SUMMARY O	F SCHEDULE OF QUANTITIES		
SECTION			TAL
SECTION A	: PRELIMINARY AND GENRALS	R	-
SECTION C	: SITE CLEARANCE	R	-
SECTION DA	: EARTHWORKS (SMALL WORKS)	R	-
SECTION TS	: VALVES & PIPE SPECIALS	R	ā
SECTION GA	: CONCRETE (SMALL WORKS)	R	_
SECTION GE	: PRECAST CONCRETE (STRUCTURAL)	R	*
SECTION HA	: STRUCTURAL STEELWORK (SUNDRY ITEMS)	R	-
SECTION H & S	: HEALTH AND SAFETY	R	-
SECTION QUAL	: QUALITY	R	i.
SECTION ENVIR	: ENVIRONMENTAL	R	
TOTAL FOR SCHI	EDULE OF QUANTITIES		
CONTINGENCIES		R	-
CONTRACT PRIC	E ADJUSTMENT		
SUB TOTAL		R	=
ADD 15 % VAT		R	æ
TOTAL FOR TEND	DER	R	-
1			



A: GENERAL

	PAYMENT REFERS SABS 1200 A	SHORT DESCRIPTION SECTION: GENERAL	UNIT	QUANTITY	RATE	AMOUNT
1	SABS 1200 A	and the second s				
1.1				0		
		FIXED-CHARGE AND VALUE-RELATED				
		ITEMS				
1.1.1	8.3.1	Contractual requirements	Sum			
1.1.2	8.3.2	Establishment of facilities on the site	Sum			
1.1.2.1	8,3,2,1	Facilities for Engineer			;	
		(a) Furnished office (1 No.)	Sum			
		(b) Telephone	Sum			
		(c) Nameboards (2 No.)	Sum			
1.1.2.2	8.3.2.2	Facilities for Contractor				
		(a) Offices and storage sheds	Sum			
		(b) Workshops	Sum			*
		(c) Laboratories	Sum			
		(e) Ablution and latrine facilities	Sum			
		(f) Tools and equipment	Sum			
		(g) Water supplies, electric power and communications	Sum			
x		(i) Access	Sum			
		(j) Plant (designated plant, specifically identified)	Sum			
1.1.3	8.3.3	Other fixed-charge obligations	Sum			w.
1.1.4	8.3.4	Removal of site establishment	Sum			
	PSA 8.3.5	Provision of as-built drawings	Sum			.si
<u> </u>		TOTAL CARRIED FORWARD	100 70		R	

