



**City of Johannesburg**

Johannesburg Water SOC Ltd

Turbine Hall  
65 Ntengi Piliso Street  
Newtown  
Johannesburg

Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

[www.johannesburgwater.co.za](http://www.johannesburgwater.co.za)

**FORM FOR RECEIPT OF ADDENDUM NO 1**

**NB** This form for the receipt of Addendum No 1 must be completed by the Tenderer and returned immediately and separately to

JOHANNESBURG WATER  
TURBINE HALL  
65 NTEMI PILISO STREET  
NEWTOWN  
JOHANNESBURG  
2001

For attention: Nthabiseng More, tel 011 688 1512, e-mail [nthabiseng.more@jwater.co.za](mailto:nthabiseng.more@jwater.co.za)

BID NUMBER: JW14324

FOR

HALFWAY HOUSE WATER UPGRADE

I/We acknowledge receipt of Addendum No 1 and have noted its contents.

SIGNED ON BEHALF OF TENDERER : .....

NAME OF SIGNATORY : .....

NAME AND ADDRESS OF TENDERER : .....

.....

.....

.....

TEL NO : .....

FAX NO : .....

DATE : .....

**Directors:**

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramunzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30



a world class African city



**City of Johannesburg**

Johannesburg Water SOC Ltd

Turbine Hall  
65 Ntemi Piliso Street  
Newtown  
Johannesburg

Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

[www.johannesburgwater.co.za](http://www.johannesburgwater.co.za)

<b><u>ADDENDUM</u></b>	No. 01
<b><u>CONTRACT NUMBER:</u></b>	JW 14324
<b><u>CONTRACT TITLE:</u></b>	HALFWAY HOUSE WATER UPGRADE
<b><u>SUBJECT</u></b>	Addendum 1
<b><u>Date</u></b>	14 February 2023
<b><u>Sender</u></b>	Nthabiseng More Tel: 011 688 1512 <a href="mailto:nthabiseng.more@jwater.co.za">nthabiseng.more@jwater.co.za</a>

Tenderers are required to incorporate the following amendments to the tender documentation.

- 1. Extension of Closing Date.**
- 2. Amendment of Returnable Documents.**
- 3. Amendment of Pricing Data.**
- 4. Amendment of Particular Specifications**

**Directors:**

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramurunzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30



a world class African city



## City of Johannesburg

Johannesburg Water SOC Ltd

Turbine Hall  
65 Ntemi Piliso Street  
Newtown  
Johannesburg

Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

[www.johannesburgwater.co.za](http://www.johannesburgwater.co.za)

### 1 Amendment to Closing Date

The tender closing date has been extended from 17 February 2023 to 14 March 2023 at 10:30.

All references to the closing date in the tender document must be changed accordingly.

#### Directors:

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramurunzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30



a world class African city



City of Johannesburg

Johannesburg Water SOC Ltd

Turbine Hall  
65 Ntengi Piliso Street  
Newtown  
Johannesburg

Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

www.johannesburgwater.co.za

## 2 PART T2.1 LIST OF RETURNABLE DOCUMENTS

### 2.1 T2.1.2 Certificate of Authority

**Insert RD.6 as shown below between RD.5 (Page 25 of the tender document) and RD.7 (Page 26 of the tender document):**



Contract JW14324  
Halfway House Water Upgrade



T2.1 Returnable Documents

#### T2.1.2 CERTIFICATE OF AUTHORITY

Indicate the status of the Tenderer by ticking the appropriate box hereunder. The Tenderer must complete the certificate set out below for the relevant category.

(I) COMPANY	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PROPRIETOR

##### (I) Certificate for Company

I, ....., chairperson of the Board of Directors of ....., hereby confirm that by resolution of the Board (copy attached) taken on ....., Mr/Ms ....., acting in the capacity of ....., was authorized to sign all documents in connection with the tender for Contract JW14324 and any contract resulting from it on behalf of the company.

Chairman: .....

As Witnesses: 1. ....

2. ....

Date: .....

RD.6

List of Returnable Documents

##### Directors:

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramurunzi, Ms Lungile Zulu, Mr Philemon Mashoko

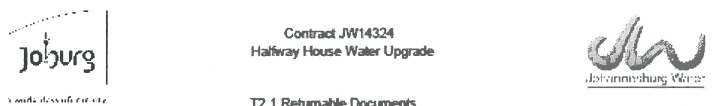
Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30

## 2.2 Returnable Annexure B: Acknowledgement of Tender Drawings

Replace Page 87 of the tender document with the following (Only drawing number 111242-0000-DRG-DRG-WW-0511 was removed from the list of tender drawings):



### Returnable Annexure B: Acknowledgement of Tender Drawings

#### DECLARATION BY TENDERER

I, the undersigned, and representing the tenderer as indicated hereby acknowledge that I have obtained copies of the following listed documentation and confirm that I fully understand the contents thereof and confirm compliance thereto in the event of being successful:

