



SUPPLY CHAIN MANAGEMENT

Enquiries: Ms. I Thesen

Ref: 6/4/2

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As per e-mail:

Dear Sir /Madam

NOTICE TO BIDDERS

ADDENDUM NO. 1: TENDER B/SM 53/24: Term Tender for Pipe Replacement Using Conventional and Trenchless Methods

The compulsory site meeting held on 12 February 2024 at 10:00 at Stellenbosch Public Library, has reference.

1. Replace the Security Item A760 (Page 54):

Item A760 makes reference to "i) Security" as a single line item.

With:

ITEM NO.	PAYMENT	DESCRIPTION	UNIT
	PSA 8.8.3	Watching, lighting and temporary fencing b) Maintenance cost for: i) Security	
A760		(a) PSiRA Grade A Guard	man-day
A761		(b) PSiRA Grade B Armed Guard	man-day
A762		(c) PSiRA Grade B Unarmed Guard	man-day
A763		(d) PSiRA Grade C Armed Guard	man-day
A764		(e) PSiRA Grade C Unarmed Guard	man-day
A765		(f) PSiRA Grade D Unarmed Guard	man-day
A766		(g) Extra-over item (a-f) above for security guards working overtime, night work, or on a weekend or public holiday when instructed.	man-day

2. Replace the Security PSA 8.8.3 (Page 236):

Particular Specification "PSA 8.8.3: Watching, lighting and temporary fencing: Security" makes reference as follows: "This item shall include for provision of security services and any other security measures which the Contractor may wish to employ during the contract as specified in PSA 5.2.1."

With:

PSA 8.8.3 Watching, lighting and temporary fencing

Security:

Unit: Man-day

- (a) PSiRA Grade A Guard
- (b) PSiRA Grade B Armed Guard
- (c) PSiRA Grade B Unarmed Guard
- (d) PSiRA Grade C Armed Guard
- (e) PSiRA Grade C Unarmed Guard
- (f) PSiRA Grade D Unarmed Guard
- (g) Extra-over item (a-f) above for security guards working overtime, night work, or



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on a weekend or public holiday when instructed.

This item shall include for provision of security services on weekdays and weekends and public holidays and any other security measures which the Contractor may wish to employ during the contract as specified in PSA 5.2.1.

The Contractor shall take every precaution to ensure safety and to protect the Works from theft and vandalism. The Contractor shall be responsible for the safety and security of his personnel, materials on site and the Works in general at all times. The Contractor shall therefore acquaint himself with the current situation in the area with regard to safety and security (liaising with the local police as necessary) and shall provide all security measures, including the employment of accredited security services, as deemed necessary to comply with the requirements under this clause on the Contract.

All security staff employed on site must be registered with the Private Security Industry Regulatory Authority (PSiRA). Proof of such registration must be made available to the employer's agent upon request. The security arrangements must be discussed with, and approved by the Employers Agent representative prior to commencement of the work.

Unarmed is defined as any non-lethal equipment such as a baton, stun gun, taser or pepper spray. Armed shall include a firearm along with the relevant South African Police Service firearm competency. Armed guards will only be utilised under extraordinary circumstances and will require the written approval of the Employers Agent. The unit of measurement shall be a 12 hour shift or portion thereof worked by a security guard.

Stellenbosch Municipality have many areas known for high levels of crime. Security guards shall be provided at the site camp as a minimum security measure as instructed or agreed. The Contractor shall allow for his own additional security to improve safety in and around the site and its offices. Notwithstanding any other clauses in this document the Contractor should allow for Insurances, Fencing, Lockable Gates, and any other security measures deemed necessary by the contractor to keep all site personnel and equipment safe.

The unit of measure for item (a - f) shall be the number of man-days that the security guard(s) have worked and shall be measured from the time the person(s) arrives at their post until the time they leave. This item shall only be paid for additional security guards requested or instructed by Employers Agent or as agreed in advance between the Employers Agent and Contractor. Security not agreed on in advance shall not be payable.

The tendered rate shall be based on the PSiRA published rates for the applicable grade and cover the cost of wages, transport to and from site, all personal protective equipment, any other costs, profit and mark up. The tendered rate for (g) shall be based on the PSiRA published rates for overtime/night work, public holidays or weekends for un-armed security guards and shall only cover the additional costs associated with working overtime, working at night or working on a weekend or public holiday. The basic rate shall be covered in item (a-f). This item will only be paid when there has been a specific request for work to be carried out during overtime, at night, or on a weekend or public holiday, or if it has been agreed upon in advance between the Employers Agent and Contractor. If the contractor chooses to work during these times for whatever reason without an instruction or a prior agreement, this item will not be paid.



3. Add to Horizontal Directional Drilling Section J of Schedule of Rates (Page 90):

Section J: Horizontal Directional Drilling does not make any payment allowance for the usage of drilling mud / bentonite when performing the methods of horizontal directional drilling, nor does it allow for the removal thereof. Additional items have been added.

With the addition of Items J610 – J670:

ITEM NO.	PAYMENT	DESCRIPTION	UNIT
		DRILLING MUD / BENTONITE REMOVAL	
		Bentonite spoiled off site at an accredited dumping facility	
J610		1 x Super Sucker Vacuum truck unit	day
J620		2 x Super Scuker Vacuum truck units	day
J630		Disposal cost for dumping the drilling mud, including bentonite at an accredited landfill site	Ton
J640		Testing of bentonite sample	Sum
		Bentonite spoiled on site if allowed to stockpile and dry before removal	
J650		20 ton Excavator	day
J660		Holding pond	m ³
J670		Removal and Disposal at a location provided by the contractor (include all associated costs for removal)	m ³

4. Replace the “(d) Transport of Asbestos-Containing Waste...” Item A1070 (Page 54):

Item A1070 makes reference to “(d) Transport of asbestos...” with incorrect unit “ton/km”.

With:

ITEM NO.	PAYMENT	DESCRIPTION	UNIT
A1070		(d) Transport of asbestos-containing waste at the permitted low-hazard (H:h) landfill site at Visserhoek, in accordance with legislation	ton.km

5. Replace the “(d) Transport of Asbestos-Containing Waste...” PSA 8.9.2 (Page 240):

Particular Specification “PSA 8.9.2: Asbestos Specialist Services: (d) Transport of asbestos...” has the incorrect unit “ton/km”. This should be changed as follows:

With:

PSA 8.9.2 Asbestos Specialist Services: (d) Transport of asbestos-containing waste at the permitted low-hazard (H:h) landfill site at Visserhoek, in accordance with legislation	Unit: ton.km
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The following Questions were raised at the site meeting and were answered as follows:

Question 1:

Regarding the Emergency Works Projects, when does work commence?

Answer:

Leandro Hendricks noted that an Instruction to Commence will be issued and a purchase order (PO) will be issued accordingly, per emergency works project.

Question 2:

A recommendation was made that local labour targets are specified.

Answer:

The requirement is that unskilled labour (100%) and any other local labour must be sourced locally from the area in which the works reside.

Question 3:

Are the Preliminary & General items for Emergency Works Projects administered in the same manner as for standard Works Projects?

Answer:

Yes, that is correct.

Question 4:

Can an amendment be made to Item A760 for Security, to allow for variability in the types of PSiRA security grades, including an extra-over for security working overtime, nighttime, weekends or public holidays?

Answer:

The requested amendments have been made to Item A760 (refer to revised Items A760 – A766). See addendum item 1 and 2 above.

Question 5:

Regarding Schedule 15, pertaining to the Proof of Plant, how are the bidders supposed to prove ownership of equipment?

Answer:

See Schedule 15 on page 147 – 149. The tables in Part 1, 2 and 3 of the schedule clearly indicate the required information for proof of ownership.



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Question 6:

Regarding Section J: Horizontal Directional Drilling (of the Schedule of Rates), can an amendment be made to include Drilling Mud / Bentonite Removal?

Answer:

The requested amendments have been made to Section J (refer to revised Items J610 – J670). See addendum item 3 above.

Question 7:

Regarding Item A1070: "Transport of asbestos-containing waste at the permitted low-hazard (H:h) landfill site at Visserhoek, in accordance with legislation", the unit should be changed to "ton.km", instead of "ton/km".

Answer:

The requested amendments have been made to Item A1070. See addendum items 4 and 5 above.

Question 8:

Regarding Impact Moling, how will the supply of the sleeves to be moled be claimed and paid for?

Answer:

Provisions are made in the Schedule of Rates for the supply, lay and bed of various pipe materials, sizes and classes, which are applicable under this item.

**DIRECTOR
CORPORATE SERVICES**

DATE:

15/2/24

Note: Confirmation to the addendum

CONFIRMATION

I (Name) hereby declare on behalf of

..... (Company's name),

to agree/not agree (please encircle) to the above changes in the bidding documentation.

Address:
.....
.....

Tel no.:

Fax no.:

Signature of bidder:

Date:

SECTION A: PRELIMINARY AND GENERAL (SMALL WORKS)				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	SANS 1200 A	PRELIMINARY AND GENERAL (SMALL WORKS)		
	8.3	SCHEDULED FIXED-CHARGE AND VALUE-RELATED ITEMS		
		Contractor's general obligations		
A10	PSA 8.3.1.1	Security (performance guarantee) (Framework contract once off pay item)	Sum	
A20	PSA 8.3.1.2	Insurance (blanket/umbrella policy) (Framework contract annual pay item)	Sum	
A30	8.3.3	General responsibilities and other fixed-charge obligations	Sum	
	8.3.2	Establishment of facilities on the Site		
	8.3.2.2	Facilities for the Contractor		
		a) Offices and storage sheds		
A40	PSA 8.3.2.2	i) Stellenbosch	Sum	
A50		ii) Franschhoek	Sum	
A60		iii) Pniel, Klipmuts and other areas excluding Stellenbosch and Franschhoek	Sum	
		e) Ablution and latrine facilities		
A70	PSA 8.3.2.2	i) Stellenbosch	Sum	
A80		ii) Franschhoek	Sum	
A90		iii) Pniel, Klipmuts and other areas excluding Stellenbosch and Franschhoek	Sum	
		g) Water supplies, electric power and communications		
A100	PSA 8.3.2.2	i) Stellenbosch	Sum	
A110		ii) Franschhoek	Sum	
A120		iii) Pniel, Klipmuts and other areas excluding Stellenbosch and Franschhoek	Sum	
	8.3.4	Removal of Site Establishment		
A130	PSA 8.3.2.2	i) Stellenbosch	Sum	
A140		ii) Franschhoek	Sum	
A150		iii) Pniel, Klipmuts and other areas excluding Stellenbosch and Franschhoek	Sum	
A160		Testing carried out by commercial or council laboratory as ordered by Employer's Agent	Prov Sum	R 10 000.00
A170		% Profit and Attendance for item A200	%	
	8.4	SCHEDULED TIME-RELATED ITEMS		
A180	8.4.1	Contractual requirements	day	
	8.4.2	Operation and Maintenance of Facilities on Site, for the duration of the Duration of Construction, except where otherwise stated		
	8.4.2.2	Facilities for the Contractor		
		a) Offices and storage sheds	day	
A190		e) Ablution and latrine facilities	day	
A200		g) Water supplies, electric power and communications	day	
A210				
	PSA 8.7	DAYWORKS (As ordered by the Employer's Agent)		
		LABOUR CHARGES		
A220		(a) Labourer semi-skilled	h	
A230		(b) Labourer skilled	h	
A240		(c) Chargehand / Team leader	h	
A250		(d) Foreman	h	
A260		(e) Artisan (NTC 2 qualified)	h	
A270		(f) Artisan utility workman (No qualification)	h	
A280		(g) Plant Operator	h	

SECTION A: PRELIMINARY AND GENERAL (SMALL WORKS)				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
A290		(h) Flagperson	h	
A300		(i) Driver	h	
A310		(j) Security guard	h	
A320		(k) Supervisor	h	
		MATERIALS CHARGES		
A330		(a) Actual cost of material (excl. VAT)	Prov Sum	R 10 000.00
A340		(b) Handling costs in respect of item A370	%	
		PLANT CHARGES (As ordered by the Employer's Agent)		
A350		(a) Backhoe / Digger loader 4x4	h	
A360		(b) Tractor	h	
A370		(c) Trailer (1 ton)	h	
		(d) Tip truck		
A380		(i) Capacity of 6 m3	h	
A390		(ii) Capacity of 10 m3	h	
A400		(e) Walk-behind vibrating roller (1t)	h	
A410		(f) Plate compactor	h	
A420		(g) Water cart (2000 l)	h	
A430		(h) Water cart (9000 l)	h	
A440		(i) Concrete mixer	h	
A450		(k) Flat bed truck (4 ton)	h	
A460		(l) Compressor (16 m3/ min) including 2 x 30 m hoses & 2 x breakers	h	
A470		(m) Excavator (minimum 20 ton)	h	
		(n) Light delivery vehicle		
A480		(1) 0.5 t capacity	h	
A490		(2) 1.0 t capacity	h	
		(o) Pumps		
		Super Silent Selwood Seltorque pumps (or similar approved)		
A500		(i) 75 mm diam	h	
A510		(ii) 100 mm diam	h	
A520		(iii) 150 mm diam	h	
A530		(p) Sludge pump	h	
A540		(q) Rammer compactor	h	
A550		(r) Paving breaker	h	
A560		(s) Jetting machine	h	
A570		(t) Electro fusion machine	h	
A580		(u) Generator 5 kVA with regulator	h	
A590		(v) Generator 25 kVA 3 phase with regulator	h	
A600		(w) 5 ton winch	h	
A610		(x) 10 ton winch	h	
A620		(y) Super sucker	h	
A630		(z) Trailer jet & truck & 5 000 litre tank	h	
A640		(aa) Vacuum tanker 10/11 m3 (5/6 grit & 5 clean)	h	
A650		(bb) Hydraulic power pack (indicate capacity)	h	
		(cc) 2 set bucket machine including buckets and cables		
A660		i) Pipes from 200 mm dia to 400 mm dia	h	
A670		ii) Pipes from 450 mm dia to 800 mm dia	h	
A680		iii) Pipes from 850 mm dia to 1200 mm dia	h	
A690		(dd) Other plant not specified above	Prov Sum	R 5 000.00
A700		(ee) handling costs in respect of item A730	%	
	PSA 8.8	TEMPORARY WORKS		
	PSA 8.8.2	Accommodating traffic and maintaining temporary deviations one and two-way traffic in : (incl. traffic safety officer, flagmen, delineators and all signage)		
A710		(a) Short Term Works	km	

