

SUNDUMBILI MAGISTRATE OFFICE: ADDITIONAL ACCOMMODATION

PART B2: EXTERNAL WORKS

	Unit	Quantity	Rate	Amount	
SECTION NO. 1 ROADWORK					
BILL NO. 1					
PAINTWORK					
SUPPLEMENTARY PREAMBLES The bidder is referred to the relevant clauses in the construction works general specifications (PW 371 A), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.					
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.					
SUPPLEMENTARY PREAMBLES					
<u>Labour Intensive</u>					
Tenderers are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the aforementioned words in uppercase at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Extended Public Works Programme.					
Carried to Collection Section No. 1 Bill No. 1 Paintwork 162			R		- 22
	19	1		77	

		Unit	Quantity	Rate	Amount
1 2 3 4	Drawings: Tenderers are to note that where descriptions include reference drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from any of the above will be entertained. SIGNWRITING Two coats reflective road marking paint on concrete Line 100mm wide Numeral or letter 200mm high Traffic arrow exceeding 2m² and not exceeding 4m² Paraplegic parking motif exceeding 2m² and not exceeding 4m²	m No No	178 20 8 2	Rate	Amount
	Carried to Collection Section No. 1 Bill No. 1 Paintwork			R	

SECTION NO. 1 ROADWORK BILL NO. 1 PAINTWORK COLLECTION	Brought Forward from Page	Page No 162 163	
Section No. 1 Bill No. 1 Paintwork	Carried To Section Summary	R	

			Amount	
	SECTION NO. 1			
	ROADWORK			
	SECTION SUMMARY			
Bill No.		Page		
1	PAINTWORK	164		
	Carried to Final Summary	R		
	Section No. 1			
	SECTION SUMMARY			
	165			

	Unit	Quantity	Rate	Amount
SECTION NO. 2 DEMOLITIONS AND ALTERATIONS BILL NO. 1 ALTERATIONS				
The bidder is referred to the relevant clauses in the construction works general specifications (PW 371 A), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
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SUPPLEMENTARY PREAMBLES				
Working at Heights:				
Tenderers are to note that the work to be undertaken may require all necessary scaffolding, due to the heights of the structures to be constructed/ altered. Tenderers are to therefore price accordingly as rates will be deemed to include for same and No further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
<u>View site</u>				
Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained				
Carried to Collection Section No. 2 Bill No. 1			R	
Alterations				
166				

	Unit	Quantity	Rate	Amount
Labour Intensive Tenderers are to note well that specific items within				
these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the aforementioned words in uppercase at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Extended Public Works Programme.				
Damages to existing finishes, etc				
The Contractor will be held responsible for all damage however caused, to existing finishes and fittings etc. and he must make good all damage at his own expense to the approval of the Principal Agent.				
Breaking down, demolition and alteration activities and tasks, hacking off of existing plaster, etc. is to be executed with care so as to prevent damage to remaining floor and wall surfaces and finishes (where these are to be retained). Tenders will be deemed to include allowance for any necessary protection of existing surfaces and structures as may be necessary to effect the above, as the cost of repairing damage to existing surfaces and structures will be solely for the Contractors account.	ñ			
Responsibility for site				
The Contractor is to note that upon possession of the site by himself, and extending until practical completion is achieved, he is solely responsible for the site, site security, general upkeep and cleaning of the site and all other responsibilities in maintaining a construction site in conformance with but not limited to, the Construction Regulations 2003, all local by-laws, all user client regulations, and all Client (National Department of Public Works) regulations and procedures. Bidders are therefore urged to study all available material and to investigate fully the site and areas contiguous to the site, in order to determine the range and extent of responsibility. No additional monetary and/or time claims will be entertained in respect of the above.				
Carried to Collection			R	
Section No. 2				
Bill No. 1				
Alterations				
167				II I,

	Unit	Quantity	Rate	Amount
Explosives				
General				
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				
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				
Prices for taking out of doors, windows, etc. shall include for removal of all beads, architraves, ironmongery, etc.				
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.				
Prices for breaking down and removal of brick walls is deemed to include for plaster and/or tile finishes and/or cladding of any type on walls.				
Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary.				
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. Rates shall be deemed to be inclusive in this regard.				
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.).				
Prices for removal of existing fittings, rails, countertops, etc. from walls shall be deemed to include for taking out of existing wall plugs and filling holes with an approved filler.				
Prices for removal of existing fittings, rails, countertops, etc. from facebrick walls shall be deemed to include for taking out of existing wall plugs and filling holes with an approved filler and making good with an approved brick paste.				
Carried to Collection			R	
Section No. 2 Bill No. 1 Alterations			ĸ	
Alterations 168				

		Unit	Quantity	Rate	Amount
	No explosives whatsoever may be used for demolition purposes unless otherwise stated.				
	Drawings:				
	Tenderers are to note that where descriptions include reference drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from any of the above will be entertained.				
	REMOVAL OF EXISTING WORK				
	Demolishing and removing:				
1	Single storey building with pitched roof size overall approximately 12600mm x 10700mm on plan and approximately 3600mm high at eaves, comprising reinforced concrete surface bed, one brick external walls, half brick and one brick internal walls and tiled roof covering on timber trusses including excavation for and breaking up foundations and return, backfill, compaction, etc. Including breaking up and removing foundations and foundation brickwork, filling with approved material obtained from the excavations and compacting to 98% Mod AASHTO density. (LABOUR INTENSIVE)	No	1		
	Breaking down and removing paving at SAPS and reinstate on completion				
2	Existing paving (LABOUR INTENSIVE)	m²	642		
	Breaking up and removing reinforced concrete. including cutting off and removing reinforcement				
3	Walkway . (LABOUR INTENSIVE)	m³	13		
4	Driveway. (LABOUR INTENSIVE)	m³	27		
	Breaking down and removing brickwork etc.				
5	One brick walls. (LABOUR INTENSIVE)	m²	50		
	Taking out/off and removing sundry metalwork				
6	Steel entrance gate approximately 3500mm long x 3000mm high. (LABOUR INTENSIVE)	No	1		
7	Wire fence complete including grubbing and removing bases to posts and droppers, and all necessary excavation, backfill cart way, etc (LABOUR INTENSIVE)	m	209		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 1 Alterations				
	Alterations 169				