The drawings that are issued for **TENDER PURPOSES** are those noted below:

DRAWING REGISTER		REFERENCE: JW14324
PROJECT No.:	UR 1305A	
PROJECT NAME:	Halfway House Water Upgrade	
CONTRACT No.:	JW14324	
PHASE:	TENDER	
DRAWING No.	CURRENT REVISION	TITLE / DESCRIPTION
<b>WATER LAYOUTS (SUPPLY LINE)</b>		
111242-0000-DRG-WW-0200	TD	SCHEMATIC LAYOUT SHEET 1 OF 2
111242-0000-DRG-WW-0201	TD	SCHEMATIC LAYOUT SHEET 1 OF 2
111242-0000-DRG-WW-0202	TD	GENERAL SITE LAYOUT SHEET 1 OF 2
111242-0000-DRG-WW-0203	TD	GENERAL SITE LAYOUT SHEET 2 OF 2
<b>WATER SECTIONS (SUPPLY LINE)</b>		
111242-0000-DRG-WW-0301	TD	PLAN AND LONGSECTION: SHEET 1 OF 10
111242-0000-DRG-WW-0302	TD	PLAN AND LONGSECTION: SHEET 2 OF 10
111242-0000-DRG-WW-0303	TD	PLAN AND LONGSECTION: SHEET 3 OF 10
111242-0000-DRG-WW-0304	TD	PLAN AND LONGSECTION: SHEET 4 OF 10
111242-0000-DRG-WW-0305	TD	PLAN AND LONGSECTION: SHEET 5 OF 10
111242-0000-DRG-WW-0306	TD	PLAN AND LONGSECTION: SHEET 6 OF 10
111242-0000-DRG-WW-0307	TD	PLAN AND LONGSECTION: SHEET 7 OF 10
111242-0000-DRG-WW-0308	TD	PLAN AND LONGSECTION: SHEET 8 OF 10
111242-0000-DRG-WW-0309	TD	PLAN AND LONGSECTION: SHEET 9 OF 10
111242-0000-DRG-WW-0310	TD	PLAN AND LONGSECTION: SHEET 10 OF 10
<b>WATER DETAILS (SUPPLY LINE)</b>		
111242-0000-DRG-WW-0500	TD	TYPICAL DETAILS OF AIR VALVE CHAMBER
111242-0000-DRG-WW-0501	TD	TYPICAL DETAILS OF ISOLATING VALVE CHAMBER
111242-0000-DRG-WW-0502	TD	TYPICAL DETAILS OF SCOUR VALVES SHEET 1 OF 2
111242-0000-DRG-WW-0503	TD	TYPICAL DETAILS OF SCOUR VALVES SHEET 2 OF 2
111242-0000-DRG-WW-0504	TD	TYPICAL DETAILS FOR TRENCH EXCAVATION AND BACKFILL
111242-0000-DRG-WW-0505	TD	THRUST BLOCK DETAILS
111242-0000-DRG-WW-0506	TD	TYPICAL PIPE JACKING DETAIL
111242-0000-DRG-WW-0507	TD	TYPICAL DETAILS OF MARKER BLOCK
111242-0000-DRG-WW-0508	TD	TYPICAL WATER METER CHAMBER DETAIL
111242-0000-DRG-WW-0509	TD	DETAILS OF ACCESS CHAMBER AT P122
111242-0000-DRG-WW-0510	TD	TYPICAL DETAIL - DN 700 SUPPORT BRACKET DETAILS

#### Directors:

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramuruzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30

### 3 PART C.2 PRICING DATA

#### 3.1 C.2.2 Bill of Quantities

**Replace Page 142 of the tender document with the following (Provisional Sum Amount for Piling was removed):**

18/78

JW14324  
HALFWAY HOUSE WATER UPGRADE

SECTION 1200 F						
PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SANS 1200 F	100.00	PILING				
8.2.1	100.01	Establishment on site for piling	sum	1		
8.2.2	100.02	Move equipment to and set up at each pile position	number	27		
8.2.3	100.03	Standing time	h	54		
8.2.7	100.04	Design, manufacture, supply, deliver and construction of 750mm dia tubular auger cast in-situ piles complete with casings, rebar, anchors etc at approximately 2200mm spacing apart:				
	.01	Exceeding 10 m up to 15 m	m	405		
8.2.9	100.05	Install piles through unscheduled obstructions	Prov sum	1	1,000,000.00	1,000,000.00
8.2.13	100.06	Extra over item for socketing piles into rock formation of:				
	.01	Pile socket into hard rock to specialist details	m	405		
8.2.21	100.07	Establishment on site for the load testing of piles	sum	1		
8.2.22	100.08	Load tests on piles:				
	.01	Piles of 750mm dia to engineers specification	number	27		
TOTAL SECTION 1200 F CARRIED TO SUMMARY						

**Directors:**

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramurunzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30