SECTION A: PRELIMINARY AND GENERAL (SMALL WORKS)				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
A720	PSA 8.8.3	(b) Urban streets - Two-Way lane closure	km	
A730		(c) Urban streets - One-Way traffic accommodated	km	
A740		(d) Urban streets - Lane Closure in and beyond junction	km	
A750		Watching, lighting and temporary fencing		
		a) Establishment	Sum	
		b) Maintenance cost for:		
		i) Security		
A760		(a) PSiRA Grade A Guard	man-day	
A761		(b) PSiRA Grade B Armed Guard	man-day	
A762		(c) PSiRA Grade B Unarmed Guard	man-day	
A763	PSA 8.8.4	(d) PSiRA Grade C Armed Guard	man-day	
A764		(e) PSiRA Grade C Unarmed Guard	man-day	
A765		(f) PSiRA Grade D Unarmed Guard	man-day	
		(g) Extra-over item (a-f) above for security guards working overtime, night work, or on a weekend or public holiday when instructed.	man-day	
A766				
A770		ii) Temporary fencing	m/day	
A780		iii) Lighting	day	
		LOCATION AND PROTECTION OF EXISTING SERVICES		
		Provision of Devices for:		
A790	PSA 8.8.4.1	(a) Water and sewer pipes	Sum	
A800		(b) Electrical and other cables	Sum	
A810		(c) Other	Sum	
		Hand excavation necessary for locating and exposing existing services in all materials:		
A820		(a) In all roadways	m³	
A830		(b) In paved areas	m³	
A840		(c) In concrete areas	m³	
A850		(d) In all other areas	m³	
		PSA 8.8.7		
		Dealing with water:		
A860	PSA 8.8.8	(a) Dealing with subsurface water	Sum	
A870		(b) Dealing with surface water	Sum	
		(c) Extra-over for item (a) above:		
A880		i) Installation of well points	m	
A890		ii) Operate and maintain	day	
		LIAISON WITH SERVICE AUTHORITIES		
		Wayleave applications		
A900		a) Roads & Stormwater	Sum	
A910		b) Water and Sanitation - Services	Sum	
A920		c) Water and Sanitation - Bulk	Sum	
A930	PSA 8.9.1	d) Eskom Electricity	Sum	
A940		e) Stellenbosch - Electricity Department	Sum	
A950		f) Telkom	Sum	
A960		g) Neotel	Sum	
A970		h) Other	Prov Sum	R 2 000.00
A980		i) Handling costs and profit for item A1010	%	
A990		j) Application for use of portion of public open space per Works Project	Prov Sum	R 5 000.00
A1000		k) Monthly rental of portion of public open space per Works Project	Prov Sum	R 5 000.00
A1010	PSA 8.8.9	Notifications to consumers and residents regarding work and disruptions of service. (Per 30 notices)	Sum	
		8.9		
A1020		HEALTH AND SAFETY		
A1030		PSA 8.9.1	Sum	
		PSA 8.9.2		
		Asbestos Specialist Services:		
A1040		(a) Approved Asbestos Inspection Authority (AIA) to assist the contractor with the approval of the asbestos plan of work in accordance with legislation	Prov Sum	R 18 000.00
A1050		(b) Administrative costs and profit in respect of item A1070	%	
A1060		(c) Handling and disposal of asbestos-containing waste from site to the permitted Vissershok landfill site, in accordance with legislation	Sum	

SECTION A: PRELIMINARY AND GENERAL (SMALL WORKS)				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
A1070		(d) Transport of asbestos-containing waste at the permitted low-hazard (H:h) landfill site at Vissershok, in accordance with legislation	ton.km	
A1080		(e) Cost of dumping at permitted Vissershok landfill site (Original tipping slips are required for audit purposes)	ton	
A1090	PSA 8.10	ENVIRONMENTAL MANAGEMENT		
A1100	PSA 8.11	Complying with Environmental Management requirements	day	
		Noise Exemption Permit per Works Project	Sum	
		COMMUNITY LIAISON OFFICER		
A1110		a) Employment of CLO	day	
A1120		b) Handling costs and profit for item A1420	%	

SECTION B: SITE CLEARANCE				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	SANS 1200 C	SITE CLEARANCE		
		CLEAR AND GRUB		
B10	8.2.1	Clear and grub site (provisional: area to be designated by Employers Agent)	m ²	
B20	8.2.2	Remove and grub trees and tree stumps of girth	No.	
B30		a) over 0,5 m up to and including 1,0 m	No.	
		b) over 1,0 m up to and including 2,0 m	No.	
	PSC 8.2.7	Dismantle and remove		
		a) Pipelines		
B40		i) Up to 150 mm diameter	m	
B50		ii) Over 150 mm diameter	m	
B60		b) Sewer structures: Manholes (brick, fibre cement or concrete)	No.	
B70		c) Watermain structures: Valve or Hydrant Chambers (brick, fibre cement or concrete)	No.	
B80		d) Kerbs, Edging and channels	m	
		e) Asphalt		
B90		i) Asphalt (0mm to 50 mm thick)	m ²	
B100		ii) Asphalt (Over 50 mm thick)	m ²	
B110		f) Road Signs	No.	
B120		g) Trees and Plants / Shrubs	No.	
B130		h) Grass and lawns	m ²	
		i) Concrete in roads, driveways or walkways		
B140		i) Up to 100 mm thick concrete	m ²	
B150		ii) over 100 mm and up to 200 mm thick concrete	m ²	
B160		iii) over 200 mm thick concrete	m ²	
B170		j) Brick Paving in roads, driveways or walkways	m ²	
B180	PSC 8.2.10	Remove topsoil to a nominal depth of 150 mm, stockpile and reinstate	m ³	
	PSC 8.2.11	Remove and stockpile material for later reinstatement		
B190		a) Kerbs, edging and channels	m	
B200		b) Brick paved / Interlocking bricks in roads, driveways or walkways	m ²	
B210		c) Grass and lawns	m ²	
B220		d) Trees and Plants / Shrubs	No.	
B230		e) Road Signs	No.	
		f) Fence		
B240		i) All wire type fencing	m	
B250		ii) All palisade type fencing	m	
B260		iii) Vibracrete walls	m	
	PSC 8.2.12	Saw cutting of existing surfaces		
		a) Asphalt		
B270		i) Asphalt (0mm to 50 mm thick)	m	
B280		ii) Asphalt (Over 50 mm thick)	m	
		b) Concrete		
B290		i) Up to 100 mm thick concrete	m	
B300		ii) over 100 mm and up to 200 mm thick concrete	m	
B310		iii) over 200 mm thick concrete	m	
B320		c) Paving	m	

SECTION C: EARTHWORKS (PIPE TRENCHES)				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	SANS 1200 DB	EARTHWORKS (PIPE TRENCHES)		
		EXCAVATION		
	PSDB 8.3.2 a)	Excavate in all materials for trench excavations: Up to 400 mm diam. for total trench depth:		
C10		a) Exceeding 0,0 m but not exceeding 1,0 m	m ³	
C20		b) Exceeding 1,0 m but not exceeding 2,0 m	m ³	
C30		c) Exceeding 2,0 m but not exceeding 3,0 m	m ³	
C40		d) Exceeding 3,0 m but not exceeding 4,0m	m ³	
C50		e) Exceeding 4,0 m but not exceeding 5,0 m	m ³	
C60		f) Exceeding 5,0 m but not exceeding 6,0 m	m ³	
C70		g) Exceeding 6,0 m but not exceeding 7,0 m	m ³	
C80	PSDB 8.3.2 b)	Bulk excavation for chambers, concrete structures and other underground structures	m ³	
C90	PSDB 8.3.2 c)	Bulk excavation for point repairs, launch, retrieval, and access pits	m ³	
	PSDB 8.3.2 d)	Extra-over items C10 to C90 incl. for (provisional):		
C100		i) Hard rock	m ³	
C110	PSDB 8.3.2 e)	Hand excavation in all materials where ordered by the Employer's Agent	m ³	
C120	PSDB 8.3.2 f)	Excavate and dispose of unsuitable material from trench bottom (Provisional)	m ³	
		EXCAVATION ANCILLARIES		
C130	PSDB 8.3.3.1	Make up deficiency in backfill material (provisional)		
C140	8.3.3.1 a)	From other necessary excavations on site	m ³	
	8.3.3.1 c)	By importation from commercial source (As approved by the Employer's Agent)		
C150		a) Sand	m ³	
C160		b) Up to 37 mm stone any thickness	m ³	
C170	8.3.3.3	Compaction in road reserve	m ³	
	8.3.4	PARTICULAR ITEMS		
	PSDB 8.3.4 Add-1	a) Shoring trenches and pits in all cases for depths:		
C180		i) 1,0 m - 2,0 m	m ²	
C190		ii) 2,0 m - 3,0 m	m ²	
C200		iii) 3,0 m - 4,0 m	m ²	
C210		iv) 4,0 m - 5,0 m	m ²	
C220		v) 5,0 m - 6,0 m	m ²	
C230		vi) 6,0 m - 7,0 m	m ²	
C240		vi) 7,0 m - 8,0 m	m ²	
	8.3.5	PROTECTION OF EXISTING SERVICES		
	8.3.5 a)	Services that intersect a trench (temporary protection)		
C250		a) LV electrical cables	No.	
C260		b) HV electrical cables	No.	
C270		c) House water connections	No.	
C280		d) Water mains	No.	
C290		e) Bulk water mains	No.	
C300		f) Stormwater pipes up to 600 mm diam.	No.	
C310		g) Stormwater pipes over 600 mm diam.	No.	
C320		h) Sewers pipes up to 300 mm diam.	No.	
C330		i) Sewer pipes over 300 mm diam.	No.	
C340		j) Telecommunication cables in ducts	No.	
C350		k) Telecommunication optic fibre cables	No.	

SECTION C: EARTHWORKS (PIPE TRENCHES)				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
C360	8.3.5 b)	l) Stormwater channels and kerbs	No.	
C370		Services that adjoin a trench (temporary protection)		
C380		a) LV electrical cables	m	
C390		b) HV electrical cables	m	
C400		c) Water mains	m	
C410		d) Bulk water mains	m	
C420		e) Stormwater pipes up to 600 mm diam.	m	
C430		f) Stormwater pipes over 600 mm diam.	m	
C440		g) Sewers pipes up to 300 mm diam.	m	
C450		h) Sewer pipes over 300 mm diam.	m	
C460		i) Telecommunication cables in ducts	m	
C470		j) Telecommunication optic fibre cables	m	
	PSDB 8.3.6	k) Stormwater channels and kerbs	m	
		FINISHING (REINSTATEMENT)		
	8.3.6.1	Reinstate road surfaces including the following new layerworks from commercial sources:		
C480		a) 150 mm G5 gravel subbase compacted to 95% MOD AASHTO density	m ²	
C490		b) 150 mm G4 gravel base compacted to 98% of MOD AASHTO density	m ²	
C500		c) Asphalt surfacing (medium continuously grade) 40 mm thick, on prepared surface with Pen 30/60 primer & sealing of edges	m ²	
C510		d) Tack coat	m ²	
	8.3.6.1	Reinstate sidewalks and footways surfaces including the following new layerworks from commercial sources:		
C520		a) 100 mm thick G5 gravel Subbase compacted to 98% MOD. AASHTO density	m ²	
C530		b) Asphalt surfacing 30mm thick, on prepared surface with Pen 30/60 primer and sealing of edges	m ²	
	8.3.6.1	Reinstate other surfaces including the following new layerworks from commercial sources:		
C540		a) Concrete (75 mm thick, 25 MPa on 100 mm G5 gravel Subbase compacted to 95% MOD. AASHTO density on sidewalks and driveways)	m ²	
C550		b) Brick Paving (60 mm thick concrete pavers on 20 mm sand bed to matching colours on 100 mm thick G5 gravel subbase compacted to 96% MOD. AASHTO density on sidewalks)	m ²	
C560		c) Interlocking concrete block paving (40 mm thick 30 MPa on 150 mm thick G5 gravel Subbase compacted to 96 % MOD. AASHTO density in roadway)	m ²	
C570		d) Interlocking concrete block paving (80 mm thick 30 MPa on 150 mm thick G5 gravel Subbase compacted to 96 % MOD. AASHTO density in roadway)	m ²	
C580		e) Cobblestones/blocks (80 mm thick 30 MPa on 150 mm thick G5 gravel Subbase compacted to 96 % MOD. AASHTO density in roadway)	m ²	
C590		f) Reinstate grass and lawns		
C600		i) Using sods	m ²	
C610		ii) Using grass offshoots	m ²	
C620		g) Soilcrete	m ³	
C630		h) Precast concrete 150 mm wide half round dish channel	m	
		Gabions and Reno Mattress		
C640		i) 250 mm / 300 mm Reno Mattress	m ³	
C650		j) 1000 mm x 1000 mm x 1000 mm Gabions	m ³	

SECTION E: BULK PIPE CLEANING				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	PS-TD	BULK PIPE CLEANING AND ROOT REMOVAL		
	PS-TD 8.1	Bulk cleaning of pipelines for nominal diameters		
E10		(a) 100 mm or 150 mm	m	
E20		(b) 200 mm, 225 mm or 250 mm	m	
E30		(c) 250 mm or 300 mm	m	
E40		(d) 450 mm	m	
E50		(e) 500 mm or 525 mm	m	
E60		(f) 600 mm	m	
E70		(g) 675 mm	m	
E80		(h) 750 mm	m	
E90		(i) 825 mm	m	
E100		(j) 900 mm	m	
E110		(k) 1050 mm	m	
E120		(l) 1200 mm	m	
E130		(m) Removal of cleaned material, transport to and disposal at Vissershok private Landfill site (Receipts required)	ton	
	PS-TD 8.2	Root cutting and removal in pipelines for nominal diameters		
E140		(a) 100 mm or 150 mm	m	
E150		(b) 200 mm, 225 mm or 250 mm	m	
E160		(c) 250 mm or 300 mm	m	
E170		(d) 350 or 450 mm	m	
E180		(e) 500 mm or 525 mm	m	
E190		(f) 600 mm	m	
E200		(g) 675 mm	m	
E210		(h) 750 mm	m	
E220		(i) 825 mm	m	
E230		(j) 900 mm	m	
E240		(k) 1050 mm	m	
E250		(l) 1200 mm	m	

SECTION F: CCTV INSPECTIONS				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	PS-TC	CCTV INSPECTIONS OF PIPELINES		
	PS-TC 6.3	CCTV site inspection establishment		
F10		(a) in Stellenbosch	Day	
F20		(b) in Franschhoek	Day	
F30		(c) in Pniel, Klapmuts and any other areas excluding Stellenbosch and Franschhoek.	Day	
	PS-TC 6.1	CCTV camera inspection and assessment for nominal diameters		
F40		(a) 100 mm to 225 mm	m	
F50		(b) 250 mm to 300 mm	m	
F60		(c) 375 mm to 400 mm	m	
F70		(d) 450 mm to 525 mm	m	
F80		(e) 600 mm to 675 mm	m	
F90		(f) 750 mm to 825 mm	m	
F100		(g) 900 mm to 1200 mm	m	
F110	PS-TC 6.2	Manhole Inspection	No.	

