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City of Johannesburg

Johannesburg Water SOC Ltd

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<u>ADDENDUM</u>	No. 01
<u>CONTRACT NUMBER:</u>	JW 14302
<u>CONTRACT TITLE:</u>	CONSTRUCTION OF 20ML CARLSWALD RESERVOIR FOR A PERIOD OF EIGHTEEN (18) MONTHS
<u>SUBJECT</u>	Addendum 1
<u>Date</u>	12 September 2023
<u>Sender</u>	Sijabuliso Tshuma 011 688 1570 sijabuliso.tshuma@jwater.co.za Gcina Ndela 011 688 1796 gcina.ndela@jwater.co.za

Tenderers are required to incorporate the revised required documents into the tender document by replacing BOQ with the revised one and add specification sections of the tender document as outlined below and return the Addendum:

1. Replace current BOQ with a revised BOQ. The changes on the BOQ are as follows,

BOQ Page Number	BOQ Line Item	Description of Change
C.60 (160)	4.4.5	Quantities have been amended
C.62 (162)	4.4.6	Quantities have been amended
C.63 (163)	4.8 and 4.9	Payment reference changed

2. Add Specification sections PSG 5.5.17 (f) (bandages); PSG 8.5.5 (bandaged joints) and PSG 8.13 (water proofing).

NOTE: Closing date extended from 22 September 2023 to 6 October 2023 10:30am and consequently the extension of submission of queries and clarifications to 22 September 2023.

Any inconvenience caused is indeed, regretted.

Yours faithfully

 12/09/2023

Malefa Maitso
Senior Manager: Supply Chain Management

Directors:

Ms Gugulethu Phakathi (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director),
Mr Johan Koekemoer (Financial Director and Executive Director), Mr Phetole Modika, Mr Siphamandla Mnyani, Mr Siyabonga Mthembu,
Mrs Zandile Meeleso, Mr Pholoso Matjele, Mr Kgaile Mogoye, Mr Molate Mashifane, Ms Pamela Mabece, Mr Lunga Bernard

Ms Kethabile Mabe (Company Secretary),
Johannesburg Water SOC Ltd
Registration Number: 2000/029271/30



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Newtown	Marshalltown	
Johannesburg	2107	

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Addendum Received

Name of

Tenderer:

Signatory:

Signature:

Date:

Directors:

Ms Gugulethu Phakathi (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director),
Mr Johan Koekemoer (Financial Director and Executive Director), Mr Phetole Modika, Mr Siphamandla Mnyani, Mr Siyabonga Mthembu,
Mrs Zandile Meeleso, Mr Pholoso Matjele, Mr Kgaile Mogoye, Mr Sandiso Mgengwana, Mr Molate Mashifane, Ms Pamela Mabece,
Mr Lunga Bernard

Ms Kethabile Mabe (Company Secretary),
Johannesburg Water SOC Ltd
Registration Number: 2000/029271/30



