Section No.	**FINAL SUMMARY**	Page			
1	PRELIMINARIES	6	R	-	
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7	IRONMONGERY	19	R	-	
8	METALWORK	22	R	-	
9	PLUMBING AND DRAINAGE	25	R	-	
10	GLAZING	30	R	-	
11	PAINTWORK	31	R	-	
12	BULK EXCAVATIONS	32	R	-	
13	RAMPS , APRONS AND WALKWAYS	35	R	-	
13	STORMWATER CHANNELS, ETC.	39	R	-	
14	WATER TANKS AND STANDS	40	R	-	
15	PROVISIONAL SUMS	43	R	-	
	Sub Total excluding Value Added Tax		R	-	
	ADD VAT @ 15%		R	-	
	Carried to Tender		R	-	

Page	Item	Description	Uom	Quantity	Rate	Amount	Total
		ISIVUNGUVUNGU HS					
		BILL NO.1 : PRELIMINARIES					
1		SECTION A - PRINCIPAL BUILDING AGREEMENT					
1		Definitions:					
1	1	Clause 1.0 - Definitions and interpretation	Item	1.00			
1		Objective and preparation:					
1	2	Clause 2.0 - Offer, acceptance and performance	Item	1.00			
1	3	Clause 3.0 - Documents	Item	1.00			
1	4	Clause 4.0 - Design responsibility	Item	1.00			
1	5	Clause 5.0 - Employer's agents	Item	1.00			
1	6	Clause 6.0 - Site representative	Item	1.00			
1	7	Clause 7.0 - Compliance with regulations	Item	1.00			
1	8	Without limiting the generality of the provisions of clause 7.0 the contractor's attention is drawn to the provisions of the Construction Regulations, 2003 issued in terms of the Occupational Health and Safety Act, 1993. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the reasonable provisions of the afore mentioned health and safety specification	Item	1.00			
1	9	Clause 8.0 - Works risk	Item	1.00			
1	10	Clause 9.0 - Indemnities	Item	1.00			
1	11	Clause 10.0 - Works insurances	Item	1.00			
1	12	Clause 11.0 - Liability insurances	Item	1.00			
1	13	Clause 12.0 - Effecting insurances	Item	1.00			
1	14	Clause 13.0 - No clause	Item	1.00			
1	15	Clause 14.0 - Security	Item	1.00			
1		Execution:					
1	16	Clause 15.0 - Preparation for and execution of the works	Item	1.00			
1	17	Clause 16.0 - Access to the works	Item	1.00			
1	18	Clause 17.0 - Contract instructions	Item	1.00			
2	19	Clause 18.0 - Setting out of the works					
		The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc exist in order that the necessary arrangements may be made for the rectification of any such encroachments	Item	1.00			
2	20	Clause 19.0 - Assignment	Item	1.00			
2	21	Clause 20.0 - Nominated Subcontractors	Item	1.00			

2	22	Clause 21.0 - Selected subcontractors	Item	1.00			
2	23	Clause 22.0 - Employer's direct contractors	Item	1.00			
2	24	Clause 23.0 - Contractor's domestic subcontractors	Item	1.00			
2	25	Completion:	Item	1.00			
2	26	Clause 24.0 - Practical completion	Item	1.00			
2	27	Clause 25.0 - Works completion	Item	1.00			
2	28	Clause 26.0 - Final completion	Item	1.00			
2	29	Clause 27.0 - Latent defects liability period	Item	1.00			
2	30	Clause 28.0 - Sectional Completion	Item	1.00			
2	31	Clause 29.0 - Revision of the date for practical completion					
		The removal and replacement of materials and/or workmanship which do not					
		conform to specification or drawings shall not constitute grounds for an					
		extension of the construction period nor for an adjustment to the contract					
		value (clause 29.3)	Item	1.00			
2	32	Clause 30.0 - Penalty for noncompletion	Item	1.00			
2	33	Payments	Item	1.00			
2	34	Clause 31.0 - Interim payment to the contractor	Item	1.00			
2	35	Materials and goods stored off site shall not be included in the amount					
		authorised for payment	Item	1.00			
2	36	Clause 32.0 - Adjustment to the contract value					
		Clause 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the					
		following at the end of the sentence:					
		"due to no fault of the contractor"					
		All fluctuations in costs, with the exception of fluactuations in the rate of					
		Value Added Tax, shall be for the account of the contractor.					
		Where prices are submitted by the contractor or nominmated/selected					
		subcontractors during the progress of the works in respect of contract					
		instructions or in regard to a claim under the terms of the contract and					
		notwithstanding the fact that such prices may be used in an interim payment					
		certificate, there is to be no presumption of acceptance. Should the principal					
		agent wish to accept any such prices prior to the issue of the final certificate,					
		it will be in writing	Item	1.00			
3	37	Clause 33.0 - Recovery of expense and loss					
		Clause 34.0 - Final account and final payment					
		Clause 35.0 - Payment to other parties	Item	1.00			
3	38	Cancellation:	Item	1.00			
3	39	Clause 36.0 - Cancellation by employer - contractor's default	Item	1.00			