1.2.1 8.4.1 TIME-RELATED ITEMS 1.2.1 8.4.2 Contractual requirements 1.2.2 8.4.2 Operation and maintenance of facilities on site, for duration of construction, except where otherwise stated 1.2.2.1 8.4.2.1 Facilities for Engineer (a) Furnished office (1 No.) Sum (c) Nameboards (2 No.) Sum (d) Survey assistants and materials 1.2.2.2 8.4.2.2 Facilities for Contractor (a) Offices and storage sheds (b) Workshops (c) Laboratorries (a) Ablution and latrine facilities (i) Tools and equipment (g) Water supplies, electric power and communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction Sum Company and head office over-head costs for the duration of the contract 1.2.4 8.4.4 Other time-related obligations Sum TATAL CARRIED FORWARD			R				
1.2.2 8.4.2 Operation and maintenance of facilities on site, for duration of construction, except where otherwise stated 1.2.2.1 8.4.2.1 Facilities for Engineer (a) Furnished office (1 No.) (c) Nameboards (2 No.) (d) Survey assistants and materials 1.2.2.2 8.4.2.2 Facilities for Contractor (a) Offices and storage sheds (b) Workshops (c) Laboratories (e) Ablution and latrine facilities (f) Tools and equipment (g) Water supplies, electric power and communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum	1.2	8,4	TIME-RELATED ITEMS				
on site, for duration of construction, except where otherwise stated 1.2.2.1 8.4.2.1 Facilities for Engineer (a) Furnished office (1 No.) Sum (c) Nameboards (2 No.) Sum (d) Survey assistants and materials Sum 1.2.2.2 8.4.2.2 Facilities for Contractor (a) Offices and storage sheds Sum (b) Workshops Sum (c) Laboratories Sum (e) Ablution and latrine facilities Sum (f) Tools and equipment (g) Weter supplies, electric power and communications Sum (h) Dealing with water (i) Access Sum (i) Plant (designated plant, specifically identified) Sum 1.2.3 8.4.3 Supervision for duration of construction Sum 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum	1.2.1	8.4.1	Contractual requirements	Sum			a a
(a) Furnished office (1 No.) (c) Nameboards (2 No.) (d) Survey assistants and materials 1.2.2.2 8.4.2.2 Facilities for Contractor (a) Offices and storage sheds (b) Workshops (c) Laboratories (e) Ablution and latrine facilities (f) Tools and equipment (g) Water supplies, electric power and communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum Sum Sum Sum Sum Sum Su	1.2.2	8.4.2	on site, for duration of construction,	Sum			
(c) Nameboards (2 No.) (d) Survey assistants and materials 1.2.2.2 8.4.2.2 Facilities for Contractor (a) Offices and storage sheds (b) Workshops (c) Laboratories (e) Ablution and latrine facilities (f) Tools and equipment (g) Water supplies, electric power and communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum Sum Sum Sum Sum Sum Su	1.2.2.1	8.4.2.1	Facilities for Engineer				
(d) Survey assistants and materials 1.2.2.2 8.4.2.2 Facilities for Contractor (a) Offices and storage sheds (b) Workshops (c) Laboratories (e) Ablution and latrine facilities (f) Tools and equipment (g) Water supplies, electric power and communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum Sum Sum Sum Sum Sum Su			(a) Furnished office (1 No.)	Sum			
1.2.2.2 8.4.2.2 Facilities for Contractor (a) Offices and storage sheds (b) Workshops (c) Laboratories (e) Ablution and latrine facilities (f) Tools and equipment (g) Water supplies, electric power and communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction 1.2.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum Sum Sum Sum Sum Sum Su			(c) Nameboards (2 No.)	Sum		P)	
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(b) Workshops (c) Laboratories (a) Ablution and latrine facilities (f) Tools and equipment (g) Water supplies, electric power and communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) Sum 1.2.3 8.4.3 Supervision for duration of construction Sum 1.2.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum	1.2.2.2	8.4.2.2	Facilities for Contractor				
(c) Laboratories (e) Ablution and latrine facilities (f) Tools and equipment (g) Water supplies, electric power and communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction Sum 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum Sum Sum Sum Sum Sum Su			(a) Offices and storage sheds	Sum			
(e) Ablution and latrine facilities (f) Tools and equipment (g) Water supplies, electric power and communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum Sum Sum Sum Sum Sum Su		*	(b) Workshops	Sum			
facilities (f) Tools and equipment (g) Water supplies, electric power and communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum Sum Sum Sum Sum Sum Su			(c) Laboratories	Sum			
(f) Tools and equipment (g) Water supplies, electric power and communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum Sum Sum Sum Sum Sum Su			• • • • • • • • • • • • • • • • • • • •	Sum			
communications (h) Dealing with water (i) Access (j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction Sum 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum Sum Sum Sum Sum Sum Su				Sum	100	×	
(h) Dealing with water (i) Access Sum (j) Plant (designated plant, specifically identified) Sum 1.2.3 8.4.3 Supervision for duration of construction Sum 1.2.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum				Sum			
(j) Plant (designated plant, specifically identified) 1.2.3 8.4.3 Supervision for duration of construction 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum Sum Sum				Sum			
specifically identified) 1.2.3 8.4.3 Supervision for duration of construction 1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum Sum Sum Sum			(i) Access	Sum		,	x.
1.2.4 8.4.4 Company and head office over-head costs for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum				Sum		d	
for the duration of the contract 1.2.5 8.4.5 Other time-related obligations Sum	1.2.3	8.4.3	Supervision for duration of construction	Sum			
	1.2.4	8.4.4		Sum			
TOTAL CARRIED FORWARD	1.2.5	8.4.5	Other time-related obligations	Sum		#	
IOTAL GARRIED FORWARD R			TOTAL CARRIED FORWARD			R	

		TOTAL BROUGHT FORWARD			R	
1.3	8.8	TEMPORARY WORKS				
1.3.2	8.8.2	Accommodation of traffic	Sum			
1.4	8.8.4	Existing services				
1.4.1		(a) Supply or hire of specialist equipment for the detection of existing cables and pipelines on site (for verifications as may be directed by an Engineer)	Sum			
1.4.2		(b) The use of equipment referred to in item (a) above	Sum			
1,4.3		(c) Excavation by hand in soft material to expose services as directed by the Engineer	Sum	1		
1.4.4		(d) Temporary protection of services as directed by the Engineer	Sum	1		
1.5		Provisional Sums				
1.5.1	×	Provisional sum for the scour chamber supply and installation of additional pipe work that may be required.	Prov. Sum	1	200,000.00	200,000.00
1.5,2		Contractors mark-up on Item A1.5.1	%			0.00
						3
					R	
		TOTAL FOR SECTION 'G' CARRIED TO SUMMARY			R	0.00