City of Johannesburg

Johannesburg Water SOC Ltd

Turbine Hall  
65 Ntemi Piliso Street  
Newtown  
Johannesburg

Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

www.johannesburgwater.co.za

**Replace Page 164 of the tender document with the following (Provisional Sum Amount for Road Crossing 9 (N1 Crossing) was removed:**

40/76

JW14324  
HALFWAY HOUSE WATER UPGRADE

SECTION 1200 LG						
PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		Brought forward				
8.2.2	216.62	Supply of pipes to be jacked: .01 1 371 mm dia (OD), 1000 concrete sleeve pipe (In-the-wall joint), according to SANS 677	m	60		
8.2.3	216.63	Jacking of pipes: .01 1 371 mm dia (OD), 1000 concrete sleeve pipe (In-the-wall joint), according to SANS 677	m	60		
8.2.4	216.64	Excavation for jacking: .01 Soft excavation .02 Intermediate excavation .03 Hard rock excavation	m <sup>3</sup> m <sup>3</sup> m <sup>3</sup>	89 27 9		
8.2.5	216.65	Extra over item 216.61 and 216.64 for unforeseen rock or boulders	Prov sum	1	20,000.00	20,000.00
8.2.9	216.66	Stabilization of unstable areas or grouting of voids where ordered: .01 Provision and establishment of equipment on site, and removal on completion of operation .02 Operation of equipment .03 Materials used	sum day m <sup>3</sup>	1 2 34.92		
8.2.10	216.67	Standing time for pipe jacking gang and the jacking equipment covered by item 216.61 <u>ROAD CROSSING 9 (N1 Crossing)</u>	h	40		
8.2.1	216.71	Jacking establishment: .01 Fixed charges .02 Time-related charges	sum sum	1 1		
8.2.2	216.72	Supply of culverts to be jacked: .01 3000 mm dia x 2500 mm dia x 275mm thick, concrete jacking box culvert with bolts holes for longitudinal ties interlocking joint	m	88		
1200 LG		Carried forward				

**Directors:**

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramurunzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30





City of Johannesburg

Johannesburg Water SOC Ltd

Turbine Hall  
65 Ntemi Piliso Street  
Newtown  
Johannesburg

Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

www.johannesburgwater.co.za

Replace Page 179 of the tender document with the following:

JW14324  
HALFWAY HOUSE WATER UPGRADE

ELECTRICAL WORKS						
PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
		<b>BILL 3: HYDRO POWER GENERATOR</b> <u>(REFER TO DETAIL SPECIFICATION AND HYDRO POWER</u> <u>SCHEMATIC AS SHOWN ON DWS No</u> <u>111245-0000-DB3-Fl-4100 Hydropower Installation Schematic</u> 1. This Bill of Quantities shall be read in conjunction with the Installer's Scope of Work, Technical Specifications and the Engineer design drawings with all other Engineering discipline drawings. 2. All rates shall include Supply and Install. These items shall the items in this Bill shall include all wiring, cabling, connections, terminations, installation and termination accessories, possible cable-joints, cable-glands, cable-ties, cable-clips, clamps, shrouds, couplers, lugs, screw-caps, nuts, connectors, terminal strips, heat-shrink, insulating material, etc. for the electrical cables and conductors. It is the responsibility of the contractor to make a fully working system. 3. It is the responsibility of the contractor to ensure all items are allowed for in this Bill of Quantities. 4. NB: It is the responsibility of the contractor to supply a fully operational and compliant system. 5. All items in this Bill of quantities are remeasurable and only installed Quantities will be paid for.				
	300.00	HYDROPOWER TURBINE				
	300.01	Supply, deliver, install and commissioning of a 285kW Micro-Hydro Synchronous Generator including a plinth sleeves and associated installation including earthing & accessories.  Other items to be included are:	Sum	1		
	300.02	Generator Panel including a bi-directional meter, AVR and synchronising devices.	Sum	1		
	300.03	All additional items necessary to provide a complete motor control centre installation as per specification.				
	300.04	All cabling required between the Generator Panel and the generator.	Sum	1		
	300.05	All associated pipework and accessories including valves, flanges, chambers to complete this installation.	Sum	1		
	300.06	SCADA system for remote operation	Sum	1		
	300.07	Battery back up system for protection and signalisation.	Sum	1		
	300.08	Control, instrumentation and a Telemetry system including a Human Machine Interface System.	Sum	1		
	300.09	All associated control cables, cabling and wiring for the control, instrumentation and telemetry.	Sum	1		
	300.10	Radio Link - for communication to the client	Sum	1		

Directors:

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramunzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30





a world class African city



City of Johannesburg

Johannesburg Water SOC Ltd

Turbine Hall  
65 Ntengi Piliso Street  
Newtown  
Johannesburg

Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

www.johannesburgwater.co.za

**Replace Page 191 of the tender document with the following:**

67/76

JW14324  
HALFWAY HOUSE WATER UPGRADE

ELECTRICAL WORKS						
PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
		<b>BILL 9: FIRE DETECTION</b>  1. This Bill of Quantities shall be read in conjunction with the Installer's Scope of Work, Technical Specifications and the Engineer design drawings with all other Engineering discipline drawings.  2. It is the responsibility of the contractor to ensure all items are allowed for in this Bill of Quantities.  3. NB: It is the responsibility of the contractor to supply a fully operational and compliant system.  4. All items in this Bill of quantities are remeasurable and only installed Quantities will be paid for.  Design, supply, deliver and install all equipment and materials required to complete the earthing and bonding installation system for the complete valve valve, reservoir, water tower, guard house and external light poles as indicated below, by a specialist installation contractor. All rates shall allow for material and labour required per item to complete the installation.				
	900.00	Design, Supply and Install				
	900.01	Design, supply, install and commissioning of a complete automated addressable Fire Detection system, by a specialist contractor.	Provisional Sum	1	R 85,000.00	R 85,000.00
	901.00	Fire Alarm control panel				
	901.01	Addressable fire alarm control panel, equipped for multi loops and networked together, with power supply and other specified requirements to be linked to a repeater fire panel in the guard house, and to link with the Johannesburg Water main control room via the telemetry panel.	Incl.			
	902.00	Fire detectors				
	902.01	Addressable smoke sensor, with an detector base	Incl.			
	902.02	Addressable thermal/smoke combination sensor, with an detector base	Incl.			
	903.00	Break glass units				
	903.01	Addressable, indoor, resettable break glass unit with surface box	Incl.			
	904.00	Strobe & sounders				
	904.01	Addressable combined sounder and strobe to be mounted on a detector base	Incl.			

Directors:

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramuruzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30



City of Johannesburg

Johannesburg Water SOC Ltd

Turbine Hall  
65 Ntengi Piliso Street  
Newtown  
Johannesburg

Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

[www.johannesburgwater.co.za](http://www.johannesburgwater.co.za)

**Replace Page 192 of the tender document with the following:**

68/76

JW14324  
HALFWAY HOUSE WATER UPGRADE

905.00	Interface units				
905.01	Addressable input unit to monitor potential free contacts	Incl.			
905.02	Addressable relay output unit to switch off valve chambers, water pump units, smoke extractor fans, trigger access control fire doors, etc. and other systems.	Incl.			
905.03	Addressable Zone Interface Unit				
906.00	Emergency exit sign lighting				
906.01	Emergency "EXIT" sign luminaire, switched by fire alarm signal.	Incl.			
907.00	Ancillaries and accessories				
907.01	Any other item required for completion of the installation, not specified else where - specify	Incl.			
<b>Total carried to summary</b>					R \$5,000.00

**Directors:**

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramuruzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30



Johannesburg Water SOC Ltd

Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

[www.johannesburgwater.co.za](http://www.johannesburgwater.co.za)

**Replace Page 193 of the tender document with the following:**

JW14324  
HALFWAY HOUSE WATER UPGRADE

ELECTRICAL WORKS						
REFERENCE	BILL	ITEM	UNIT	QUANTITY	RATE	AMOUNT
	BII 1:	ELECTRICAL APPLICATION				
	BII 2:	PRELIMINARY AND GENERAL				
	BII 3:	GENERATOR				
	BII 4:	DISTRIBUTION BOARDS				
	BII 5:	LOW VOLTAGE CABLES				
	BII 6:	CABLE ROUTING & WIRE WAYS				
	BII 7:	SMALL POWER & LIGHTING				
	BII 8:	EARTHING & LIGHTNING PROTECTION				
	BII 9:	FIRE DETECTION				R 85,000.00
TOTAL ELECTRICAL WORKS CARRIED TO SUMMARY						

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukeweho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramurunzi, Ms Lungile Zulu, Mr Philemon Mashoko

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30



a world class African city



City of Johannesburg

Johannesburg Water SOC Ltd

Turbine Hall  
65 Ntengi Piliso Street  
Newtown  
Johannesburg

Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

www.johannesburgwater.co.za

## 4 PART C.3 SCOPE OF WORK

### 4.1 Particular Specifications

Replace Page 617 of the tender document with the following:

Volume	1	2	3
Part	T1	T2	C1



Contract JW14324

Page (296)

Halfway House Water Upgrade

Particular Specifications

- f) Interior lighting
- g) Area lighting
- h) Sleeves and Manholes

The electrical installation will be in accordance with the following tender drawings in Annexure 1:

- 111242-0000-DRG-EL-4000 Single Line Diagram Legend Sheet
- 111242-0000-DRG-EL-4100 Electrical – Hydropower Installation Schematic
- 111242-0000-DRG-EL-4101 Electrical – Distribution Kiosk - 1
- 111242-0000-DRG-EL-4102 Electrical – Distribution Board
- 111242-0000-DRG-EL-4200 Small Power and Lighting Installation
- 111242-0000-DRG-WW-0500 (ACCESS CHAMBER)
- 111242-0000-DRG-WW-0203\_REV 0 (GENERAL SITE LAYOUT SHT 2 OF 2)

The electrical installation will be done in accordance with SANS 10142: The wiring of premises Part 1: low voltage installations. All work shall be scheduled in liaison with the main contractor to suit his master program.