3	40	Contract Variables	Item	1.00			
3	41	Clause 42.0 - Pre-tender information	Item	1.00			
3	42	Clause 42.0 - Post-tender information					
		The required post-tender information shall be inserted in the agreement					
		after consultation with the contractor	Item	1.00			
3		SECTION B - PRELIMINARIES					
3		Definitions and interpretation:					
3	43	Clause 1.0 - Definitions and interpretation	Item	1.00			
3		Documents:					
3	44	Clause 2.1 - Checking of documents	Item	1.00			
3	45	Clause 2.2 - Provisional bills of quantities	Item	1.00			
3	46	Clause 2.3 - Availability of construction documentation	Item	1.00			
3	47	Clause 2.4 - Interests of agents	Item	1.00			
3	48	Clause 2.5 - Priced documents	Item	1.00			
3	49	Clause 2.6 - Tender submission					
		Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance (C1.1)"	Item	1.00			
4		The site:					
4	50	Clause 3.1 - Defined works area					
		The area of the works to be occupied by the contractor, any restriction on the area and the limit of access or exit will be pointed out to the contractor by the Principal Agent on handing over of the site	Item	1.00			
4	51	Clause 4.1 - Management of the works	Item	1.00			
4	52	Clause 4.2 - Programme for the works	Item	1.00			
4	53	Clause 4.3 - Progress meetings	Item	1.00			
4	54	Clause 4.4 - Technical meetings	Item	1.00			
4	55	Clause 4.5 - Labour and plant records	Item	1.00			
4	56	Samples, shop drawings and manufacturer's instructions:	Item	1.00			
4	57	Clause 5.1 - Samples of materials	Item	1.00			
4	58	Clause 5.2 - Workmanship samples	Item	1.00			
4	59	Clause 5.3 - Shop drawings	Item	1.00			
4	60	Clause 5.4 - Compliance with manufacturers' instructions	Item	1.00			
4	61	Financial aspects:	Item	1.00			
4	62	Clause 10.1 - Statutory taxes, duties and levies					
		Provision is made in the summary of these bills of quantities for the inclusion					
		of Value Added Tax (VAT)	Item	1.00			
4	63	Clause 10.2 - Payment of preliminaries					
		Clause 10.3 - Adjustment of preliminaries					
		Clause 10.4 - Payment certificate cash flow	Item	1.00			

4	64	SECTION C - SPECIFIC PRELIMINARIES					
		CONTRACT DRAWINGS					
		The drawings issued with the tender documents do not comprise the					
		complete set but serve as a guide only for tendering purposes and for					
		indicating the scope of the work to enable the tenderer to acquaint himself					
		with the nature and extent of the works and the manner in which they are to					
		be executed					
		Should any part of the drawings not be clearly understood by the tenderer					
		he shall, before submitting his tender, obtain clarification in writing from the					
		principal agent					
		GENERAL PREAMBLES					
		These tender documents "General Specification (PW 371-A) July 2013" and					
		"Particular Specification (PW 371-B) July 2013" which are both obtainable on					
		Public Works website alterantively a copy can be e-mailed on request from					
		the Quantity Surveyor offices, and shall be read in conjuction with the bills of					
		quantities and be referred to for the full descriptions of work to be done and					
		materials to be used. No claim arising from brevity of description of items					
		fully described in the said Preambles for Trades will be entertained					
		TRADE NAMES					
		Wherever a trade name for any product has been described in the Priced					
		Document, the tenderer’s attention is drawn to the fact that any other					
		product of equal quality may be used subject to the written approval of the					
		principal agent being obtained prior to the closing date for submission of tenders	Item	1.00			
5	65	PROPRIETARY BRANDED PRODUCTS					
		The contractor shall take delivery of, handle, store, use apply and/or fix all					
		proprietary branded products in strict accordance with the manufacturers’					
		instruction after consultantion with the manufacturer’s authorised					
		representative					
		CONFIDENTIALITY					
		The contractor undertakes to maintain in confidence any and all information					
		regarding this project and shall obtain appropriate similar undertakings from					
		all subcontractors and suppliers. Such information shall not be used in any					
		way except in connection with the execution of the works No information					
		regarding this project shall be published or disclosed without the prior					
		written consent of the employer					
		OVERTIME					
		Should overtime be required to be worked for any reason whatsoever, the					
		costs of such overtime are to be borne by the contractor unless the principal					
		agent has specifically authorised in writing prior to the execution thereof,					
		that cost for such overtime are to be borne by the employer					
		AS BUILT DRAWINGS					

		The position of construction breaks and the extent of individual concrete					
		pours are to be recorded by the contractor on the structural engineer's					
		drawings and are to be submitted to the principal agent and the structural					
		engineer for their records					
		WARRANTIES FOR MATERIALS AND WORKMANSHIP					
		Where warranties for materials are called for, the contractor shall obtain a					
		written warranty, addressed to the employer, from the firm supplying the					
		materials and/or doing the work and shall deliver same to the principal agent					
		on the certified completion of the contract. The warranty shall state that					
		workmanship, materials and installation are warranted for a specified period					
		from the date of certified completion of the contract, and that any defects					
		that may arise during the specified period shall be made good at the					
		expense of the firm supplying the materials and/or doing the work, upon					
		written notice to do so. The warranty will not be enforced if the work is					
		damaged by defects in the construction of the building in which case the					
		responsibility for replacement shall rest entirely with the contractor.	Item	1.00			
6	66	NON CESSION OF MONIES					
		The contractor shall not cede nor assign his rights or claims to any monies					
		due or to become due under this contract					
		IMPORTED MATERIALS AND EQUIPMENT					
		Where imported items are listed in the tender documents, the tenderer shall					
		provide all the information called for, failing which the price of any such					
		item, materials or equipment shall be excluded from currency fluctuations.					
		(refer to Schedule for Imported Materials and Equipment WCTD-23 to be					
		completed by tenderer)					
		Notwithstanding any provisions elsewhere regarding the adjustment of					
		contract prices, the price of any item, material or equipment listed in terms					
		of this clause shall be excluded from the Contract Price Adjustment					
		Provisions (if applicable)					
		TESTING OF FLAT ROOF WATERPROOFING FOR WATERTIGHTNESS					
		Flat roof waterproof areas shall be prepared with small sand dykes around					
		them of a size and enclosing an area approved by the principal agent,					
		flooded with water and kept 'ponded' for at least 36 hours as a test to					
		ensure the watertightness of the waterproofing and before any further					
		construction work is carried out above the waterproofing					
		TESTING OF WINDOWS FOR WATERTIGHTNESS					
		Each window shall be tested for watertightness with water sprayed on by					
		means of a 20mm hosepipe using adequate pressure. If in the opinion of					
		the principal agent, the pressure proves to be inadequate, then the pressure					
		in the hosepipe shall be boosted by means of compressed air or other					
		approved means					