SECTION G: OVERPUMPING				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
		OVERPUMPING		
	PS-TA 6.1	Temporary works: Control sewage by overpumping: max. length 100 m: (supply all equipment: pump, sealed pipeline, sump if needed, power supply etc)		
G10		(1) up to 200 mm diam. pipes	h	
G20		(2) Up to 300 mm diam. pipes	h	
G30		(3) Up to 400 mm diam. pipes	h	
G40		(3) Up to 500 mm diam. pipes	h	
G50		(3) Up to 600 mm diam. pipes	h	
	PS-TA 6.2	Extra over for provision of additional piping when length exceeds 100 m		
		a) Layflat hosing		
G60		(1) up to 200 mm diam. pipes	m	
G70		(2) Up to 300 mm diam. pipes	m	
G80		(3) Up to 400 mm diam. pipes	m	
		b) Rigid piping		
G90		(1) up to 200 mm diam. pipes	m	
G100		(2) Up to 300 mm diam. pipes	m	
G110		(3) Up to 400 mm diam. pipes	m	

SECTION H: SEWERS				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	SANS 1200 LB	BEDDING (PIPES)		
	PSLB 8.2.1	Provision of bedding and selected fill material from trench excavations		
H10		a) Selected granular material	m ³	
H20		b) Selected fill material	m ³	
	8.2.2	Supply only of bedding material by importation		
	PSLB 8.2.2.3	From commercial sources (provisional)		
H30		a) Selected granular material	m ³	
H40		b) Selected fill material	m ³	
H50		c) 19 mm stone on top of a geofabric material for trench bottom	m ³	
	PSLB 8.2.6	Geotextile / Geomembrane wrapped around 19 mm stone bedding with 300 mm overlay:		
H60		a) A2 or similar approved	m ²	
	SANS 1200 LD	SEWERS		
		PIPEWORK (NEW PIPES)		
		SUPPLY PIPES		
	PSLD 8.2.1 a)	Supply and deliver pipes to site with spigot and socket joints		
		1) Class 34 uPVC Pipes to SABS 791 (heavy duty)		
H70		a) 110 mm diam.	m	
H80		b) 160 mm diam.	m	
H90		c) 200 mm diam.	m	
H100		d) 250 mm diam.	m	
H110		(e) 315 mm diam.	m	
H120		(f) 355 mm diam.	m	
H130		(g) 400 mm diam.	m	
	PSLD8.2.1	2) Class 34 uPVC Pipes to SABS 791 (heavy duty) - Short lengths less than 10 metres		
H140		a) 110 mm diam. to erf connections	m	
H150		b) 160 mm diam. to point repairs	m	
H160		c) 200 mm diam. to point repairs	m	
H170		d) 250 mm diam. to point repairs	m	
H180		e) 315 mm diam. to point repairs	m	
H190		f) 355 mm diam. to point repairs	m	
H200		g) 400 mm diam. to point repairs	m	
		INSTALL PIPES		
	PSLD 8.2.1 b)	Lay, joint, bed Class B, including testing and spigot and socket joints		
		1) Class 34 uPVC Pipes to SABS 791 (heavy duty)		
H210		a) 110 mm diam.	m	
H220		b) 160 mm diam.	m	
H230		c) 200 mm diam.	m	
H240		d) 250 mm diam.	m	
H250		(e) 315 mm diam.	m	
H260		(f) 355 mm diam.	m	
H270		(g) 400 mm diam.	m	
	PSLD 8.2.1	2) Class 34 uPVC Pipes to SABS 791 (heavy duty) - Short lengths less than 10 metres		
H280		a) 110 mm diam. to erf connections	m	
H290		b) 160 mm diam. to point repairs	m	
H300		c) 200 mm diam. to point repairs	m	
H310		d) 250 mm diam. to point repairs	m	

SECTION H: SEWERS				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
H320	8.2.2	e) 315 mm diam. to point repairs	m	
H330		f) 355 mm diam. to point repairs	m	
H340		g) 400 mm diam. to point repairs	m	
		JOINTING (POINT REPAIRS)		
		Cut into existing pipeline and connect new pipeline with special adaptors and make good, including hand excavation, dispose of surplus material and supply special adaptors		
H350		(a) 110 mm diam.	No.	
H360		(b) 160 mm diam.	No.	
H370		(c) 200 mm diam.	No.	
H380		(d) 250 mm diam.	No.	
H390		(e) 315 mm diam.	No.	
H400		(f) 355 mm diam.	No.	
H410		(g) 400 mm diam.	No.	
		SPECIALS AND FITTINGS FOR HOUSE CONNECTIONS		
		Supply, lay, joint, bed (Class B, incl. cut pipes where require), specials and fittings:		
	PSLD 8.2.3	uPVC Fittings to SABS 791 Class 34		
		Y Junctions (45 deg)		
H420		a) 110 mm x 110 mm	No.	
H430		b) 160 mm x 110 mm	No.	
H440		c) 160 mm x 160 mm	No.	
H450		e) 200 mm x 110 mm	No.	
H460		f) 250 mm x 110 mm	No.	
H470		g) 315 mm x 110 mm	No.	
		Bends		
H480		a) 110 mm x 11.25 deg.	No.	
H490		b) 110 mm x 22.5 deg.	No.	
H500		c) 110 mm x 45 deg.	No.	
H510		d) 160 mm x 45 deg	No.	
H520		e) 200 mm x 45 deg	No.	
H530		f) 250 mm x 45 deg	No.	
H540		g) 315 mm x 45 deg	No.	
		Endcaps		
H550		(a) 110 mm diam.	No.	
H560		(b) 160 mm diam.	No.	
H570		(c) 200 mm diam.	No.	
H580		(d) 250 mm diam.	No.	
H590		(e) 315 mm diam.	No.	
H600		(f) 355 mm diam.	No.	
H610		(g) 400 mm diam.	No.	
		MANHOLES		
		1) Complete as per standard detail drawing SS1 for 1000 mm diameter precast concrete rings with dolomitic aggregate		
H620		(a) 1 m to 2 m depth	No.	
H630		(b) 2 m to 3 m depth	No.	
H640		(c) 3 m to 4 m depth	No.	
H650		(d) 4 m to 5 m depth	No.	
H660		(e) 5 m to 6 m depth	No.	
H670		(f) 6 m to 7 m depth	No.	
H680		(g) 7 m to 8 m depth	No.	
		2) Complete as per standard detail drawing SS1 but with 1250 mm diameter precast concrete rings with dolomitic aggregate		
H690		(a) 1 m to 2 m depth	No.	
H700		(b) 2 m to 3 m depth	No.	

SECTION H: SEWERS				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
H710		(c) 3 m to 4 m depth	No.	
H720		(d) 4 m to 5 m depth	No.	
H730		(e) 5 m to 6 m depth	No.	
H740		(f) 6 m to 7 m depth	No.	
H750		(g) 7 m to 8 m depth	No.	
		3) Complete 450 mm x 600 mm brick inspection chamber as per standard detail drawing with 450 mm x 600 mm medium duty ductile iron cover and frame		
H760		(a) 0.5 m to 1.0 m depth	No.	
H770		(b) 1.0 m to 1.5 m depth	No.	
	PSLD8.2.11 d)	4) Connect new 110 mm diameter connection into existing 450 mm x 600 mm brick inspection chamber and repair and make good.		
H780		(a) 0.5 m to 1.0 m depth	No.	
H790		(b) 1.0 m to 1.5 m depth	No.	
	PSLD8.2.11 e)	5) Construct new fibre-cement boundary inspection chamber (1000 mm diameter)		
H800		(a) Up to 0.6 m deep	No.	
H810		(b) Up to 1.0 m deep	No.	
H820		(c) Up to 1.5 m deep	No.	
		Connection to sewer at existing manholes		
H830	PSLD 8.2.11 a)	a) Break into existing sewer manhole and connection of new sewer	No.	
	PSLD 8.2.11 b)	b) Construct new manhole over live sewer		
H840		(a) 1 m to 2 m depth	No.	
H850		(b) 2 m to 3 m depth	No.	
H860		(c) 3 m to 4 m depth	No.	
H870		(d) 4 m to 5 m depth	No.	
H880		(e) 5 m to 6 m depth	No.	
H890		(f) 6 m to 7 m depth	No.	
H900		Brickwork to repaired manholes	m ²	
		Plaster work and grouting to repaired manholes		
H910		(a) Grout to benching	m ²	
		Minor alterations of existing manholes		
		Raise manhole by :		
H920		(a) up to 500 mm	No.	
H930		(b) between 500 mm and 1000 mm	No.	
H940		Extra-over items H920 and H930 for replacement of cover slab, covers and frames	No.	
H950	8.2.9	Marker posts	No.	
		Kerb Markers		
		Cut kerb face and paint white to mark house connections		
H960		a) House connections	No.	
	PSLD8.2.11 c)	Locate and reconnect existing property connections to new HDPE sewer main installed by pipe bursting		
H970		a) 110 mm diameter onto 160 mm diameter HDPE	No	
H980		b) 160 mm diameter onto 160 mm diameter HDPE	No	
H990		c) 110 mm diameter onto 200 mm diameter HDPE	No	
H1000		d) 160 mm diameter onto 200 mm diameter HDPE	No	
H1010		e) 110 mm diameter onto 250 mm diameter HDPE	No	
H1020		f) 160 mm diameter onto 250 mm diameter HDPE	No	
H1030		g) 110 mm diameter onto 315 mm diameter HDPE	No	
H1040		h) 160 mm diameter onto 315 mm diameter HDPE	No	

SECTION KS: PIPE (SEWER)				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	SASTT-TS-TT2	PIPE BURSTING (FOR SEWER INFRASTRUCTURE)		
		SUPPLY PIPES FOR PIPE BURSTING		
	PS-TT2-7.1	a) Supply and delivery pipes to site of		
		1) PN 6 PE 100 HDPE pipes of diameter		
KS10		a) 110 mm	m	
KS20		b) 160 mm	m	
KS30		c) 200 mm	m	
KS40		d) 225 mm	m	
KS50		e) 250 mm	m	
KS60		f) 280 mm	m	
KS70		g) 315 mm	m	
KS80		h) 355 mm	m	
KS90		i) 400 mm	m	
KS100		j) 450 mm	m	
KS110		k) 560 mm	m	
KS120		l) 630 mm	m	
		INSTALL BY PIPE BURSTING		
	PS-TT2-7.1	b) Install by pipe bursting (Butt welding included)		
		i) SIZE FOR SIZE REPLACEMENT		
		1) PN 6 PE 100 HDPE pipes to replace existing sewer pipes (including butt welding) with diameter		
KS130		a) 110 mm	m	
KS140		b) 160 mm	m	
KS150		c) 200 mm	m	
KS160		d) 225 mm	m	
KS170		e) 250 mm	m	
KS180		f) 280 mm	m	
KS190		g) 315 mm	m	
KS200		h) 355 mm	m	
KS210		i) 400 mm	m	
KS220		j) 450 mm	m	
KS230		k) 560 mm	m	
KS240		l) 630 mm	m	
		ii) UPSIZING		
		1) PN 6 PE 100 HDPE pipes to replace existing sewer pipes (including butt welding)		
KS250		a) 100 mm existing to 160 mm diameter	m	
KS260		b) 150 mm existing to 200 mm diameter	m	
KS270		c) 150 mm existing to 225 mm diameter	m	
KS280		d) 150 mm existing to 250 mm diameter	m	
KS290		e) 200 mm existing to 225 mm diameter	m	
KS300		f) 200 mm existing to 250 mm diameter	m	
KS310		g) 200 mm existing to 280 mm diameter	m	
KS320		h) 200 mm existing to 315 mm diameter	m	
KS330		i) 200/225 mm existing to 355 mm diameter	m	
KS340		j) 300 mm existing to 355 mm diameter	m	
KS350		k) 400 mm existing to 450 mm diameter	m	