CONSTRUCTION OF 20ML CARLSWALD RESERVOIR

SCHEDULE OF QUANTITIES



SECTION 4: RESERVOIR

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4.1	SANS 1200D	SECTION 4: RESERVOIR				
	8.3.3	EARTHWORKS				
	PSD 8.3.3(a)	RESTRICTED EXCAVATION				
		Excavate for restricted foundations, footings and pipe trenches in all materials and use as described for items 4.1.1 to 4.1.3				
4.1.1		0 to 2m deep	m ³	900		
4.1.2		2m to 4m deep	m ³	300		
	PSD 8.3.3 (b)	Extra over items 4.1.1 to 4.1.2 for				
4.1.3	1)	Intermediate excavation	m ³	450		
4.1.4	2)	Hard rock excavation	m ³	450		
4.1.5		Extra over items 4.1.1 to 4.1.4 for additional excavations required by the Engineer after excavation has been completed	m ³	180		
4.1.6	8.3.6	Overhaul	m ² .km	11250		
4.2	SANS 1200L	PIPEWORK				
	PSL 8.2.5	PIPE SPECIALS				
4.2.1		Supply, testing and installation of pipework, fittings and specials brought forward from the Pipe Schedule (building in of pipes measured elsewhere)	Sum	1		
4.3	PSLD	BUILDING PIPES INTO CONCRETE WORK				
	8.3 (a)	Pipes supplied and installed by the Contractor (Irrespective of type)				
4.3.1		150 mm diameter	No.	1		
4.3.2		500 mm diameter	No.	1		
4.3.3		600 mm diameter	No.	1		
4.4	SANS 1200G	CONCRETE (STRUCTURAL)				
	8.2	Formwork				
	8.2.2	Smooth Formwork				
		Plane Vertical				
4.4.1		Drainage trench walls	m ²	55		
4.4.2		Edges of buttresses	m ²	140		
		Curved Cylindrical				
4.4.3		Vertical sides of reservoir wall footing (outer radius 30175 mm)	m ²	90		
4.4.4		Vertical sides of reservoir wall footing (inner radius 28125 mm)	m ²	80		
4.4.5		Wall of reservoir (outer radius 29450 mm)	m ²	1 575		
4.4.6		Wall of reservoir (inner radius 29000 mm)	m ²	1 550		
4.4.7		Ring beam (outer radius 29800 mm)	m ²	255		
4.4.8		Ring beam (inner radius 29000 mm)	m ²	150		
4.4.9		Roof Vent	m ²	12.5		
	8.2.5	Narrow width (up to 300mm wide)				
4.4.10		Sides of drainage trench floor (250mm high)	m	41		
SUB-TOTAL CARRIED FORWARD						

Employer:		Contractor:	
Witness:		Witness:	

SECTION 4: RESERVOIR

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
4.4.35	8.4.4 (b)	Steel Floated Finish Floor inside reservoir	m ²	2670		
4.4.36	PSG 8.9	Sealing of openings in top surface of NF-concrete layer with plaster horizontal	m ²	2670		
4.5	PSG 8.5	JOINTS Filled Joints (Including Formwork) Joint Filler Consisting of Closed Cell Expanded Polyethylene with Density not Less than 100 kg/m³ Including Bullnose Finish to Both Sides of Joint.				
4.5.1		20 mm wide between 100 mm concrete members	m	190		
4.5.2		20 mm wide between 150 mm concrete members	m	190		
4.5.3		20 mm wide between 200 mm concrete members	m	645		
	PSG 8.5.3	Sealed Joints Joint Sealer (20 X 15 mm) Consisting of a two Component Polyether Based Polyurethane Sealing Compound on Visible Face of Joint Including Primer and Backing Cord or Bond Breaker				
4.5.4		20 mm joints between concrete wall and floor interface as per drawings 13214-73-04-001	m	735		
4.5.5		20 mm wide sealed expansion joint along perimeter of drainage trench as per drawing 13214-73-04-001	m	55		
4.5.6		20 mm expansion joint along reservoir floor	m	450		
	PSG 8.5.4	Waterstops				
4.5.7	(a)	200 mm wide Rearguard with centerbulb PVC waterstop at floor joints	m	450		
4.5.8	(b)	250 mm Rearguard with centerbulb PVC waterstop at wall and floor joint (29m radius)	m	183		
4.5.9	(c)	Extra-over items (a) and (b) above for factory moulded intersection pieces	No.	30		
	PSG 8.5.5	Bandaged Joints				
4.5.10	(a)	200mm wide X 2mm thick epoxy-fixed bandage along floor expansion joints	m	450		
4.5.11	(b)	250mm wide x 2mm thick flexible epoxy-fixed bandage along horizontal wall construction joints	m	1095		
4.5.12	(c)	300mm wide X 2mm thick flexible epoxy-fixed bandage along wall and floor expansion joints (90 degree angle) incl. 60x60 corner fillet	m	183		
		Sundry Items				
4.6		PLASTIC SHEETING				
4.6.1	PSLE 8.2.18	250 micron PVC sheeting underneath floor slab	m ²	2610		
4.6.2		200 micron PVC sheeting adjacent to scour pipe as per drawing 13214-73-04-003: Scour Pipe Detail	m ²	1872		
4.7		BEARING STRIPS				
4.7.1		Supply and install 200 kN/m strip bearing at reservoir footing as per drawing 13214-73-04-001: Prestressed Wall/Footing Detail	m	185		
4.7.2		Supply and install 95 kN/m strip bearing on top of reservoir wall as per drawing 13214-73-04-001: Ringbeam Detail	m	185		
SUB-TOTAL CARRIED FORWARD						