#### C3.3.4.1.5 E100.5 HYDROPOWER INSTALLATION

##### C3.3.4.1.5.1 E100.5.1 SCOPE OF WORKS

The scope for the supply of the hydropower component shall be based on a typical "water to wire" scheme that shall be integrated and synchronized with the pipeline water supply operation. The hydropower installation will be done in accordance with the latest Eskom Regulations and by-laws and will encompass:

- Design and supply
- Installation
- Commissioning
- Metering
- Sizing of cables and cable lengths

A schematic of the desired scheme is as indicated by the electrical block diagram included in Annexure 1. The plant shall be designed to be unmanned and shall be operational within the local South African context and connected into the existing nearby Eskom Transformer. The scope of works shall include but not be limited to the following:

- a) The design, manufacture, procurement (locally sourced preferred) and delivery (to be delivered to Johannesburg Water main office, South Africa. Offshore shipping requires sea worthy packaging) of one 285kW maximum rated (measured at Turbine Shaft) Turbine / Pump As Turbine (PAT), generator, main inlet valve, isolation valve, main line pipework, bypass valves and pipework, switchgear and control panel based on a "Water to Wire" approach including, but not limited to, the following:
  - One number 285kW maximum rated (measured at Turbine Shaft) Pump As Turbine (PAT).
  - The turbine shall be directly coupled to the generator shaft.
  - The turbine base frame shall fit onto the base plinth provided in the Valve House. The subcontractor shall provide the required provisions, including the width and breadth of the opening to place the base frame and the pipe diameters and minimum lengths, immediately to the Contractor, prior to commencement of the Civil Works.

Employer:		Contractor:	
Witness:		Witness:	

Directors:

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Malji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramunzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30



a world class African city



#### City of Johannesburg

Johannesburg Water SOC Ltd

Turbine Hall  
65 Ntemi Piliso Street  
Newtown  
Johannesburg


Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

[www.johannesburgwater.co.za](http://www.johannesburgwater.co.za)

Any inconvenience caused is indeed, regretted.

Yours faithfully

 14/02/2023

Malefa Mpitso

**Senior Manager: Supply Chain Management**

#### Directors:

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramurunzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30



**City of Johannesburg**

Johannesburg Water SOC Ltd

Turbine Hall  
65 Ntemi Piliso Street  
Newtown  
Johannesburg

Johannesburg Water  
PO Box 61542  
Marshalltown  
2107

Tel +27(0) 11 688 1400  
Fax +27(0) 11 688 1528

[www.johannesburgwater.co.za](http://www.johannesburgwater.co.za)

**ACCEPTANCE AND INCORPORATION OF ADDENDUM**

I/We accept that Addendum No 1 forms part of the Tender Documents.

I/We confirm that I/we -

- (a) have noted the contents of this Addendum
- (b) have fully considered this Addendum
- (c) have incorporated the amendments and additions contained in this Addendum in my/our Bid Number JW14324 FOR HALFWAY HOUSE WATER UPGRADE

SIGNED ON BEHALF OF THE TENDERER : .....

NAME OF SIGNATORY (BLOCK LETTERS) : .....

NAME OF TENDERER (BLOCK LETTERS) : .....

TENDERER'S ADDRESS : .....

.....

TENDERER'S TEL NO : .....

TENDERER'S FAX NO : .....

SIGNATURES OF WITNESSES : 1. ....

2. ....

NAMES OF WITNESSES (BLOCK LETTERS) : 1. ....

2. ....

DATE : .....

**Directors:**

Ms Rachel Kalidass (Chairperson), Mr Ntshavheni Mukwevho (Managing Director and Executive Director), Mr Johan Koekemoer (Financial Director and Executive Director), Professor Clinton Aigbavboa, Mr Siphamandla Mnyani, Mr Petrus Matji, Mr Lebogang Ledwaba, Mr Thabo Sakasa, Mr Mavhungu Ramurunzi, Ms Lungile Zulu, Mr Philemon Mashoko

Ms Kethabile Mabe (Company Secretary),

Johannesburg Water SOC Ltd

Registration Number: 2000/029271/30

## T2.1.2 CERTIFICATE OF AUTHORITY

Indicate the status of the Tenderer by ticking the appropriate box hereunder. The Tenderer must complete the certificate set out below for the relevant category.