SECTION H: SEWERS				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	PS-TE 6	SAND TRAPS AND SCREENING EQUIPMENT		
	PS-TE 6.1	COVERS		
		Manhole covers and frames		
M10		a) GRP 900mm x 900mm access cover and frame with handles and locking mechanism	No.	
M20		b) GRP 1500mm x 1200mm access cover and frame with locking mechanism	No.	
M30		c) Type 2A heavy duty cast iron cover and frame to new manholes	No.	
	PS-TE 6.2	CHAMBER COATINGS AND LININGS		
M40		Xypex Bio-San C500 to be added during concrete batching (or similar approved)	kg	
M50		Sewper Coat layer, 25mm (PG25/DS25/DS40) (or similar approved)	m ²	
M60		AKS Concrete lining (or similar approved)	m ²	
M70		Sika guard - 720 Epochem double coat to inside walls, soffit and floors (or similar approved)	m ²	
M80		Sika guard - 63N Epoxy two coats to inside walls, soffit and floors (or similar approved)	m ²	
	PS-TE 6.3	SCREENING EQUIPMENT		
		Supply and Install Included in Prov. Sum		
M90		1) Manual Front Rake Screen, including associated fittings, rake, and any other items required to complete the installation.	Prov. Sum	R 40 000.00
M100		2) Handling costs in respect of item M90	%	
	PS-TE 6.4	ISOLATING VALVES AND SLUICES		
		Manufacture, deliver, install and commission plate stops and penstock, including all ancillary fixing requirements as per manufacture's detail. Grade 316 Stainless Steel material of construction.		
M110				
M120		1.a) Complete Plate Stops, including frame to be casted into channel and suit channel size:	Prov. Sum	R 20 000.00
M130		1.b) Handling costs in respect of item M120	%	
M140		2.a) Channel mounted, manual penstocks, complete with frame, extended spindle and supports, headstock and handwheel to suit a channel size:	Prov. Sum	R 20 000.00
M150		2.b) Handling costs in respect of item M140	%	
M160		3.a) Wall mounted, manual penstocks, complete with frame, extended spindle and supports, headstock and handwheel to suit an opening size:	Prov. Sum	R 20 000.00
M170		3.b) Handling costs in respect of item M170	%	

SECTION N: CONCRETE (STRUCTURAL)				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	SANS 1200 G	CONCRETE (STRUCTURAL)		
	PSG 8.1.3.3	CONCRETE		
	8.4.2	Blinding layer in 20 MPa/40 mm concrete		
N10		a) 75 mm minimum thickness	m ²	
	8.4.3	Strength concrete: 20 MPa/40mm		
N20		a) Surface bed	m ³	
N30		b) Concrete benching / mass concrete in Chambers and manholes (Including for Plate stops)	m ³	
N40		c) Protection over pipework in riverbed or other watercourse	m ³	
		Strength concrete: 30 MPa/20mm		
N50		a) Walls (below and above ground level)	m ³	
N60		b) Floors and suspended roof slabs	m ³	
N70		c) Plinths (Mass Concrete)	m ³	
		Granolithic screed		
N80		a) 50mm thick on roof slabs to fall	m ²	
N90		b) 50mm thick on screen room floors to fall	m ²	
	8.1.1	FORMWORK		
	8.2.1	1) Rough, vertical plane to		
N100		a) Walls below ground	m ²	
N110		b) Edges of foundations	m ²	
	8.2.2	2) Smooth vertical plane to:		
N120		a) Walls & outside of groundbeams	m ²	
N130		b) Mass concrete	m ²	
N140		c) Sides of roof slabs	m ²	
N150		d) Plane horizontal to soffit of roof slabs	m ²	
N160	8.2.5	3) 20mm chamfers to all visible concrete edges	m	
	8.2.6	4) Box out holes/form voids		
		a) Circular openings for pipes and other services in walls/slabs up to 400mm thick for the following diameters:		
N170		i) 0 m to 0,3 m	No.	
N180		ii) 0,3 m to 0,8 m	No.	
N190		iii) 0,8 m to 1.5 m	No.	
N200		iv) > 1,5 m	No.	
		b) Rectangular/square openings in walls/slabs up to 400mm thick for the following sizes by area:		
N210		i) 0 m2 to 0,5 m2	No.	
N220		ii) 0,5 m2 to 1,0 m2	No.	
N230		iii) 1,0 m2 to 2,0 m2	No.	
N240		iv) > 2,0 m2	No.	
	PSG 8.1.2	REINFORCEMENT		
		1) Mild steel bars		
N250	8.1.2.2	a) Diameter smaller than 20 mm	t	
	8.3.1	2) High-tensile steel bars		
N260	8.1.2.2	a) Diameter up to 20 mm	t	
N270	8.1.2.2	b) Diameter larger than 20 mm	t	
	PSG 8.4.4	UNFORMED SURFACE FINISHES		
		1) Wood-floated finish (see PSG 5.5.10.5)		
N280		a) Above ground roof slabs	m ²	
N290		b) Underground walkways and platforms	m ²	

SECTION N: CONCRETE (STRUCTURAL)				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
N300	PSG 8.9	2) Steel-floated finish (see PSG 5.5.10.5)		
N310		a) Floor of Sand traps and Screen Channels	m ²	
N320		b) Power-floated finish (see PSG 7.3)	m ²	
		c) Application of non-slip crystals to concrete surfacing on walkways	m ²	
	PSG 8.9	TESTING FOR WATER TIGHTNESS		
N330		(a) Fixed costs: Materials for closing or blanking off and sealing all openings in walls and floor of the sewer manholes and the removal of it	m ²	
N340	PSG 8.5	(b) Water tightness test complete per chamber	No	
		JOINTS		
N350		1) Provisional Sum for the Manufacture, Supply, Delivery and Install of Joints, as per approved Engineering Drawings provided by the Engineer for Construction	Prov. Sum	R 5 000.00
N360		2) Handling costs in respect of item M90	%	

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	SANS 1200 LB	BEDDING (PIPES)		
	PSLB 8.2.1	Provision of bedding and selected fill material from trench excavations		
I110		a) Selected granular material	m ³	
I120		b) Selected fill material	m ³	
	8.2.2	Supply only of bedding material by importation		
	PSLB 8.2.2.3	From commercial sources (provisional)		
I130		a) Selected granular material	m ³	
I140		b) Selected fill material	m ³	
I150		c) 19 mm stone on top of a geofabric material for trench bottom	m ³	
	PSLB 8.2.6	Geotextile / Geomembrane wrapped around 19mm stone bedding with 300 mm overlay:		
I160		a) A2 or similar approved	m ²	
	SANS 1200 L	MEDIUM-PRESSURE PIPELINES		
		PIPEWORK (NEW PIPES)		
		SUPPLY PIPES		
	PSL 8.2.1 a)	Supply and deliver pipes to site complete with spigot and socket joints		
		1) uPVC Class 12 Pressure Pipes to SABS 966		
		A) Nominal diameters		
I170		a) 110 mm diam.	m	
I180		b) 160 mm diam.	m	
I190		c) 200 mm diam.	m	
I1100		d) 250 mm diam.	m	
I1110		e) 300 mm diam.	m	
I1120		f) 350 mm diam.	m	
		B) Short lengths less than 10 metres		
I1130		a) 110 mm diam.	m	
I1140		b) 160 mm diam.	m	
I1150		c) 200 mm diam.	m	
I1160		d) 250 mm diam.	m	
I1170		e) 300 mm diam.	m	
I1180		f) 350 mm diam.	m	
		2) uPVC Class 16 Pressure Pipes to SABS 966		
		A) Nominal diameters		
I1190		a) 110 mm diam.	m	
I1200		b) 160 mm diam.	m	
I1210		c) 200 mm diam.	m	
I1220		d) 250 mm diam.	m	
I1230		e) 300 mm diam.	m	
I1240		f) 350 mm diam.	m	
		B) Short lengths less than 10 metres		
I1250		a) 110 mm diam.	m	
I1260		b) 160 mm diam.	m	
I1270		c) 200 mm diam.	m	
I1280		d) 250 mm diam.	m	
I1290		e) 300 mm diam.	m	
I1300		f) 350 mm diam.	m	
	PSL 8.2.1 a)	Supply and deliver pipes to site for butt welded joints (excluding butt welding)		
		3) HDPE PE 100 PN 12.5 Pressure Pipes to SABS ISO 4427		

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
I310		A) Nominal outside diameters		
I320		a) 110 mm diam.	m	
I330		b) 160 mm diam.	m	
I340		c) 200 mm diam.	m	
I350		d) 250 mm diam.	m	
I360		e) 315 mm diam.	m	
		f) 355 mm diam.	m	
		B) Short lengths less than 10 metres		
I370		a) 110 mm diam.	m	
I380		b) 160 mm diam.	m	
I390		c) 200 mm diam.	m	
I400		d) 250 mm diam.	m	
I410		e) 315 mm diam.	m	
I420		f) 355 mm diam.	m	
		4) HDPE PE 100 PN 16 Pressure Pipes to SABS ISO 4427		
		A) Nominal outside diameters		
I430		a) 110 mm diam.	m	
I440		b) 160 mm diam.	m	
I450		c) 200 mm diam.	m	
I460		d) 250 mm diam.	m	
I470		e) 315 mm diam.	m	
I480		f) 355 mm diam.	m	
		B) Short lengths less than 10 metres		
I490		a) 110 mm diam.	m	
I500		b) 160 mm diam.	m	
I510		c) 200 mm diam.	m	
I520		d) 250 mm diam.	m	
I530		e) 315 mm diam.	m	
I540		f) 355 mm diam.	m	
		INSTALL PIPES		
	PSL 8.2.1 b)	Lay and bed (class B), with spigot and socket joints, test and disinfect		
		1) uPVC Class 12 Pressure Pipes		
		A) Nominal diameters		
I550		a) 110 mm diam.	m	
I560		b) 160 mm diam.	m	
I570		c) 200 mm diam.	m	
I580		d) 250 mm diam.	m	
I590		e) 300 mm diam.	m	
I600		f) 350 mm diam.	m	
		B) Short lengths less than 10 metres		
I610		a) 110 mm diam.	m	
I620		b) 160 mm diam.	m	
I630		c) 200 mm diam.	m	
I640		d) 250 mm diam.	m	
I650		e) 300 mm diam.	m	
I660		f) 350 mm diam.	m	
		2) uPVC Class 16 Pressure Pipes		
		A) Nominal diameters		
I670		a) 110 mm diam.	m	
I680		b) 160 mm diam.	m	
I690		c) 200 mm diam.	m	
I700		d) 250 mm diam.	m	
I710		e) 300 mm diam.	m	
I720		f) 350 mm diam.	m	
		B) Short lengths less than 10 metres		

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
I730	PSL 8.2.1 b)	a) 110 mm diam.	m	
I740		b) 160 mm diam.	m	
I750		c) 200 mm diam.	m	
I760		d) 250 mm diam.	m	
I770		e) 300 mm diam.	m	
I780		f) 350 mm diam.	m	
		Lay and bed (class B), with butt welded joints, test and disinfect (including butt welding)		
		3) HDPE PE 100 PN 12.5 Pressure Pipes		
		A) Nominal outside diameters		
I790		a) 110 mm diam.	m	
I800		b) 160 mm diam.	m	
I810		c) 200 mm diam.	m	
I820		d) 250 mm diam.	m	
I830		e) 315 mm diam.	m	
I840		f) 355 mm diam.	m	
	PSL 8.2.2	B) Short lengths less than 10 metres		
I850		a) 110 mm diam.	m	
I860		b) 160 mm diam.	m	
I870		c) 200 mm diam.	m	
I880		d) 250 mm diam.	m	
I890		e) 315 mm diam.	m	
I900		f) 355 mm diam.	m	
		4) HDPE PE 100 PN 16 Pressure Pipes		
		A) Nominal outside diameters		
I910		a) 110 mm diam.	m	
I920		b) 160 mm diam.	m	
I930		c) 200 mm diam.	m	
I940		d) 250 mm diam.	m	
I950		e) 315 mm diam.	m	
I960		f) 355 mm diam.	m	
	PSL 8.2.3	B) Short lengths less than 10 metres		
I970		a) 110 mm diam.	m	
I980		b) 160 mm diam.	m	
I990		c) 200 mm diam.	m	
I1000		d) 250 mm diam.	m	
I1010		e) 315 mm diam.	m	
I1020		f) 355 mm diam.	m	
		BUTT WELDING OF HDPE PIPES		
		Site Establishment and de-establishment per butt welding assignment including provision of power		
I1030		i) Stellenbosch	Sum	
I1040		ii) Franschhoek	Sum	
I1050		iii) Pniel, Klapmuts and other areas excluding Stellenbosch and Franschhoek	Sum	
		JOINTING (POINT REPAIRS)		
		Cut into existing pipeline and connect new pipeline and specials and make good, including hand excavation, dispose of surplus material and supply two long collar detachable joints		
I1060		a) 110 mm diam.	No.	
I1070		b) 160 mm diam.	No.	
I1080		c) 200 mm diam.	No.	
I1090		d) 250 mm diam.	No.	
I1100		e) 300/315 mm diam.	No.	
I1110		f) 350/355 mm diam.	No.	

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	PSL 8.2.5	Connect new watermain into existing FC watermain.		
		1) 110 mm diameter pipeline into		
I1120		a) 50 mm diam. FC	No.	
I1130		b) 75 mm diam. FC	No.	
I1140		c) 100 mm diam. FC	No.	
I1150		d) 150 mm diam. FC	No.	
I1160		e) 200 mm diam. FC	No.	
I1170		f) 250 mm diam. FC	No.	
I1180		g) 300 mm diam. FC	No.	
		2) 160 mm diameter pipeline into		
I1190		a) 100 mm diam. FC	No.	
I1200		b) 150 mm diam. FC	No.	
I1210		c) 200 mm diam. FC	No.	
I1220		d) 250 mm diam. FC	No.	
I1230		e) 300 mm diam. FC	No.	
		3) 200 mm diameter pipeline into		
I1240		a) 75 mm diam. FC	No.	
I1250		b) 100 mm diam. FC	No.	
I1260		c) 150 mm diam. FC	No.	
I1270		d) 200 mm diam. FC	No.	
I1280		e) 250 mm diam. FC	No.	
I1290		f) 300 mm diam. FC	No.	
I1300		g) 350 mm diam. FC	No.	
		4) 250 mm diameter pipeline into		
I1310		a) 75 mm diam. FC	No.	
I1320		b) 100 mm diam. FC	No.	
I1330		c) 150 mm diam. FC	No.	
I1340		d) 200 mm diam. FC	No.	
I1350		e) 250 mm diam. FC	No.	
I1360		f) 300 mm diam. FC	No.	
I1370		g) 350 mm diam. FC	No.	
		5) 300/315 mm diameter pipeline into		
I1380		a) 100 mm diam. FC	No.	
I1390		b) 150 mm diam. FC	No.	
I1400		c) 200 mm diam. FC	No.	
I1410		d) 250 mm diam. FC	No.	
I1420		e) 300 mm diam. FC	No.	
I1430		f) 350 mm diam. FC	No.	
		5) 350/355 mm diameter pipeline into		
I1440		a) 100 mm diam. FC	No.	
I1450		b) 150 mm diam. FC	No.	
I1460		c) 200 mm diam. FC	No.	
I1470		d) 250 mm diam. FC	No.	
I1480		e) 300 mm diam. FC	No.	
I1490		f) 350 mm diam. FC	No.	
		SPECIALS AND FITTINGS		
	8.2.2	Supply, lay, bed, joint, incl. cut pipes to length where required, test and disinfect.		
	PSL 8.2.6	1) Ductile Iron fittings for uPVC pipes		
		BENDS		
		11.25 deg		
I1500		a) 110 mm diam.	No.	
I1510		b) 160 mm diam.	No.	
I1520		c) 200 mm diam.	No.	
I1530		d) 250 mm diam.	No.	
I1540		e) 300 mm diam.	No.	