Employer:		Contractor:	
Witness:		Witness:	



CONSTRUCTION OF 20ML CARLSWALD RESERVOIR

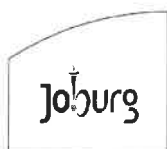
SCHEDULE OF QUANTITIES



SECTION 4: RESERVOIR

ITEM NO	PAYMENT CLAUSE	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		brought forward				
4.8	PSG 8.13	WATERPROOFING				
4.8.1		Impermeable ductile slurry coating on all internal tank wall and floor surfaces. Including the top external surface of the tank roof.	m²	11000		
4.9	PSG 8.10	TESTING STRUCTURE FOR WATERTIGHTNESS				
4.9.1		Reservoir	No.	1		
4.10	SANS 1200HA	STRUCTURAL STEELWORK				
		Ladder				
4.10.1		Heavy Duty Hot Dipped Galvanised SABS 763 - as per drawing 13214-73-04-002: Typical Cat Ladder Detail	No.	2		
4.10.2		Stainless Steel Grade 304 Access ladder including cage as per drawing 13214-73-04-002: Typical Cat Ladder Detail	No.	1		
4.10.3		Stainless Steel Grade 304 grating to fit in a stainless steel frame to be placed over outlet and scour pipes as per drawing 13214-73-04-003	No.	2		
4.10.4		Stainless Steel Grade 304 energy dissipating plate 4.5mm thick bolted to Reservoir wall with a neoprene rubber inbetween installed below inlet pipe as per drawing 13214-73-04-003	No.	1		
		GRP Products				
4.10.5		GRP handrail assembly complete	m	200		
		Access Hatch				
4.10.6		Lockable access hatch (1000mm x 1500mm) as per drawing 13214-73-04-002: Plan on Access Hatch	No.	2		
4.11	SANS 1200L	MEDIUM PRESSURE PIPELINES				
	8.2.2	Specials and Fittings				
		Extra over for the supply & installation of fittings and specials as shown in drawing 13214-73-04-002: Typical Cross & T Connection				
4.11.1		(a) 110 diameter PVC cross	No.	10		
4.11.2		(b) 110 diameter PVC tee	No.	8		
		Mild Steel Pipes				
4.11.3		50 mm Galvanised MS outlet pipes	No.	31		
4.12	PSG 8.11	RESERVOIR STERILIZATION				
4.12.1		Sterilization of the reservoir	Sum	1		
4.13	PSU 8.14	ROOF VENTILATOR				
4.13.1		Supply and install Roof ventilator as per the detail on drawing 13214-73-04-001: Roof Ventilator Detail	Sum	1		
TOTAL FOR SECTION 4 (Carried to Summary)						

Employer:		Contractor:	
Witness:		Witness:	



iii. Plasticized, Flexible PVC Waterstops

The waterstops shall be manufactured from high quality virgin material and shall not contain any scrap or reclaimed material. The waterstops shall be light coloured to reduce heat absorption when exposed to sunlight.

The waterstops shall be precision moulded or extruded to the required cross sectional profile, they shall be free from porosity or other imperfections, and shall be provided with eyelets so that they can be securely fixed to prevent displacement during concreting.

All joints shall be butt jointed hot welded joints. Where joints cannot be factory made, Site joints shall be made in accordance with the manufacturer's instructions with equipment prescribed or supplied by the manufacturer and approved by the Employer's Agent.

f. Bandages

Bandages shall consist of a highly flexible, waterproof and weatherproof polymer sheeting between two layers of two component, solvent free, moisture insensitive, high viscosity, epoxy paste adhesive. The material, method of application, names of supplier and instance doing the installation shall all be to the approval of the Employer's Agent.