H37 PIPELINE CHAMBE RAND WATER SANS 1200 C: SITE CLEARAN								
ITEM	WATER PAYMENT	SHORT DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT		
NO	REFERS	OHORT BEGORN HOR	Om	COMMITTE	1 17 1 1 1	7(1110 0711		
2	SANS 1200 C	SECTION C: SITE CLEARANCE						
		Clear and grub site and remove any obstruction that may occur. Only areas indicated in writing by Engineer must be cleared:						
2.1	8.2.1	Clear and grub site (and remove any obstruction that may occur. Only areas indicated in writing by the Engineer)						
2,1,1		i) Northridge Reservior chamber	m²	52				
2.1.2		ii) Air Valve chamber	m²	20				
2.1.3		iii) Scour chamber	m²	20				
2.2	8.2.6	Take down existing fence						
2.2.1		Remove portion of the existing concrete						
		palisade fence with care, put aside and						
anson more as no		reinstate upon completion of construction						
2.2.1.1		i) Northridge Reservior chamber	m	10				
2.3	8.2.8	Demolish and remove structures/buildings and dismantle steelworks, etc						
2.3.1		Existing brick chamber with reinforced						
2.3.1.1		i) Northridge Reservior chamber						
2.3.1.1.1	1	a). Reinforced concrete roof slab and base	m³	5				
2.3.1.1.2		b). Brickwork	m³	14	į.			
2.4	8.2.9	Transport spoil material to unspecified sites and dump (provisional)						
2.4.1		Transport other spoil material (concrete, brickworks, etc) to the predefined dump site						
2.4.1.1		i) Northridge Reservior chamber	Sum	1				
2.4.1.2		ii) Air Valve chamber	Sum	1 1				
2.4.1.3		iii) Scour chamber	Sum	1				
	3		<u>.</u>					

TOTAL FOR SECTION 'C' CARRIED TO SUMMARY

0.00



PIPELINE AND BOOSTERS H37 PIPELINE CHAMBERS

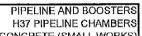
SANS 1200 DA: EARTHWORKS (SMALL WORKS)

NO REFERS SHORT DESCRIPTION SABS SECTION DA: EARTHWORKS	UNIT	QUANTITY	RATE	AMOUNT
SABS SECTION DA: EARTHWORKS				
1200DA				
1 8.3.2 Excavation				
1.1 a) Remove topsoil to nominal depth 150mm,				
stockpile and maintain				
1.1.1 i) Northridge Reservior chamber	m ²	52		
1.1.2 ii) Air Valve chamber	m ²	20		
1.1.3 iii) Scour chamber	m ²	20		
b) Excavate in all materials and use for embankment or backfill or dispose, as ordered				
1.2.1 i) Northridge Reservior chamber	m³	136		
1.2.2 ii) Air Valve chamber	m³	35		
1.2.3 iii) Scour chamber	m³	67		
2 8.3.4 Importing of material from commercial				
sources of from borrow pits				
2.1 a) Importing of backfill G7 Material compacted		10 To		
in layers not exceeding 150mm in thickness compacted to 93% MOD AASHTO density AT -				
1% to +2% OMC (use as layerworks				
underneath the air valve chamber)				
2.1.1 i) Northridge Reservior chamber	m³	57		
2.1.2 ii) Air Valve chamber	m³	15		
2.1.3 iii) Scour chamber	m³	32		
2.2 b) G5 Material compacted in layers not				
exceeding 100 mm in thickness compacted to 95% MOD AASHTO density AT -1% to +2%				
OMC				
2.2.1 i) Northridge Reservior chamber	m³	15		
2.2.2 ii) Air Valve chamber	m³	7		
2.2.3 liii) Scour chamber	m³	7		
3 8.3.10 <u>Topsoiling</u>			8	
3.1 i) Northridge Reservior chamber	m ²	52		
3.2 ii) Air Valve chamber	m ²	20		
3.3 iii) Scour chamber		20		
4 Shoring of deep excavations				
4.1 i) Northridge Reservior chamber	Sum	1 1		
4.2 ii) Air Valve chamber	Sum	1		
4.3 iii) Scour chamber	Sum	1		
TOTAL FOR SECTION 'D' CARRIED FORWA	RD TO SU	MMARY	R	0.

