

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total	QTY	RATE	AMOUNT
	SABS 1200 AA	SECTION A: PRELIMINARY AND GENERAL													
A.1	PSAA 8.2.1	Fixed - Charge Items (A.1 - A.11)													
A.1.1	8.3.1	Contractual requirements	Sum									1			
	8.3.2	Establish Facilities on Site													
A.2	8.3.2 (a)	Facilities for the Engineer (SABS 1200 AB):													
A.2.1		Nameboard as detailed on Drawing No. J079(07)-D14	Sum									1			
A2.2	PS-8.1	Furnished Site Office, M60341 from M Projects or similar approved (refer to Drawing No. J079(07)-D13)	Sum									1			
A2.3	PS QMS	Compliance with Engineer's Quality Management System	Sum									1			
A2.4	PS9.1	Provision of a laptop and printer for use in connection with the contract	Sum									1			
A2.5		Survey equipment	Sum									1			
A.3	8.3.2 (b)	Facilities for the Contractor:													
A.3.1		Offices, storage sheds, workshops and living accommodation.	Sum									1			
A.3.2		Ablution and latrine facilities	Sum									1			
A.3.3		Tools, equipment and plant	Sum									1			
A.3.4		Water supplies, electric power, communications and access	Sum									1			
A.4		Dealing with water:													
A.4.1		Generally on site	Sum									1			
A.4.2		At stream/river crossings	Sum									1			
A.5	8.3.3	Other fixed charge obligations	Sum									1			
A.6	8.3.4	Remove Contractor's site establishment on completion	Sum									1			
A.7		Accommodation of traffic including road signage as necessary	Sum									1			
SUBTOTAL CARRIED FORWARD															

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
A.8	PE	Preparation of risk assessments, safe work procedures, the project H&S File, the H&S plan, the provision of PPE and protective clothing. The sum shall include all fixed costs necessary in complying with the OHS Act (1993 as amended) and the Construction Regulations (2003) and the Health and Safety Specifications. Rate to include for COVID-19 Virus as detailed in the specifications	Sum									1		
A.9		Appointment of a full time construction health and safety officer for the duration of construction works	Sum									1		
A.10	PE	Completing and checking the Project H&S File and handing over the Client	Sum									1		
A11	PES	Compliance with requirements of the project Environmental Management Plan	Sum									1		
	PSAA 8.2.2	Time Related Items												
A.12	8.4.1	Contractual requirements	Sum									1		
A.13	8.4.2	Operate and maintain facilities on the site for the duration of construction:												
A.13.1	8.4.2 (a)	Facilities for the Engineer-												
A.13.1.1		Nameboard	Sum									1		
A.13.1.2		Survey equipment (Including the use of a trained survey assistant)	Sum									1		
A.13.1.3		Engineer's site offices including consumables for laptop printer	Sum									1		
A.13.1.4		Compliance with Engineer's Quality management system	Sum									1		
A.13.1.5	PSAB8.2.1	Other time related obligations including R150 per week for Engineer's cellular telephone calls	Sum									1		
A.14	8.4.2 (b)	Facilities for the Contractor-												
A.14.1		Contractor's establishment as per Item A.3	Sum									1		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY

THEMBALETHU SANITATION PROJECT

CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari-fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
A.15	PSAA 5.3	Dealing with water:												
A.15.1		Generally on the site	Sum									1		
A.15.2		At stream/river crossings	Sum									1		
A.16.1	8.4.3	Supervision for duration of construction	Sum									1		
A.16.2		Provisional sum for Sub-contractor supervision costs	Sum									1		R 150 000,00
A.17		Accommodation of traffic and maintance of vehicular access to the Mkuze WWTW site	Sum									1		
A.18	8.4.3	Company and head office overhead costs for the duration of the contract	Sum									1		
A.19	PE	Updating and amending the risk assessments, safe work procedures, the project H&S File, the H&S plan, the provision of PPE and protective clothing and any other H&S matters that the contractor deems necessary. Rate to include for COVID-19 Virus as detailed in the specifications	Sum									1		
A.20	PE	Full compliance with all H&S matters during the construction of the works under the contract including all COVID-19 Protocols and procedures	Sum									1		