PSG 5.5.18 Building in of Pipes

The Contractor under this Contract shall be responsible for building in or caulking and making watertight around all pipes and fittings which pass through walls or under floors of the structures, irrespective of whether the Contractor himself supplies and installs the pipes and fittings, or the Employer purchases the pipes and fittings and the Contractor under this Contract takes delivery and installs them, or some other contractor (e.g. a plant supplier) supplies and installs the pipes and fittings in recesses or through holes left in the various structures for the reception of such pipes and fittings. In the latter case, the Contractor under this Contract will be paid for forming the openings for and

Employer:		Contractor:	
Witness:		Witness:	



The tendered rate shall cover cost of supplying, preparing and application of the joint sealer as specified including testing and making good. Other costs related to the joint will be covered by items PSG 8.5.1 or 2 as the case may be.

PSG 8.5.4 Joints with Waterstop

Separate items will be scheduled for:

- a. Waterstops in a straight-line **Unit: metre (m)**
- b. Waterstops on a curve **Unit: metre (m)**
- c. Extra-over items (a) and (b) above for factory moulded intersection pieces (described) **Unit: Number (No)**

Full description of waterstop with the relevant dimensions to be stated.

The unit of measurement shall be the linear metre net length of waterstop installed, measured along its central bulb.

The tendered rate shall cover the cost of supplying and installation of the waterstop. Other costs related to the joint will be covered by items PSG 8.5.1; 2 and/or 3 as the case may be. Regarding the intersection pieces, the rate shall also include the joining of the intersection piece on site with straight or curved water stops.

PSG 8.5.5 Bandaged Joints

Separate items will be scheduled for:

- a. 200mm wide X 2mm thick (horizontal) **Unit: metre (m)**
- b. 250mm wide X 2mm thick (vertical) **Unit: metre (m)**
- c. 300mm wide X 2mm thick (90° angle) **Unit: metre (m)**

Employer:		Contractor:	
Witness:		Witness:	



The unit of measurement shall be the linear metre net length of the joint to be sealed and the rate shall be the same for horizontal, sloping or vertical joints or of joints around bends.

The tendered rate shall cover the cost of supplying all the material required, preparing and application of the joint bandage as shown on the drawings strictly to the supplier's instructions and making use of the services of an experienced company for the bandaging of the joints, including cutting and welding, testing and making good.

Other costs related to the joint will be covered by item PSG 8.5.2 & 8.5.3.

PSG 8.7 Grouting

Add the following pay items:

PSG 8.7(c) Grouting in of equipment supplied and installed by the Plant Supplier

- i. using non shrink grout (state type) **unit: cubic metre (m³)**
- ii. using dry packed grout **unit: cubic metre (m³)**

The unit of measurement shall be the cubic metre of completed grouting.

The tendered rate shall include full compensation for supplying of all materials, mixing, applying and finishing to a steel float surface finish after installation of the Plant.

Add the following pay items:

PSG 8.10 Testing Structures for Watertightness

The unit of measurement for testing for watertightness shall be the lump sum.

Unit: Lump sum

The tendered rate shall include full compensation for the provision of all labour, plant and materials necessary for testing the structure for watertightness as

Employer:		Contractor:	
Witness:		Witness:	



specified, and for emptying it afterwards, all to the satisfaction of the Employer's Agent.

PSG 8.11 Sterilization of the Reservoir

The unit of measurement for sterilization shall be the lump sum.

Unit: Lump sum

The tendered rate shall include full compensation for the provision of all labour, plant and materials necessary for sterilization as specified, and for emptying it afterwards, all to the satisfaction of the Employer's Agent.

PSG 8.12 Casting in Pipes

The tendered rate shall include full compensation for the provision of all labour, plant and materials necessary for the casting in of pipes (size, type and location indicated) as provided in Clause 5.5.18.

PSG 8.13 Waterproofing

The unit of measurement for waterproofing shall be square metre of the area where the product is applied to. **Unit: Square metre (m²)**

The tendered rate shall include full compensation for the provision of all labour, plant and materials necessary for preparation and application of the approved waterproofing product to the indicated concrete surfaces as specified, all to the satisfaction of the Employer's Agent.

SANS 1200 H STRUCTURAL STEELWORK

PSH 2 INTERPRETATION

PSH 2.1 Supporting Specifications

- a. SANS 1200 HA

PSH 3. STRUCTURAL STEELWORK

Replace the contents of this clause with the following:

Employer:		Contractor:	
Witness:		Witness:	