(I) COMPANY	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PROPRIETOR

### (I) *Certificate for Company*

I, ....., chairperson of the Board of Directors of ....., hereby confirm that by resolution of the Board (copy attached) taken on ....., Mr/Ms ....., acting in the capacity of ....., was authorized to sign all documents in connection with the tender for Contract JW14324 and any contract resulting from it on behalf of the company.

**Chairman:** .....

**As Witnesses:** 1.....

2.....

**Date:** .....



## Returnable Annexure B: Acknowledgement of Tender Drawings

### DECLARATION BY TENDERER

I, the undersigned, and representing the tenderer as indicated hereby acknowledge that I have obtained copies of the following listed documentation and confirm that I fully understand the contents thereof and confirm compliance thereto in the event of being successful:

The drawings that are issued for **TENDER PURPOSES** are those noted below:

DRAWING REGISTER		REFERENCE: JW14324
PROJECT No.:	UR 1305A	
PROJECT NAME:	Halfway House Water Upgrade	
CONTRACT No.:	JW14324-	
PHASE:	TENDER	
DRAWING No.	CURRENT REVISION	TITLE / DESCRIPTION
		<b>WATER LAYOUTS (SUPPLY LINE)</b>
111242-0000-DRG-WW-0200	T0	SCHEMATIC LAYOUT SHEET 1 OF 2
111242-0000-DRG-WW-0201	T0	SCHEMATIC LAYOUT SHEET 1 OF 2
111242-0000-DRG-WW-0202	T0	GENERAL SITE LAYOUT SHEET 1 OF 2
111242-0000-DRG-WW-0203	T0	GENERAL SITE LAYOUT SHEET 2 OF 2
		<b>WATER SECTIONS (SUPPLY LINE)</b>
111242-0000-DRG-WW-0301	T0	PLAN AND LONGSECTION: SHEET 1 OF 10
111242-0000-DRG-WW-0302	T0	PLAN AND LONGSECTION: SHEET 2 OF 10
111242-0000-DRG-WW-0303	T0	PLAN AND LONGSECTION: SHEET 3 OF 10
111242-0000-DRG-WW-0304	T0	PLAN AND LONGSECTION: SHEET 4 OF 10
111242-0000-DRG-WW-0305	T0	PLAN AND LONGSECTION: SHEET 5 OF 10
111242-0000-DRG-WW-0306	T0	PLAN AND LONGSECTION: SHEET 6 OF 10
111242-0000-DRG-WW-0307	T0	PLAN AND LONGSECTION: SHEET 7 OF 10
111242-0000-DRG-WW-0308	T0	PLAN AND LONGSECTION: SHEET 8 OF 10
111242-0000-DRG-WW-0309	T0	PLAN AND LONGSECTION: SHEET 9 OF 10
111242-0000-DRG-WW-0310	T0	PLAN AND LONGSECTION: SHEET 10 OF 10
		<b>WATER DETAILS (SUPPLY LINE)</b>
111242-0000-DRG-WW-0500	T0	TYPICAL DETAILS OF AIR VALVE CHAMBER
111242-0000-DRG-WW-0501	T0	TYPICAL DETAILS OF ISOLATING VALVE CHAMBER
111242-0000-DRG-WW-0502	T0	TYPICAL DETAILS OF SCOUR VALVES SHEET 1 OF 2
111242-0000-DRG-WW-0503	T0	TYPICAL DETAILS OF SCOUR VALVES SHEET 2 OF 2
111242-0000-DRG-WW-0504	T0	TYPICAL DETAILS FOR TRENCH EXCAVATION AND BACKFILL
111242-0000-DRG-WW-0505	T0	THRUST BLOCK DETAILS
111242-0000-DRG-WW-0506	T0	TYPICAL PIPE JACKING DETAIL
111242-0000-DRG-WW-0507	T0	TYPICAL DETAILS OF MARKER BLOCK
111242-0000-DRG-WW-0508	T0	TYPICAL WATER METER CHAMBER DETAIL
111242-0000-DRG-WW-0509	T0	DETAILS OF ACCESS CHAMBER AT PI22
111242-0000-DRG-WW-0510	T0	TYPICAL DETAIL - DN 700 SUPPORT BRACKET DETAILS

SECTION 1200 F						
PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
SANS 1200 F	160.00	<b>PILING</b>				
8.2.1	160.01	Establishment on site for piling	sum	1		
8.2.2	160.02	Move equipment to and set up at each pile position	number	27		
8.2.3	160.03	Standing time	h	54		
8.2.7	160.04	Design, manufacture, supply, deliver and construction of 750mm dia tubular auger cast in-situ piles complete with casings, rebar, anchors etc at approximately 2200mm spacing apart:				
		.01 Exceeding 10 m up to 15 m	m	405		
8.2.9	160.05	Install piles through unscheduled obstructions	Prov sum	1	1,000,000.00	1,000,000.00
8.2.13	160.06	Extra over item for socketing piles into rock formation of:				
		.01 Pile socket into hard rock to specialist details	m	405		
8.2.21	160.07	Establishment on site for the load testing of piles	sum	1		
8.2.22	160.08	Load tests on piles:				
		.01 Piles of 750mm dia to engineers specification	number	27		
TOTAL SECTION 1200 F CARRIED TO SUMMARY						

