, ETC TO NEW WORK</u></p> <p><u>ON INTERNAL FLOATED PLASTER SURFACES</u></p> <p><u>Dulux, or similar approved, trade alkali-resistant plaster primer shall be applied, followed by two coats of approved "Trade Pure Acrylic Low Sheen PVA" paint, in accordance with the manufacturer's specifications. The colour of the paint shall be Inspired Neutrals Ebony Mists 5 - Night Jewels 5, with a sample to be provided for approval.</u></p> <p>1 Internal walls</p>	<p>m²</p> <p>2 155</p>	<p>R</p>	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 16 Paintwork</p>		<p>R</p>	

	Brought Forward			R
	<p><u>Dulux, or similar approved, trade alkali-resistant plaster primer shall be applied, followed by two coats of approved “Dulux Wall Guard Premium Quality Exterior Coating” paint, in accordance with the manufacturer’s specifications. The colour of the paint shall be Stonehenge Greige, with a sample to be provided for approval.</u></p>			
2	External walls	m ²		
	<u>ON SMOOTH CONCRETE SURFACES</u>			
	<p><u>Dulux, or similar approved, trade alkali-resistant plaster primer shall be applied, followed by two coats of approved “Dulux Wall Guard Premium Quality Exterior Coating” paint, in accordance with the manufacturer’s specifications. The colour of the paint shall be white, with a sample to be provided for approval.</u></p>			
3	Ceilings and beams	m ²	149	
	<u>ON PLASTERBOARD SURFACES</u>			
	<p><u>Apply one coat of undercoat Dulux, or similar approved, trade alkali-resistant primer, followed by two coats of Dulux, or similar approved, trade 65 matt paint, in compliance with SABS 634. The colour shall be white. Stainless steel clout nails shall be provided.</u></p>			
4	Internal Ceilings	m ²	272	
	<u>ON WOOD</u>			
	Carried Forward			R
	Section No. 2 Bill No. 16 Paintwork			

Brought Forward			R
<p><u>Remove all particles and wipe surface clean of dust. Apply three (3) coats of "Kansai Plascon" or similar approved Suede Exterior Sunproof Varnish to door in strict accordance with the manufacturer's specifications. Lightly sand between coats using 240-grit sandpaper, allowing 24 hours drying time between each coat. Complete application in accordance with "Timbercare" instructions.</u> <u>Note: Remove all dust before recoating.</u></p>			
5	Doors	m ²	275
6	Doors frames, etc.	m ²	64
7	Skirtings	m	182
<p><u>Two coats oil wood primer</u></p>			
8	Backs of frames, linings, etc. not exceeding 300mm wide	m	243
9	Back of Skirtings	m	182
<p><u>ON METAL</u></p>			
<p><u>Prepare and apply one coat galvanised iron primer, one coat "Dulux Trade Universal Undercoat" and two top coats "Dulux Pearl glo waterbased enamel" paint, in accordance with manufacturer's specifications</u></p>			
10	Door frames	m ²	10
<p><u>ROAD MARKINGS ETC</u></p>			
<p><u>One coat "Plasm" or equal and approved road line paint to SA BA 731 applied at a rate of 2,50 politer, including setting out, to :</u></p>			
11	100mm Wide solid white line to concrete paving or premix surfacing	m	251
12	Stop signs - 2.5m	No	8
Carried Forward			R
<p>Section No. 2 Bill No. 16 Paintwork</p>			

		Brought Forward		R
13	Directional arrows	No	15	
14	Disable signs	No	6	
15	Numbers (3 digit)	No	28	
Carried Forward to Summary of Section No.				R
Section No. 2				
Bill No. 16				
Paintwork				

