



public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

SUNDUMBILI MAGISTRATE OFFICE: ADDITIONAL ACCOMMODATION

PART B2: EXTERNAL WORKS

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 1</u> <u>ROADWORK</u> <u>BILL NO. 1</u> <u>PAINTWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>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.</p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Labour Intensive</u></p> <p>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.</p>				
Carried to Collection			R	
<p>Section No. 1 Bill No. 1 Paintwork</p>				

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.

SIGNWRITING

Two coats reflective road marking paint on concrete

1	Line 100mm wide	m	178	
2	Numeral or letter 200mm high	No	20	
3	Traffic arrow exceeding 2m ² and not exceeding 4m ²	No	8	
4	Paralegic parking motif exceeding 2m ² and not exceeding 4m ²	No	2	

Carried to Collection

R

Section No. 1
Bill No. 1
Paintwork

Amount

SECTION NO. 1

ROADWORK

BILL NO. 1

PAINTWORK

COLLECTION

Brought Forward from Page

Page No

162

163

Carried To Section Summary

R

Section No. 1
Bill No. 1
Paintwork

Amount

SECTION NO. 1

ROADWORK

SECTION SUMMARY

Bill No.

Page

1 PAINTWORK

164

Carried to Final Summary

Section No. 1
SECTION SUMMARY

R

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.

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.

View site

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

R

Section No. 2
 Bill No. 1
 Alterations

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Damages to existing finishes, etc</u></p> <p>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.</p> <p>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.</p> <p><u>Responsibility for site</u></p> <p>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.</p>				
Carried to Collection			R	
<p>Section No. 2 Bill No. 1 Alterations</p>				

	Unit	Quantity	Rate	Amount
<p><u>Explosives</u></p>				
<p><u>General</u></p>				
<p>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</p>				
<p>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</p>				
<p>Prices for taking out of doors, windows, etc. shall include for removal of all beads, architraves, ironmongery, etc.</p>				
<p>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.</p>				
<p>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.</p>				
<p>Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary.</p>				
<p>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.</p>				
<p>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.).</p>				
<p>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.</p>				
<p>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.</p>				
<p>Carried to Collection</p>			R	
<p>Section No. 2 Bill No. 1 Alterations</p>				

	Unit	Quantity	Rate	Amount
<p>No explosives whatsoever may be used for demolition purposes unless otherwise stated.</p> <p><u>Drawings:</u></p> <p>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.</p> <p><u>REMOVAL OF EXISTING WORK</u></p> <p><u>Demolishing and removing:</u></p>				
1	No	1		
<p>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)</p>				
<p><u>Breaking down and removing paving at SAPS and reinstate on completion</u></p>				
2	m ²	642		
<p>Existing paving (LABOUR INTENSIVE)</p>				
<p><u>Breaking up and removing reinforced concrete, including cutting off and removing reinforcement</u></p>				
3	m ³	13		
<p>Walkway . (LABOUR INTENSIVE)</p>				
4	m ³	27		
<p>Driveway. (LABOUR INTENSIVE)</p>				
<p><u>Breaking down and removing brickwork etc.</u></p>				
5	m ²	50		
<p>One brick walls. (LABOUR INTENSIVE)</p>				
<p><u>Taking out/off and removing sundry metalwork</u></p>				
6	No	1		
<p>Steel entrance gate approximately 3500mm long x 3000mm high. (LABOUR INTENSIVE)</p>				
7	m	209		
<p>Wire fence complete including grubbing and removing bases to posts and droppers, and all necessary excavation, backfill cart way, etc (LABOUR INTENSIVE)</p>				
			R	
Carried to Collection				
<p>Section No. 2 Bill No. 1 Alterations</p>				
169				

	Unit	Quantity	Rate	Amount
<u>TEMPORARY PARKHOMES</u>				
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				
<u>"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.</u>				
8	No	2		
9	No	2		
10	No	2		
11	No	2		
<u>BUDGETARY ALLOWANCES</u>				
<u>Unforeseen demolition/alteration works:</u>				
12	Item			
Allow the P.C Amount of R55,000.00 (Fifty five Thousand Rand Only) for unforeseen demolition/alteration works				
<u>Proving and relocation of existing services:</u>				
13	Item			
Allow the sum of R 300,000.00 (Three Hundred Thousand Rand) for proving and relocation of existing services.				
			R	
Carried to Collection				
Section No. 2				
Bill No. 1				
Alterations				

Amount

SECTION NO. 2
DEMOLITIONS AND ALTERATIONS
BILL NO. 1
ALTERATIONS
COLLECTION

Page No

Brought Forward from Page

166

167

168

169

170

Carried To Section Summary

R

Section No. 2
Bill No. 1
Alterations

Amount

SECTION NO. 2

DEMOLITIONS AND ALTERATIONS

SECTION SUMMARY

Bill No.