		AUTHORISATION FOR THE TAKING OF PHOTOGRAPHS					
		The contractor shall obtain prior authorisation from the employer for the					
		making of any sketches or the taking of any photographs of any site,					
		installation, building or civil works belonging to the employer and shall					
		ensure that all personnel, subcontractors and other persons entering the site					
		shall comply with this requirement as well.					
		HIV/AIDS AWARENESS					
		It is required of the contractorto thoroughly study the HIV/AIDS Specification					
		(PW 1544) of the Department that must be read together with and is					
		deemed to be incorporated under this Section of the bills of quantities / lump					
		sum document. Provision for pricing of HIV/AIDS awareness is made under					
		the two items below hereafter and it is explicitly pointed out that all					
		requirements of the aforementioned specification are deemed to be priced					
		hereunder, as the said items represent the only method of measurement and					
		no additional items or extras to the contract in this regard shall be					
		entertained					
		The contractor must take note that compliance with the HIV/AIDS					
		Specification is compulsory. In the event of partial or total non-compliance,					
		the principal agent, notwithstanding the provisions of Clause A 31 of “Section					
		1: Preliminaries (Section A)” or any other clause to the contrary, reserves the					
		right to delay issuing any progress paymentcertificateuntil the					
		contractorprovides satisfactory proof of compliance. The contractorshall not					
		be entitled to any compensation of whatsoever nature, including interest,					
		due to such delay of payment	Item	1.00			
7	67	WAIVER OF LIEN					
		The tnderers are notified that he/she shall sign "Waiver of Lien " togethr					
		with the JBCC Principal Building Agreement Edition 4.1 Code 2101 March					
		2005					
		OCCUPATIONAL HEALTH AND SAFETY ACT					
		The contractor shall comply with all the requirements set out in the Health					
		and Safety Specification for Construction Work as contained within these					
		tender documents and the Construction Regulations, 2003 issued under the					
		Occupational Health and Safety Act, 1993 (Act No 85 of 1993).					
		It is required of the contractor to thoroughly study the Health and Safety					
		Specification that must be read together with and is deemed to be					
		incorporated under this Section of the bills of quantities.					
			Item	1.00			
8	68	The contractor must take note that compliance with the Occupational Health					
		and Safety Act, Construction Regulations and Health and Safety Specification					
		is compulsory. In the event of partial or total non-compliance, the principal					

		agent, notwithstanding the provisions of clause A31.0 of Section A or any					
		other clause to the contrary, reserves the right to delay issuing any progress					
		payment certificate until the contractor provides satisfactory proof of					
		compliance. The contractor shall not be entitled to any compensation of					
		whatsoever nature, including interest, due to such delay of payment.					
		Provision for pricing of the Occupational Health and Safety Act, Construction					
		Regulations and Health and Safety Specification is made under this clause					
		and it is explicitly pointed out that all requirements of the aforementioned					
		are deemed to be priced hereunder and no additional claims in this regard					
		shall be entertained.					
		In addition but not limited to the contractor shall:					
		- Comply with the health and safety specification for the works					
		- Prepare and agree with the health and safety consultant the health and					
		safety plan for the works					
		- Co-operate with the health and safety consultant in all respects					
		- Manage the compliance of all subcontractors with the regulations and with					
		the health and safety plan and specification					
		- Conform to the conditions contained in the employer's health and safety					
		specification					
		Section C contains specific preliminary items which apply to this contract					
		except where N/A (Not Applicable) appears against an item					
		OCCUPATIONAL HEALTH AND SAFETY MEASURES IN WORKPLACES					
		COVID-19 (C19 OHS)					
		The contractor shall comply with all the requirements set out in the					
		COVID-19 Health and Safety Baseline Specification as contained within these					
		tender documents and 2003 issued under the Occupational Health and					
		Safety Act, 1993 (Act No 85 of 1993) in particular Hazardous Biological					
		Agents Regulations governing workplaces in relation to Coronovirus Disease					
		2019 cause by SARS-CoV-2 and the COVID-19 Occupational Health and					
		Safety Measures in Workplace COVID-19 (C19 OHS), 2020.					
		Safety Baseline Specification and Occupational Health and Safety Act, 1993					
		(Act No 85 of 1993) in particular Hazardous Biological Agents Regulations					
		governing workplaces in relation to Coronovirus Disease 2019 cause by					
		SARS-CoV-2 and the COVID-19 Occupational Health and Safety Measures in					
		is deemed to be incorporated under this Section of the bills of quantities.	Item	1.00			
		Bill Total					
		BILL NO.2 : ALTERATIONS					
11		PREAMBLES					

11		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
11		SUPPLEMENTARY PREAMBLES					
11		The Standard Preambles and Notes in the various trade bills are too and do apply equally to this section					
11		View site:					
11		Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained					
11		Explosives:					
11		No explosives whatsoever may be used for demolition purposes unless otherwise stated					
11		General:					
11		The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent					
11		Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent					
12		Doors, fanlights, fittings, frames, linings, etc. which are to be re-used shall be thoroughly overhauled before refixing including taking off, easing and rehanging, cramping up, re-wedging as required and making good cramps, dowels, etc., and easing, oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately					
12		Prices for taking out of doors, windows, etc. shall include for removal of all beads, architraves, ironmongery, etc.					
12		Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc. and making good floor and wall finishes to match existing					
12		With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc., shall be levelled and prepared for raising of brickwork					
12		Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary					