H37 PIPELINE CHAMBERS SAM DOP 00001 TS: VALVES & PIPE SPECIALS

ITEM NO	PAYMENT REFERS	SHORT DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TS	SAM DOP 00001 TS	SECTION TS: VALVE CHAMBERS - VALVES AND PIPE SPECIALS				
TS1		Fittings for Air-Valve Chamber - Refer to Drg. No. RA21570		6.	15.00 to 10.00 to 10.	
TS.1.1	TS 5.11	Manufacture of Pipe specials				
		Manufacture of pipe fittings, complete as shown on the drawings, including for the supplying of materials, handling and installation in accordance with the specifications. Rate to include cutting into the pipeline and welding (Or jointing with flanges as required) and for making good of coating and lining as per specification. Flanges according to Rand Water Specification (Dwg A11791).			¥	
TS.1.1.1		A1: 796 OD 6 mm THICK COMPENSATION PLATE.	No.	1		
TS.1,1.2.		A2: 609.6 mm OD STEEL STUB PIPE, FLANGED ONE END PLAIN ENDED OTHER END 553 mm LONG.	No	1		
TS.1.1.3		A3: 219.1 mm OD STEEL PIPE, FLANGED ONE END WITH DN600 FLANGE. 500 mm LONG, 8.18 mm THICK.	No.	1		
TS.1.2	TS 5.11	Installation of Pipe specials				
T T T T T T T T T T T T T T T T T T T		Installation of pipe fittings, complete as shown on the drawings, including for the supplying of materials, handling and installation in accordance with the specifications. Rate to include cutting into the pipeline and welding (Or jointing with flanges as required) and for making good of coating and lining as per specification. Flanges according to Rand Water Specification (Dwg A11791).				
TS.1.2.1		A1: 796 OD 6 mm THICK COMPENSATION PLATE.	No.	1	50 (2011 to 11) (2015)	
TS.1.2.2		A2: 609.6 mm OD STEEL STUB PIPE, FLANGED ONE END PLAIN ENDED OTHER END 553 mm LONG.	No	1		
TS.1.2.3		A3: 219.1 mm OD STEEL PIPE, FLANGED ONE END WITH DN600 FLANGE. 500 mm LONG, 8.18 mm THICK.	No.	1		
TS.2		Fittings for Scour Valve Chamber - Refer to Drg. No. RO 39662/005				
		Installation of pipe fittings, complete as shown on the drawings, including for the supplying of materials, handling and installation in accordance with the specifications. Rate to include cutting into the pipeline and welding (Or jointing with flanges as required) and for making good of coating and lining as per specification as well as fitting the pipe into kerb inlet. Flanges according to Rand Water Specification (Dwg A11791).				
TS.2.1		Item 1: 528 mm OD, S355 JR + N, 8 mm THICK COMPENSATION PLATE.	No.	1		
TS.2.2		Item 2: 323.8 mm OD 1795 mm LONG STEEL PIPE, S355JR + N ONE END PLAIN OTHER END FLANGED.	No.	1		

		Section Carried Forward to Summary				R	
TS.3.3		DN 300 Sluice Gate Valve (3500kPa)	Na.	1	***************************************		
TS.3.2		DN 200 Air-valve (1500kPa)	No.	1			
TS.3.1		DN 200 Sluice Gate Valve (1500kPa).	No.	2			
		All valve to be according to RW Specifications. (All valves to be supplied and installed as indicated on drawings including valve supports). Rate to include the assessment of valves at Emhlangeni storage site and the dtermination of refurbishment as well as transporting to site lay down areas and/or beside the trench.			v		
TS.3	TS 5.12	Valves					
TS.2.5		Item 6: 315mm OD, HDPE, PN 25, SDR 7.4 STRAIGHT PIPE, LENGTH TO BE CONFIRMED ON SITE.	No.	2			
TS.2.4	4	Item 5: 315mm OD, HDPE, PN 25, 45° BEND WITH 486mm RADIUS	No.	2			
TS.2.3		Hem 4: 315mm OD, HDPE, PN 25, SDR 7.4 STRAIGHT PIPE WITH STEEL- HDPE FLANGE ADAPTOR ON END, LENGTH TO BE CONFIRMED ON SITE.	No.	1			



ITEM No	PAYMENT REFERS	SHORT DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SABS 1200GA	SECTION GA: CONCRETE (SMALL WORKS)				
§.1	8.2	SCHEDULED FORMWORK ITEMS				
4.1.1 4.1.1.1 4.1.1.1.1	8.2.2	Smooth Formwork a) To sides of walls i) Northridge Reservior chamber	m²	164	R	
4.1.2 4.1.2.1 4.1.2.1.1	8,2.3	Narrow widths a) Sides of roof slab (180mm high) i) Northridge Reservior chamber	m	22		
4.1.2.2 4.1.2.2.1		b) Sides of base slab (400mm high) i) Northridge Reservior chamber	m	25		
4.1.2.3 4.1.2.3.1 4.1.2.3.2		c) Sides of base slab (200mm high) ii) Air Valve chamber iii) Scour chamber	m m	11		
4.1.3 4.1.3.1	8.2.4	Box out Holes / Form Voids a) Box out hole for 500mm x 500mm x 200mm (deep) sump				
4.1.3,1.1		i) Northridge Reservior chamber	No.	1		
4.1.3.2		b) Box out hole for 720mm x 720mm x 350mm (deep)				
4,1.3.2.1		i) Northridge Reservior chamber	No.	2		
4.1.3.3 .		c) Box out hole for 620mm x 620mm x 350mm (deep)		-		
4.1.3.2.2		i) Northridge Reservior chamber	No.	2	***************************************	
4.1.3.4		d) Box out hole for 470mm x 470mm x 350mm (deep)				
4,1.3.4,1		i) Northridge Reservior chamber	No.	1		
4.2	8.3	SCHEDULED REINFORCEMENT ITEMS				
4.2.1 4.2.1.1 4.2.1.1.1	8.3.1	Steel bars a) Mild steel reinforcement i) Northridge Reservior chamber	kg	1250		
4,2,1.2 4.2.1.2.1		b) High tensile steel reinforcement i) Northridge Reservior chamber	kg	12500		
4.2.2 4.2.2.1 4.2.2.1.1	8.3.2	High Tensile Welded Mesh a) Mesh Ref. 395 i) Northridge Reservior chamber (for roof slab - 2x layer)	m²	58	Pi	
4.2.2.1.2		ii) Air Valve chamber (base slab - 2x tayers)	m²	15		
4.2.2.1.3		iii) Scour chamber (base slab - 2x layers)	m ²	15		