		Unit	Quantity	Rate	Amount
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	TEMPORARY PARKHOMES				
	Parkhomes to include standard windows, burglar bars, curtains and tracks, two tier steps for access, light fittings and black boards				
	"M-Projects" or equal approved temporary parkhome units:				
	Provide temporary parkhomes on site for office facilities during the construction phase as herewith measured, including levelling, positioning on site and connection to an electrical supply including issuing compliance certificates				
	"M PROJECTS" or other approved Parkhome, size 3500 x 12000mm VOLUMETRIC MACH RANGE temporary accommodation unit or nearest size, with and including hipped roof with seamless aluminium gutters and PVC rainwater goods and have one door on either side of the long side and two opening windows with burglar bars in between and four windows to be installed on the other long side of the unit with and including wall to wall carpeting with and including a 9000BTU air-conditioning unit and sufficient lighting. All as per specialist specifications.				
8	Provision of parkhomes for 24 months	No	2		
9	Provision of two tier steps for 24 months	No	2		
10	Provision of electrical compliance certificate for parkhomes	No	2		
11	Transport to and from site of parkhomes as per distance between supplier and site	No	2		
	BUDGETARY ALLOWANCES				
	Unforeseen demolition/alteration works:				
12	Allow the P.C Amount of R55,000.00 (Fifty five				
	Thousand Rand Only) for unforeseen demolition/alteration works	ltem			
	Proving and relocation of existing services:				
13	Allow the sum of R 300,000.00 (Three Hundred				
	Thousand Rand) for proving and relocation of existing services.	Item			
	Carried to Collection			R	
	Section No. 2 Bill No. 1				
	Alterations				
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SECTION NO. 2 DEMOLITIONS AND ALTERATIONS BILL NO. 1 ALTERATIONS COLLECTION		
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Bill No. 1		
Alterations 171		

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	Carried to Final Summary Section No. 2 SECTION SUMMARY	R	
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	Unit	Quantity	Rate	Amount
SECTION NO. 3 BULK EARTHWORKS BILL NO. 1 EARTHWORKS				
The bidder is referred to the relevant clauses in the construction works general specifications (PW 371 A), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights:				
Tenderers are to note that the work to be undertaken may require all necessary scaffolding, due to the heights of the structures to be constructed/ altered. Tenderers are to therefore price accordingly as rates will be deemed to include for same and No further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Section No. 3				
Bill No. 1 Earthworks				
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	Unit	Quantity	Rate	Amount
Labour Intensive				
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Nature of ground				
The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'.				
A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. Please refer to same for further details in regards to nature of ground.				
Carting away of excavated material				
Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.				
Bulking				
No allowance has been made for bulking, contractor to allow accordingly. No claims in this regard will be entertained and bidders are therefore to allow accordingly for same in their rates.				
Filling				
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.				
<u>Testing</u>				
Prices for filling are to include for all necessary density tests in accordance with SABS 1200D.				
Carried to Collection			R	-
Section No. 3			K	
Bill No. 1				
Earthworks				
174				JJ k

		Unit	Quantity	Rate	Amount
Proximity to existing structures					
Tenderers are to note that some of the measured work is to be undertaken in existing buildings. No claims in this representation of the content of the conte	n close proximity to				
As-built drawings					
Where required, the contractor shall set of as-built drawings. At completic contractor shall hand these drawings Agent for reproducing onto the origin to the employer (provision for allowardrawings elsewhere).	on of the contract the to the Principal lals for handing over				
Drawings:					
Tenderers are to note that where description, notwithstanding anyth the description, tenderers are to price accordance with the drawings. Further the tenderer to ensure that all relevant referenced in the Bills of Quantities at tender documents. No further time or resulting from any of the above will be	of the tender ching contained in e these items in er, the onus is on nt drawings are included in the r monetary claims				
REMOVAL OF TREES ETC					
Cutting down and removing, grub filling in holes	bing up roots and				
Tree exceeding 200mm and not exce (LABOUR INTENSIVE)	eeding 500mm girth.	No	4		
Tree exceeding 500mm and not exceeding firth (LABOUR INTENSIVE)	eeding 1000mm	No	2		
EXCAVATIONS ETC					
BULK EXCAVATIONS ETC					
Open face excavation in earth ove	r sloping site				
3 Open face excavation		m³	13 000		
Extra over bulk excavations in ear	th for excavation				
4 Soft rock (LABOUR INTENSIVE)		m³	2 750		
5 Intermediate rock		m³	2 750		
6 Hard rock using controlled blasting		m³	5 625		
7 Hard rock using chemical blasting		m³	375		
8 Hard rock using pneumatic plant.		m³	1 500		
	Carried to Collection			R	
Section No. 3	Carried to Collection			K	
Bill No. 1					
Earthworks					
	175				

		Unit	Quantity	Rate	Amount
	Back excavation of vertical sides of excavations in earth for working space including backfilling compacted to 95% Mod AASHTO density				
9	Not exceeding 500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m²	108		
10	Exceeding 500mm and not exceeding 1500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m²	214		
11	Exceeding 1500mm and not exceeding 3000mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m²	324		
12	Exceeding 3000mm and not exceeding 4500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m²	324		
	Extra over excavation in earth for working space for excavation in soft rock				
13	Not exceeding 500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m²	45		
14	Exceeding 500mm and not exceeding 1500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m²	89		
15	Exceeding 1500mm and not exceeding 3000mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m²	136		
16	Exceeding 3000mm and not exceeding 4500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m²	136		
	Extra over excavation in earth for working space for excavation in hard rock				
17	Not exceeding 500mm deep for placing and removing formwork to walls etc., against excavated face	m²	63		
18	Exceeding 500mm and not exceeding 1500mm deep for placing and removing formwork to walls etc., against excavated face	m²	124		
19	Exceeding 1500mm and not exceeding 3000mm deep for placing and removing formwork to walls etc., against excavated face	m²	188		
	Carried to Collection			R	
	Section No. 3 Bill No. 1 Earthworks				
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		Unit	Quantity	Rate	Amount
20	Exceeding 3000mm and not exceeding 4500mm deep for placing and removing formwork to walls etc., against excavated face	m²	188		
	Extra over bulk excavations in earth for breaking up and removing				
21	Unreinforced concrete (LABOUR INTENSIVE)	m³	7		
22	Brickwork (LABOUR INTENSIVE)	m³	10		
23	Reinforced concrete including cutting off and removing reinforcement (LABOUR INTENSIVE)	m³	7		
24	Extra over all excavations for carting away Surplus material from excavations and/or stock piles on				
	site to a dumping site to be located by the contractor	m³	13 000		
	Risk of collapse of excavations				
25	Sides of bulk excavations not exceeding 1,5m deep	m²	318		
26	Sides of bulk excavations exceeding 1,5m deep	m²	636		
27	Keeping excavations free of water Keeping excavations free of water other than subterranean water	Item			
	Prescribed density tests on filling				
28	Modified AASHTO Density test	No	4		
29	Road Indicator test	No	2		
30	Natural California Bearing Ratio test	No	8		
31	Field Density test including Optimum Moisture Content (four readings per test)	No	8		
	SOIL POISONING				
32	Soil insecticide in accordance with SANS 5859 Under floors etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming	m²	2 601		
	AS-BUILT DRAWINGS				
	<u>Drawings</u>				
33	Provision of as-built drawings	Item			
	Carried to Collection			R	
	Section No. 3 Bill No. 1				
	Earthworks				
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SECTION NO. 3 BULK EARTHWORKS BILL NO. 1 EARTHWORKS COLLECTION	Brought Forward from Page	Page No 173 174 175 176 177	
Section No. 3 Bill No. 1 Earthworks	Carried To Section Summary	R	