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
I1550		f) 350 mm diam.	No.	
		22.5 deg		
I1560		a) 110 mm diam.	No.	
I1570		b) 160 mm diam.	No.	
I1580		c) 200 mm diam.	No.	
I1590		d) 250 mm diam.	No.	
I1600		e) 300 mm diam.	No.	
I1610		f) 350 mm diam.	No.	
		45 deg		
I1620		a) 110 mm diam.	No.	
I1630		b) 160 mm diam.	No.	
I1640		c) 200 mm diam.	No.	
I1650		d) 250 mm diam.	No.	
I1660		e) 300 mm diam.	No.	
I1670		f) 350 mm diam.	No.	
		90 deg		
I1680		a) 110 mm diam.	No.	
I1690		b) 160 mm diam.	No.	
I1700		c) 200 mm diam.	No.	
I1710		d) 250 mm diam.	No.	
I1720		e) 300 mm diam.	No.	
I1730		f) 350 mm diam.	No.	
		EQUAL TEES		
I1740		a) 110 mm diam.	No.	
I1750		b) 160 mm diam.	No.	
I1760		c) 200 mm diam.	No.	
I1770		d) 250 mm diam.	No.	
I1780		e) 300 mm diam.	No.	
I1790		f) 350 mm diam.	No.	
		REDUCING TEES		
I1800		a) 110 mm off 160 mm diam.	No.	
I1810		b) 110 mm off 200 mm diam.	No.	
I1820		c) 160 mm off 200 mm diam.	No.	
I1830		d) 160 mm off 250 mm diam.	No.	
I1840		e) 250 mm off 300 mm diam.	No.	
I1850		f) 300 mm off 350 mm diam.	No.	
		REDUCERS		
I1860		a) 160 mm to 110 mm diam.	No.	
I1870		b) 200 mm to 160 mm diam.	No.	
I1880		c) 250 mm to 200 mm diam.	No.	
I1890		d) 300 mm to 250 mm diam.	No.	
I1900		e) 250 mm off 300 mm diam.	No.	
I1910		f) 300 mm off 350 mm diam.	No.	
	PSL 8.2.7	2) HDPE Electrofusion fittings for HDPE pipes		
		BENDS		
		11.25 deg		
I1920		a) 110 mm diam.	No.	
I1930		b) 160 mm diam.	No.	
I1940		c) 200 mm diam.	No.	
I1950		d) 250 mm diam.	No.	
I1960		e) 315 mm diam.	No.	
I1970		f) 355 mm diam.	No.	
		22.5 deg		
I1980		a) 110 mm diam.	No.	
I1990		b) 160 mm diam.	No.	
I2000		c) 200 mm diam.	No.	

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
I2010		d) 250 mm diam.	No.	
I2020		e) 315 mm diam.	No.	
I2030		f) 355 mm diam.	No.	
I2040		45 deg		
I2050		a) 110 mm diam.	No.	
I2060		b) 160 mm diam.	No.	
I2070		c) 200 mm diam.	No.	
I2080		d) 250 mm diam.	No.	
I2090		e) 315 mm diam.	No.	
		f) 355 mm diam.	No.	
		90 deg		
I2100		a) 110 mm diam.	No.	
I2110		b) 160 mm diam.	No.	
I2120		c) 200 mm diam.	No.	
I2130		d) 250 mm diam.	No.	
I2140		e) 315 mm diam.	No.	
		f) 355 mm diam.	No.	
		EQUAL TEES		
I2150		a) 110 mm diam.	No.	
I2160		b) 160 mm diam.	No.	
I2170		c) 200 mm diam.	No.	
I2180		d) 250 mm diam.	No.	
I2190		e) 315 mm diam.	No.	
I2200		f) 355 mm diam.	No.	
		REDUCING TEES with electrofusion couplings and stainless steel grade 316 backing flanges (Schedule 10) including stainless steel grade 316 nuts and bolts		
I2210		a) 110 mm off 160 mm diam.	No.	
I2220		b) 110 mm off 200 mm diam.	No.	
I2230		c) 160 mm off 200 mm diam.	No.	
I2240		d) 160 mm off 250 mm diam.	No.	
I2250		e) 250 mm off 315 mm diam.	No.	
I2260		f) 315 mm off 355 mm diam.	No.	
		REDUCERS		
I2270		a) 160 mm to 110 mm diam.	No.	
I2280		b) 200 mm to 160 mm diam.	No.	
I2290		c) 250 mm to 200 mm diam.	No.	
I2300		e) 315 mm to 250 mm diam.	No.	
		REDUCERS double flanged stainless steel grade 316 (Schedule 10) drilled table D BS10 including stainless steel grade 316 nuts and bolts		
I2310		a) 100 mm to 75 mm diam.	No.	
I2320		b) 150 mm to 75 mm diam.	No.	
I2330		c) 150 mm to 100 mm diam.	No.	
I2340		d) 200 mm to 100 mm diam.	No.	
I2350		e) 200 mm to 150 mm diam.	No.	
I2360		f) 250 mm to 150 mm diam.	No.	
I2370		g) 250 mm to 200 mm diam.	No.	
I2380		h) 300 mm to 200 mm diam.	No.	
I2390		i) 350 mm to 300 mm diam.	No.	
		REDUCING TEES all flanged stainless steel grade 316 (Schedule 10) drilled table D BS10 including stainless steel grade 316 nuts and bolts		
I2400		a) 75 mm off 100 mm diam.	No.	
I2410		b) 100 mm off 100 mm diam.	No.	
I2420		c) 75 mm off 150 mm diam.	No.	

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
I2430		d) 100 mm off 150 mm diam.	No.	
I2440		e) 150 mm off 150 mm diam.	No.	
I2450		f) 75 mm off 200 mm diam.	No.	
I2460		g) 100 mm off 200 mm diam.	No.	
I2470		h) 150 mm off 200 mm diam.	No.	
I2480		i) 200 mm off 200 mm diam.	No.	
I2490		j) 75 mm off 250 mm diam.	No.	
I2500		k) 100 mm off 250 mm diam.	No.	
I2510		l) 150 mm off 250 mm diam.	No.	
I2520		m) 200 mm off 250 mm diam.	No.	
I2530		n) 250 mm off 250 mm diam.	No.	
I2540		o) 150 mm off 300 mm diam.	No.	
		ANCILLARIES		
I2550	8.2.11	Demolish and remove existing thrust blocks	No.	
		New Anchor/Thrust blocks and pedestals		
I2560		Concrete mix 25/19 (excluding cement)	m ³	
I2570		Supply of Cement only for 25/19 concrete mix	m ³	
I2580		Marker posts	No.	
I2590		Kerb Markers	No.	
		Cut kerb face and paint to mark hydrants, valves and house connections		
I2600		a) Hydrants	No.	
I2610		b) Valves	No.	
I2620		c) House connections	No.	
		VALVES		
	PSL 8.2.8	Demolish existing valve chamber, reconstruct and supply and install new flanged resilient seal gate valve. The installation to include welded HDPE stubs with stainless steel grade 316 flange backing rings on existing HDPE pipe		
		SUPPLY GATE VALVE		
	8.2.8 a)	Supply and deliver to site flanged resilient seal gate valve as seen in standard detail SW1		
I2630		a) 100 mm diameter	No.	
I2640		b) 150 mm diameter	No.	
I2650		c) 200 mm diameter	No.	
I2660		d) 250 mm diameter	No.	
I2670		e) 315 mm diameter	No.	
I2680		f) 355 mm diameter	No.	
		INSTALL GATE VALVE		
	8.2.8 b)	Demolish existing valve chamber, supply remaining materials, reconstruct and install gate valve, complete as per standard detail SW1		
I2690		a) 100 mm diameter	No.	
I2700		b) 150 mm diameter	No.	
I2710		c) 200 mm diameter	No.	
I2720		d) 250 mm diameter	No.	
I2730		e) 315 mm diameter	No.	
I2740		f) 355 mm diameter	No.	
I2750	PSL 8.2.14	Replace cover & frame of reconstructed valve chamber with new ductile iron cover as seen in standard detail SW1	No.	
		AIR VALVES		
		Replace existing air valve, as seen in standard details SW4		
		SUPPLY AIR VALVE		
I2760		Supply RBX Vent-O-Mat air valve or similar approved complete with T-pieces and couplings where necessary, Class 16 Flanged HDPE stub with stainless steel backing ring.	No.	

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
I2770		a) 25 mm diameter	No.	
I2780		b) 50 mm diameter	No.	
I2790		c) 80 mm diameter	No.	
I2800		d) 100 mm diameter	No.	
I2810		e) 150 mm diameter	No.	
I2820		f) 200 mm diameter	No.	
		INSTALL AIR VALVE		
		Demolish existing air valve chamber, supply remaining materials, reconstruct and install air valve (complete as per standard details SW4) positioned vertically above watermain of		
I2830		a) 110 mm diameter	No.	
I2840		b) 160 mm diameter	No.	
I2850		c) 200 mm diameter	No.	
I2860		d) 250 mm diameter	No.	
I2870		e) 315 mm diameter	No.	
I2880		f) 355 mm diameter	No.	
		Replace cover and frame of reconstructed air valve with new lockable ductile iron class B125 cover and frame (as seen in standard details SW4)		
I2890		a) Akseess 5000 Saint Gobain (SANS 50124) (or similar approved)	No.	
		FIRE HYDRANTS		
	PSL 8.2.9	Replace existing fire hydrant valve, tee and fittings, as seen in standard details SW2		
		SUPPLY HYDRANT GATE VALVE		
I2900	8.2.9 a)	Supply and deliver to site 70 mm diameter flanged resilient seal hydrant gate valve, as seen in standard details SW2	No.	
		INSTALL HYDRANT GATE VALVE		
	8.2.9 b)	Demolish existing hydrant chamber, supply remaining materials, reconstruct and install hydrant gate valve (complete as per standard details SW2) positioned vertically above watermain of		
I2910		a) 110 mm diameter	No.	
I2920		b) 160 mm diameter	No.	
I2930		c) 200 mm diameter	No.	
I2940		d) 250 mm diameter	No.	
I2950		e) 315 mm diameter	No.	
I2960		f) 355 mm diameter	No.	
	8.2.9 b)	Demolish existing hydrant chamber, supply remaining materials, reconstruct and install hydrant gate valve (complete as per standard details SW2) positioned horizontally offset from watermain of		
I2970		a) 110 mm diameter	No.	
I2980		b) 160 mm diameter	No.	
I2990		c) 200 mm diameter	No.	
I3000		d) 250 mm diameter	No.	
I3010		e) 315 mm diameter	No.	
I3020		f) 355 mm diameter	No.	
		Replace cover and frame of reconstructed fire hydrant with new ductile iron cover and frame (as seen in standard details SW2)		
I3030		a) Hydrex Sliding Cover Hydrant Box Ductile Iron Calss C250 (250kN) (SANS 50124)	No.	

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	SANS 1200 LF	HOUSE CONNECTIONS		
	PSL 8.2.10	REPLACE HOUSE CONNECTIONS PIPEWORK		
	PSL 8.2.10 a)	SUPPLY PIPES		
		Supply and delivery of Class 16 Polycop piping to SANS ISO 15874		
I3040		a) 15 mm diameter	m	
I3050		b) 20 mm diameter	m	
I3060		c) 25 mm diameter	m	
I3070		d) 40 mm diameter	m	
		Supply of PEX-Aluminium-PEX multi-layer pipes Class 16		
I3080		a) 15 mm diameter	m	
I3090		b) 20 mm diameter	m	
I3100		c) 25 mm diameter	m	
I3110		d) 40 mm diameter	m	
		Supply of HDPE PE 100 PN 16 Pressure Pipes to SABS ISO 4427		
I3120		a) 15 mm diameter	m	
I3130		b) 20 mm diameter	m	
I3140		c) 25 mm diameter	m	
I3150		d) 40 mm diameter	m	
	8.2.10 b)	SUPPLY CONNECITON FITTINGS		
		SUPPLY BALL VALVES		
		Supply and deliver to site approved DZR ball valves		
		1) Copper to Copper		
I3160		i) 15 mm diameter	No.	
I3170		ii) 22 mm diameter	No.	
I3180		iv) 28 mm diameter	No.	
		2) Female to Female		
I3190		i) 15 mm diameter	No.	
I3200		ii) 22 mm diameter	No.	
I3210		ii) 25 mm diameter	No.	
		SUPPLY SADDLES		
		Supply of JASWIC approved HEAVY DUTY (MAGNUM) CLASS 16 POLYPROPYLENE saddles with DZR threaded outlet and secured stainless steel bolts and nuts saddles:		
I3220		a) 110 mm diameter	No.	
I3230		b) 160 mm diameter	No.	
I3240		c) 200 mm diameter	No.	
I3250		d) 250 mm diameter	No.	
I3260		e) 315 mm diameter	No.	
I3270		f) 350 mm diameter	No.	
	PSL 8.2.10 c)	INSTALL PIPES AND FITTINGS		
	PSL 8.2.10 c)	Excavate, lay, bed, joint erf connection pipes of following material and diameter, as per standard details SW9 and SW10 (supply of materials measured separately)		
		Installation of Class 16 Polycop piping to SANS ISO 15874		
I3280		a) 15 mm diameter connection onto 110 mm diameter watermain	m	
I3290		b) 20 mm diameter connection onto 110 mm diameter watermain	m	
I3300		c) 25 mm diameter connection onto 110 mm diameter watermain	m	
I3310		d) 40 mm diameter connection onto 110 mm diameter watermain	m	
I3320		e) 15 mm diameter connection onto 160 mm diameter watermain	m	