12		The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc.)					
12		TEMPORARY BARRIERS, SCREENS, ETC					
12		REMOVAL OF EXISTING WORK					
12		New ablution blocks					
12		Taking out and removing doors,windows,etc including thresholds,sills, etc (to be replace with new,measured elsewhere)					
12	1	44mm Framed ledged, braced battened door and frame					
		813 x 2032mm high of 44 x 108mm top rail and from					
		brickwall	No	3.00			
12	2	40mm Solid flush doors with commercial verneer hung to					
		steel frame 813 x 2032mm high from brickwalls	No	4.00			
13		Water Storage tank					
13		Taking out existing water storage tank ,including fixing lugs,lid and taps,etc setting aside for re-use and later refixing in similar new position					
13	3	5000 Litre existing low profile "Jojo" plastic seamless water storage tank complete with fixing lugs and lid, fitted with and including 15mm brass	No	1.00			
13		Taking down and removing roofs, floors,panelling, ceilings,partitions,etc					
13		Existing 0.5mm Galvanised IBR profile light industrial steel sheeting with downtrum edge with 'colomate' finish and half coat					
13	4	Existing Roof covering ibncluding timber purlins with pitch not exceeding 5 degrees.	m²	78.00			
13		Existing ,0.5mm Galvanised steel flashings to suite IBR profile with 'Colomate' finish to match roof covering:					
13	5	Existing Narrow and Broad serated flute closers	m	28.00			
13	6	Existing Moulded narrow and Broad polyethylene filler blocks.	m	35.00			
13		Existing, 0,5mm Galvanised sheet steel					
13	7	Cappings 225mm girth four times bent along length, with riveted and sealed joints, sprung over and including suitable galvanised steel brackets at 500mm centres, plugged to brickwork or concrete	m	14.00			
13		Exxisting Roof Insulation					
13	8	Existing Insulation laid under Purlins and Fixed Concurrent with Roof Sheeting	m²	78.00			
		Bill Total					
		BILL NO.3 : SITE CLEARANCE					
15		PREAMBLES					

15		The Tenderer is referred to the relevant Clauses in the separate documents General Specification (PW 371-A) July 2013 and Paricular Specification (PW 371B) July 2013					
15		SUPPLEMENTARY PREAMBLES					
15		Supplementary Preambles from relevant trades/Bills in this tender document are applicable to items in this section					
15		Reference to drawings and details:					
15		Where drawings and/ or details have been referred to in the description of items the Tenderers should price for complete detail and specification on such details and/ or drawing. No claims relating to the omissions on the part of tenders will be entertained.					
15		SITE CLEARANCE ETC					
15		EXCAVATION, ETC.					
15		Extra over all excavations for carting away:					
15	1	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m^3	10.00			
		Bill Total					
		BILL NO.4 : EARTHWORKS					
16		PREAMBLES					
16		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
16		SUPPLEMENTARY PREAMBLES					
16		Nature of ground:					
16		A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as 'earth'. All very hard unweathered shale, ironstone, etc., the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as 'hard rock'					
16		Subterranean water:					
16		No subterranean water is expected					
16		Excavation for working space in rock:					
16		Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as 'extra over' bulk excavation or trench and hole excavation as the case may be					
16		Carting away of excavated material:					

16		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					
16		Filling:					
16		Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material					
16		Testing:					
16		Prices for filling are to include for all necessary density tests in accordance with SABS 1200D					
17		EXCAVATION OTHER THAN BULK, ETC.					
17		Extra over all excavations for carting away:					
17	1	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m^3	43.00			
		Bill Total					
		BILL NO.5 : ROOF COVERINGS					
19		PREAMBLES					
19		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
19		PROFILE METAL SHEETING AND ACCESSORIES					
19		0,5mm Galvanised IBR profile light industrial steel sheeting with downturn edge with 'Colomate' finish to one side and half coat 'Classicoat Grey' to other side and fixed to 76mm SA pine purlins at min 1000mm centres, including galvanised steel sheet accessories:					
19	1	Roof covering with pitch not exceeding 5 degrees.	m^2	78.00			
19		SHEET METAL FLASHING, LINING, COPING, ETC.					
19		0.5mm Galvanised steel flashings to suite IBR profile with 'Colomate' finish to match roof covering:					
19	2	Narrow and Broad serated flute closers	m	28.00			
19	3	Moulded narrow and Broad polyethylene filler blocks.	m	35.00			
19		0,5mm Galvanised sheet steel					
19	4	Cappings 225mm girth four times bent along length, with riveted and sealed joints, sprung over and including suitable galvanised steel brackets at 500mm centres, plugged to brickwork or concrete	m	14.00			
19		ROOF INSULATION					
19		Rhino Plastic Enviro - Tuff Supreme 202 0r similar approved insulation with 150mm minimum industrial overlap laid in accordance with manufactures specification					