	Unit	Quantity	Rate	Amount
SECTION NO. 3 BULK EARTHWORKS BILL NO. 2 LATERAL SUPPORT The bidder is referred to the relevant clauses in the construction works general specifications (PW 371 A), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural	Unit	Quantity	Rate	Amount
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SUPPLEMENTARY PREAMBLES				
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Carried to Collection Section No. 3			R	
Bill No. 2 Lateral Support				
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Drawing BDP-2610-ST-001-P-00 Establishment and Supervision 1 Transporting and establishment on site of necessary plant for the execution of the work and removal thereof on completion 2 Supervision & facilities lateral support Soil Nails - 5.0m long 25mm Gewi Bars Setting up for Gewi Bars Set up for each 25mm diameter Gewi bar No 587 Drill 4 Drill holes to the specified diameter depths and inclinations m 2 935 Supply and install Gewi Bars 5 .0m long 25mm diameter galvanised 500MPa Gewi bar No 587 Carried to Collection Section No. 3 Bill No. 2 Lateral Support		reference drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims				
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Soil Nails - 5.0m long 25mm Gewi Bars Setting up for Gewi Bars Set up for each 25mm diameter Gewi bar Drill Drill holes to the specified diameter depths and inclinations m 2 935 Supply and install Gewi Bars 5 5.0m long 25mm diameter galvanised 500MPa Gewi bar Carried to Collection Section No. 3 Bill No. 2 Lateral Support	1	plant for the execution of the work and removal thereof	Item			
Setting up for Gewi Bars Set up for each 25mm diameter Gewi bar Drill Drill holes to the specified diameter depths and inclinations Supply and install Gewi Bars 5 5.0m long 25mm diameter galvanised 500MPa Gewi bar Carried to Collection Section No. 3 Bill No. 2 Lateral Support	2	Supervision & facilities lateral support	WKS	12		
Set up for each 25mm diameter Gewi bar Drill		Soil Nails - 5.0m long 25mm Gewi Bars				
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Drill holes to the specified diameter depths and inclinations m 2 935 Supply and install Gewi Bars 5.0m long 25mm diameter galvanised 500MPa Gewi bar No 587 Carried to Collection R Section No. 3 Bill No. 2 Lateral Support	3	Set up for each 25mm diameter Gewi bar	No	587		
inclinations m 2 935 Supply and install Gewi Bars 5.0m long 25mm diameter galvanised 500MPa Gewi bar No 587 Carried to Collection R Section No. 3 Bill No. 2 Lateral Support		<u>Drill</u>				
5 5.0m long 25mm diameter galvanised 500MPa Gewi bar No 587 Carried to Collection Section No. 3 Bill No. 2 Lateral Support	4		m	2 935		
Carried to Collection R Section No. 3 Bill No. 2 Lateral Support						
Section No. 3 Bill No. 2 Lateral Support	5	5.0m long 25mm diameter galvanised 500MPa Gewi bar	No	587		
Bill No. 2 Lateral Support		Carried to Collection			R	
Lateral Support						

		Unit	Quantity	Rate	Amount
	Mesh Reinforcement	2	0.007		
6	Galvanised mesh ref 395	m²	2 387		
	Shotcrete				
7	30MPa Shotcrete 100mm thick	m²	1 194		
	Weepholes comprising 6.0m 50mm dia perforated geopipe wrapped in geosynthetic fabric installed inclined above the horizontal				
8	50mm dia weephole 6.0m long	No	232		
	<u>Drains</u>				
9	100mm wide DNI band drain, wrapped in BIDIM A4, secured against soil face prior to application of shotcrete, discharging into a 40mm diameter uPVC pipe installed through the shotcrete wall	m	1 012		
	Design and Certification by Geotechnical Engineer				
10	Design and Certification by Geotechnical Engineer with and including site inspections	ltem			
	Carried to Collection			R	
	Section No. 3				
	Bill No. 2				
	Lateral Support 181				

SECTION NO. 3 BULK EARTHWORKS BILL NO. 2 LATERAL SUPPORT COLLECTION		Page No	
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Lateral Support	182		

	Unit	Quantity	Rate	Amount
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SECTION NO. 3 BULK EARTHWORKS BILL NO. 3 CONCRETE, FORMWORK AND REINFORCEMENT				
The bidder is referred to the relevant clauses in the construction works general specifications (PW 371 A), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence. Further to the above, Bidders are to note that the latest				
edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights:				
Tenderers are to note that the work to be undertaken may require all necessary scaffolding, due to the heights of the structures to be constructed/ altered. Tenderers are to therefore price accordingly as rates will be deemed to include for same and No further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection Section No. 3 Bill No. 3			R	
Concrete, Formwork And Reinforcement				
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		Unit	Quantity	Rate	Amount
	Labour Intensive Tenderers are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the aforementioned words in uppercase at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Extended Public Works Programme.	Unit	Quantity	Rate	Amount
	Drawings:				
	Tenderers are to note that where descriptions include reference drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from any of the above will be entertained.				
	CONCRETE, FORMWORK AND REINFORCEMENT				
	Cost of tests				
	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 for approval. The testing shall be undertaken by an approved independent firm or institution nominated by the contractor (test cubes are measured separately)				
	CONCRETE SUNDRIES				
	"Penetron" or other approved admixture:				
1	Extra over reinforced concrete for "Penetron" or other approved admixture including all necessary accessories including Penebar SW-55 and primer, etc., all placed and applied in strict accordance with the manufacturer's instructions.	m³	786		
	Carried to Collection			R	
	Section No. 3 Bill No. 3 Concrete, Formwork And Reinforcement			K	