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
I3330		f) 20 mm diameter connection onto 160 mm diameter watermain	m	
I3340		g) 25 mm diameter connection onto 160 mm diameter watermain	m	
I3350		h) 40 mm diameter connection onto 160 mm diameter watermain	m	
I3360		i) 15 mm diameter connection onto 200 mm diameter watermain	m	
I3370		j) 20 mm diameter connection onto 200 mm diameter watermain	m	
I3380		k) 25 mm diameter connection onto 200 mm diameter watermain	m	
I3390		l) 40 mm diameter connection onto 200 mm diameter watermain	m	
I3400		m) 15 mm diameter connection onto 250 mm diameter watermain	m	
I3410		n) 20 mm diameter connection onto 250 mm diameter watermain	m	
I3420		o) 25 mm diameter connection onto 250 mm diameter watermain	m	
I3430		p) 40 mm diameter connection onto 250 mm diameter watermain	m	
I3440		q) 15 mm diameter connection onto 315 mm diameter watermain	m	
I3450		r) 20 mm diameter connection onto 315 mm diameter watermain	m	
I3460		s) 25 mm diameter connection onto 315 mm diameter watermain	m	
I3470		t) 40 mm diameter connection onto 315 mm diameter watermain	m	
I3480		u) 15 mm diameter connection onto 355 mm diameter watermain	m	
I3490		v) 20 mm diameter connection onto 355 mm diameter watermain	m	
I3500		w) 25 mm diameter connection onto 355 mm diameter watermain	m	
I3510		x) 40 mm diameter connection onto 355 mm diameter watermain	m	
		Installation of PEX-Aluminium-PEX multi-layer pipes Class 16		
I3520		a) 15 mm diameter connection onto 110 mm diameter watermain	m	
I3530		b) 20 mm diameter connection onto 110 mm diameter watermain	m	
I3540		c) 25 mm diameter connection onto 110 mm diameter watermain	m	
I3550		d) 40 mm diameter connection onto 110 mm diameter watermain	m	
I3560		e) 15 mm diameter connection onto 160 mm diameter watermain	m	
I3570		f) 20 mm diameter connection onto 160 mm diameter watermain	m	
I3580		g) 25 mm diameter connection onto 160 mm diameter watermain	m	
I3590		h) 40 mm diameter connection onto 160 mm diameter watermain	m	

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
I3600		i) 15 mm diameter connection onto 200 mm diameter watermain	m	
I3610		j) 20 mm diameter connection onto 200 mm diameter watermain	m	
I3620		k) 25 mm diameter connection onto 200 mm diameter watermain	m	
I3630		l) 40 mm diameter connection onto 200 mm diameter watermain	m	
I3640		m) 15 mm diameter connection onto 250 mm diameter watermain	m	
I3650		n) 20 mm diameter connection onto 250 mm diameter watermain	m	
I3660		o) 25 mm diameter connection onto 250 mm diameter watermain	m	
I3670		p) 40 mm diameter connection onto 250 mm diameter watermain	m	
I3680		q) 15 mm diameter connection onto 315 mm diameter watermain	m	
I3690		r) 20 mm diameter connection onto 315 mm diameter watermain	m	
I3700		s) 25 mm diameter connection onto 315 mm diameter watermain	m	
I3710		t) 40 mm diameter connection onto 315 mm diameter watermain	m	
I3720		u) 15 mm diameter connection onto 355 mm diameter watermain	m	
I3730		v) 20 mm diameter connection onto 355 mm diameter watermain	m	
I3740		w) 25 mm diameter connection onto 355 mm diameter watermain	m	
I3750		x) 40 mm diameter connection onto 355 mm diameter watermain	m	
		Installation of HDPE PE 100 PN 16 Pressure Pipes to SABS ISO 4427		
I3760		a) 15 mm diameter connection onto 110 mm diameter watermain	m	
I3770		b) 20 mm diameter connection onto 110 mm diameter watermain	m	
I3780		c) 25 mm diameter connection onto 110 mm diameter watermain	m	
I3790		d) 40 mm diameter connection onto 110 mm diameter watermain	m	
I3800		e) 15 mm diameter connection onto 160 mm diameter watermain	m	
I3810		f) 20 mm diameter connection onto 160 mm diameter watermain	m	
I3820		g) 25 mm diameter connection onto 160 mm diameter watermain	m	
I3830		h) 40 mm diameter connection onto 160 mm diameter watermain	m	
I3840		i) 15 mm diameter connection onto 200 mm diameter watermain	m	
I3850		j) 20 mm diameter connection onto 200 mm diameter watermain	m	
I3860		k) 25 mm diameter connection onto 200 mm diameter watermain	m	

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
I3870		l) 40 mm diameter connection onto 200 mm diameter watermain	m	
I3880		m) 15 mm diameter connection onto 250 mm diameter watermain	m	
I3890		n) 20 mm diameter connection onto 250 mm diameter watermain	m	
I3900		o) 25 mm diameter connection onto 250 mm diameter watermain	m	
I3910		p) 40 mm diameter connection onto 250 mm diameter watermain	m	
I3920		q) 15 mm diameter connection onto 315 mm diameter watermain	m	
I3930		r) 20 mm diameter connection onto 315 mm diameter watermain	m	
I3940		s) 25 mm diameter connection onto 315 mm diameter watermain	m	
I3950		t) 40 mm diameter connection onto 315 mm diameter watermain	m	
I3960		u) 15 mm diameter connection onto 355 mm diameter watermain	m	
I3970		v) 20 mm diameter connection onto 355 mm diameter watermain	m	
I3980		w) 25 mm diameter connection onto 355 mm diameter watermain	m	
I3990		x) 40 mm diameter connection onto 355 mm diameter watermain	m	
		IMPACT MOLING Extra-Over items I3520 to I3990 for ERF CONNECTIONS to replace existing leading on sidewalks and/or under road by means of IMPACT MOLING via pneumatically driven machine with PEX-AL-PEX or HDPE PE100 PN16, include associated compression fittings, SABS ISO 4427 approved. Rate to be inclusive of establishment, installation, commissioning and de-establishment of plant (pipes measured separately)		
I4000		a) PEX-Aluminium-PEX		
I4010		a) 15 mm diameter	m	
I4020		b) 20 mm diameter	m	
I4030		c) 25 mm diameter	m	
		d) 40 mm diameter	m	
I4040		b) HDPE PE100 PN16		
I4050		a) 15 mm diameter	m	
I4060		b) 20 mm diameter	m	
I4070		c) 25 mm diameter	m	
		d) 40 mm diameter	m	
		REPLACE WATER METERS Replace existing water meter with the same size water meter approved by Employer.		
		SUPPLY WATER METER Supply and deliver to site approved water meter of		
I4080	PSL 8.2.15 a)	a) 15 mm diameter	No.	
I4090		b) 20 mm diameter	No.	
I4100		c) 25 mm diameter	No.	
I4110		d) 40 mm diameter	No.	
		INSTALL WATER METER Remove existing water meter, supply remaining materials and install new water meter		
	PSL 8.2.15 b)			

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
I4120	PSL 8.2.11	a) 15 mm diameter	No.	
I4130		b) 20 mm diameter	No.	
I4140		c) 25 mm diameter	No.	
I4150		d) 40 mm diameter	No.	
		TEMPORARY WATER BYPASS TO SUPPLY WATER TO AFFECTED PROPERTIES		
		Supply, install, maintain and dismantle water bypass pipeline		
I4160	PSL 8.2.12	a) 32/40 mm diameter HDPE PN 12.5 PE 100	m	
I4170		b) 50/63 mm diameter HDPE PN 12.5 PE 100	m	
I4180		c) 90/110 mm diameter HDPE PN 12.5 PE 100	m	
		WATERMAIN TIE-INS		
		1) Tie-in new PVC watermain into existing FC watermain with AC/PVC Adaptors (Class 12)		
I4190	PSL 8.2.12	a) 110 mm diameter Range 95-104 Branch 25 mm diameter	No.	
I4200		b) 250 mm diameter PVC to 259 mm diameter FC	No.	
I4210		c) 315 mm diameter PVC to 328 mm diameter FC	No.	
		2) Tie-in new HDPE pipe to existing water pipe Including stainless steel backing ring and HDPE stub (SDR 11) with flange ranger (stainless steel T-bolts, washers and nuts)		
I4220	PSL 8.2.12	a) 110 mm diam. HDPE to 100 mm watermain	No.	
I4230		b) 160 mm diam. HDPE to 150 mm watermain	No.	
I4240		c) 200 mm diam. HDPE to 200 mm watermain	No.	
I4250		d) 250 mm diam. HDPE to 250 mm watermain	No.	
I4260		e) 315 mm diam. HDPE to 300 mm watermain	No.	
I4270		f) 355 mm diam. HDPE to 350 mm watermain	No.	
		REPAIR COUPLINGS AND FITTINGS		
		END CAPS		
		1) uPVC (Class 12)		
I4280	PSL 8.2.12	a) 75 mm diameter	No.	
I4290		b) 90 mm diameter	No.	
I4300		c) 110 mm diameter	No.	
I4310		d) 160 mm diameter	No.	
I4320		e) 200 mm diameter	No.	
I4330		f) 250 mm diameter	No.	
I4340		g) 300 mm diameter	No.	
I4350		h) 350 mm diameter	No.	
		2) Ductile iron		
I4360	PSL 8.2.12	a) 75 mm diameter	No.	
I4370		b) 90 mm diameter	No.	
I4380		c) 110 mm diameter	No.	
I4390		d) 160 mm diameter	No.	
I4400		e) 200 mm diameter	No.	
I4410		f) 250 mm diameter	No.	
I4420		g) 300 mm diameter	No.	
I4430		h) 350 mm diameter	No.	
		FLANGE ADAPTORS (1 socket, 1 flanged end)		
		1) Ductile iron flange adaptors for uPVC pipes		
I4440	PSL 8.2.12	a) 75 x 75 mm diameter	No.	
I4450		b) 90 x 90 mm diameter	No.	
I4460		c) 110 x 110 mm diameter	No.	
I4470		d) 160 x 110 mm diameter	No.	
I4480		e) 200 x 110 mm diameter	No.	
I4490		f) 200 x 160 mm diameter	No.	
		VIKING JOHNSON COUPLINGS		
I4500		a) 80 mm diameter	No.	

SECTION I: WATER				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
I4510		b) 110 mm diameter	No.	
I4520		c) 160 mm diameter	No.	
I4530		d) 200 mm diameter	No.	
I4540		e) 250 mm diameter	No.	
I4550		f) 300 mm diameter	No.	
I4560		g) 350 mm diameter	No.	
		RANGER COUPLINGS		
I4570		a) 80 mm diameter	No.	
I4580		b) 110 mm diameter	No.	
I4590		c) 160 mm diameter	No.	
I4600		d) 200 mm diameter	No.	
I4610		e) 250 mm diameter	No.	
I4620		f) 300 mm diameter	No.	
I4630		g) 350 mm diameter	No.	

SECTION KW: PIPE BURSTING (WATER)				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	SASTT-TS-TT2	PIPE BURSTING (FOR WATER INFRASTRUCTURE)		
		SUPPLY PIPES FOR PIPE BURSTING		
	PS-TT2-7.1	a) Supply and delivery pipes to site of		
		1) PN 12.5 PE 100 HDPE pipes of diameter		
KW10		a) 110 mm	m	
KW20		b) 160 mm	m	
KW30		c) 200 mm	m	
KW40		d) 225 mm	m	
KW50		e) 250 mm	m	
KW60		f) 280 mm	m	
KW70		g) 315 mm	m	
KW80		h) 355 mm	m	
KW90		i) 400 mm	m	
KW100		j) 450 mm	m	
KW110		k) 560 mm	m	
KW120		l) 630 mm	m	
		2) PN 16 PE 100 HDPE pipes of diameter		
KW130		a) 110 mm	m	
KW140		b) 160 mm	m	
KW150		c) 200 mm	m	
KW160		d) 225 mm	m	
KW170		e) 250 mm	m	
KW180		f) 280 mm	m	
KW190		g) 315 mm	m	
KW200		h) 355 mm	m	
KW210		i) 400 mm	m	
KW220		j) 450 mm	m	
KW230		k) 560 mm	m	
KW240		l) 630 mm	m	
		INSTALL BY PIPE BURSTING		
	PS-TT2-7.1	b) Install by pipe bursting (Butt welding included)		
		i) SIZE FOR SIZE REPLACEMENT		
		1) PN 12.5 PE 100 HDPE pipes to replace existing watermain (including butt welding) with diameter		
KW250		a) 110 mm	m	
KW260		b) 160 mm	m	
KW270		c) 200 mm	m	
KW280		d) 225 mm	m	
KW290		e) 250 mm	m	
KW300		f) 280 mm	m	
KW310		g) 315 mm	m	
KW320		h) 355 mm	m	
KW330		i) 400 mm	m	
KW340		j) 450 mm	m	
KW350		k) 560 mm	m	
KW360		l) 630 mm	m	
		2) PN 16 PE 100 HDPE pipes to replace existing watermain (including butt welding) with diameter		
KW370		a) 110 mm	m	
KW380		b) 160 mm	m	
KW390		c) 200 mm	m	
KW400		d) 225 mm	m	