Item No		Quantity	Rate	Amount R
	<u>BILL NO. 17</u>			
	<u>FIXTURES</u>			
	<u>Blinds</u>			
	<u>Block-out blinds with natural anodised aluminium headrail (44.5 x 25 mm) shall be fixed with Quickfix fixing clips, installed in accordance with the manufacturer's specifications. The colour shall be charcoal grey, to be verified with the architect.</u>			
1	To glazed window - W7 (4840 x 2380mm high)	No	1	
2	To glazed window - W6 (2400 x 2380mm high)	No	1	
3	To glazed window - W4 (1800 x 1500mm high)	No	1	
	<u>White Boards</u>			
	<u>3000mm x 1200mm high anodised aluminium-framed magnetic whiteboard (BDO 984) shall be fixed to the plastered wall in accordance with the manufacturer's specifications.</u>			
4	To walls	No	2	
	<u>Pinning Board</u>			
	<u>Moisture-resistant, anti-allergenic, and anti-static 4.5 mm Color Rib carpet by Belgotex Floors, colour Kevlar or similar approved, shall be fixed to softboard with a 44 x 22 mm rebated Meranti surround (with Imbuia finish), all fixed to the plastered wall.</u>			
5	To walls	No	1	
	Carried Forward to Summary of Section No.			R
	Section No. 2			
	Bill No. 17			
	Fixtures			

Item No		Quantity	Rate	Amount R
	<u>BILL NO. 18</u>			
	<u>EXTERNAL WORKS</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Specification</u>			
	Where BOQ item descriptions are in conflict with Engineers specification, S0000 "General Notes". Then the Engineers specification is to take preference.			
	<u>ROADS, PAVING, ETC.</u>			
	Note: All filling whether obtained from the stockpiles or an outside source must be approved by the Civil Engineer.			
	<u>EXCAVATIONS ETC</u>			
	<u>Excavation in earth for basement</u>			
1	Not exceeding 2m deep	m ³	695	
	<u>FILLING ETC</u>			
	<u>Earth filling supplied by the contractor</u>			
2	Filling of G5 material in accordance with SABS 1200 ME compacted to 95% modified AASHTO density	m ³	349	
3	Filling of G5 material in accordance with SABS 1200 ME, minimum CBR of 45%, compacted to 95% modified AASHTO density. Max size 63mm, PI<10.	m ³	133	
4	Filling of G6 material in accordance with SABS 1200 ME, minimum CBR of 45%, compacted to 95% modified AASHTO density. Max size 63mm, PI<10.	m ³	59	
	Carried Forward			R
	Section No. 2 Bill No. 18 External Works			

Brought Forward				R
5	Filling of G2 material in accordance with SABS 1200 ME compacted to 98% modified AASHTO density. Max Size 37.5mm, PI<6.	m ³	370	
6	Filling of riversand (non staining, free draining, silica sand) to form long jump pit, as per Architect's specification	kg	35 243	
<u>Compaction of ground surfaces</u>				
7	Trim, level off and compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, stabilize with 2% lime and compacting to 93% Mod AASHTO density	m ²	1 180	
8	Trim, level off and compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m ²	2 327	
<u>ASPHALT ROADS</u>				
<u>Bituminous premix road surfacing</u>				
9	40mm Thick continuously graded 13.2mm asphalt (Durban Mix D) wearing course, compacted to 93% MTRD including prime and tack coat of residual bitumen to mix designs requirements, laid to Engineers prescribed falls	m ²	1 189	
<u>PAVING</u>				
10	60mm Thick Corobrik grey concrete paving with butt joints including sawcutting and laid to a stretcher bond pattern bedded on and including 50mm thick river sand	m ²	2 023	
11	80mm Thick Corobrik grey concrete paving with butt joints including sawcutting and laid to a stretcher bond pattern bedded on and including 50mm thick river sand	m ²	294	
Carried Forward				R
Section No. 2 Bill No. 18 External Works				