A.21		Compliance with requirements of the project Environmental Management Plan	Sum									1		
A.22	8.4.3	Other time related obligations	Sum									1		
	8,5	Provisional Sums												
A.23		Locate existing services where	Sum									1		R 15 000,00
A.24		Relocation of existing services and fences where ordered	Sum									1		R 25 000,00
A.25		Inspection of Materials by Inspectors appointed by the Engineer	Sum									1		R 150 000,00
A.27		Water for testing pipelines and structures (1 filling)	Sum									1		R 20 000,00
A.28		Allowance for Engineer's technical Assistant for duration of construction	Sum									1		R 72 000,00
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari-fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
A.29		Engineer's Representative cell phone calls	Sum									1		R 10 000,00
A.30		Engineer's Representative accomodation costs	Sum									1		R 120 000,00
A.31		Allowance for CLO	Sum									1		R 97 500,00
A.32		Audits												
A.32.1		Inspections by appointed Health and Safety Practitioner	Sum									1		R 300 000,00
A.32.2		Inspections by appointed Environmental Control Officer	Sum									1		R 300 000,00
A.33		Contractor's mark up on items A.25	%									R 1 069 500,00		
A.34	8,5	Daywork												
A.34.1		Labour	Sum									1		R 5 000,00
A.34.2		Materials	Sum									1		R 10 000,00
A.34.3		Plant	Sum									1		R 5 000,00
TOTAL FOR SECTION A CARRIED TO SUMMARY														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT		DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
	SABS 1200 DA		SECTION B: EARTHWORKS												
B1			Site Clearance												
B1.1	8.2.1	LI	Clear and grub vegetation	ha									13		
B1.2			Setting out of the works as per site plan issued by Engineer	Sum									1		
	SABS 1200D		Excavation												
B2	8.3.1.2		Remove topsoil to a nominal depth of 150mm, stockpile & maintain for further use	m²	1570	780	450	250	6400	13800	750	1000	25000		
B3	8.3.2		Bulk excavation for structures in all materials & use as backfill or embankment or dispose of on site as ordered for:												
B3.1			Biological reactor	m³	3500								3500		
B3.2			Clarifier	m³		2000							2000		
B3.3			Return sludge sump, pumpstation & control buildings	m³			250	310					560		
B3.4			Sludge drying beds	m³					3200				3200		
B3.5		LI	Minor chambers and structures	m³							500	100	600		
B4	8.3.3		Extra-over Items B3 for (PROVISIONAL):												
B4.1			Intermediate excavation	m³	200	100	30	50	120				500		
B4.2			Hard rock excavation	m³	0	0	100	60	200	100	40		500		
B4.3			Boulder excavation Class A	m³	20	10	5	2	10		3		50		
B4.4			Boulder excavation Class B	m³	20	10	5	5	8		2		50		
			Restricted Excavation												
B5	8.3.3	LI	Excavate for footings and restricted foundations in all materials and use as backfill or embankment or dispose, as ordered	m³	400	150	60	120	250	120	100		1200		
B6	8.3.3		Extra-over Items B5 for (PROV):												
B6.1			Intermediate excavation	m³	5	20	40	12	35	38			150		
B6.2			Hard rock excavation	m³	10	10	10	10	10		5		55		
B6.3			Boulder excavation Class A	m³	2	2	2	2	2		1		11		
SUBTOTAL CARRIED FORWARD															

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
B6.4		Boulder excavation Class B	m ³	2	2	2	2	2	1			11		
B6.5		Hand excavation for V-drain including shaping as necessary	m ³								150	150		
		Embankments												
B7		Import suitable fill material (G5 quality) and form embankments around structures including adding water and compacting to 96% MOD AASHTO (PROV) for use as engineered fill under structures	m ³	520	350	120	100	260	0	5		1355		
B8.1	8.3.4	Import hardcore 150mm thick from commercial sources, place and compact to 96% MOD AASHTO	m ³				160	520				680		
B9		Allow for the Engineer's compaction soil tests	Sum							1		1		
		Topsoiling and Grassing												
B10	8.3.10	LI Topsoiling from stockpiles to a nom. depth of 100mm on embankments, terraces and designated areas	m ²	1000	850	380	220	1200	5350	1000		10000		
B11	8.3.11	LI Grassing to embankments with commercial grass, terraces and designated areas. Rate to include for watering until grass is fully established	m ²	1000	850	380	220	1200	5350	1000		10000		
B13	SABS 1200DB	Pipe Trenching												
		<i>Rates to include for compaction tests of backfill materials as directed by the Engineer</i>												