SECTION KW: PIPE BURSTING (WATER)				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
KW410		e) 250 mm	m	
KW420		f) 280 mm	m	
KW430		g) 315 mm	m	
KW440		h) 355 mm	m	
KW450		i) 400 mm	m	
KW460		j) 450 mm	m	
KW470		k) 560 mm	m	
KW480		l) 630 mm	m	
		ii) UPSIZING		
		1) PN 12.5 PE 100 HDPE pipes to replace existing watermain (including butt welding)		
KW490		a) 50 mm existing to 110 mm diameter	m	
KW500		b) 75 mm existing to 110 mm diameter	m	
KW510		c) 75 mm existing to 160 mm diameter	m	
KW520		d) 100 mm existing to 160 mm diameter	m	
KW530		e) 100 mm existing to 200 mm diameter	m	
KW540		f) 150 mm existing to 200 mm diameter	m	
KW550		g) 150 mm existing to 225 mm diameter	m	
KW560		h) 150 mm existing to 250 mm diameter	m	
KW570		i) 150 mm existing to 315 mm diameter	m	
KW580		j) 200 mm existing to 250 mm diameter	m	
KW590		k) 200 mm existing to 225 mm diameter	m	
KW600		l) 200 mm existing to 280 mm diameter	m	
KW610		m) 200 mm existing to 315 mm diameter	m	
KW620		n) 250 mm existing to 315 mm diameter	m	
KW630		o) 300 mm existing to 355 mm diameter	m	
KW640		p) 300 mm existing to 400 mm diameter	m	
		2) PN 16 PE 100 HDPE pipes to replace existing watermain (including butt welding)		
KW650		a) 50 mm existing to 110 mm diameter	m	
KW660		b) 75 mm existing to 110 mm diameter	m	
KW670		c) 75 mm existing to 160 mm diameter	m	
KW680		d) 100 mm existing to 160 mm diameter	m	
KW690		e) 100 mm existing to 200 mm diameter	m	
KW700		f) 150 mm existing to 200 mm diameter	m	
KW710		g) 150 mm existing to 225 mm diameter	m	
KW720		h) 150 mm existing to 250 mm diameter	m	
KW730		i) 150 mm existing to 315 mm diameter	m	
KW740		j) 200 mm existing to 250 mm diameter	m	
KW750		k) 200 mm existing to 225 mm diameter	m	
KW760		l) 200 mm existing to 280 mm diameter	m	
KW770		m) 200 mm existing to 315 mm diameter	m	
KW780		n) 250 mm existing to 315 mm diameter	m	
KW790		o) 300 mm existing to 355 mm diameter	m	
KW800		p) 300 mm existing to 400 mm diameter	m	

SECTION J: HORIZONTAL DIRECTIONAL DRILLING				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	SASTT-TS-TT3	HORIZONTAL DIRECTIONAL DRILLING		
	PS-TT3 1.2.1	HDD establishment on site		
J10		(a) in Stellenbosch	Sum	
J20		(b) in Franschhoek	Sum	
J30		(c) in Pniel, Klapmuts and any other areas excluding Stellenbosch and Franschhoek.	Sum	
J40	PS-TT3 1.2.2	HDD installation setup	No	
J50	PS-TT3 1.2.4	Excavation of drilling pits	m³	
	PS-TT3 1.2.5	HDD installation of pipes		
	PS-TT3-7.1	a) Drilling of pilot bore in sand, clay or shale, for pipe diameter		
J60		a) 110 mm	m	
J70		b) 160 mm	m	
J80		c) 200 mm	m	
J90		d) 250 mm	m	
J100		e) 315 mm	m	
J110		f) 355 mm	m	
J120		g) 400 mm	m	
J130		h) 450 mm	m	
J140		i) 500 mm	m	
	PS-TT3-7.1	b) Supply and delivery to site of HDPE PN 6 PE 100 pipe sleeve		
J150		a) 110 mm	m	
J160		b) 160 mm	m	
J170		c) 200 mm	m	
J180		d) 250 mm	m	
J190		e) 315 mm	m	
J200		f) 355 mm	m	
J210		g) 400 mm	m	
J220		h) 450 mm	m	
J230		i) 500 mm	m	
	PS-TT3-7.1	c) HDD installation of HDPE PN 6 PE 100 pipe sleeve in sand, clay or shale, Butt welding included		
J240		a) 110 mm	m	
J250		b) 160 mm	m	
J260		c) 200 mm	m	
J270		d) 250 mm	m	
J280		e) 315 mm	m	
J290		f) 355 mm	m	
J300		g) 400 mm	m	
J310		h) 450 mm	m	
J320		i) 500 mm	m	
		DRAWING OF PIPES INTO SLEEVES		
		1) HDPE PN 12.5 PE 100		
	PS-TT3-7.2	a) Supply and deliver to site HDPE PN 12.5 PE 100 pipe		
J330		a) 110 mm	m	
J340		b) 160 mm	m	
J350		c) 200 mm	m	
J360		d) 250 mm	m	
J370		e) 315 mm	m	
J380		f) 355 mm	m	
J390		g) 400 mm	m	

SECTION J: HORIZONTAL DIRECTIONAL DRILLING				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
J400	PS-TT3-7.2	b) Butt weld and install HDPE PN 12.5 PE 100 pipe in pipe sleeve (Including butt welding)		
J410		a) 110 mm	m	
J420		b) 160 mm	m	
J430		c) 200 mm	m	
J440		d) 250 mm	m	
J450		e) 315 mm	m	
J460		f) 355 mm	m	
		g) 400 mm	m	
		2) HDPE PN 16 PE 100		
J470	PS-TT3-7.2	a) Supply and deliver to site HDPE PN 16 PE 100 pipe		
J480		a) 110 mm	m	
J490		b) 160 mm	m	
J500		c) 200 mm	m	
J510		d) 250 mm	m	
J520		e) 315 mm	m	
J530		f) 355 mm	m	
		g) 400 mm	m	
J540	PS-TT3-7.2	b) Butt weld and install HDPE PN 16 PE 100 pipe in pipe sleeve (Including butt welding)		
J550		a) 110 mm	m	
J560		b) 160 mm	m	
J570		c) 200 mm	m	
J580		d) 250 mm	m	
J590		e) 315 mm	m	
J600		f) 355 mm	m	
		g) 400 mm	m	
		DRILLING MUD / BENTONITE REMOVAL		
J610		Bentonite spoiled off site at an accredited dumping facility		
J620		1 x Super Sucker Vacuum truck unit	day	
J630		2 x Super Scuker Vacuum truck units	day	
J640		Disposal cost for dumping the drilling mud, including bentonite at an accredited landfill site	Ton	
		Testing of bentonite sample	Sum	
J650		Bentonite spoiled on site if allowed to stockpile and dry before removal		
J660		20 ton Excavator	day	
J670		Holding pond	m ³	
		Removal and Disposal at a location provided by the contractor (include all associated costs for removal)	m ³	

SECTION L: CURED-IN-PLACE-PIPE LINING				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
	PS-TB-10.1	CURED-IN-PLACE-PIPE (CIPP) LINING		
		SUPPLY AND INSTALL CIPP LINERS		
		1) UN-REINFORCED LINERS		
L10		a) 100 mm diameter x 3.0 mm thick	m	
L20		b) 150 mm diameter x 5.0 mm thick	m	
L30		c) 225 mm diameter x 5.0 mm thick	m	
L40		d) 300 mm diameter x 5.0 mm thick	m	
L50		e) 375 mm diameter x 5.0 mm thick	m	
L60		f) 450 mm diameter x 7.5 mm thick	m	
L70		g) 525 mm diameter x 7.5 mm thick	m	
L80		h) 600 mm diameter x 9.0 mm thick	m	
L90		i) 675 mm diameter x 9.0 mm thick	m	
L100		j) 750 mm diameter x 10.5 mm thick	m	
L110		k) 825 mm diameter x 12.0 mm thick	m	
L120		l) 900 mm diameter x 12.0 mm thick	m	
L130		m) 975 mm diameter x 13.5 mm thick	m	
L140		n) 1050 mm diameter x 15.0 mm thick	m	
L150		o) 1125 mm diameter x 15.0 mm thick	m	
L160		p) 1200 mm diameter x 15.0 mm thick	m	
L170		q) 450 mm diameter x 6.0 mm thick	m	
L180		r) 525 mm diameter x 6.0 mm thick	m	
L190		s) 600 mm diameter x 7.5 mm thick	m	
L200		t) 675 mm diameter x 7.5 mm thick	m	
L210		u) 750 mm diameter x 9.0 mm thick	m	
L220		v) 825 mm diameter x 10.5 mm thick	m	
L230		w) 900 mm diameter x 10.5 mm thick	m	
L240		x) 975 mm diameter x 12.0 mm thick	m	
L250		y) 1050 mm diameter x 12.0 mm thick	m	
L260		z) 1125 mm diameter x 12.0 mm thick	m	
		2) REINFORCED LINERS		
L270		a) 100 mm diameter x 3.0 mm thick	m	
L280		b) 150 mm diameter x 5.0 mm thick	m	
L290		c) 225 mm diameter x 5.0 mm thick	m	
L300		d) 300 mm diameter x 5.0 mm thick	m	
L310		e) 375 mm diameter x 5.0 mm thick	m	
L320		f) 450 mm diameter x 7.5 mm thick	m	
L330		g) 525 mm diameter x 7.5 mm thick	m	
L340		h) 600 mm diameter x 9.0 mm thick	m	
L350		i) 675 mm diameter x 9.0 mm thick	m	
L360		j) 750 mm diameter x 10.5 mm thick	m	
L370		k) 825 mm diameter x 12.0 mm thick	m	
L380		l) 900 mm diameter x 12.0 mm thick	m	
L390		m) 975 mm diameter x 13.5 mm thick	m	
L400		n) 1050 mm diameter x 15.0 mm thick	m	
L410		o) 1125 mm diameter x 15.0 mm thick	m	
L420		p) 1200 mm diameter x 15.0 mm thick	m	
L430		q) 450 mm diameter x 6.0 mm thick	m	
L440		r) 525 mm diameter x 6.0 mm thick	m	
L450		s) 600 mm diameter x 7.5 mm thick	m	
L460		t) 675 mm diameter x 7.5 mm thick	m	
L470		u) 750 mm diameter x 9.0 mm thick	m	
L480		v) 825 mm diameter x 10.5 mm thick	m	

SECTION L: CURED-IN-PLACE-PIPE LINING				
ITEM NO.	PAYMENT	DESCRIPTION	UNIT	RATE
L490		w) 900 mm diameter x 10.5 mm thick	m	
L500		x) 975 mm diameter x 12.0 mm thick	m	
L510		y) 1050 mm diameter x 12.0 mm thick	m	
L520		z) 1125 mm diameter x 12.0 mm thick	m	
L530	PS-TB 10.4	Extra-over items L10 to L520 for fluctuation in exchange rate	Prov Sum	R 100 000.00
L540	PS-TB-10.5	Extra-over items L10 to L520 for installation of CIPP liners in mid-blocks	m	
		CIPP ESTABLISHMENT ON SITE		
L550		(a) in Stellenbosch	Sum	
L560		(b) in Franschhoek	Sum	
L570		(c) in Pniel, Klapmuts and any other areas excluding Stellenbosch and Franschhoek.	Sum	
L580		Daily Rate for CIPP equipment and accommodation of traffic	Day	
		ROBOT CUTTING		
	PS-TB-10.2	ROBOTIC CUTTING FOR SERVICE RECONNECTIONS		
L590		a) Robotic cutting for reconnections (all sizes)	No	
	PS-TB-10.6	ROBOTIC CUTTING OF PROTRUDING LATERALS		
L600		a) less than or equal to 200 mm diameter	No	
L610		b) larger than 200 mm diameter	No.	
	PS-TB-10.3	REHABILITATION OF EXISTING MANHOLES		
L620		a) 20mm calcium aluminate mortar to internal faces	m ²	
L630		b) Installation of step irons	No	

MEETING RECORD

CONTRACT: CONTRACT NO. B/SM 53/24

PROJECT: TERM TENDER FOR PIPE REPLACEMENT USING CONVENTIONAL AND TRENCHLESS METHODS

COMPULSORY CLARIFICATION MEETING

CLIENT	Stellenbosch Municipality (SM)	DATE	12 February 2024
CONSULTANT	Engineering Advice & Services Western Cape (EAS WC)	TIME START	10H00
FILE LOCATION	L:\WC\Jobs\2200-2299\2220\08 Procurement\03 Clarification Meeting\2024-02-12 - Meeting Minutes - Clarification Meeting	TIME FINISH	10H45
LOCATION		LOCATION	STELLENBOSCH PUBLIC LIBRARY Library Hall, 1 st Floor, 14 Plein Street, Stellenbosch
PROJECT TEAM:		CONTACT DETAILS:	
Leandro Hedricks (LH)	Stellenbosch Municipality	leandro.hendricks@stellenbosch.gov.za	084 645 2506 / 8725
George Du Plessis (GDP)	EAS WC	george@easwc.co.za	082 562 2296
Dale Middleton (DM)	EAS WC	dalem@easwc.co.za	072 244 2932
Wade Basson (WB)	EAS WC	wadeb@easwc.co.za	082 731 9479
SIGNATURE ORIGINATOR:			
Dale Middleton		DATE SIGNED:	14/02/2024
SIGNATURE CLIENT:			
Leandro Hendricks		DATE SIGNED:	