4.3	8.4	SCHEDULED CONCRETE ITEMS				1000
4.3.1 4.3.1.1	8.4.2	Blinding Layer in Concrete a) 50mm Class 15/19MPa Blinding Layer				
4.3.1,1.1		i) Northridge Reservior chamber	m²	37		
4.3.1.1.2		ii) Air Valve chamber	m²	8		
4.3.1.1.3		iii) Scour chamber	m²	8		
4.3.2	8.4.3	Strength Concrete				
4.3.2.1 4.3.2.1.1		a) Grade 35MPa/19mm	3	E0.		
4.3.2.1.2		i) Northridge Reservior chamber ii) Air Valve chamber (base)	m ³	52		
4.3.2.1.3		and by contracting appropriate the property of the contraction of the	m ³	2 2		
4.3.2.1.3		iii) Scour chamber	m ³	. 2		
4.3.3 4.3.3.1	8.4.4	<u>Unformed surface finishes</u> Wood-floated finish to floor and roof slab				
4.3.3.1.1		i) Northridge Reservior chamber	m²	66		
4.3.3.1.1		ii) Air Valve chamber (floor slab)	m ²	8		
		iii) Scour chamber (floor slab)	m²	8		
4.3.3.1,3		nily scoul Gramber (1001 Stab)	m ⁻			
4.4	8.8	MISCELLANEOUS				
4.4.1		Cast in PVC sleeves:				7
4.4.1.1		a) 110mm diameter x 350mm long including vermin proof				
		mosh				
4.4.1.1.1		i) Northridge Reservior chamber	No,	6		
4.4.1.2		b) Cast in 110mm diameter x 180mm long PVC sleeves above				
		valve caps		110-1		
4,4,1.2.1		i) Northridge Reservior chamber	No.	3		-22
4.4.2		Cast in standard Rand Water manhole frame and cover			8	
4.4.2.1		i) Northridge Reservior chamber	No.	1		
4.4.2.2		ii) Air Valve chamber	No.	1		
4.4.2.3	ø	iii) Scour chamber	No.	1		
4.4.3		Supply and cast in standard Rand Water frame and sump				
		cover (as per DGR No. A8879)	200			
4.4.3.1		i) Northridge Reservior chamber	No.	1		
4.4.4		Supply all materials and and install the Steel valve supports as	SAG			
		detailed on Rand Water Detail Drg A12210:				
4.4.4.1		i) Northridge Reservior chamber	No.	3		
4.4.5		Water lightness test of the concrete valve chamber	999			
	2.1.5.2.19	i) Northridge Reservior chamber	Sum	1		
4.4.6		Rigid polymer modified liquid waterproofing (Apply on both				
4.4.6.1		sides of the walls) i) Northridge Reservior chamber	m²	164		
4.4.0.3		Note inage Neservior Graniber	m	104		
4.4.7		Water proofing membrane compatible with use over an	i i		8	
4,4,7.1		expansion joint(200mm width) ii) Air Valve chamber	m	122		
4.4.7.1		iii) Scour chamber	m	202		
		Buddy do etco and double-content-con				
4.4.8		Construction of 15MPa external mass concrete access steps				
		exclusive of handrails for the chamber (Refer to Drawing RA				
4.4.8.1		27329) i) Northridge Reservior chamber	m ³	0.5		
4.4.8.2		ii) Air Valve chamber	m ³	1		
4.4.8.3		iii) Scour chamber	100000	0,5		
7.0.0		my scour chamber	m ³	6,0		
4.4.9		Manufactureing, supply and installation (including welding) of				
4.4.9.1	2.6 & 4.13	<u>puddle flanges.</u> i) Northridge Reservior chamber .	No	2		r
	······································					
		Section Carried Forward to Summary		······································		R -