Brought Forward				R
<u>KERBS</u>				
<u>Recast concrete kerbs finished smooth on exposed surfaces, including bedding, jointing and pointing</u>				
12	Fig 3 kerbs, laid flat and jointed in cement mortar (1:3) on and including haunching at back of each joint including excavation, backfilling etc.	m	225	
13	Fig 6 kerbs, laid flat and jointed in cement mortar (1:3) on and including haunching at back of each joint including excavation, backfilling etc.	m	1 604	
14	Fig 8 kerbs, laid flat and jointed in cement mortar (1:3) on and including haunching at back of each joint including excavation, backfilling etc.	m	5	
15	Rubber capped kerb 7100 elastic curbing by Aco, installed as per manufacturer's specification	m	48	
<u>LANDSCAPING</u>				
<u>Soils, etc.</u>				
16	Remove all unwanted rubble and surface rock from site	m ²	9 925	
17	Excavate to reduced levels	m ³	993	
18	Cart away	m ³	993	
19	Import, place & spread good quality topsoil as per specification; tenderers to allow for all settlement and compaction in their rates	m ³	993	
20	Fertilizers / Compost	m ³	496	
Carried Forward				R
Section No. 2 Bill No. 18 External Works				

Brought Forward				R
	<u>Lawn</u>			
21	Supply and lay good quality Kikuyu lawn	m ²	9 925	
	<u>STORMWATER</u>			
	<u>Concrete Channel</u>			
22	150mm thick to falls, 20Mpa concrete channel per Engineer's detail on drawing 25131-202 Rev A, including excavation, earthworks, compaction, excluding kerbs (kerbs measured elsewhere).	m	50	
	<u>Culvert to be priced in accordance with the detail culvert detail in the engineers drawing No. 25131 Stormwater 203 Rev A.</u>			
	<u>No further claims will be accepted for any items missed/not priced on the above mentioned drawing.</u>			
23	300mm diameter culvert including foundations, brickwork, and 3000 x 1000 x 1000mm deep boulder scour protection wrapped in "A4" geotextile. Big boulders to be placed with smaller boulders in-between gaps.			
	Include extra over for Roan Satin FBX Facebrick walls.	No	1	
	<u>Headwall to be priced in accordance with the detail culvert detail in the engineers drawing No. 25131 Stormwater 203 Rev A - Detail 1.</u>			
	<u>No further claims will be accepted for any items missed/not priced on the above mentioned drawing.</u>			
24	Headwall including foundations which consist of 200mm thick mass concrete base and 200x400mm deep mass concrete downstand beam including mesh ref 193 and 200mm thick mass concrete upstand beam. 330mm brickwall on new foundations. Hard burnt brick as per detail 1. 2500 x 1000 x 1000mm deep boulder scour protection. Big boulders to be placed with smaller boulders in between gaps.	No	1	
	Carried Forward			R
	Section No. 2 Bill No. 18 External Works			

Brought Forward				R
<p><u>Catchpit to be priced in accordance with the detail culvert detail in the engineers drawing No. 25131 Stormwater 203 Rev A.</u></p> <p><u>No further claims will be accepted for any items missed/not priced on the above mentioned drawing.</u></p>				
25	Catch pit including excavations, foundations, internal brickwork, and Type 1 STD. catch pit central cover and slay right by Fraser FYEE.	No	1	
<p><u>CONSERVANCY TANK</u></p> <p><u>EXCAVATIONS, FILLING, ETC. OTHER THAN BULK</u></p> <p><u>Excavation in earth not exceeding 2m deep below or reduced level for:</u></p>				
26	Holes	m ³	155	
<p><u>Excavation in earth exceeding 2m but not exceeding 4m deep below or reduced level for:</u></p>				
27	Holes	m ³	85	
<p><u>Extra over trench and hole excavations in earth for excavation in</u></p>				
28	Hard rock	m ³	36	
<p><u>Extra excavation in all materials to provide working space, including consequent backfilling compacted to 93% MOD AASHTO density for removing formwork, etc.</u></p> <p><u>Exceeding 1.5m and not exceeding 3m deep</u></p>				
29	For placing and removing formwork to bases, walls etc. against excavated faces	m ²	129	
Carried Forward				R
<p>Section No. 2 Bill No. 18 External Works</p>				