19	5	Insulation laid under purlins and fixed concurrent with roof sheeting, including galvanised nails and straining wires.	m²	78.00			
		Bill Total					
		BILL NO.6 : CARPENTRY AND JOINERY					
20		PREAMBLES					
20		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
20		SUPPLEMENTARY PREAMBLES					
20		Fixing:					
20		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					
20		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					
20		Joinery:					
20		Descriptions of frames shall be deemed to include frames, transomes, rails, etc.					
20		Decorative thermosetting plastic laminate covering:					
20		Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish					
20		ROOFS, ETC.					
20	1	38 x 114mm Wall plates	m	25.00			
20	2	38 x 176mm Rafters in lengths exceeding 2,4m and not exceeding 6,6m	m	69.00			
20	3	76 x 50mm SA Pine Purlins @ 1000mm c/c on timber rafters to Engineers detail and specification.	m	109.00			
20	4	125 x 76mm Splayed purlins	m	14.00			
21		FRAMED DOORS, ETC.					
21		SOLID HARDWOOD TIMBER DOORS					
21	5	44mm Framed ledged, braced and battened door 813 x 2032mm high of 44 x 108mm top rail and stilesa, 22 x 108mm middle ledge and braces and 22 x 222mm bottom ledge filled oin with 22 x 70mm tonogued , grooved and V-jointed one side boarding and covered on the other side with 3mm plywood with verneer to match door let into and including rebates all around including 44 x 70mm splayed, moulded and grooved weatherboad.	No	3.00			
21		SEMI SOLID CORE FLUSH DOORS					
21		Solid flush doors with commercial verneer hung to steel frames:					
21	6	40mm Door 813 x 2032mm high (D2).	No	4.00			

21		DOOR FRAMES, ETC					
21		Wrought softwood					
21	7	86 x 68mm Rebated linings, plugged	m	16.00			
		Bill Total					
		BILL NO.7 : IRONMONGERY					
23		PREAMBLES					
23		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
23		SUPPLEMENTARY PREAMBLES					
23		Proprietary items					
23		Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc. clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration					
23		Finishes to ironmongery					
23		Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AN Anodised natural AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded					
23		IRONMONGERY TO DOORS, FRAMES, ETC.					
23		IRONMONGERY TO DOORS, FRAMES, ETC.					
23		DCLSA' or equally approved:					
23	1	100 x 75 x 3mm Satin stainless steel hinge. (code					
		095/75)	Pairs	7.00			
23		Howick' or equal approved:					
23	2	150 x 32mm Satin chrome plated barrel bolt.	No	7.00			
23		CATCHES, CABIN HOOKS, ETC.					
23		DCLSA' or equally approved:					
23	3	SAA hat and coat buffer hook (code 154/69).	No	4.00			
24		LOCKS					
24		Union' or equally approved lockset with satin-chrome handles:					
24	4	4 Lever lockset, complete.	No	3.00			

24	5	3 Lever lockset, complete.	No	4.00			
24		SUNDRIES					
24	6	Brass floor mounted door holder, product code '401'	No	4.00			
24		LETTERS, NAME PLATE, ETC.					
24		"Union" or similar approved aluminium signage fixed manufacture's specification:					
24	7	180 x 180 x 0.6mm "GENTS" toilet sign	No	1.00			
24	8	180 x 180 x 0.6mm "LADIES" toilet sign	No	1.00			
24	9	180 x 180 x 0.6mm "GIRLS" toilet sign	No	1.00			
		Bill Total					
		BILL NO.8 : METALWORK					
26		PREAMBLES					
26		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
26		SUPPLEMENTARY PREAMBLES					
26		General:					
26		All structural steel work shall be of mild steel complying with the requirements of SABS Code of Practice 0162 for structural steel in General Building Construction.					
26		Reference to drawings and details:					
26		Where drawings and/ or details have been referred to Tenderers should price for complete detail and specification on such details and/ or drawing. No claims relating to the omissions on the part of tenders will be entertained.					
26		Preservation of steel work:					
26		All surfaces of steel are to be thoroughly cleaned of all rust, scale, oil or grease, all according with SABS Code of Practice 064 and then be given one (1) coat of primer complying with SABS Specification 909 before leaving the workshop.					
26		Hot dip galvanised to steel work:					
26		All steelwork built in as the work proceeds shall be hot dip galvanised after fabrication, but before leaving the manufacturers works, by the hot dip process, all in accordance with SABS Specifications 763.					
26		Descriptions of bolts, anchors, etc.:					
26		Unless otherwise described, descriptions of items shall be deemed to include for fixing to brickwork or concrete					
		Where item are described as "bolted", the bolts are measured elsewhere					
26		Descriptions of bolts shall be deemed to include nuts and washers					

26		Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete					
26		Items described as 'holed for bolt(s)' shall be deemed to exclude the bolts unless otherwise described					
27		Fixing:					
27		Items described as 'plugged' shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres					
27		Doors and windows shall comply with AAAMSA design criteria Glazing shall comply with SAGGA regulations. Glass shall be laminated performance glass as shown on the window schedules appended to these bills of quantities (as described in the headings to window descriptions). Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules. Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed. For purpose made windows and doors, refer to drawings annexed to these bills of quantities					
27		The following certificates shall be provided prior to commencement of site work:					
		1. A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product					
		2. A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively					
		3. A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process					
		4. A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked					
		5. A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years					
27		GALVANISED STEEL SECURITY GATES, ETC.					
27		Galvanised mild steel security grille gates constructed from 38 x38mm steel tubes with 25 x 25mm steel square tubes infill laid diagonally at 45 degrees at 125mm centres, including a hot dip galvanised finish as per Architects specifications.					
27	1	813 x 2032mm high Single gate (G1).	No	3.00			
28		GALVANISED STEEL SECURITY WINDOW BARS, ETC.					
28		Galvanised mild steel security burglar bars constructed from 30 x 12mm galvanised steel flat bar with 10mm diameter galvanised steel round bars infill at approximately 125mm centres. Burglar to be screwed fixed to walls using M10 expansion bolts screwed into masonry predrilled holes, including a hot dip galvanised finish as per Architects specifications.					
28	2	600 x 600mm high Burglar Screen, for (W2).	No	6.00			