PIPELINE AND BOOSTERS H37 PIPELINE CHAMBERS SANS 1200 GE: PRECAST CONCRETE (STRUCTURAL) RAND WATER QUANTITY **AMOUNT** ITEM PAYMENT SHORT DESCRIPTION UNIT RATE NO REFERS 5 SABS SECTION GE: PRECAST CONCRETE 1200GE (STRUCTURAL) 5.1 SCHEDULED ITEMS 8.2 5.1.1 8.2.1 Provide Structural Precast Units 5.1.1.1 a) Provide 2000x200x500 mm high Precast Concrete Chamber with 150mm thickness 5.1.1.1.1 ii) Air Valve chamber No. 5 5.1.1.1.2 iii) Scour chamber No. 11 5.1.1.2 b) Provide 2300x2300x150mm thick Precast Concrete Roof Slab 5.1.1.2.1 ii) Air Valve chamber No. 1 5.1.1.2.2 iii) Scour chamber No. 1 5.1.2 8.2.2 Erection of Structural Precast Units 5.1.2.1 a) Provide 2000x2000x500 mm high Precast Concrete Chamber with 150mm thickness 5.1.2.1.1 ii) Air Valve chamber No. 5 5.1.2.1.2 iii) Scour chamber No. 11 5.1.2.2 b) Provide 2300x2300x150mm thick Precast Concrete Roof Slab 5.1.2.2.1 ii) Air Valve chamber No. 1 5.1.2.2.2 iii) Scour chamber No. 1 5.1.3 8.2.5 Miscellaneous Built-In Metalwork 5.1.3.1 Access Step Irons ii) Alr Valve chamber 10 5.1.3.1.1 No. 22 5.1.3.1.2 iii) Scour chamber No.

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Section Carried Forward to Summary



SANS 1200 HA: STRUCTURAL STEELWORK (SUNDRY ITEMS)

ITEM NO	PAYMENT REFERS	SHORT DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SABS	SECTION HA: STRUCTURAL STEELWORK		- " "		
	1200HA	(SUNDRY ITEMS)				
.1	8.3	SCHEDULED ITEMS				
.1.1 .1.1.1	8.3.1	Structural Steel a) Structural steel frame for the access steel platform				
.1.1.1.1		(as per DRG No. R039662/001) i) Northridge Reservior chamber	t	0.6		
.1.2	8.3.2	Handrails				
.1.2.1		a) Handrail assembly complete (DRG No. R039662/001)				
5.1.2.1.1		i) Northridge Reservior chamber	Sum	1		
5.1,3	8,3,3	Ladders complete and installed Supply and Install Standard Rand Water Catladder (as per DRG No. A7406)				
5.1.3.1 5.1.3.1.1		i) Northridge Reservior chamber a) 3800mm high, refer to DRG R039662/001	No.	1 1	8	
5.1.3.1.2		b) 3200mm high, refer to DRG R039662/001	No.	1 1	10	
3.1.3.1.3		c) 2900mm high, refer to DRG R039662/001	No.	2		
6.1.4	8.3.4	Flooring, Complete and Installed with Frames (as per DRG No. R039662/001)				
3.1.4.1		a) Open grid floors RS40 (25x4.5mm) rectagrid floor				
6.1.4.1.1		i) Northridge Reservior chamber	m²	7		
3.1.5		Supply and install Grab Rails as detailed on Rand Water Detail (as per DRG. No. A9858)				
3.1.5.1		i) Northridge Reservior chamber	No.	1 1		
.1.5.2 .1.5.3		ii) Air Valve chamber iii) Scour chamber	No. No.	1 1		
5.1.6		Supply and install 700mm long safety chains (as per				
6.1.6.1		DRG No R039662/200-201) i) Northridge Reservior chamber	No.	6		
		i				
						s.
		Section Carried Forward to Summary				R -



Item No.	Payment refers	Description	Unit	Qty	Rate	Amount
140.	Teleta	SECTION 3: OCCUPATIONAL HEALTH AND SAFETY		31		
F.01	2.4 & 2.5.	Preparation of the Contractor's site specific Health and Safety Plan	lump sum			
F.02	3.2	Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	lump sum	•		
F.03	4	Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	month			
F.04	10.d	Provision of Personal Protective Equipment (PPE)				
F.05	3.2.1	Provision of a full-time Construction Health and Safety Officer	month			
F.06	15	Cost of medical certificates and medical surveillance		a a		
	15	(a) Initial (baseline) medical examinations	lump sum			
	15	(b) Periodic examinations	lump sum			
	15	(c)Exit examinations	lump sum			
F.07	9.3	Induction training	lump sum			
F.08	16	Provisions of First And Dones to Ook requirements and	lump sum		i	
F.09	24 C09	Transportation of Workers	lump sum			
F.10	11	Welfare Facilities	lump sum			2
F.11	14	Occupational Hygiene Surveys	lump sum			
F.12	10	Training	lump sum			
F.13	12	Security requirements including the security risk assessment (before site establishment)	lump sum			
F.14	24 C14, 7	Employee wellness programs	lump sum			
F.15	7	Drug and Alcohol Testing, Policies and Procedures	lump sum			
F.16	rait ប្រ	Barricading	lump sum			
F.17	רמונטוט	Safety notices and signs	lump sum			
F.18	8	SHE Incentives	lump sum			
F.19	3.2.1 & 5C	COVID-19 Prevention and Management: The Engineer to advise at the relevant stage after award		PC SUM]
F.20	Part B 10n,6.6	Adequate ventilation and lighting during construction	lump sum			
F.21	2.9	Submission of the Health and Safety File (hard and soft copies)	lump sum			
						R -
		SECTION CARRIED FORWARD TO SUMMARY			- 100	1