B13.1	8.3.2	Excavate in all materials for trenches, backfill, compact or dispose of surplus / unsuitable material, for:												
		Pipes up to 200mm dia for depths:												
		Over and Up to:												
B13.1.1		LI 0,0 m 1,0m	m						2700			2700		
B13.1.2		1,0m 2,0m	m						1000			1000		
B13.1.3		2,0m 3,0m	m						300			300		
B13.1.4		3,0m 4,0m	m						100			100		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
B13.1.5		Greater than 4,0m deep	m						300			300		
B13.2		Excavate in all materials for trenches, backfill, compact, for pipes from 201mm dia and up to and including 400mm dia for depths :												
B13.2.1	LI	0,0 m 1,0m	m						500			500		
B13.2.2		1,0m 2,0m	m						200			200		
B13.2.3		2,0m 3,0m	m						100			100		
B13.2.4		3,0m 4,0m	m						50			50		
B13.2.5		Greater than 4,0m deep	m						50			50		
B.4.3	8.3.2	Excavate in all materials beyond the limits of pipe trenches for thrust walls, valve chambers, anchor blocks and manholes where ordered by the Engineer:												
	LI	Over and Up to												
B.4.3.1		0,0m - 1,0m	m ³						80			80		
B.4.3.2		1,0m - 2,0m	m ³						50			50		
B.4.3.3		3,0m - 4,0m	m ³						45			45		
B.4.3.4		Greater than 4,0m deep	m ³						20			20		
B.4.5	8.3.2 (b)	EO Items B.4.1 to B.4.3 for :												
B.4.5.1		Hard rock excavation	m ³						200			200		
B.4.6		Removal of rock without the use of explosives (where ordered by the Engineer)	m ³						120			120		
		Boulder excavation Class A	m ³						10			10		
		Boulder excavation Class B	m ³						5			5		
B.6	SABS 1200 DB	Imported Backfill Material												
B.6.1	8.3.3.1	Imported backfill material from commercial sources	m ³	200	150	50	100	580	400	120		1600		
B.6.2		Imported backfill material from designated borrow pit	m ³	80	60	20	40	200	200			600		
B.7	8.3.3.3	Compaction under roadways	m ³								100	100		
B.8	DB 5.1.2.4	LI Supply and install sack breakers in trenches	N°						40			40		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
B.9		Build cross embankments as specified where ordered	m³						40			40		
		Surface Water Channels												
B10		1000mm wide x 300mm deep 'V' drain to nearby river for storm water drainage	m							600		600		
		Stone Bedding												
B11		Supply and place stone bedding	m³	250					150		300	700		
B12	SABS 1200 DK	Gabions and Pitching												
B12.1	8.2.1 (a)	Surface preparation - cavities filled with excavated material	m²							200		200		
B12.2	8.2.2	Gabions:												
B12.2.1		2m x 1m x 1m boxes	m³							20		20		
B12.2.2		2m x 2m x 0,23m boxes	m³							15		15		
B13	8.2.4	Geotextile where ordered	m²							200		200		
B14		LI Roadmesh geogrid available from Maccaferri SA or similar approved	m²	910	1000	120	150	1500		80		3760		
B15	8.2.5	LI Ordinary stone pitching	m²							160		160		
B16	8.2.5 (a)	Services that Intersect a Trench:												
B16.1		LI Stormwater pipes up to 600mm dia	Nº						2			2		
B16.2		LI Water mains 20mm to 150mm dia	Nº						5			5		
B16.3		LI Wire Fences (all types)	Nº						5			5		
B16.4		LI Sewer lines up to 350mm dia	Nº						2			2		
B17		Services that adjoin a Trench:												
B17.1		Stormwater pipes up to 600mm dia	m						20			20		
B17.2		Water mains 20mm to 150mm dia	m						10			10		
B17.3		LI Wire Fences (all types)	m						300			300		
B17.4		LI Sewer lines up to 350mm dia	m						210			210		
B18		Allow everything necessary for working within 1,0m from existing overhead services poles. Rate to include for supporting and maintaining pole during construction.	Nº						2			2		
TOTAL FOR SECTION B CARRIED TO SUMMARY														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
	SABS 1200G 1982	SECTION C: CONCRETE WORK												
	8.1.3	Concrete												
C1	8.4.2	Blinding layer in 15 Mpa / 20mm concrete:												
C1.1		LI 50mm minimum thickness	m ²	950	670	150	250	2910	0	100		5030		
C2	8.4.3	No-fines layer in 1:8 cement:stone												
C2.1		75mm minimum thickness under floors	m ²	950	670	280	0	0	0	0		1900		
C3	8.4.3	Strength concrete Grade 10 Mpa/40mm:												
C3.1		Mass filling where ordered(PROV.)	m ³	60	50	10	30			50		200		
C3.2	8.4.3	Strength concrete Grade 15 Mpa/20mm:												
C3.2.1		Encasing to pipes under structures and mass concrete stairs, screeding and encasing peripheral drain	m ³	80	60	8	10		15			173		