Brought Forward				R
	<u>Extra over all excavations for carting away</u>			
30	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor. (No allowance made for increase in bulk, to be factored in rate)	m ³	241	
	<u>Risk of collapse of excavations</u>			
31	Sides of trench and hole excavations exceeding 3m deep	m ²	129	
	<u>FILLING ETC</u>			
	<u>Earth filling supplied by the contractor under surface beds</u>			
32	Filling of G2 material in accordance with SABS 1200 ME compacted to 98% MOD. AASHTO density. Max. size 37.5mm, PI<6.	m ³	16	
33	Filling of G5 material in accordance with SABS 1200 ME compacted to 97% MOD. AASHTO density. Max size 63mm, PI<10.	m ³	47	
	<u>Compaction of ground surfaces</u>			
34	Trim, level off and compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m ²	78	
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>35 MPa/19mm concrete</u>			
35	Bases including penetron admixture	m ³	23	
	<u>REINFORCED CONCRETE CAST ON/IN FORMWORK</u>			
	Carried Forward			R
	Section No. 2 Bill No. 18 External Works			

Brought Forward			R
	<u>35 MPa/19mm concrete</u>		
36	Walls including penetron admixture.	m ³	19
37	Slabs including penetron admixture	m ³	21
38	Manhole opening beams	m ³	0.4
	<u>CONCRETE SUNDRIES</u>		
	<u>Finishing top surfaces of concrete smooth with a wood float</u>		
39	Tops of slabs	m ²	70
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>		
	<u>Rough formwork to sides</u>		
40	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	42
	<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>		
	<u>Smooth formwork to sides</u>		
41	Walls not exceeding 3.5m high	m ²	152
42	Inverted beams above concrete	m ²	5
	<u>Smooth formwork to soffits</u>		
43	Slabs exceeding 250mm and not exceeding 500mm thick propped up not exceeding 3.5m high to falls	m ²	70
	<u>REINFORCEMENT (PROVISIONAL)</u>		
	<u>High tensile steel reinforcement to structural concrete work</u>		
44	Bars of various diameters	t	8.25
	Carried Forward		R
	Section No. 2 Bill No. 18 External Works		

Brought Forward			R
<u>WATERSTOPS</u>			
45	Continuous Expandite Supercast 200 mm “Hydrofoil” PVC waterstop, or similar approved. 250mm wide.	m	40
<u>SCREEDS</u>			
<u>Screeds on wood / power floated concrete</u>			
46	Average 200mm thick to falls	m ²	78
<u>DISHED CONCRETE CHANNEL</u>			
47	100mm thick 30Mpa half circular concrete channel to Engineer’s detail, including excavation, earthworks, compaction, double fig. 7 kerb and softboard joint complete.	m	16
<u>Covers, frames, etc</u>			
<u>Manhole Covers</u>			
48	1200 x 900 mm heavy-duty (HD) polymer manhole cover and frame, all tamper-proof, shall be SABS approved.	No	1
<u>SUNDRIES</u>			
49	160mm diameter sewer outlet line to draw-off valve.	m	10
50	Honey sucker draw-off valve		Item
Carried Forward to Summary of Section No.			R
Section No. 2			
Bill No. 18			
External Works			

Bill No	Builders Work <u>SECTION SUMMARY - Builders Work</u>	Page No	Amount R
1	Earthworks	53	
2	Concrete, Formwork and Reinforcement	60	
3	Masonry	63	
4	Waterproofing	68	
5	Roof Coverings, Claddings, Etc	75	
6	Carpentry and Joinery	79	
7	Ceilings, Partitions and Access Flooring	86	
8	Floor coverings, wall linings, etc	88	
9	Ironmongery	91	
10	Structural Steelwork	98	
11	Metalwork	104	
12	Plastering	106	
13	Tiling	112	
14	Plumbing and Drainage	136	
15	Glazing	137	
16	Paintwork	142	
17	Fixtures	143	
18	External Works	151	
	Carried to Final Summary		R
	Section No. 2		