Page

1 ALTERATIONS

171

Carried to Final Summary

Section No. 2
SECTION SUMMARY

R

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

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p>				
<p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'.</p> <p>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.</p>				
<p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.</p>				
<p><u>Bulking</u></p> <p>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.</p>				
<p><u>Filling</u></p> <p>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.</p>				
<p><u>Testing</u></p> <p>Prices for filling are to include for all necessary density tests in accordance with SABS 1200D.</p>				
			Carried to Collection	R
Section No. 3				
Bill No. 1				
Earthworks				

	Unit	Quantity	Rate	Amount
<u>Proximity to existing structures</u>				
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.				
<u>As-built drawings</u>				
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.				
<u>REMOVAL OF TREES ETC</u>				
<u>Cutting down and removing, grubbing up roots and filling in holes</u>				
1	Tree exceeding 200mm and not exceeding 500mm girth. (LABOUR INTENSIVE)	No	4	
2	Tree exceeding 500mm and not exceeding 1000mm girth (LABOUR INTENSIVE)	No	2	
<u>EXCAVATIONS ETC</u>				
<u>BULK EXCAVATIONS ETC</u>				
<u>Open face excavation in earth over sloping site</u>				
3	Open face excavation	m ³	13 000	
<u>Extra over bulk excavations in earth for excavation in</u>				
4	Soft rock (LABOUR INTENSIVE)	m ³	2 750	
5	Intermediate rock	m ³	2 750	
6	Hard rock using controlled blasting	m ³	5 625	
7	Hard rock using chemical blasting	m ³	375	
8	Hard rock using pneumatic plant.	m ³	1 500	
			Carried to Collection	R
Section No. 3				
Bill No. 1				
Earthworks				

	Unit	Quantity	Rate	Amount
<u>Back excavation of vertical sides of excavations in earth for working space including backfilling compacted to 95% Mod AASHTO density</u>				
9				
Not exceeding 500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m ²	108		
10				
Exceeding 500mm and not exceeding 1500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m ²	214		
11				
Exceeding 1500mm and not exceeding 3000mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m ²	324		
12				
Exceeding 3000mm and not exceeding 4500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m ²	324		
<u>Extra over excavation in earth for working space for excavation in soft rock</u>				
13				
Not exceeding 500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m ²	45		
14				
Exceeding 500mm and not exceeding 1500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m ²	89		
15				
Exceeding 1500mm and not exceeding 3000mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m ²	136		
16				
Exceeding 3000mm and not exceeding 4500mm deep for placing and removing formwork to walls etc., against excavated face. (LABOUR INTENSIVE)	m ²	136		
<u>Extra over excavation in earth for working space for excavation in hard rock</u>				
17				
Not exceeding 500mm deep for placing and removing formwork to walls etc., against excavated face	m ²	63		
18				
Exceeding 500mm and not exceeding 1500mm deep for placing and removing formwork to walls etc., against excavated face	m ²	124		
19				
Exceeding 1500mm and not exceeding 3000mm deep for placing and removing formwork to walls etc., against excavated face	m ²	188		
Carried to Collection			R	
Section No. 3				
Bill No. 1				
Earthworks				