RECORD OF DISCUSSIONS

ITEM	ITEM DETAILS															
1.	INTRODUCTION															
1.1	DM welcomed all present, to the Compulsory Tender Clarification Meeting for the B/SM 53/24 Term Tender for Pipe Replacement Using Conventional and Trenchless Methods.															
1.2	DM noted the purpose of the meeting was to highlight items of relevance but that it is the responsibility of the bidder to familiarise themselves with all the conditions contained in the document. Questions welcome until 26 February 2024 @ 12:00.															
2.	ROLES AND RESPONSIBILITIES															
2.1	<p>The following list of relevant Project stakeholders apply:</p> <table><tr><th>Party</th><th>Role</th><th>Name</th></tr><tr><td>SM</td><td>Project Manager</td><td>Leandro Hendricks</td></tr><tr><td>EAS WC</td><td>Project Director/Employer's Agent</td><td>George du Plessis</td></tr><tr><td>EAS WC</td><td>Lead/Contracts Engineer</td><td>Dale Middleton</td></tr><tr><td>EAS WC</td><td>Resident/Design Engineer</td><td>Wade Basson</td></tr></table>	Party	Role	Name	SM	Project Manager	Leandro Hendricks	EAS WC	Project Director/Employer's Agent	George du Plessis	EAS WC	Lead/Contracts Engineer	Dale Middleton	EAS WC	Resident/Design Engineer	Wade Basson
Party	Role	Name														
SM	Project Manager	Leandro Hendricks														
EAS WC	Project Director/Employer's Agent	George du Plessis														
EAS WC	Lead/Contracts Engineer	Dale Middleton														
EAS WC	Resident/Design Engineer	Wade Basson														
3.	BACKGROUND AND SCOPE															
3.1	DM clarified that the Scope of this term tender, as per the document, is for Sewer and Water reticulation Pipe Replacements via Open Cut and Trenchless Rehabilitation Methods within the bounds of Stellenbosch Municipal Area (WC024) – see page 391 of the Contract document.															
3.2	The Contract accepts bid submissions from Contractors with a CIDB designation of 2CE or higher.															
4.	DOCUMENT STRUCTURE															
4.1	<p>The contract volumes consists of 5 volumes, as follows:</p> <ul style="list-style-type: none">• <i>Volume 1: Third Edition GCC (2015) [not included in the tender document]</i>• <i>Volume 2: SANS Standard Specifications [not included in the tender document]</i>• <i>Volume 3: The Tender</i>• <i>Volume 4: Returnable Documents (including Schedule of Rates)</i>• <i>Volume 5: Contract Data, Scope of Works and Site Information</i>															
5.	PROCUREMENT															
5.1	Submission, Date & Format															
5.1.1	<ul style="list-style-type: none">• <u>Closing Date:</u> 4 March 2024 @ 12:00• <u>Location:</u> Tender Box in Main Entrance of Stellenbosch Municipal Offices, Plein Street, Stellenbosch, available for submission 24 hours a day.• <u>Submission Format:</u> 1 Sealed and Bound Hard Copy including a USB Memory Stick containing a Scanned Version of the Document, and Excel-completed Schedule of Rates (BoQ).															
5.2	Questions & Queries															
5.2.1	Questions and queries will be accepted until Monday, 26 February 2024 @ 12:00, 7 calendar days before the closing date and time for submission.															
5.3	Returnable Schedules (see full list on page 43)															

ITEM	ITEM DETAILS
5.3.1	Attention is drawn towards Schedule 11: Confirmation of Registration as an Asbestos Contractor, and Schedule 15: Schedule of Trenchless Equipment and Details (Proof of Plant).
5.4	Alternative Offers
5.4.1	Alternative offers will not be considered.
5.5	Contract Period
5.5.1	The term tender framework Contract Period will end 30 June 2026.
5.6	Penalties
5.6.1	Penalties to the value of R5000/day may be applied for failing to complete the works under each works package.
5.7	Contract Price Adjustment (CPA)
5.7.1	CPA is applicable. The original tendered price will remain in effect for one year from the award date and will thereafter be recalculated on a yearly basis, and remain in effect for the respective year.
5.8	Local Labour
5.8.1	The Contractor is required to make use of local labour from within the area of the works project for 100% of the unskilled labour roles for non-specialised activities.
6.	PANEL(S) STRUCTURE
6.1	DM noted that this is a framework tender to appoint a panel of Contractors for implementing various works projects throughout the contract period.
6.2	The following panel structure applies: <ul style="list-style-type: none"> PANEL 1: Water Reticulation Upgrade via Open Cut and Trenchless Methods PANEL 2: Sewer Reticulation Upgrade via Open Cut and Trenchless Methods PANEL 3: Cured-in-Place-Pipe Replacement (Sewer Only)
6.3	The Employer reserves the right to appoint however many Tenderers to a panel as the Employer deems fit.
7.	PRE-QUALIFICATION CRITERIA
7.1	Panel 1 and 2 for Water and Sewer Reticulation
7.1.1	<ul style="list-style-type: none"> Company Relevant Experience: Minimum of 5 Projects for both Pipe Cracking and Open Cut Excavation Replacements Contracts Manager Experience: Minimum of 3 Projects for both Pipe Cracking and Open Cut Excavation Replacements Site Agent Experience: Minimum of 3 Projects for both Pipe Cracking and Open Cut Excavation Replacements NOTE: A Project must be a Minimum Size of 100-110mm Diameter and 300m Length
7.2	Panel 3 for CIPP
7.2.1	<ul style="list-style-type: none"> Company Relevant Experience: Minimum of 5 Projects for Rehabilitation of Sewer Reticulation Pipes through CIPP Installation Methods Contracts Manager Experience: Minimum of 3 Projects for Rehabilitation of Sewer Reticulation Pipes through CIPP Installation Methods Site Agent Experience: Minimum of 3 Projects for Rehabilitation of Sewer Reticulation

ITEM	ITEM DETAILS
	<p><i>Pipes through CIPP Installation Methods</i></p> <ul style="list-style-type: none"> NOTE: A Project must be a Minimum Size of 100mm Diameter and 50m Length
7.3	Completion of Returnable Schedule 12 and 14
7.3.1	All information pertaining to the Pre-Qualification Criteria must be completed in full under Schedule 12 and 14 for verification purposes.
8.	SCHEDULE OF RATES / PRICING SCHEDULE
8.1	Pricing Instructions
8.1.1	DM requested all present to take note which schedules are to be completed with respect to the panel(s) the Contractors are bidding for, specified on page 209 within the Pricing Instructions.
8.1.2	Bidders may bid for any number of panels, and are required to indicate accordingly on the Form of Offer on page 44 of the document.
8.2	Special Materials
8.2.1	Particular attention is drawn to the special materials on page 189 of the document, namely: Bitumen, Steel, uPVC and HDPE, which will be subject to rise and fall, while administering monthly payment certificates.
8.3	Contractual Requirements
8.3.1	DM confirmed that items A10 and A20 of the Schedule of Rates will not be administered PER works project, but rather will be remunerated to the Contractor upon award of their first works project, with A10 being administered once-off upon first award, and A20 being administered on an annual basis, subject to an active ongoing works project.
8.3.2	Possible amendments to the Clause 6.2.1 (A10), Clause 8.6.1.1.1 (A20) and A180 were discussed in the clarification meeting, but after discussion with the Client post-meeting it was decided to maintain the requirements stated in the original document, purchasable post-advertisement, under these items.
8.3.3	DM confirmed that item A180 of the Schedule of Rates will be administered per day from the works execution date, up until and including due completion data, as specified in the Contract.
9.	ALLOCATION OF WORKS PROJECTS
9.1	Standard Works Projects
9.1.1	This is a 'rates only' tender; the works will be rolled out and adjudicated on the 80/20 principle in terms of the procedures for allocating the works on page 185 of the document.
9.1.2	<ol style="list-style-type: none"> Employer identifies and populates project BOQ Consideration of CIDB designation/eligibility of the contractor with respect to the works project value Rank Contractors in terms of price and preference (80/20) Compulsory site meeting with all contractors Award to the highest ranked accepting contractor
9.2	Emergency Works Projects
9.2.1	On page 187 are the provisions for the awarding of Emergency Works projects. An Emergency Works project is defined by one in which an urgent unexpected situation occurs where public health and safety or the conservation of public resources is at risk and the purchase of goods or services is required in response thereto.

ITEM	ITEM DETAILS
9.2.2	The procedure is mostly the same as the normal procedures, with exception that the Employer their representative may immediately engage with the highest ranked Contractor until award is achieved. This procedure may be implemented at the discretion of the Employer.
10.	QUESTIONS & ANSWERS
10.1	<p>Q: Regarding the Emergency Works Projects, when does work commence?</p> <p>A: LH noted that an Instruction to Commence will be issued and a purchase order (PO) will be issued accordingly, per emergency works project.</p>
10.2	<p>Q: A recommendation was made that local labour targets are specified.</p> <p>A: DM noted that the only requirement was that all local labour was sourced locally, from the area in which the works reside.</p>
10.3	<p>Q: Are the Preliminary & General items for Emergency Works Projects administered in the same manner as for standard Works Projects?</p> <p>A: Yes, that is correct.</p>
10.4	<p>Q: Can an amendment be made to Item A760 for Security, to allow for variability in the types of PSiRA security grades, including an extra-over for security working overtime, nighttime, weekends or public holidays?</p> <p>A: The requested amendments have been made to Item A760 (refer to revised Items A760 – A766). Refer to Addendum No. 1.</p>
10.5	<p>Q: Regarding Schedule 15, pertaining to the Proof of Plant, how are the bidders supposed to prove ownership of equipment?</p> <p>A: See Schedule 15 on page 147 – 149. The tables in Part 1, 2 and 3 of the schedule clearly indicate the required information for proof of ownership.</p>
10.6	<p>Q: Regarding Section J: Horizontal Directional Drilling (of the Schedule of Rates), can an amendment be made to include Drilling Mud / Bentonite Removal?</p> <p>A: The requested amendments have been made to Section J (refer to revised Items J610 – J670). Refer to Addendum No. 1.</p>
10.7	<p>Q: Regarding Item A1070: "Transport of asbestos-containing waste at the permitted low-hazard (H:h) landfill site at Visserhoek, in accordance with legislation", the unit should be changed to "ton.km", instead of "ton/km".</p> <p>A: The requested amendments have been made to Item A1070. Refer to Addendum No. 1.</p>
10.8	<p>Q: Regarding Impact Moling, how will the supply of the sleeves to be moled be claimed and paid for?</p> <p>A: Provisions are made in the Schedule of Rates for the supply of various pipe materials, sizes and classes, which are applicable under this item.</p>
11.	FINAL QUESTIONS & CLOSING DATE
11.1	<ul style="list-style-type: none"> <i>Date: 26 February 2024</i> <i>Time: 12:00</i> <i>Contact: DM (dalem@easwc.co.za) or LH (leandro.hendricks@stellenbosch.gov.za)</i>

APPENDED DOCUMENTS

- *Appendix A: Clarification Meeting Attendance Register*

PROJECT TEAM	SIGNATURE
1. Client: Stellenbosch Municipality <div style="display: flex; justify-content: space-between;"> L Hendricks leandro.hendricks@stellenbosch.gov.za </div>	
2. Professional Service Provider: Engineering Advice & Services Western Cape <div style="display: flex; justify-content: space-between;"> <div> G du Plessis D Middleton W Basson </div> <div> george@easwc.co.za dalem@easwc.co.za wadeb@easwc.co.za </div> </div>	

END OF RECORDS

PLEASE NOTE THAT A COPY OF THESE MINUTES AND ACCOMPANYING ADDENDUM SHOULD BE INCLUDED IN YOUR TENDER DOCUMENT UPON ITS SUBMISSION.

Also please confirm receipt of these minutes and accompanying addendum by e-mailing your confirmation to dalem@easwc.co.za and leandro.hendricks@stellenbosch.gov.za.

Should you have any further enquiries, please do not hesitate to contact Dale Middleton (EAS WC) or Leandro Hendricks (Stellenbosch Municipality), at the contact details provided in the minuted document.

Signature

Date

Contractor : _____

Name : _____

Designation : _____

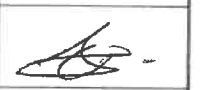
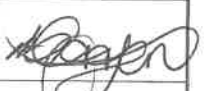
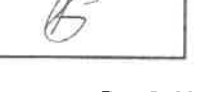
ATTENDANCE REGISTER

MEETING HELD ON 12 FEBRUARY 2024 @ 10:00AM AT STELLENBOSCH PUBLIC LIBRARY

NAME (Print please)	COMPANY (Print please)	E-MAIL ADDRESS (Please write clearly)	TELEPHONE or MOBILE NUMBER	SIGNATURE
George du Plessis	EAS WC	george@easwc.co.za	082 562 2296	
Dale Middleton	EAS WC	dalem@easwc.co.za	072 244 2932	
Wade Basson	EAS WC	wadeb@easwc.co.za	082 731 9479	
Leandro Hendricks	Stellenbosch Municipality	leandro.hendricks@ Stellenbosch.gov.za	084 645 2506 / 8725	
ELANDRE V.D. MERWE	ALEX MAINTENANCE AND ELECTRICAL	sheena@alexservices.co.za elandre@alexservices.co.za	063 409 5961	
NHLANHLA BLAMINI	BATSINI (PTY) LTD	tenders@batsini.co.za	078 671 7499	
Mitchell Kloppe	JK Structures	jkstructures@iafrica.com jksmithell@iafrica.com	021 9033695 083 5858811	

ATTENDANCE REGISTER

MEETING HELD ON 12 FEBRUARY 2024 @ 10:00AM AT STELLENBOSCH PUBLIC LIBRARY

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RANDALL	RDL CIVILS	RANDALL@RDL CIVILS.CO.ZA	082 87224 15	
Reoqen	Wb TPPER	Winsten @ Wb TPPER CO.ZA	072 433 3548	
Graham	FS Transport	fsttransport@gmail.com	072 215 2165 082 342 1510	
MORTON KLAASEN	EXEO	tenders@exeo.co.za	021 949 4108	
W. MOSES	MOSES CIVILS (PT) LTD	wayne@mosescivils.co.za	021 889 5524	
S. Manuel	React 24	operations@react24.co.za	0676432682	
Ragiso	React 24	QS@react24.co.za	063 229 6597	

ATTENDANCE REGISTER

MEETING HELD ON 12 FEBRUARY 2024 @ 10:00AM AT STELLENBOSCH PUBLIC LIBRARY

NAME (Print please)	COMPANY (Print please)	E-MAIL ADDRESS (Please write clearly)	TELEPHONE or MOBILE NUMBER	SIGNATURE
Niel Malan	Martin E. E. T. (Pty) Ltd	tenders@mggroup.co.za tenders@martin-eet.co.za	021 603 3551 021 761 3674	
Rudolph Greeff	Tuboseal Services	rudolph@tuboseal.co.za	054961 0052	
Pieter de Vries	NGSAL construction	tenders@ngeni.co.za pieter@ngeni.co.za	0823246450	