Item No		Quantity	Rate	Amount R
	<u>PROVISIONAL SUMS ETC</u>			
	Note : All provisional sums are <u>net</u> and <u>exclude</u> any builders discount.			
	The Employer reserves the right to execute any of the Provisional Sums / Allowances as described below as direct contracts. No claims will be entertained from the Principal Contractor in this eventuality.			
	<u>SERVICES INSTALLATIONS</u>			
	<u>The following sub-contract amounts are for work to be carried out by selected sub-contractors in terms of the Principal Building Agreement</u>			
	<u>Electrical Installation</u>			
1	Provide the amount of R2 895 489.92 (Two Million Eight Hundred and Ninety Five Thousand Four Hundred and Eighty Nine and Ninety Two) for the electrical installation, executed complete	Item		2 895 489.92
2	Add for profit upon above, if required.		%	
3	Add for attendance upon above, if required.		%	
	<u>HVAC Installation</u>			
4	Provide the amount of R527 623.16 (Five Hundred and Twenty Seven Thousand Six Hundred and Twenty Three and Sixteen) for air conditioning installation generally ventilation, executed complete	Item		527 623.16
5	Add for profit upon above, if required.		%	
6	Add for attendance upon above, if required.		%	
	Carried Forward			R
	Section No. 3 Bill No. 1 Provisional Sums			

Brought Forward			R
<u>Fire Services Installation</u>			
7	Provide the amount of R75 143.00 (Seventy Five Thousand One Hundred and Forty Three) for installation of fire services, executed complete	Item	75 143.00
8	Add for profit upon above, if required.		%
9	Add for attendance upon above, if required.		%
<u>Fire Detection</u>			
10	Provide the amount of R230 316.71 (Two Hundred and Thirty Thousand Three Hundred and Sixteen and Seventy One) for installation of fire detection, executed complete	Item	230 316.71
11	Add for profit upon above, if required.		%
12	Add for attendance upon above, if required.		%
<u>Fire Pumps</u>			
13	Provide the amount of R2 967 847.00 (Two Million Nine Hundred and Sixty Seven Thousand Eight Hundred and Forty Seven) for installation of fire pumps, executed complete	Item	2 967 847.00
14	Add for profit upon above, if required.		%
15	Add for attendance upon above, if required.		%
<u>SPECIALIST INSTALLATIONS</u>			
Provide the following amounts for supply and installation of work as described			
Carried Forward			R
Section No. 3 Bill No. 1 Provisional Sums			

Brought Forward			R
<u>Ablution block roof structure</u>			
16	Provide the amount of R208 363.05 (Two Hundred and Eight Thousand Three Hundred and Sixty Three and Five) for Ablution block roof structure, executed complete	Item	208 363.05
17	Add for profit upon above, if required.		%
18	Add for attendance upon above, if required.		%
<u>Carpentry & Joinery Fittings</u>			
19	Provide the amount of R641 264.40 (Six Hundred and Forty One Thousand Two Hundred and Sixty Four and Forty) for carpentry and joinery fittings, executed complete with ironmongery, counter tops, etc.	Item	641 264.40
20	Add for profit upon above, if required.		%
21	Add for attendance upon above, if required.		%
<u>Hulabond Facade Cladding</u>			
22	Provide the amount of R412 020.00 (Four Hundred and Twelve Thousand and Twenty) for the supply & installation of Hulabond facade cladding, including sub-structure, complete.	Item	412 020.00
23	Add for profit upon above, if required.		%
24	Add for attendance upon above, if required.		%
<u>Signage</u>			
	Provide the amount of R50 000.00 (Fifty Thousand) for the supply & installation of Signage complete.	Item	50 000.00
25	Add for profit upon above, if required.		%
26	Add for attendance upon above, if required.		%
Carried Forward			R
Section No. 3 Bill No. 1 Provisional Sums			