RAND WATER

Schedule : QUALITY

ltem No.	Payment Refers	Description	Unit	Qty	Rate	Total Amo
G.1		Preparation and submission of Contractors Quality Management Plan (CQMP), for review and approval prior to commencement of	lump sum	1	ŧ	
G.2		Provision of Qualified Quality Officer (The	6.4 4 !-	Contract		
- ,		contractor shall provide RW with relevant to the scope of work qualified Quality Officer)	Month	Duration		
G.3		Maintenance of documents and final documentation for submission - Provision of Document controller	Month	Contract Duration		
G.4		Provision of Quality Officers relevant training (The contractor to provide related training for the quality officer)	Rate	1		
G.5		Provision of Compliance Audits (The contractor to audit the project once a year for the duration of the project)		Quartely for the duration of contract		
G.6		Testing Equipment calibration (The testing Equipments should be calibrated as per the manual)		Annually		
G.7		Provision of any other testing and inspections requested by the Engineer	Lump sum	1		
9			,			
		c				
	3.6.6.6. non no no 2.0.8.1.0.0.0.0.0.7.27.2.2.1.1.1.0.4.1.1.1.1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2			Ameleration and analysis are compared to		-
		SECTION CARRIED FORWARD TO SUMMARY				R -



Section: Environmental

Item No.	Payment Refers	Description	Unit	Qty	Rate	Total Amount
1	PSA 8.3.14	ENVIRONMENT Administrative requirements as per environmental specification. • Understanding of compliance • Preparation of environmental file and work program approval. • Preparations of method statements (management of all waste, Keeping the site clean and weed free, final clean up of site and campsite). • Maintaining of auditing of site compliances • Reporting of environmental incidence • Signing off of work for payment	Sum	1		
•••••	9.2	Emergency preparedness retainement for external services Programme scheduling details of administrative matters: Emergency preparedness funding				
2		a) Provision for bee, snake and other fauna removal	Sum	4	2	
		b) Provision for hydrocarbon spillages that require intervention from professional clean up provider				
		c) Provision to clean up sewage spillages	Oum	•		
		d) Equipment for fire fighting				
		e) Call out of fire department		<u>.</u>		
3	9.1.4	Environmental awareness and training				
		The rate for this item shall include costs for inductions and environmental awareness and training	Sum	1		
		TOTAL CARRIED FORWARD			R	- W 105101 W

5	9.2	Social integration of the project to the public The rate for this item shall include costs for establishment of construction campsite and working areas Establishment of site camp and	Sum	1				
5		costs for establishment of construction campsite and working areas Establishment of site camp and	Sum	1				
5			200000000000000000000000000000000000000					
		works area.						
		Signage The rate for this item must cover all expenses incurred in preparing signage at the entrance of the site offices indicating the following information						
		The contractor's contact numbers						
		ECO details	Sum	1				
		 Emergency numbers and provision for: – snake removal, bee removal, fire, large hydrocarbon spillages, sewerage spillages 	[9]					
		Signage measuring a minimum of 30mmx30mm must also be made available for no go areas.	W			£ .		
6 3.	.4 to 9.3.4	Barricading and demarcation						
		a. Screening for unsightly works						
		b. Clear demarcating of the working foot print	sum	1				
		c. Barricading of sensitive no go areas						
7 9.		Pollution prevention and preservation of environmental resources						
8		The rate for this item shall include costs for pollution prevention and preservation of environmental resources	sum	1	S			
9		a) Cleaning the site of litter and rubble	sum	1				
10		b)Weed control on site	sum	1	<i>*</i>			
11		C) Waste bins and receptacles that comply with the waste clauses of the Environmental specification.	sum	1				
12		c) Appropriate skips for waste separation	sum	1				
13		d)General waste Waste removal	sum	1				
		TOTAL CARRIED FORWARD		ngg gymanaria	R			