28	3	900 x 600mm high Burglar Screen, for (W1).	No	2.00			
		Bill Total					
		BILL NO.9 : PLUMBING AND DRAINAGE					
30		PREAMBLES					
30		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
30		SUPPLEMENTARY PREAMBLES					
30		Wire gratings:					
30		Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings					
30		Stormwater channels:					
30		Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc., and disposal of surplus material on site					
30		French drains:					
30		Descriptions of French drains shall be deemed to include excavation, stone filling graded from 300mm diameter at bottom to 75mm diameter at top, ? geofabric filter blanket over stone, 300mm earth filling over and disposal of surplus material on site					
30		Descriptions of French drains shall be deemed to include excavation, stone filling graded from 300mm diameter at bottom to 75mm diameter at top, Approved geofabric filter blanket over stone, 300mm earth filling over and disposal of surplus material on site					
30		Stainless steel basins, sinks, wash troughs, urinals, etc.:					
30		Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc. shall be Type 304 (18/8) Stainless steel for laboratory sinks, photographic equipment, etc. shall be Type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable					
30		Sealing of edges:					
30		Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone					
31		uPVC pipes and fittings:					
31		Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings					
31		uPVC pressure pipes and fittings:					

31		Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings 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					
31		High density polyethylene (HDPe) pipes and fittings:					
31		Pipes shall be type IV and of the class specified with Plasson or Alprene compression fittings					
31		Polycop polypropylene pipes:					
31		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 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					
31		Copper pipes:					
31		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					
31		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					
31		Reducing fittings:					
31		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					
32		Fixing of pipes:					
32		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					
32		Paper wrapping to pipes:					
32		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					
32		Disinfection of water pipework:					
32		Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere)					
32		Laying, backfilling, bedding, etc. of pipes:					

32		Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled					
32		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 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) 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) Unless otherwise described bedding of rigid pipes shall be Class B bedding					
32		General:					
32		Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to PVC pipes, etc. are given separately) Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends					
32		Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc. shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 93% Mod AASHTO density and disposal of surplus material on site					
32		Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc. and to steel pipes (adaptors for connections to copper pipes, etc. are given separately)					
33		Descriptions of WC pans, slop hoppers, etc. shall be deemed to include for joints to soil pipes (pan connectors are separately measured)					
33		As-built drawings					
33		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)					
33		SANITARY FITTINGS					
33		Christy plastic bowl' Urinal or equally approved:					
33	1	330 x 350 x 490mm wall mounted plastic urinal fitted with waterless urinal c/w fitting	No	1.00			
33		SANITARY PLUMBING					
33	2	110mm Air vent pipe 3.8m long painted black with fly-screen vent cowl held together with master-bat.Pipe extending 500mm above roof highest point	No	2.00			
33		TESTING					
33	3	Testing water pipe system.	Item	1.00			
		Bill Total					
		BILL NO.10 : GLAZING					

35		PREAMBLES					
35		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
35		SUPPLEMENTARY PREAMBLES					
35		General:					
35		Glazing should comply with SANS 10137: The installation of glazing in buildings.					
		Quality assurance during stages of fabrication and installation are important. Glass should be protected against harmful splashes and weld splatter. Clean glass as soon practicable after installation with mild soap and water.					
35		Float glass:					
35		Silvered float glass mirrors shall comply with SANS 1236, Class A with chamfered and /or polished edges. Fasteners shall be chrome plated mirror screws, including vertical strips of double sided tape to allow ventilation: support mirrors larger than 1m2 with additional clips, anchors or beads.					
35		TOPS, SHELVES, DOORS, MIRRORS, ETC.					
35		6mm Thick clear float glass silver-backed mirror, with polished bevelled edges four (4) times holed for and fixed with chromium plated dome headed mirror screws:					
35	1	Mirror 600 x 450mm high concealed thief resistant fixings.	No	6.00			
		Bill Total					
		BILL NO.11 : PAINTWORK					
36		PREAMBLES					
36		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
36		SUPPLEMENTARY PREAMBLES					
36		General:					
36		All painting shall be done in accordance with SANS 10305 (Painting of buildings part 4,5,6) and all paints and varnish in accordance with SANS 129444 corrosion protection of steel structures by procetive paint systems.					
36		All surfaces whether wood, metal, etc. shall be cleaned of any matter such as dust, rust scale or dirt to receive any paint finish.					
36		Preparation of surfaces:					
36		Allow time for the drying of surface moisture. Ensure work by other trades man that might affect painting has been completed. Inspection of factory primed components to ensure that the primer is in satisfactory condition, if not take remdial action. Remove excess pipe jointing material.					

36		Preparation for painting:					
36		All manufacturers instructions and recommendation shall be followed in respect of temperature and its relation to curing time and pot live. Sandpaper all coats of paint and varnish and leave time to dry before next coat is applied.					
		Do not paint when conditions are unsuitabled, for example dust, insufficient light, direct sunlight or inclement weather: do not apply paint if the ambient temperature is greater than 10 degrees and lesser than 35 degrees celsius. Mask all surrounding surfaces when spray-painting, don not spray paint in windy weather.					
36		Colours:					
36		Unless otherwise described, all paintwork shall be deemed to have a colour value in excess of 7 on the Munsell system in accordance with SABS 1091					
		When staining timber, the resultant colour or shade must be to the complete satisfaction of the Principal Agent before any overcoating or preservative is applied					
37		Unless otherwise described, all paintwork shall be deemed to have a colour value in excess of 7 on the Munsell system in accordance with SABS 1091					
		When staining timber, the resultant colour or shade must be to the complete satisfaction of the Principal Agent before any overcoating or preservative is applied.					
		Indentification colour marking (e.g. Pipes transporting different fluids/gases) shall be in accordance with SANS 10140.					
37		ON WOOD SURFACES					
37		One coat wood primmer and two coats oil based paint to:					
37	1	Internal doors	m²	14.00			
37		One coat nova dark brown and two coats sanded lightly between coats to:					
37	2	External doors.	m²	10.00			
		Bill Total					
		BILL NO.12 : BULK EXCAVATIONS					
39		PREAMBLES					
39		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
39		SUPPLEMENTARY PREAMBLES					
39		Nature of ground:					
39		A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as 'earth'. All very hard unweathered shale, ironstone, etc., the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as 'hard rock'					
39		Subterranean water:					