Amount

SECTION NO. 3

BULK EARTHWORKS

BILL NO. 1

EARTHWORKS

COLLECTION

Page No

Brought Forward from Page

173

174

175

176

177

Carried To Section Summary

R

Section No. 3
Bill No. 1
Earthworks

	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.				
<u>Drawings:</u>				
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.				
<u>LATERAL SUPPORT TO BASEMENT WALLS AS PER Drawing BDP-2610-ST-001-P-00</u>				
<u>Establishment and Supervision</u>				
1	Item			
Transporting and establishment on site of necessary plant for the execution of the work and removal thereof on completion				
2	WKS	12		
Supervision & facilities lateral support				
<u>Soil Nails - 5.0m long 25mm Gewi Bars</u>				
<u>Setting up for Gewi Bars</u>				
3	No	587		
Set up for each 25mm diameter Gewi bar				
<u>Drill</u>				
4	m	2 935		
Drill holes to the specified diameter depths and inclinations				
<u>Supply and install Gewi Bars</u>				
5	No	587		
5.0m long 25mm diameter galvanised 500MPa Gewi bar				
			R	
Carried to Collection				
Section No. 3				
Bill No. 2				
Lateral Support				

Amount

SECTION NO. 3
BULK EARTHWORKS
BILL NO. 2
LATERAL SUPPORT
COLLECTION

Page No

Brought Forward from Page

179

180

181

Carried To Section Summary

R

Section No. 3
Bill No. 2
Lateral Support

Unit Quantity Rate Amount

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

R

Section No. 3

Bill No. 3

Concrete, Formwork And Reinforcement

Amount

SECTION NO. 3

BULK EARTHWORKS

BILL NO. 3

CONCRETE, FORMWORK AND REINFORCEMENT

COLLECTION

Page No

Brought Forward from Page

183

184

Carried To Section Summary

R

Section No. 3

Bill No. 3

Concrete, Formwork And Reinforcement

Amount

SECTION NO. 3

BULK EARTHWORKS

SECTION SUMMARY

Bill No.

Page

- 1 EARTHWORKS
- 2 LATERAL SUPPORT
- 3 CONCRETE, FORMWORK AND REINFORCEMENT

178

182

185

Carried to Final Summary

R

Section No. 3
SECTION SUMMARY

Unit Quantity Rate Amount

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.

Carried to Collection

R

Section No. 4
 Bill No. 1
 Plumbing And Drainage

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>Polycop polypropylene pipes</u></p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with Fast-fuse heat welded thermoplastic or where so described Polylock compression fittings Pipes shall be firmly fixed to walls, etc. with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard Maksal pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be Cobra Watertech type. Capillary solder fittings shall comply with ISO 2016</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as 'reducing' and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained</p>				
<p>Section No. 4 Bill No. 1 Plumbing And Drainage</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<p><u>Fixing of pipes</u> Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc., casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>uPVC pressure pipes and fittings</u> 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.</p> <p><u>Wire gratings</u> Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc.</u> 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</p> <p><u>Sealing of edges</u> Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone</p> <p><u>Paper wrapping to pipes</u> Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings</p> <p><u>Disinfection of water pipework</u> Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere)</p> <p><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.</p>				
Carried to Collection			R	
Section No. 4 Bill No. 1 Plumbing And Drainage				

	Unit	Quantity	Rate	Amount
<p>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.</p> <p>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.</p> <p><u>As-built drawings</u></p> <p>Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere)</p> <p>Drawings:</p> <p>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.</p> <p><u>WATER SUPPLIES</u></p> <p><u>Class 16 pipes all as per Engineering Drawing No. 100 appended at the back of these Bills of Quantities.</u></p>				
1	m	54		
<p><u>Extra over Class 16 pipes for compression fittings</u></p>				
2	No	1		
			Carried to Collection	R
<p>Section No. 4 Bill No. 1 Plumbing And Drainage</p>				

		Unit	Quantity	Rate	Amount
<u>TAPS, VALVES, ETC</u>					
<u>Non return valve</u>					
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		
<u>Isolating valve</u>					
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		
<u>Valve chambers, etc.</u>					
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		
<u>Covers, frames, etc.</u>					
6	670 x 530mm Ductile cast iron cover and frame all as per drawing No. C5691/03, detail N.	No	1		
<u>SUNDRIES:</u>					
<u>Testing</u>					
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			
<u>Upgrade of water meter</u>					
9	Allow the sum of R 100 000.00 (One Hundred Thousand Rand) for the Upgrade of water meter.	Item			
<u>Water Connection</u>					
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					

Amount

SECTION NO. 4

WATER SUPPLIES

BILL NO. 1

PLUMBING AND DRAINAGE

COLLECTION

Page No

Brought Forward from Page

187

188

189

190

191

Carried To Section Summary

R

Section No. 4

Bill No. 1

Plumbing And Drainage

Amount

SECTION NO. 4

WATER SUPPLIES

SECTION SUMMARY

Bill No.