SECTION NO. 3			
BULK EARTHWORKS			
BILL NO. 3			
CONCRETE, FORMWORK AND REINFORCEMENT			
COLLECTION			
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Bill No. 3			
Concrete, Formwork And Reinforcement			
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	SECTION NO. 3		
	BULK EARTHWORKS		
	SECTION SUMMARY	_	
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2	LATERAL SUPPORT	182	
3	CONCRETE, FORMWORK AND REINFORCEMENT	185	
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	Unit	Quantity	Rate	Amount
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SECTION NO. 4				
WATER SUPPLIES				
BILL NO. 1				
PLUMBING AND DRAINAGE				
The bidder is referred to the relevant clauses in the construction works general specifications (PW 371 A), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights:				
Tenderers are to note that the work to be undertaken may require all necessary scaffolding, due to the heights of the structures to be constructed/ altered. Tenderers are to therefore price accordingly as rates will be deemed to include for same and No further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
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Carried to Collection			R	
Section No. 4 Bill No. 1				
Plumbing And Drainage				
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	Unit	Quantity	Rate	Amount
Labour Intensive Tenderers are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the aforementioned words in uppercase at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Extended Public Works Programme.	Offic	Quantity	nate	Amount
Polycop polypropylene pipes				
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				
Copper pipes				
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 antisyphon pipes, capillary solder fittings and compression fittings shall be Cobra Watertech type. Capillary solder fittings shall comply with ISO 2016				
Reducing fittings				
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				
Carried to Collection			R	
Section No. 4 Bill No. 1				
Plumbing And Drainage				
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	Unit	Quantity	Rate	Amount
Fixing of pipes				
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				
uPVC pressure pipes and fittings				
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.				
Wire gratings				
Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings				
Stainless steel basins, sinks, wash troughs, urinals, etc.				
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				
Sealing of edges				
Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone				
Paper wrapping to pipes				
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				
Disinfection of water pipework				
Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere)				
Prices				
Prices of all pipes shall include for short lengths and cuttings, for all joints in length, including necessary couplings and for all jointing to fittings.				
Carried to Collection			R	
Section No. 4				
Bill No. 1				
Plumbing And Drainage				
189				

		Unit	Quantity	Rate	Amount
	Prices of all joints between pipes of dissimilar size and between taps, valves, etc. and shall in all cases be for the couplings or adaptors. Prices of flanged and bolted joints between pipes of dissimilar size and between valves, etc. shall include for flanges drilled as required, flange adaptors, rubber insertion rings and necessary bolts and nuts.				
	Prices for all pipes in ground shall include for laying in ground, including digging trenches in earth, provision for risk of collapse to side of excavations, except where specifically measured in detail, keeping excavations free from water, bedding as described and filling in and ramming in 150mm thick layers to 95% Modified AASHTO. Price of concrete encasement around pipes, bends, etc. and concrete anchor blocks, shall include for all additional excavation and formwork required.				
	As-built drawings				
	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)				
	Drawings:				
	Tenderers are to note that where descriptions include reference drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from any of the above will be entertained.				
	WATER SUPPLIES				
	Class 16 pipes all as per Engineering Drawing No. 100 appended at the back of these Bills of Quantities.				
1	75mm diameter HD uPVC Class 16 water pipe	m	54		
	Extra over Class 16 pipes for compression fittings				
2	90 Degrees bend	No	1		
	Carried to Collection			R	
	Section No. 4			r.	
	Bill No. 1				
	Plumbing And Drainage				
	190				

		Unit	Quantity	Rate	Amount
			1		
	TAPS, VALVES, ETC				
	Non return valve				
3	75mm Non return valve in and including valve chamber with half brick sides, 820 x 670mm valve box with type 9E ductile iron cover and frame, all as per drawing No. C5691/03 Rev- E, detail N. (Single seal)	No	1		
	Isolating valve				
4	75mm Isolating valve in and including valve chamber with half brick sides, 820 x 670mm valve box with type 9E ductile iron cover and frame all as per drawing No. C5691/03 Rev-E, detail N. (Single seal)	No	1		
	Valve chambers, etc.				
5	820 x 670mm Valve chamber not exceeding 750mm deep internally (cover and frame elsewhere) all as per drawing No. C5691/03 Rev-E, detail N.	No	1		
	Covers, frames, etc.				
6	670×530 mm Ductile cast iron cover and frame all as per drawing No. C5691/03, detail N.	No	1		
	SUNDRIES:				
	Testing				
7	Testing water pipe system	Item			
8	Allow for testing the complete water supply installation by visual and Air Pressure test to the satisfaction of the Engineer. (All defective work to be replaced at the Contractor's expense)	Item			
	Upgrade of water meter				
9	Allow the sum of R 100 000.00 (One Hundred Thousand Rand) for the Upgrade of water meter.	Item			
	Water Connection				
10	Allow the sum of R 150 000.00 (One Hundred and Fifty Thousand Rand) for connection fees, etc	Item			
	Carried to Collection			R	
	Section No. 4				
	Bill No. 1				
	Plumbing And Drainage				
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SECTION NO. 4 WATER SUPPLIES BILL NO. 1 PLUMBING AND DRAINA COLLECTION	AGE		
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Amount **SECTION NO. 4 WATER SUPPLIES** SECTION SUMMARY Bill No. Page 192 1 PLUMBING AND DRAINAGE Carried to Final Summary R Section No. 4 SECTION SUMMARY 193