C3.2.2		Benching	m ³		9			20				29		
C3.2.3		Footings to brick walls at sludge drying beds	m ³	0	0	0	80	240	0	0	0	320		
C3.2.4		False floors	m ³				30					30		
C3.2.5		Manhole bases, headwalls, valve and meter chamber bases	m ³						60	15		75		
C4		Strength concrete Grade 25 mPa/19mm:												
C4.1		Sludge drying beds floor slab, 75mm thick and V-drains	m ³					365			80	445		
C4.2		Strength concrete Grade 20 Mpa/19mm complete with formwork, etc. to anchor block and isolated minor structures, where ordered (PROV)	m ³							100		100		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
C5	8.4.3	Strength concrete Grade 30 Mpa/19mm:												
C5.1	8.4.3	Floors, foundations, roof beams and slabs to control house and other non- water retaining structures	m³				100			50		150		
C6	8.4.3 PSG5.5.1.7	Strength concrete Grade 35 Mpa/19mm:												
C6.1		Bioreactor floor, wall foundations, walls, platforms and walkways and outlet boxes	m³	800								800		
C6.2		Clarifier ring footing, ring wall, launder, floor slab, central foundation and column, outlet box and scum outlet boxes	m³		320							320		
C6.3		Sludge sump and pumpstations	m³			60	140			20		220		
C6.4		Splitter boxes and other minor structures	m³		55				30	20		105		
C7	8.6	Supply and install precast Grade 25 Mpa/15mm concrete elements:												
C7.1		2875mm long x 760 wide x 100 thick panels at clarifier baffle	Nº		12							12		
C7.3		Slab 1000 x 1000 x 75mm for drying beds	Nº					16				16		
	8.1.2	Reinforcement												
C8	8.1.2.2	High tensile steel bars:												
C8.1	8.1.2.2	LI 14 mm and under	t	20	30	7	21	24	2	2		106		
C8.2	8.1.2.3	LI 16mm and over	t	20	12		4					36		
C9		Collect from site handle, remove rust and fix high tensile steel bars regardless of size:	t	80	10							90		
C11	8.1.2.3c	LI High tensile welded mesh (PROV):												
C11.1		LI Type reference 359	m²					3000		680		3680		
C11.2		LI Type reference 245	m²							450		450		
C11.3		LI Type reference 617	m²							350		350		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
	8.1.1	Formwork:												
C12	8.2.1	Rough vertical plane to concealed surfaces:												
C12.1		External straight faces of structures	m ²	405			200			120		725		
C12.2		External battered face of reactor peripheral wall	m ²	2400								2400		
C12.3		Clarifier central foundation	m ²		80							80		
C12.4		Inlet works	m ²			45						45		
C13	8.2.1	Rough horizontal to concealed surfaces:												
C13.1		Soffit of clarifier launder	m ²		100							100		
C13.2		Soffits of reactor and clarifier outlet boxes	m ²	30	20							50		
C14	8.2.1	Rough curved vertical to concealed surfaces:												
C14.1		External face of clarifier walls	m ²		320							320		
C14.2		Clarifier foundation ring beam	m ²		250							250		
C15	8.2.2	Smooth vertical plane to:												
C15.1		External exposed faces and internal faces of reactor walls	m ²	3300								3300		
C15.2		Clarifier central channel and outlet boxes	m ²		2400	95						2495		
C15.3		Return sludge sump and pumpstation walls	m ²				550					550		
C16	8.2.2	Smooth horizontal to:												
C16.1		Soffit of clarifier column head and baffle platform	m ²		120	60						180		
C16.2		Soffits of bioreactor platforms & pumpstation roof slabs	m ²	560			310					870		
C17		Smooth sloping to top surface:												
C17.1		Reactor and clarifier outlet boxes benching	m ²	3								3		
C17.2		Clarifier 400 x 400 conical splays at central column	m ²	5	10							15		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
C18	8.2.2	Smooth curved vertical to:												
C18.1		External exposed and internal face of clarifier ring wall	m ²		1050	120						1170		
C18.2		Clarifier central column including for fixing in place stainless steel inlet pipe	m ²		20							20		
C18.3		Inlet works	m ²			460						460		
C19	8.2.5	Narrow widths:												
C19.1		Vertical 0 - 150 wide	m	200			180					380		
C19.2		Vertical 151-300 wide	m	150			20					170		
C20		Sloping to tops of weirs:												
C20.1		100 x 50	m	100								100		
C20.2		100 x 50 peripheral at clarifier launder	m		150							150		
C21		Horizontal to soffits:												
C21.1		0-0.7 wide	m		10							10		
C21.2		0.7-1.5 wide	m		2							2		
C22		Grooves and Ducts												
C22.1		40 x 40mm rebate for open gridflooring	m		0		20					20		