Page

1

PLUMBING AND DRAINAGE

192

Carried to Final Summary

Section No. 4
SECTION SUMMARY

R

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 5</u> <u>SEWER RETICULATION</u> <u>BILL NO. 1</u> <u>PLUMBING AND DRAINAGE</u></p>				
<p>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.</p>				
<p>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.</p>				
<p><u>SUPPLEMENTARY PREAMBLES</u></p>				
<p><u>Working at Heights:</u></p>				
<p>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.</p>				
<p>Section No. 5 Bill No. 1 Plumbing And Drainage</p>				
<p>Carried to Collection</p>				
			R	

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>'Polycop' polypropylene pipes</u></p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with Fast-fuse heat welded thermoplastic or where so described Polylock compression fittings Pipes shall be firmly fixed to walls, etc. with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions.</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard Maksal pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-siphon pipes, capillary solder fittings and compression fittings shall be Cobra Watertech type. Capillary solder fittings shall comply with ISO 2016.</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as 'reducing' and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. Where fittings have reducing ends or branches they are described as 'reducing' and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained.</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 5 Bill No. 1 Plumbing And Drainage</p>				<div style="border-top: 1px solid black; border-bottom: 1px solid black; height: 20px; width: 100%;"></div>

	Unit	Quantity	Rate	Amount
<p><u>Fixing of pipes</u></p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc., casting in, building in or suspending not exceeding 1m below suspension level.</p>				
<p><u>uPVC pressure pipes and fittings</u></p> <p>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.</p>				
<p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings.</p>				
<p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u></p> <p>Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) 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.</p>				
<p><u>Sealing of edges</u></p> <p>Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone.</p>				
<p><u>Paper wrapping to pipes</u></p> <p>Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings.</p>				
<p><u>Disinfection of water pipework</u></p> <p>Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere).</p>				
<p><u>Prices</u></p> <p>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.</p>				
			Carried to Collection	R
Section No. 5				
Bill No. 1				
Plumbing And Drainage				

	Unit	Quantity	Rate	Amount
<p>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.</p> <p>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.</p> <p><u>As-built drawings</u></p> <p>Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere).</p> <p><u>Drawings</u></p> <p>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.</p> <p><u>SOIL DRAINAGE (CPAP WORK GROUP NO. 146)</u></p> <p><u>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.</u></p>				
1	m	142		
<p><u>Extra over heavy duty (Class 34) uPVC sewer and drain pipes for fittings</u></p>				
2	No	2		
3	No	5		
4	No	2		
5	No	1		
			Carried to Collection	R
Section No. 5				
Bill No. 1				
Plumbing And Drainage				

Amount

SECTION NO. 5

SEWER RETICULATION

BILL NO. 1

PLUMBING AND DRAINAGE

COLLECTION

Page No

Brought Forward from Page

194

195

196

197

198

Carried To Section Summary

R

Section No. 5

Bill No. 1

Plumbing And Drainage

Amount

SECTION NO. 5

SEWER RETICULATION

SECTION SUMMARY

Bill No.

Page

1

PLUMBING AND DRAINAGE

199

Carried to Final Summary

Section No. 5
SECTION SUMMARY

R

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.

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. 1
 Plumbing And Drainage

	Unit	Quantity	Rate	Amount
<p><u>Labour Intensive</u></p> <p>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.</p> <p><u>'Polycop' polypropylene pipes</u></p> <p>Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with Fast-fuse heat welded thermoplastic or where so described Polylock compression fittings Pipes shall be firmly fixed to walls, etc. with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions.</p> <p><u>Copper pipes</u></p> <p>Pipes shall be hard drawn and half-hard Maksal pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be Cobra Watertech type. Capillary solder fittings shall comply with ISO 2016.</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as 'reducing' and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. Where fittings have reducing ends or branches they are described as 'reducing' and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained.</p>				
Carried to Collection			R	
<p>Section No. 6 Bill No. 1 Plumbing And Drainage</p>				