	Unit	Quantity	Rate	Amount
SECTION NO. 5 SEWER RETICULATION			ı	
BILL NO. 1				
PLUMBING AND DRAINAGE				
The bidder is referred to the relevant clauses in the construction works general specifications (PW 371 A), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights:				
Tenderers are to note that the work to be undertaken may require all necessary scaffolding, due to the heights of the structures to be constructed/ altered. Tenderers are to therefore price accordingly as rates will be deemed to include for same and No further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
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Carried to Collection Section No. 5			R	-
Section No. 5 Bill No. 1				
Plumbing And Drainage				
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	Unit	Quantity	Rate	Amount
Labour Intensive				
Tenderers are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the aforementioned words in uppercase at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Extended Public Works Programme.				
'Polycop' polypropylene pipes				
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.				
Copper pipes				
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 antisyphon pipes, capillary solder fittings and compression fittings shall be Cobra Watertech type. Capillary solder fittings shall comply with ISO 2016.				
Reducing fittings				
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. 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.				
Carried to Collection			R	
Section No. 5 Bill No. 1 Plumbing And Drainage				
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	Unit	Quantity	Rate	Amount	
Fixing of pipes					
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.					
uPVC pressure pipes and fittings					
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.					
Wire gratings					
Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings.					
Stainless steel basins, sinks, wash troughs, urinals, etc					
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.					
Sealing of edges					
Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone.					
Paper wrapping to pipes					
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.					
Disinfection of water pipework					
Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere).					
Prices					
Prices of all pipes shall include for short lengths and cuttings, for all joints in length, including necessary couplings and for all jointing to fittings.					
Carried to Collection			R		_
Section No. 5 Bill No. 1					_
Plumbing And Drainage					
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Prices of all joints between pipes of dissimilar size and between taps, valves, etc. and shall in all cases be for the couplings or adaptors. Prices of flanged and botted joints between pipes of dissimilar size and between valves, etc. shall include for flanges drilled as required, flange adaptors, rubber insertion rings and necessary bolts and nuts. Prices for all pipes in ground shall include for laying in ground, including digging trenches in earth, provision for risk of collapse to side of excavations, except where specifically measured in detail, keeping excavations free from water, bedding as described and filling in and ramming in 150mm thick layers to 95% Modified AASHTO. Price of concrete encasement around pipes, bends, etc. and concrete enchor blocks, shall include for all additional excavation and formwork required. As-built drawings 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). Drawings Tenderers are to note that where descriptions include reference drawings which form part of the tender contract with the drawings in the description, tenderers are to prince these items in accordance with the drawings. Further, the orus is on the tender documents. No traver time or monetary claims resulting from any of the above will be entertained. SOIL DRAINAGE (CPAP WORK GROUP NO. 146) Heavy duty (Class 34) uPVC sewer and drain pipes all as per Engineering Drawins No. 100 appended at the back of these Bills of Quantities. 160mm End cap 160mm End cap 160mm End cap 170mm Carried to Collection Carried to Collection R Carried to Collection PR Carried to Collection PR			Unit	Quantity	Rate	Amount
between taps, valves, etc. and shall in all cases be for the couplings or adaptors. Prices of flangaged and botted joints between pipes of dissimilar size and between valves, etc. shall include for flanges drilled as required, flange adaptors, tubber insertion rings and necessary botts and nuts. Prices for all pipes in ground shall include for laying in ground, including digging frenches in earth, provision for risk of collapse to side of excavations, except where specifically measured in detail, keeping excavations free from water, bodding as described and filling in and ramming in 150mm thick layers to 95% Modified AASHTO. Price of concrete encasement around pipes, bends, etc. and concrete anchor blocks, shall include for all additional excavation and formwork required. As-built drawings 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 sleswhere). Drawings Tenderers are to note that where descriptions include reference drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from any of the above will be entertained. SOIL DRAINAGE (CPAP WORK GROUP NO. 146) Heavy duty (Class 34) uPVC sewer and drain pipes all as per Engineering Drawing No. 100 appended at the back of these Bills of Quantities. 1 160mm uPVC Pipe fixed to NE. 500mm below soffit Extra over heavy duty (Class 34) uPVC sewer and drain pipes of fittings 1 160mm Equal Tee No 1 Carried to Collection Section No. 5 Bill No. 1 Plumbing And Drainage						
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3 160mm Bend No 5 4 160mm Reducer No 2 5 160mm Equal Tee No 1 Carried to Collection R Section No. 5 Bill No. 1 Plumbing And Drainage						
4 160mm Reducer No 2 160mm Equal Tee Carried to Collection Section No. 5 Bill No. 1 Plumbing And Drainage	2	160mm End cap	No	2		
5 160mm Equal Tee Carried to Collection Section No. 5 Bill No. 1 Plumbing And Drainage	3	160mm Bend	No	5		
Carried to Collection Section No. 5 Bill No. 1 Plumbing And Drainage	4	160mm Reducer	No	2		
Section No. 5 Bill No. 1 Plumbing And Drainage	5	160mm Equal Tee	No	1		
Section No. 5 Bill No. 1 Plumbing And Drainage						
Bill No. 1 Plumbing And Drainage		Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
6	160mm Reducing Tee	No	6		
	Testing				
7	Testing sewer reticulation system	Item			
	SEWER CONNECTION				
8	Allow the sum of R 300 000.00 (Three Hundred Thousand Rand) for connection fees, etc	Item			
	Carried to Collection			R	
	Section No. 5			rx	
	Bill No. 1				
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SECTION NO. 5 SEWER RETICULATION BILL NO. 1 PLUMBING AND DRAINAGE COLLECTION		Page No		
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Bill No.	SECTION SUMMARY	Page		
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1	PLUMBING AND DRAINAGE	199		
	Carried to Final Summary	R		
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	SECTION SUMMARY			
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	Unit	Quantity	Rate	Amount
SECTION NO. 6 STORMWATER RETICULATION BILL NO. 1 PLUMBING AND DRAINAGE The bidder is referred to the relevant clauses in the construction works general specifications (PW 371 A), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to				
be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.		1		
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights:				
Tenderers are to note that the work to be undertaken may require all necessary scaffolding, due to the heights of the structures to be constructed/ altered. Tenderers are to therefore price accordingly as rates will be deemed to include for same and No further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection Section No. 6			R	
Bill No. 1				
Plumbing And Drainage				
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	Unit	Quantity	Rate	Amount
<u>Labour Intensive</u>				
Tenderers are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the aforementioned words in uppercase at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Extended Public Works Programme.				
'Polycop' polypropylene pipes				
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.				
Copper pipes				
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 antisyphon pipes, capillary solder fittings and compression fittings shall be Cobra Watertech type. Capillary solder fittings shall comply with ISO 2016.				
Reducing fittings				
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. 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.				
Carried to Collection			R	
Section No. 6 Bill No. 1 Plumbing And Drainage				
202				

	Unit	Quantity	Rate	Amount
Fixing of pipes				
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.				
uPVC pressure pipes and fittings				
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.				
Wire gratings				
Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings.				
Stainless steel basins, sinks, wash troughs, urinals, etc				
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.				
Sealing of edges				
Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone.				
Paper wrapping to pipes				
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.				
Disinfection of water pipework				
Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere).				
<u>Prices</u>				
Prices of all pipes shall include for short lengths and cuttings, for all joints in length, including necessary couplings and for all jointing to fittings.				
Carried to Collection			R	
Section No. 6 Bill No. 1				
Plumbing And Drainage				
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		Unit	Quantity	Rate	Amount
	Prices of all joints between pipes of dissimilar size and between taps, valves, etc. and shall in all cases be for the couplings or adaptors. Prices of flanged and bolted joints between pipes of dissimilar size and between valves, etc. shall include for flanges drilled as required, flange adaptors, rubber insertion rings and necessary bolts and nuts. Prices for all pipes in ground shall include for laying in ground, including digging trenches in earth, provision for risk of collapse to side of excavations, except where specifically measured in detail, keeping excavations free from water, bedding as described and filling in and ramming in 150mm thick layers to 95% Modified AASHTO. Price of concrete encasement around pipes, bends, etc. and concrete anchor blocks, shall include for all additional excavation and formwork required.	Unit	Quantity	Rate	Amount
	As-built drawings				
	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).				
	Drawings:				
	Tenderers are to note that where descriptions include reference drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from any of the above will be entertained.				
	STORMWATER DRAINAGE (CPAP WORK GROUP NO. 146)				
	uPVC stormwater drainage				
1	200mm uPVC heavy duty stormwater pipe laid in and including trenches not exceeding 1m deep	m	70		
2	200mm uPVC heavy duty stormwater pipe fixed to NE. 500mm below soffit	m	80		
3	250mm uPVC heavy duty stormwater pipe fixed to NE. 500mm below soffit	m	256		
	Extra over heavy duty uPVC stormwater drainage pipes for fittings for 200mm pipe				
4	45 degrees Bend.	No	2		
	Carried to Collection Section No. 6 Bill No. 1 Plumbing And Drainage			R	
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17					