39		No subterranean water is expected					
39		Excavation for working space in rock:					
39		Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as 'extra over' bulk excavation or trench and hole excavation as the case may be					
39		Carting away of excavated material:					
39		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					
39		Filling:					
39		Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material					
39		Testing:					
39		Prices for filling are to include for all necessary density tests in accordance with SABS 1200D					
40		BULK EXCAVATIONS, ETC.					
40		Extra over all excavations for carting away					
40	1	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m³	211.00			
		Bill Total					
		BILL NO.13 : RAMPS , APRONS AND WALKWAYS					
42		PREAMBLES					
42		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
42		EARTH FILLING, ETC.					
42		Filling with approved 150mm G4 material, stabilised with 3% cement, supplied and carted onto site by the contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:					
42	1	Under walkways, ramps and aprons	m³	36.00			
42		Filling with approved 150mm G7 material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:					
42	2	Under walkways, ramps and aprons	m³	21.00			
42		Surface Preparation:					

42	3	Trim and level off surface of ground (excavated or filled under this Contract) to receive layerworks and pavings, including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm, to a density of at least, 95% Mod. AASHTO maximum density.	m²	234.00			
42		CONCRETE, FORMWORK & REINFORCEMENT					
42		Reinforced 25Mpa/19mm Concrete:					
42	4	Surface beds cast in panels ramps and aprons	m³	29.00			
42	5	Thickening under surface bed.	m³	1.00			
42		Finishing to surfaces of concrete smooth with a wood float:					
42	6	Surface beds to falls to ramps and aprons	m²	234.00			
42		FORMWORK					
42		Smooth Formwork (Degree of Accuracy II)					
42	7	Edges, risers, ends and reveals not exceeding 300mm high	m	311.00			
43		MOVEMENT JOINTS, ETC.					
43		Construction joints:					
43	8	8 x 12mm Saw-cut joints in top of concrete	m	106.00			
43		REINFORCEMENT					
43		Fabric Reinforcement					
43	9	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m²	234.00			
43		DAMPPROOFING OF WALLS AND FLOOR					
43		One layer 250 micron gunplas black polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:					
43	10	Under surface beds	m²	180.00			
43	11	Under ramps and apron	m²	54.00			
43		SEALING STRIPS, JOINT SEALANTS, ETC.					
43		Two-part polysuphide sealing compound including backing cord, bond breaker, primer, etc.:					
43	12	10mm Polysulphinde sealant with backing strips	m	106.00			
		Bill Total					
		BILL NO.14 : STORMWATER CHANNELS, ETC.					
45		PREAMBLES					
45		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
45		SUPPLEMENTARY PREAMBLES					

45		Supplementary Preambles from relevant trades/Bills in this tender document are applicable to items in this section					
45		Reference to drawings and details:					
45		Where drawings and/ or details have been referred to in the description of items the Tenderers should price for complete detail and specification on such details and/ or drawing. No claims relating to the omissions on the part of tenders will be entertained.					
45		STORMWATER DRAINAGE PIPES					
45		FILLING, ETC.					
45		Filling with approved 150mm G4 material, stabilised with 3% cement, supplied and carted onto site by the contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:					
45	1	Under stormwater channels, etc.	m^3	7.00			
45		Filling with approved 150mm G7 material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:					
45	2	Under stormwater channels, etc.	m^3	7.00			
45		Compaction of surfaces:					
45	3	Compaction of ground under channnels, including scarifying for depth of 150mm, breaking down oversize material, adding sutable material where necessary and compact to 95% MOD ASSHTO desity.	m^2	48.00			
46		CONCRETE, FORMWORK AND REINFORCEMENT					
46		In-situ concrete (25Mpa) open stormwater channels having V shaped waterway formed in top, finished smooth on all exposed surfaces in (3:1) untinted cement plaster trowelled smooth and with angles rounded and, cast in suitable lengths, including all formwork, moulds, shallow excavation, 150mm filling and ramming, laying to falls, bedding and pointing in (3:1) cement mortar:					
46	4	Channel size 800mm wide x 100mm thick with 100mm deep v-channel waterway	m	60.00			
46	5	Extra over for angle	No	2.00			
46	6	Extra over for intersections	No	3.00			
46		SPREADERS, ETC.					
46		20Mpa/19mm Concrete:					
46	7	Triangular water spreader as channel outlet 150mm wide x 1 000mm long x 100mm thick including 50 x 50mm raised edges and ten hard burned bricks set in concrete and slightly protruding to follow the general shape of the spreader	No	1.00			
46		SUNDRIES					
46		Joint forming material in movement joints:					
46	8	10mm Bitumen impregnated fibre board vertically between concrete surfaces	m^2	48.00			
46		JOINT SEALANTS, ETC. (Work Group No. 120)					