	Unit	Quantity	Rate	Amount
<p><u>Fixing of pipes</u> Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc., casting in, building in or suspending not exceeding 1m below suspension level.</p> <p><u>uPVC pressure pipes and fittings</u> 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.</p> <p><u>Wire gratings</u> Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings.</p> <p><u>Stainless steel basins, sinks, wash troughs, urinals, etc</u> 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.</p> <p><u>Sealing of edges</u> Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone.</p> <p><u>Paper wrapping to pipes</u> Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings.</p> <p><u>Disinfection of water pipework</u> Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere).</p> <p><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.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 6 Bill No. 1 Plumbing And Drainage</p>			R	

	Unit	Quantity	Rate	Amount
<p>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.</p> <p>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.</p> <p><u>As-built drawings</u></p> <p>Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere).</p> <p>Drawings:</p> <p>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.</p> <p><u>STORMWATER DRAINAGE (CPAP WORK GROUP NO. 146)</u></p> <p><u>uPVC stormwater drainage</u></p>				
1	m	70		
2	m	80		
3	m	256		
<p><u>Extra over heavy duty uPVC stormwater drainage pipes for fittings for 200mm pipe</u></p>				
4	No	2		
			Carried to Collection	R
Section No. 6				
Bill No. 1				
Plumbing And Drainage				

	Unit	Quantity	Rate	Amount
5	No	3		
6	No	6		
7	No	1		
<u>Extra over heavy duty uPVC stormwater drainage pipes for fittings for 250mm pipe</u>				
8	No	16		
9	No	3		
10	No	22		
<u>Class 75D concrete pipes :</u>				
11	m	4		
12	m	111		
<u>Sumps, catchpits, inspection chambers, etc. including concrete kerbs or precast concrete cover slabs (gratings elsewhere)</u>				
13	No	7		
14	No	7		
<u>Gratings, covers, etc.</u>				
15	No	1		
16	No	2		
17	No	7		
18	No	2		
			R	
Carried to Collection				
Section No. 6				
Bill No. 1				
Plumbing And Drainage				

	Unit	Quantity	Rate	Amount
<u>RAINWATER DISPOSAL</u>				
<u>Full-bore inlets</u>				
19	No	35		
190mm Full-bore inlet				
<u>Geberit Pluvia or other approved roof outlets:</u>				
20	No	28		
Roof outlet with fastening flange, for roof foils Maximum discharge rate=12l/s				
21	No	2		
Supplementary set, suitable for parking decks				
<u>Rainwater Downpipes</u>				
<u>Geberit HDPE pipes:</u>				
22	m	10		
40mm (Art. No. 360.000.16.0)				
23	m	40		
50mm (Art. No. 361.000.16.0)				
24	m	30		
56mm (Art. No. 363.000.16.0)				
25	m	70		
63mm (Art. No. 364.000.16.0)				
26	m	115		
75mm (Art. No. 365.000.16.0)				
27	m	185		
90mm (Art. No. 366.000.16.0)				
28	m	135		
110mm (Art. No. 367.000.16.0)				
29	m	160		
125mm (Art. No. 368.000.16.0)				
30	m	10		
160mm (Art. No. 369.000.16.0)				
31	m	5		
200mm (Art. No. 370.000.16.0)				
<u>Extra over HDPE Pipes for fittings</u>				
32	No	2		
40mm 90° bend with large leg (Art. No. 360.055.16.1)				
33	No	38		
40mm electrofusion coupling (Art. No. 360.771.16.1)				
34	No	6		
50mm 45° bend (Art. No. 361.045.16.1)				
35	No	18		
50mm 90° bend with large leg (Art. No. 361.055.16.1)				
36	No	10		
50mm to 40mm reducer eccentric short (Art. No. 361.558.16.1)				
37	No	28		
50mm electrofusion coupling (Art. No. 361.771.16.1)				
38	No	1		
56mm 45° bend (Art. No. 363.045.16.1)				
39	No	8		
56mm 90° bend with large leg (Art. No. 363.055.16.1)				
40	No	20		
56mm to 40mm reducer, eccentric, short (Art. No. 363.558.16.1)				
Carried to Collection			R	
Section No. 6				
Bill No. 1				
Plumbing And Drainage				

		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				

		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					
Section No. 6					
Bill No. 1					
Plumbing And Drainage					
				R	