SECTION 1200 LG						
PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
		Brought forward				
8.2.2	216.62	<b>Supply of pipes to be jacked:</b> .01 1 371 mm dia (OD), 100D concrete sleeve pipe (in-the-wall joint), according to SANS 677	m	60		
8.2.3	216.63	<b>Jacking of pipes:</b> .01 1 371 mm dia (OD), 100D concrete sleeve pipe (in-the-wall joint), according to SANS 677	m	60		
8.2.4	216.64	<b>Excavation for jacking:</b> .01 Soft excavation .02 Intermediate excavation .03 Hard rock excavation	m <sup>3</sup> m <sup>3</sup> m <sup>3</sup>	89 27 9		
8.2.5	216.65	<b>Extra over items 216.61 and 216.64 for unforeseen rock or boulders</b>	Prov sum	1	20,000.00	20,000.00
8.2.9	216.66	<b>Stabilization of unstable areas or grouting of voids where ordered:</b> .01 Provision and establishment of equipment on site, and removal on completion of operation .02 Operation of equipment .03 Materials used	sum day m <sup>3</sup>	1 2 34.92		
8.2.10	216.67	<b>Standing time for pipe jacking gang and the jacking equipment covered by item 216.61</b> <b><u>ROAD CROSSING:9 (N1 Crossing)</u></b>	h	40		
8.2.1	216.71	<b>Jacking establishment:</b> .01 Fixed charges .02 Time-related charges	sum sum	1 1		
8.2.2	216.72	<b>Supply of culverts to be jacked:</b> .01 3000 mm dia x 2500 mm dia x 275mm thick, concrete jacking box culvert with bolts holes for longitudinal ties interlocking joint	m	88		
1200 LG	Carried forward					

ELECTRICAL WORKS						
PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
		<b>BILL 3: HYDRO POWER GENERATOR</b> <u>REFER TO DETAIL SPECIFICATION AND HYDRO POWER</u> <u>SCHEMATIC AS SHOWN ON DWG No</u> <u>111242-0000-DRG-EL-4100 Hydropower Installation Schematic</u>  <b>1. This Bill of Quantities shall be read in conjunction with the Installer's Scope of Work, Technical Specifications and the Engineer design drawings with all other Engineering discipline drawings.</b> <b>2. All rates shall include Supply and Install. These items shall the items in this Bill shall include all wiring, cabling, connections, terminations, installation and termination accessories, possible cable-joints, cable-glands, cable-ties, cable-clips, clamps, shrouds, couplers, lugs, screw-caps, nuts, connectors, terminal strips, heat-shrink, insulating material, etc. for the electrical cables and conductors. It is the responsibility of the contractor to make a fully working system.</b> <b>3. It is the responsibility of the contractor to ensure all items are allowed for in this Bill of Quantities.</b> <b>4. NB: It is the responsibility of the contractor to supply a fully operational and compliant system.</b> <b>5. All items in this Bill of quantities are remeasurable and only installed Quantities will be paid for.</b>				
	<b>300.00</b>	<b>HYDROPOWER TURBINE</b>				
	300.01	Supply, deliver, install and commissioning of a 285kW Micro-Hydro Synchronous Generator including a plinth sleeves and associated installation including earthing & accessories.  Other Items to be included are:	Sum	1		
	300.02	Generator Panel including a bi-directional meter, AVR and synchronising devices.	Sum	1		
	300.03	All additional items necessary to provide a complete motor control centre installation as per specification.				
	300.04	All cabling required between the Generator Panel and the generator.	Sum	1		
	300.05	All associated pipework and accessories including valves, flanges, chambers to complete this installation.	Sum	1		
	300.06	SCADA system for remote operation	Sum	1		
	300.07	Battery back up system for protection and signalisation.	Sum	1		
	300.08	Control, Instrumentation and a Telemetry system including a Human Machine Interface System.	Sum	1		
	300.09	All associated control cables, cabling and wiring for the control, instrumentation and telemetry.	Sum	1		
	300.10	Radio Link - for communication to the client	Sum	1		