		TOTAL BROUGHT FORWARD	76		R	
16		g) Spillage kits to clean up spillages	sum	1		
16		h) Hard impervious surfaces for storage of chemicals	sum	1		
17		i)Bunding facility for hazardous products	sum	1		
18		J) Labelled containers for decanting of liquids	sum	1		
19		K) Drip trays for all vehicles staying on site over night	sum	1		
	9,5	Preservation of the environment: fauna ,flora, scenic value, Archaeological artefacts				
20	9.5.3	Erosion control and silt management The amount shall represent the costs associated with the practice of preventing or controlling wind or water erosion during construction. The erosion control measures must effectively prevent water pollution, soil loss, wildlife habitat loss and human property loss. The rate shall also include the costs of silt control where devices shall be designed to keep eroded soil on a construction site, so that it does not wash off and cause water pollution to a nearby stream, river, lake, or dam.	Lump Sum	1		
21.		Final clean up and rehabilitation of the construction camp to the state in which it was prior to comencement of work	Lump Sum	1		
22		Appointment of an environmental officer	sum	1		
		Total amount carried forward			R	
		Total amount excluding Value-Added Tax (V. Schedules	AT) to be carr	ied to Sumn	nary of Price	0.0



ltem No.	Payment Refers	Description	Unit	Qty	Rate	Total Amount
	PSA 8.3.14	ENVIRONMENT				
1	9.1	Administrative requirements as per environmental specification. • Understanding of compliance • Preparation of environmental file and work program approval. • Preparations of method statements (management of all waste, Keeping the site clean and weed free, final clean up of site and campsite). • Maintaining of auditing of site compliances • Reporting of environmental incidence • Signing off of work for payment • Emergency preparedness retainement for external services • Programme scheduling details of administrative matters:	Sum	1		
	9.2	Emergency preparedness funding			ı	
		a) Provision for bee, snake and other fauna removal				
2		b) Provision for hydrocarbon spillages that require intervention from professional clean up provider	Sum	1		
2		c) Provision to clean up sewage spillages	Sum		x	
		d) Equipment for fire fighting				
Supplied States Commence Commence		e) Call out of fire department				
3	9.1.4	Environmental awareness and training			€ 95 \$10,000	
		The rate for this item shall include costs for inductions and environmental awareness and training	Sum	1	8	
		TOTAL CARRIED FORWARD			R	

		TOTAL BROUGHT FORWARD			R	
4	9.2	Social integration of the project to the public			,	
		The rate for this item shall include costs for establishment of construction campsite and working areas	Sum	1		
5	9.3	Establishment of site camp and works area.		7.01 882 7.01 8.07 9.00 9.00		
		Signage The rate for this item must cover all expenses incurred in preparing signage at the entrance of the site offices indicating the following information	đ.			
		The contractor's contact numbers		200		
		ECO details	Sum	1	***************************************	
		Emergency numbers and provision for: – snake removal, bee removal, fire, large hydrocarbon spillages, sewerage spillages				
		Signage measuring a minimum of 30mmx30mm must also be made available for no go areas.				
6	9.3.4 to 9.3.4.2	Barricading and demarcation				
		a. Screening for unsightly works			**************************************	
		b. Clear demarcating of the working foot print	sum	1		
		c. Barricading of sensitive no go areas				
7	9.4 to 9.4.6	Pollution prevention and preservation of environmental resources				
8		The rate for this Item shall include costs for pollution prevention and preservation of environmental resources	sum	1		
9		a) Cleaning the site of litter and rubble	sum	1	3.€	
10		b)Weed control on site	sum	1		
11		Waste bins and receptacles that comply with the waste clauses of the Environmental specification.	sum	1		
12		c) Appropriate skips for waste separation	sum	1		
13		d)General waste Waste removal	sum	1		
		TOTAL CARRIED FORWARD		WEARING TO THE STATE OF THE STA	R	

		TOTAL BROUGHT FORWARD			, R	
16		g) Spillage kits to clean up spillages	sum	1	305 W.	7 - 5210 1-2400 PMS
16		h) Hard impervious surfaces for storage of chemicals	sum	1		
17		i)Bunding facility for hazardous products	sum	1		
18	**************************************	J) Labelled containers for decanting of liquids	sum	1		
19		K) Drip trays for all vehicles staying on site over night	sum	1		
	9.5	Preservation of the environment: fauna ,flora, scenic value, Archaeological artefacts				
20	9.5.3	Erosion control and silt management The amount shall represent the costs associated with the practice of preventing or controlling wind or water erosion during construction. The erosion control measures must effectively prevent water pollution, soil loss, wildlife habitat loss and human property loss. The rate shall also include the costs of silt control where devices shall be designed to keep eroded soil on a construction site, so that it does not wash off and cause water pollution to a nearby stream, river, lake, or dam.	Lump Sum	1		
21		Final clean up and rehabilitation of the construction camp to the state in which it was prior to comencement of work	Lump Sum	1		
22		Appointment of an environmental officer	sum	· · · · · · · · · · · · · · · · · · ·		
		Total amount carried forward			R	