		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		
	<u>Fastening Material</u>				
	<u>Geberit or other approved:</u>				
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		
102	Electrofusion tape for anchor point: d=90mm, d1=98mm (Art. No. 366.776.16.1)	No	34		
	Carried to Collection				
	Section No. 6				
	Bill No. 1				
	Plumbing And Drainage				
				R	

Amount

SECTION NO. 6
STORMWATER RETICULATION
BILL NO. 1
PLUMBING AND DRAINAGE
COLLECTION

Page No

Brought Forward from Page

- 201
- 202
- 203
- 204
- 205
- 206
- 207
- 208
- 209
- 210
- 211

Carried To Section Summary

R

Section No. 6
Bill No. 1
Plumbing And Drainage

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 6</u> <u>STORMWATER RETICULATION</u> <u>BILL NO. 2</u> <u>EXTERNAL WORKS</u></p> <p>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.</p> <p>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.</p> <p><u>SUPPLEMENTARY PREAMBLES</u> <u>Working at Heights:</u></p> <p>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.</p>				
<p>Section No. 6 Bill No. 2 External Works</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<u>Labour Intensive</u>				
<p>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.</p> <p>Drawings:</p> <p>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.</p>				
<u>HEADWALLS</u>				
<u>Excavation in earth not exceeding 2m deep:</u>				
1		Trenches (LABOUR INTENSIVE)	m ³	1
2		Holes. (LABOUR INTENSIVE)	m ³	1
<u>Extra over all excavations for carting away:</u>				
3		Surplus material from excavations and/or stockpiles on site, to a dumping site to be located by the Contractor.	m ³	2
<u>Risk of collapse of excavations:</u>				
4		Sides of trench and hole excavations not exceeding 1.5m deep. (LABOUR INTENSIVE)	m ²	6
<u>Earthfilling obtained from the excavations and/or prescribed stockpiles on site, compacted to 95% Mod AASHTO density.</u>				
5		Backfilling to trenches.(LABOUR INTENSIVE)	m ³	1
Carried to Collection				R
Section No. 6				
Bill No. 2				
External Works				

	Unit	Quantity	Rate	Amount
<u>Compaction of surfaces:</u>				
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.	m ²	8		
<u>Stone pitching of approximately 19mm diameter river stones tightly packed including preparation of ground surfaces under:</u>				
7				
Against cut-off walls.	m ³	4		
<u>Soil insecticide in accordance with SANS 5859:</u>				
8				
Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m ²	8		
9				
To bottoms and sides of trenches, etc.	m ²	5		
<u>30Mpa/19mm concrete:</u>				
10				
Strip footings cast against excavated surfaces(LABOUR INTENSIVE)	m ³	1		
11				
Surface beds.(LABOUR INTENSIVE)	m ³	1		
12				
Splitter blocks.(LABOUR INTENSIVE)	m ³	1		
<u>Finishing concrete smooth with a power float:</u>				
13				
Surface beds, etc to falls.(LABOUR INTENSIVE)	m ²	8		
<u>Rough formwork to sides:</u>				
14				
Sides of splitter blocks not exceeding 300mm high.(LABOUR INTENSIVE)	m	6		
<u>Steel reinforcing</u>				
15				
To walls & Splitter block(LABOUR INTENSIVE)	Tonnes	0.36		
<u>Fabric Reinforcing Mesh</u>				
16				
Type 193 fabric reinforcement in concrete surface beds etc.	m ²	8		
<u>Sundries:</u>				
<u>Expansion joints with 12mm softboard between vertical concrete and brick surfaces</u>				
17				
12mm Joints not exceeding 300mm high	m	8		
Carried to Collection				
Section No. 6				
Bill No. 2				
External Works				
			R	

Amount

SECTION NO. 6

STORMWATER RETICULATION

BILL NO. 2

EXTERNAL WORKS

COLLECTION

Page No

Brought Forward from Page

213

214

215

216

Carried To Section Summary

R

Section No. 6
Bill No. 2
External Works

Amount

SECTION NO. 6

STORMWATER RETICULATION

SECTION SUMMARY

Bill No.

Page

1 PLUMBING AND DRAINAGE

212

2 EXTERNAL WORKS

217

Carried to Final Summary

R

Section No. 6
SECTION SUMMARY

Unit Quantity Rate Amount

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

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.

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.

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.

Testing

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:

Carried to Collection

Section No. 7

Bill No. 2

Earthworks

R