Brought Forward			R
<u>Storage containers</u>			
27	<i>Provide the amount of R60 000.00 (Sixty Thousand) for storage containers (6m long) executed complete.</i>	Item	60 000.00
28	Add for profit upon above, if required.	%	
29	Add for attendance upon above, if required.	%	
<u>Roof Ventilators</u>			
30	Provide the amount of R72 000.00 (Seventy Two Thousand) for the supply & installation of roof ventilators complete.	Item	72 000.00
31	Add for profit upon above, if required.	%	
32	Add for attendance upon above, if required.	%	
<u>Walk Off Mat</u>			
33	Provide the amount of R48 600.00 (Forty Eight Thousand Six Hundred) for the supply & installation of walk off mats complete.	Item	48 600.00
34	Add for profit upon above, if required.	%	
35	Add for attendance upon above, if required.	%	
<u>2 Tier stands in MPSH</u>			
36	Provide the amount of R369 237.50 (Three Hundred and Sixty Nine Thousand Two Hundred and Thirty Seven and Fifty) for 2 tier stands in MPSH executed complete.	Item	369 237.50
37	Add for profit upon above, if required.	%	
38	Add for attendance upon above, if required.	%	
Carried Forward			R
Section No. 3 Bill No. 1 Provisional Sums			

Brought Forward			R
<u>Combo sports court in MPSH</u>			
39	Provide the amount of R1 680 328.20 (One Million Six Hundred and Eighty Thousand Three Hundred and Twenty Eight and Twenty) for Combo sports court in MPSH executed complete.	Item	1 680 328.20
40	Add for profit upon above, if required.		%
41	Add for attendance upon above, if required.		%
<u>Two lane cricket nets</u>			
42	Provide the amount of R274 238.95 (Two Hundred and Seventy Four Thousand Two Hundred and Thirty Eight and Ninety Five) for Two lane cricket nets executed complete.	Item	274 238.95
43	Add for profit upon above, if required.		%
44	Add for attendance upon above, if required.		%
<u>Stobitan Long Jump, Javelin & High Jump finish</u>			
45	Provide the amount of R2 003 925.00 (Two Million and Three Thousand Nine Hundred and Twenty Five) for sports facilities executed complete.	Item	2 003 925.00
46	Add for profit upon above, if required.		%
47	Add for attendance upon above, if required.		%
<u>External Grand Stand Seats</u>			
48	Provide the amount of R353 100.00 (Three Hundred and Fifty Three Thousand One Hundred) for grand stand seats by Novo executed complete.	Item	353 100.00
49	Add for profit upon above, if required.		%
50	Add for attendance upon above, if required.		%
Carried Forward			R
Section No. 3 Bill No. 1 Provisional Sums			

Brought Forward			R
<u>Fencing</u>			
51	Provide the amount of R808 850.00 (Eight Hundred and Eight Thousand Eight Hundred and Fifty) for new & repair to fence executed complete.	Item	808 850.00
52	Add for profit upon above, if required.		%
53	Add for attendance upon above, if required.		%
<u>BUDGETARY ALLOWANCES</u>			
Note: Budgetary allowances listed below are for work to be executed by the Main Contractor and will be measured and evaluated in terms of rates submitted against similar items in these bills and in terms of the conditions of contract.			
Note: These items are to be taken into account in the pricing of Preliminaries and General as they will not attract separate Preliminaries of their own.			
<u>Sundry building work</u>			
54	Provide the amount of R52 473.84 (Fifty Two Thousand Four Hundred and Seventy Three and Eighty Four) for sundry builders work.	Item	52 473.84
Sub Total			R
<u>Allowance for Sundry Metalworks</u>			
55	Provide the amount of R15 000.00 (Fifteen Thousand) for sundry metalworks allowance.	Item	15 000.00
<u>Allowance for borehole, well system.</u>			
56	Provide the amount of R219 400.00 (Two Hundred and Nineteen Thousand Four Hundred) for borehole, well system allowance.	Item	219 400.00
Carried to Final Summary			R
Section No. 3			
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Section No	FINAL SUMMARY	Page No	Amount R
1	Preliminaries & General Builders	48	
2	Work	152	
3	Provisional Sums & Budgetary Allowances	158	
	SUB TOTAL (VAT EXCLUSIVE)		R
	VAT @ 15%		R
	TOTAL CARRIED TO FORM OF OFFER		R