ELECTRICAL WORKS						
PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
		<b>BILL 9: FIRE DETECTION</b>  <b>1. This Bill of Quantities shall be read in conjunction with the Installer's Scope of Work, Technical Specifications and the Engineer design drawings with all other Engineering decipline drawings.</b>  <b>2. It is the responsibility of the contractor to ensure all items are allowed for in this Bill of Quantities.</b>  <b>3. NB: It is the responsibility of the contractor to supply a fully operational and compliant system.</b>  <b>4. All items in this Bill of quantities are remeasurable and only installed Quantities will be paid for.</b>  <b>Design, supply, deliver and install all equipment and materials required to complete the earthing and bonding installation system for the complete valve valve, reservior, water tower, guard house and external light poles as indicated below, by a specialist installation contractor. All rates shall allow for material and labour required per item to complete the installation.</b>				
		<b>900.00 Design, Supply and Install</b>				
	900.01	Design, supply, install and commissioning of a complete automated addressable Fire Detection system, by a specialist contractor.	Provisional Sum	1	R 85,000.00	R 85,000.00
		<b>901.00 Fire Alarm control panel</b>				
	901.01	Addressable fire alarm control panel, equipped for multi loops and networked together, with power supply and other specified requirements to be linked to a repeater fire panel in the guard house, and to link with the Johannesburg Water main control room via the telemetry panel.	Incl.			
		<b>902.00 Fire detectors</b>				
	902.01	Addressable smoke sensor, with an detector base	Incl.			
	902.02	Addressable thermal/smoke combination sensor, with an detector base	Incl.			
		<b>903.00 Break glass units</b>				
	903.01	Addressable, indoor, resettable break glass unit with surface box	Incl.			
		<b>904.00 Strobes &amp; sounders</b>				
	904.01	Addressable combined sounder and strobe to be mounted on a detector base	Incl.			

[illegible]

ELECTRICAL WORKS						
REFERENCE	BILL	ITEM	UNIT	QUAN-TITY	RATE	AMOUNT
	Bill 1:	ELECTRICAL APPLICATION				
	Bill 2:	PRELIMINARY AND GENERAL				
	Bill 3:	GENERATOR				
	Bill 4:	DISTRIBUTION BOARDS				
	Bill 5:	LOW VOLTAGE CABLES				
	Bill 6:	CABLE ROUTING & WIRE WAYS				
	Bill 7:	SMALL POWER & LIGHTING				
	Bill 8:	EARTHING & LIGHTNING PROTECTION				
	Bill 9:	FIRE DETECTION				R 85,000.00
	TOTAL ELECTRICAL WORKS CARRIED TO SUMMARY					



<b>Volume</b>	1	<b>2</b>	3			
<b>Part</b>	T1	T2	C1	C2	<b>C3</b>	C4



Contract JW14324

Page (296)

Halfway House Water Upgrade

### Particular Specifications

- f) Interior lighting
- g) Area lighting
- h) Sleeves and Manholes

The electrical installation will be in accordance with the following tender drawings In Annexure 1:

- 111242-0000-DRG-EL-4000 Single Line Diagram Legend Sheet
- 111242-0000-DRG-EL-4100 Electrical – Hydropower Installation Schematic
- 111242-0000-DRG-EL-4101 Electrical – Distribution Kiosk - 1
- 111242-0000-DRG-EL-4102 Electrical – Distribution Board
- 111242-0000-DRG-EL-4200 Small Power and Lighting Installation
- 111242-0000-DRG-WW-0509 (ACCESS CHAMBER)
- 111242-0000-DRG-WW-0203\_REV 0 (GENERAL SITE LAYOUT SHT 2 OF 2)

The electrical installation will be done in accordance with SANS 10142: The wiring of premises Part 1: low voltage installations. All work shall be scheduled in liaison with the main contractor to suit his master program.

#### C3.3.4.1.5 E100.5 HYDROPOWER INSTALLATION

##### C3.3.4.1.5.1 E100.5.1 SCOPE OF WORKS

The scope for the supply of the hydropower component shall be based on a typical “water to wire” scheme that shall be integrated and synchronized with the pipeline water supply operation. The hydropower installation will be done in accordance with the latest Eskom Regulations and by-laws and will encompass:

- Design and supply
- Installation
- Commissioning
- Metering
- Sizing of cables and cable lengths

A schematic of the desired scheme is as indicated by the electrical block diagram included in Annexure 1. The plant shall be designed to be unmanned and shall be operational within the local South African context and connected into the existing nearby Eskom Transformer. The scope of works shall include but not be limited to the following:

- a) The design, manufacture, procurement (locally sourced preferred) and delivery (to be delivered to Johannesburg Water main office, South Africa. Offshore shipping requires sea worthy packaging) of one 285kW maximum rated (measured at Turbine Shaft) Turbine / Pump As Turbine (PAT), generator, main inlet valve, isolation valve, main line pipework, bypass valves and pipework, switchgear and control panel based on a “Water to Wire” approach including, but not limited to, the following:
  - One number 285kW maximum rated (measured at Turbine Shaft) Pump As Turbine (PAT).
  - The turbine shall be directly coupled to the generator shaft.
  - The turbine base frame shall fit onto the base plinth provided in the Valve House. The subcontractor shall provide the required provisions, including the width and breadth of the opening to place the base frame and the pipe diameters and minimum lengths, immediately to the Contractor, prior to commencement of the Civil Works.

Employer:		Contractor:	
Witness:		Witness:	