46		Two-part polysulphide sealing compound including backing cord, bond breaker, primer, etc:					
46	9	10 x 20mm In expansion joints in channels including raking out expansion joint filler as necessary	m	24.00			
46		MESH REINFORCEMENT					
46	10	Type 245 fabric reinforcement in V- Channels, etc.	m²	48.00			
46		NEW HEADING					
46		New Subheading					
46		STORMWATER MATTRESS					
46		Stormwater Reno Mattress:					
46	11	Reno mattress stormwater erosion protection size 6000mm long x 2000mm wide x 300mm deep, as per engineers drawing no: 31462-09-002.	No	1.00			
		Bill Total					
		BILL NO.15 : WATER TANKS AND STANDS					
48		PREAMBLES					
48		For Preambles the tenderer is referred to the relevant Clauses in the separate documents General Specification (PW 371-A July 2013) and Particular Specification (PW371-B July 2013)					
48		EARTH FILLING, ETC.					
48		Filling with material from excavations compacted to a density of at least 96% Mod. AASHTO maximum density:					
48	1	Backfilling to trenches, holes, etc.	m³	9.00			
48		Filling with approved G5 material, supplied and carted onto site by the contractor and compacted in layers not exceeding 150mm thick to a density of at least 95% Mod. AASHTO maximum density:					
48	2	Under concrete platforms	m³	4.00			
48		UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
48		25MPa/19mm Concrete:					
48	3	Concrete block surround footings cast against excavated surfaces	m³	5.00			
48		REINFORCED CONCRETE					
48		25Mpa/19mm Concrete:					
48	4	Concrete platforms	m³	4.00			
48	5	Concrete splash apron (drainage)	m³	1.00			
48		Finishing top surfaces of concrete smooth with a wood float:					
48	6	Concrete platforms	m²	28.00			
48	7	Concrete slabs to falls	m²	2.00			

48		Smooth formwork (Degree of Accuracy II):					
48	8	Edge, risers, ends and reveals not exceeding 300mm high	m	32.00			
49		REINFORCEMENT (PROVISIONAL)					
49		Fabric reinforcement:					
49	9	High tensile steel ref 395 mesh in concrete surface beds, slabs, etc.	m²	42.00			
49		MASONRY					
49		BRICKWORK IN SUPERSTRUCTURE					
49		Brickwork in Class II mortar:					
49	10	220mm Walls	m²	14.00			
49		BRICKWORK SUNDRIES: (CPAP Work Group 116).					
49		FACE BRICKWORK					
49		Face brick in class II mortar pointed with recessed horizontal and vertical joints:					
49	11	Extra over 220mm skin of brickwork for face brickwork	m²	19.00			
49	12	Brickwork for brick-on-flat header course bands one course high	m	32.00			
49		WATERPROOFING					
49		DAMPPROOFING TO WALLS AND FLOORS (CPAP Work Group No. 120)					
49		One layer of 375 micron brickgrip DPC embossed damp proof course:					
49	13	In walls	m²	7.00			
49		One layer of 250 micron gunplas green waterproof sheeting sealed at laps with gunplas pressure sensitive tape:					
49	14	Under concrete platforms	m²	21.00			
49	15	10 x 100mm long Eye-bolt once bent and cast into concrete	No	24.00			
49	16	4mm wire cables (as tie strap, to retain tank in postion)	m	60.00			
49	17	30 x 1.6mm Hoop iron straps to tanks	m	25.00			
49		Testing:					
49	18	Allow for testing all drains, and water supplies to the satisfaction of the Representative. All defective work is to be taken out and replaced at the Contractor's expense.	Item	1.00			
		Bill Total					
		BILL NO.18 : PROVISIONAL SUMS					
51		PREAMBLES					

51		The Bidder is referred to the relevant clauses in a separate document 'SPECIFICATION OF MATERIALS & METHODS' to be used PW371A (Edition 2.1 July 2014) from The Department of Public Works.					
51		SUPPLEMENTARY PREAMBLES.					
51		General:					
51		Unless otherwise described, all prime cost amounts and provisional sums shall be nett. No provision for 5 percent cash discount shall be included for the main contractor.					
51		Prime cost amounts and provisional sums exclude value added tax.					
51		In the event of a prime cost amount or provisional sum being omitted the items "Allow for profit"... and "allow for attendance" applicable, shall be omitted together with the prime cost amount or provisional sum and no claim whatsoever will be entertained in this regard.					
51		The principal agent shall be entitled to nominate or select any further specialist and other to execute work or supply and fix any goods whether or not a provisional sum is included in the bills of quantities and such specialists and other will then be deemed to be "selected subcontractors" as the case may be.					
51		Where profit stated, the contractor may allow for profit if required					
51		Attendance upon nominated/selected subcontractors:					
51		The item "Allow for attendance...." which follows each provisional sum for nominated/selected subcontractors work, shall be deemed to cover all the contractors costs incurred in providing free of charge to the subcontractor the service as set out in the relevant clause in the preliminaries					
51		Taking delivery:					
51		Taking delivery of goods or articles by the contractor on site shall mean getting in, unpacking, checking that the quantity is correct and that the goods are complete and undamaged,submitting a report thereof to the interested parties and issuing vouchers for the receipt of such goods.The contractor is to store the goods and will be held responsible for the safety thereof and indemnify the employer against any damage or loss which may occur.					
51		Works executed under a seperate/direct contract:					
51		The contractor shall permit access to the site and to the places where the work is to be carried out and provide every facility to enable the specialist to carry out his work in a workmanlike manner and in propper order and sequence.					
52		Co-ordination:					
52		The contractor shall obtain all necessary particulars of the subcontractors work timeously and the contractor will be responsible for the programming and co-ordination of the works					
52		Number of nominated/selected subcontractors:					

52		The contractors attention is drawn to the fact that the indicated individual provisional sums may consist of numerous specialist, all of which will become nominated/selected subcontractors.The contractor must therefore allow in his tender for any cost implication this may bring about, as no claims in this regard will be entertained					
52		PROVISIONAL SUMS FOR NOMINATED/SELECTED SUB-CONTRACTORS					
52		Community Liaison Officer:					
52	1	Provide the sum of R15 000.00 (Fifteen Thousand Rand) for Community Liason Officer with stipend of R5 000.00 each month to be employed by the main contractor for the duration of the contract, to be used at the discretion of the Principal Agent and deducted in whole or in part if not required	Item	1.00			
52	2	Profit	Item	1.00			
52	3	Allow for general attendance	Item	1.00			
		Bill Total					
		Section Total					