		Unit	Quantity	Rate	Amount
					1
5	90 degrees Bend.	No	3		
6	Equal Tee.	No	6		
7	Reducing Tee.	No	1		
	Extra over heavy duty uPVC stormwater drainage pipes for fittings for 250mm pipe				
8	90 degrees Bend.	No	16		
9	Equal Tee	No	3		
10	Reducing Tee.	No	22		
	Class 75D concrete pipes :				
11	450mm diameter Pipes.	m	4		
12	600mm diameter Pipes.	m	111		
	Sumps, catchpits, inspection chambers, etc. including concrete kerbs or precast concrete cover slabs (gratings elsewhere)				
13	Single brick manhole with precast inlet slab 1220 x 1220mm and foundation concrete base slab 1765 x 1765mm in depths exceeding 1000mm and not exceeding 2000mm deep internally with 600mm Dia. Concrete cover and lid complete as per attached civil engineering drawing No. 004	No	7		
14	Single brick sump with in-situ concrete inlet slab 1940 x 1940mm and foundation concrete base slab 1940 x 1940mm in depths exceeding 1000mm and not exceeding 1500mm deep internally with 400 x 600mm heavy duty cast iron cover Saint Gobain or other approved cover complete as per attached civil engineering drawing No. 004	No	7		
	Gratings, covers, etc.				
15	6000 x 600mm wide Mentis grating to stormwater channel.	No	1		
16	6500 x 600mm wide Mentis grating to stormwater channel.	No	2		
17	400 x 600mm Saint Gobain or other approved heavy duty cast iron cover	No	7		
18	600 x 600mm Saint Gobain or other approved 'Type 9A' cast iron cover	No	2		
	Carried to Collection			R	
	Section No. 6 Bill No. 1				
	Plumbing And Drainage				
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		Unit	Quantity	Rate	Amount
	RAINWATER DISPOSAL				
	Full-bore inlets				
19	190mm Full-bore inlet	No	35		
	Geberit Pluvia or other approved roof outlets:				
20	Roof outlet with fastening flange, for roof foils Maximum discharge rate=12l/s	No	28		
21	Supplementary set, suitable for parking decks	No	2		
	Rainwater Downpipes				
	Geberit HDPE pipes:				
22	40mm (Art. No. 360.000.16.0)	m	10		
23	50mm (Art. No. 361.000.16.0)	m	40		
24	56mm (Art. No. 363.000.16.0)	m	30		
25	63mm (Art. No. 364.000.16.0)	m	70		
26	75mm (Art. No. 365.000.16.0)	m	115		
27	90mm (Art. No. 366.000.16.0)	m	185		
28	110mm (Art. No. 367.000.16.0)	m	135		
29	125mm (Art. No. 368.000.16.0)	m	160		
30	160mm (Art. No. 369.000.16.0)	m	10		
31	200mm (Art. No. 370.000.16.0)	m	5		
	Extra over HDPE Pipes for fittings				
32	40mm 90° bend with large leg (Art. No. 360.055.16.1)	No	2		
33	40mm electrofusion coupling (Art. No. 360.771.16.1)	No	38		
34	50mm 45° bend (Art. No. 361.045.16.1)	No	6		
35	50mm 90° bend with large leg (Art. No. 361.055.16.1)	No	18		
36	50mm to 40mm reducer eccentric short (Art. No. 361.558.16.1)	No	10		
37	50mm electrofusion coupling (Art. No. 361.771.16.1)	No	28		
38	56mm 45° bend (Art. No. 363.045.16.1)	No	1		
39	56mm 90° bend with large leg (Art. No. 363.055.16.1)	No	8		
40	56mm to 40mm reducer, eccentric, short (Art. No. 363.558.16.1)	No	20		
	Carried to Collection			R	
	Section No. 6			T.	
	Bill No. 1				
	Plumbing And Drainage				
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		Unit	Quantity	Rate	Amount
41	56mm to 50mm reducer, eccentric, short (Art. No				
	363.561.16.1)	No	5		
42	56mm electrofusion coupling (Art. No. 363.771.16.1)	No	43		
43	63mm 45° bend (Art. No. 364.045.16.1)	No	5		
44	63mm 90° bend with large leg (Art. No. 364.055.16.1)	No	9		
45	63mm to 50mm 45° branch fitting (Art. No. 364.112.16.1)	No	1		
46	63mm to 56mm 45° branch fitting (Art. No. 364.115.16.1)	No	1		
47	63mm to 40mm reducer, eccentric, short (Art. No. 364.558.16.1)	No	2		
48	63mm to 50mm reducer, eccentric, short (Art. No. 364.561.16.1)	No	1		
49	63mm to 56mm reducer, eccentric, short (Art. No. 364.566.16.1)	No	6		
50	63mm electrofusion coupling (Art. No. 364.771.16.1)	No	22		
51	75mm 45° bend (Art. No. 365.045.16.1)	No	3		
52	75mm 90° bend with large leg (Art. No. 365.055.16.1)	No	9		
53	75mm to 40mm 45° branch fitting (Art. No. 365.109.16.1)	No	1		
54	75mm to 40mm 50° branch fitting (Art. No. 365.112.16.1)	No	2		
55	75mm to 56mm reducer, eccentric, short (Art. No. 365.566.16.1)	No	2		
56	75mm to 63mm reducer, eccentric, short (Art. No. 365.571.16.1)	No	3		
57	75mm electrofusion coupling (Art. No. 365.771.16.1)	No	23		
58	90mm 45° bend (Art. No. 366.045.16.1)	No	3		
59	90mm 90° bend with large leg (Art. No. 366.055.16.1)	No	17		
60	90mm to 50mm 45° branch fitting (Art. No. 366.112.16.1)	No	4		
61	90mm to 56mm 45° branch fitting (Art. No. 366.115.16.1)	No	1		
62	90mm to 63mm 45° branch fitting (Art. No. 366.120.16.1)	No	1		
	Carried to Collection			R	
	Section No. 6				
	Bill No. 1				
	Plumbing And Drainage 207				
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		Unit	Quantity	Rate	Amount
63	90mm to 75mm 45° branch fitting (Art. No. 366.120.16.1)	No	1		
64	90mm to 50mm reducer, eccentric, short (Art. No. 366.561.16.)	No	1		
65	90mm to 56mm reducer, eccentric, short (Art. No. 366.566.16.1)	No	1		
66	90mm to 63mm reducer, eccentric, short (Art. No. 366.571.16.1)	No	3		
67	90mm to 75mm reducer, eccentric, short (Art. No. 366.576.16.1)	No	2		
68	90mm electrofusion coupling (Art. No. 366.771.16.1)	No	37		
69	110mm 45° bend (Art. No. 367.045.16.1)	No	2		
70	110mm 90° bend with large leg (Art. No. 367.055.16.1)	No	15		
71	110mm to 40mm 45° branch fittings (Art. No. 367.109.16.1)	No	1		
72	110mm to 50mm 45° branch fittings (Art. No. 367.112.16.1)	No	4		
73	110mm to 90mm 45° branch fittings (Art. No. 367.130.16.1)	No	1		
74	110mm to 75mm reducer, eccentric, short (Art. No. 367.576.16.1)	No	1		
75	110mm to 90mm reducer, eccentric, short (Art. No 367.581.16.1)	No	5		
76	110mm electrofusion coupling (Art. No. 367.771.16.1)	No	30		
77	125mm 45° bend (Art. No. 368.045.16.1)	No	1		
78	125mm 90° bend with large leg (Art. No. 368.055.16.1)	No	18		
79	125mm to 63mm 45° branch fitting (Art. No 368.120.16.1)	No	2		
80	125mm to 110mm 45° branch fitting (Art. No. 368.135.16.1)	No	1		
81	125mm to 75mm reducer, eccentric, short (Art. No. 368.576.16.1)	No	1		
82	125mm to 90mm reducer, eccentric, short (Art. No. 368.581.16.1)	No	1		
83	125mm to 110mm reducer, eccentric, short (Art. No. 368,586.16.1)	No	3		
	Carried to Collection			R	
	Section No. 6				
	Bill No. 1				
	Plumbing And Drainage 208				

		Unit	Quantity	Rate	Amount
84	125mm electrofusion coupling (Art. No. 368.771.16.1)	No	33		
85	160mm to 110mm reducer, eccentric, short (Art. No. 369.586.16.1)	No	1		
86	160mm to 125mm reducer, eccentric, short (Art. No. 369.588.16.1)	No	1		
87	160mm electrofusion coupling (Art. No. 369.771.16.1)	No	4		
88	200mm to 125mm reducer, eccentric, long (Art. No. 370.587.16.5)	No	1		
89	200mm Expansion socket (Art. No. 370.700.16.1)	No	1		
90	200mm electrofusion Coupling with intergrate thermal fuse (Art. No. 370.775.16.1)	No	3		
	Fastening Material				
	Geberit or other approved:				
91	Pipe bracket with threaded socket G 1/2", adjustable: G= 1/2", d1=40mm, d2=48mm (Art. No. 360.841.00.2)	No	2		
92	Electrofusion tape for anchor point: d=50mm, d1=58mm (Art. No. 361.776.16.1)	No	15		
93	Pipe bracket with threaded socket G 1/2", adjustable: G= 1/2", d1=50mm, d2=58mm (Art. No. 361.841.00.2)	No	50		
94	Base plate, square, two-hole, with threaded socket G: G=1/2" (Art. No. 362.826.26.1)	No	815		
95	Base plate, square, two-hole, with threaded socket G: G=1" (Art. No. 362.828.26.1)	No	3		
96	Electrofusion tape for anchor point: d=56mm, d1=64mm (Art. No. 363.776.16.1)	No	10		
97	Pipe bracket with threaded socket G 1/2", adjustable: G= 1/2", d1=56mm, d2=64mm (Art. No. 363.841.00.2)	No	39		
98	Electrofusion tape for anchor point: d=63mm, d1=71mm (Art. No. 364.776.16.1)	No	17		
99	Pipe bracket with threaded socket G 1/2", adjustable: G= 1/2", d1=63mm, d2=71mm (Art. No. 364.841.00.2)	No	97		
100	Electrofusion tape for anchor point: d=75mm, d1=83mm (Art. No. 365.776.16.1)	No	17		
101	Pipe bracket with threaded socket G 1/2", adjustable: G= 1/2", d1=75mm, d2=83mm (Art. No. 365.841.00.2)	No	143	ı	
102	Electrofusion tape for anchor point: d=90mm, d1=98mm (Art. No. 366.776.16.1)	No	34		
	Carried to Collection			R	
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	209		4 3:		U. U.

		Unit	Quantity	Rate	Amount
103	Pipe bracket with threaded socket G 1/2", adjustable: G= 1/2", d1=90mm, d2=98mm (Art. No 366.841.00.2)	No	212		
104	Electrofusion tape for anchor point: d=110mm, d1=118mm (Art. No. 367.776.16.1)	No	28		
105	Pipe bracket with threaded socket G 1/2", adjustable: G= 1/2", d1=110mm, d2=118mm (Art. No. 367.841.00.2)	No	134		
106	Electrofusion tape for anchor point: d=125mm, d1=133mm (Art. No. 368.776.16.1)	No	33		
107	Pipe bracket with threaded socket G 1/2", adjustable: G= 1/2", d1=125mm, d2=133mm (Art. No. 368.841.00.2)	No	132		
108	Electrofusion tape for anchor point: d=160mm, d1=168mm (Art. No. 369.776.16.1)	No	4		
109	Pipe bracket with threaded socket G 1/2", adjustable: G= 1/2", d1=160mm, d2=168mm (Art. No. 369.841.00.2)	No	6		
110	HDPE double-flange bushing: d=200mm (Art. No. 370.751.16.1)	No	1		
111	Pipe bracket with threaded socket G 1": d=200mm, G=1" (Art. No. 370.840.00.1)	No	3		
	SUBSOIL DRAINAGE (CPAP WORK GROUP NO. 146)				
	"Kaytech" 'Geopipe M100R' or other approved slotted agricultural pipe with and including "DN3 Flownet" or other approved high density polyethylene drainage core encased in "Bidim A2" or other approved geotextile with joints being sewn or stapled, all to Engineers approval.				
112	110mm Diameter pipes	m	239		
	PRECAST CONCRETE CHANNELS (CPAP WORK GROUP NO. 146) LG Green or other approved:				
113	SWC size 280 x 340mm Storm water channel with rebate for galvanised steel grating	m	127		
	SUNDRIES (CPAP WORK GROUP NO. 146) Sundries				
114	Testing drainage pipe system.	ltem			
115	Allow for testing the complete drainage installation by visual and Air Pressure test to the satisfaction of the Engineer. (All defective work to be replaced at the Contractor's expense)	Item			
	' '				
	Carried to Collection			R	
	Section No. 6				
	Bill No. 1				
	Plumbing And Drainage 210				
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		Unit	Quantity	Rate	Amount
116	Cutting into existing 450mm pipe for connecting new 450mm pipes	No	2		
117	Cutting into side of existing manhole for and connecting 600mm pipe	No	1		
118	Allow for Connection to Attenuation Tank	No	3		
	HOLES ETC				
	Core drilling hole exceeding 300mm and not exceeding 350mm diameter				
119	350mm Thick reinforced concrete slab, beam, wall, etc	No	36		
	BUDGETARY ALLOWANCE				
	STORMWATER CONNECTION				
120	Allow the sum of R 300 000.00 (Three Hundred Thousand Rand) for connection fees, etc	Item			
	Carried to Collection			R	
	Section No. 6 Bill No. 1				
	Plumbing And Drainage				
ļ	211				

SECTION NO. 6 STORMWATER RETICULATION BILL NO. 1 PLUMBING AND DRAINAGE COLLECTION	Page No	
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	Unit	Quantity	Rate	Amount
SECTION NO. 6 STORMWATER RETICULATION				
BILL NO. 2 EXTERNAL WORKS				D 11
The bidder is referred to the relevant clauses in the construction works general specifications (PW 371 A), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence.				
Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of SANS 10400.				
SUPPLEMENTARY PREAMBLES				
Working at Heights:				
Tenderers are to note that the work to be undertaken may require all necessary scaffolding, due to the heights of the structures to be constructed/ altered. Tenderers are to therefore price accordingly as rates will be deemed to include for same and No further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.				
Carried to Collection			R	
Section No. 6				
Bill No. 2 External Works				
213				

	Unit	Quantity	Rate	Amount
Labour Intensive				
Tenderers are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the aforementioned words in uppercase at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills				
through the Extended Public Works Programme. Drawings:				
Tenderers are to note that where descriptions include reference drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No further time or monetary claims resulting from any of the above will be entertained.				
HEADWALLS				
Excavation in earth not exceeding 2m deep:				
Trenches (LABOUR INTENSIVE)	m³	1		
P. Holes. (LABOUR INTENSIVE)	m³	1		
Extra over all excavations for carting away:				
Surplus material from excavations and/or stockpiles on site, to a dumping site to be located by the Contractor.	m³	2		
Risk of collapse of excavations: Sides of trench and hole excavations not exceeding 1.5m deep. (LABOUR INTENSIVE)	m²	6		
Earthfilling obtained from the excavations and/or prescribed stockpiles on site, compacted to 95% Mod AASHTO density.				
Backfilling to trenches.(LABOUR INTENSIVE)	m³	1		
Carried to Collection			R	
Section No. 6 Bill No. 2 External Works				
214				

		Unit	Quantity	Rate	Amount
	Compaction of surfaces:				
6	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.	m²	8		
	Stone pitching of approximately 19mm diameter river stones tightly packed including preparation of ground surfaces under:				
7	Against cut-off walls.	m³	4		
	Soil insecticide in accordance with SANS 5859:				
8	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m²	8		
9	To bottoms and sides of trenches, etc.	m²	5		
	30Mpa/19mm concrete:				
10	Strip footings cast against excavated surfaces(LABOUR INTENSIVE)	m³	1		
11	Surface beds.(LABOUR INTENSIVE)	m³	1		
12	Splitter blocks.(LABOUR INTENSIVE)	m³	1		
	Finishing concrete smooth with a power float:				
13	Surface beds, etc to falls.(LABOUR INTENSIVE)	m²	8		
	Rough formwork to sides:				
14	Sides of splitter blocks not exceeding 300mm high.(LABOUR INTENSIVE)	m	6		
	Steel reinforcing				
15	To walls & Splitter block(LABOUR INTENSIVE)	Tonnes	0.36		
	Fabric Reinforcing Mesh				
16	Type 193 fabric reinforcement in concrete surface beds etc.	m²	8		
	Sundries:				
	Expansion joints with 12mm softboard between vertical concrete and brick surfaces				
17	12mm Joints not exceeding 300mm high	m	8		
				_	
	Carried to Collection			R	
	Section No. 6 Bill No. 2				
	External Works				
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		Unit	Quantity	Rate	Amount
18	brick walls or concrete surfaces	m	8		
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar	_			
19	One brickwall	m²	7		
20	Extra over brickwork for facebrick	m²	14		
21	150mm Brickforce	m	32		
22	'Reno Mattress'or other approved gabions Double twisted hexagonal woven steel wire mesh size approximately 3200mm long x 2000mm wide x 250mm high, to be assembled and filled with stones to form flexible, permeable and monolithic structure.(LABOUR INTENSIVE)	No	1		
	Carried to Collection Section No. 6			R	
	Bill No. 2 External Works				

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	Unit	Quantity	Rate	Amount	
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SECTION NO. 7					
FLAG POLE BILL NO. 2					
EARTHWORKS					
The bidder is referred to the relevant clauses in the construction works general specifications (PW 371 A), to the Architectural and Structural/Civil Engineering specifications documents, to the drawings (which are to be read in conjunction with the architectural specification), and to all general and project-specific specifications as contained in the complete Bid Documents. Bidders are thus urged to study these documents as rates will be deemed to be inclusive of all requirements as included in same. Further, should any discrepancy be noted between these Bills of Quantities and the Specifications, the Specifications shall take precedence. Further to the above, Bidders are to note that the latest edition of SANS 10400, current at the time of the tender will form part of the specifications to this contract and as such, pricing shall be deemed to include for complete conformance in all respects to the requirements of					
SANS 10400.					
SUPPLEMENTARY PREAMBLES					
Working at Heights:					
Tenderers are to note that the work to be undertaken may require all necessary scaffolding, due to the heights of the structures to be constructed/ altered. Tenderers are to therefore price accordingly as rates will be deemed to include for same and No further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.					
Carried to Collection			R		
Section No. 7					
Bill No. 2					
Earthworks					
219				1	l .

	Unit	Quantity	Rate	Amount
<u>Labour Intensive</u>				
Tenderers are to note well that specific items within these Bills of Quantities have been designated as LABOUR INTENSIVE by the addition of the aforementioned words in uppercase at the end of the description for the said item. Where items have been designated as being LABOUR INTENSIVE as described, pricing shall be deemed to include for the carrying out to completion of said item on site by means and methods that rely predominantly on manual labour. As such, no claims shall be entertained regarding any additional time or monetary costs incurred by the use of LABOUR INTENSIVE methods. Further, the Contractor is to note that contravention of the above i.e. use of mechanised systems to carry out LABOUR INTENSIVE work as hereinafter designated, will be viewed and dealt with in an extremely serious light by the Client, as it remains a national imperative to develop, employ and provide skills through the Extended Public Works Programme.				
Nature of ground				
The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'.				
A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. Please refer to same for further details in regards to nature of ground.				
Carting away of excavated material				
Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.				
<u>Filling</u>				
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.				
Testing			1	
Prices for filling are to include for all necessary density tests in accordance with SABS 1200D.				
Proximity to existing structures				
Tenderers are to note that some of the following measured work is to be undertaken in close proximity to existing buildings. No claims in this regard will be entertained.				
Drawings:				
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