C23	8.2.6	Box out holes of area up to and including 1,0m ² , for depths:												
		Over and Up to												
C23.1		0,00m 0,25m	N°	5	10	8	18					41		
C23.2		0,25m 0,50m	N°	10			1					11		
		0,5m 0,75m	N°	8								8		
C26		Setting the following pipes or fittings into or through concrete work, including for forming formwork around the pipes and fixing the pipes to the designated lines and levels (pipes measured elsewhere)												
C26.1		Pipes up to 150mm NB	N°	15	10	5	18					48		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
C26.2		151mm up to 250mm NB	N°	10	8		2					20		
C26.3		251mm up to 400mm NB	N°	5	5		3					13		
C27		Supply and cast into concrete the following plain ended pipes as drains or as sleeves for electric cables including bends and for all cutting and waste and for supply and installation of all loose sockets and for jointing in accordance with the manufacturer's instructions:												
C27.1		100mm NB HDPE to clarifier central column including draw wire	m		50							50		
C27.2		Cable sleeves for aerators and mixers as detailed	m	200								200		
C28	8.5	Joints:												
C28.1		Reactor wall joints as detailed	m	180								180		
C28.2		Reactor and clarifier floor joints as detailed	m	40	175							215		
C29	8.4.4	Unformed Surface Finishes												
C29.1		Wood floated finish	m²	100	80	70	30	20				300		
C29.2		Steel floated finish	m²	100	80	70	30	20				300		
C30		Special steel floated finish for sliding joints including dusting with neat cement and applying two coats of approved bituminous paint	m²	30	10	20	15	10				85		
C31		As for item C30 above for Clarifier wheel tracks	m²		45							45		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari-fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
C32		Supply and lay 30mm screed to clarifier floors, including for preparing surfaces of concrete, laying in panels and narrow widths, levelling screed to suit rotating mechanism and finishing with steel trowel: (Screed to be laid under the supervision of the M&E Contractor after rotating mechanism has been installed.)	m²		910		40					950		
C33		Watertightness Testing												
		Testing units for watertightness, including water for testing the structures and taking all precautions to ensure the soundness of the structures in this respect:												
C33.1		Reactor	No.	2								2		
C33.2		Clarifier	No.		2							2		
C33.3		Inlet works	No.			1						1		
C33.4		Chlorine contact tank	No.				1					1		
C33.5		Pumpstation sump	No.				2					2		
TOTAL FOR SECTION C CARRIED TO SUMMARY														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT		DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
	PA		SECTION D: BRICKWORK AND PLASTER												
			<i>All brickwork to include "Brickforce" in every third course</i>												
D1			Brickwork one brick thick in foundation bricks												
D1.1		LI	Sludge drying beds	m ²					200				200		
D1.2		LI	Chlorine and control buildings	m ²				35			15		50		
D2A		LI	Brickwork, two bricks thick for foundations	m ²				140			68		208		
D2			Brickwork two bricks thick but with one skin in face brick												
D2.1		LI	RAS Pump Station	m ²				225					225		
D2.2		LI	Chlorine building	m ²				160			400		560		
D3			Brickwork two bricks thick but with both skin in face brick												
D3.1			Sludge drying beds	m ²					880		80		960		
D4		LI	Brickwork half brick thick in common												
D4.1			Sludge drying beds	m ²					36				36		
D5			Supply and build in "Brickforce brick reinforcing" in every course over openings												
D5.1			In 230mm thick walls	m					3150		44		3194		
D5.2			In 110mm thick walls	m					900				900		
D6			Dampproof course to joints between brickwork and between brickwork and concrete and to window sills in approved bituminous sheeting, cut to the full width of walls, including for laps and sealing at joints and angles	m ²				10	10		12		32		
D7		LI	One layer 500 micron consol plastic green waterproof sheeting sealed at laps with gunplas pressure sensitive tape	m ²	10			205	250		250		715		
SUBTOTAL CARRIED FORWARD															

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
D10		230 x 150mm louvred air bricks internally and externally including for forming flues and setting in cement mortar, complete with plastic insect screen, and for finishing flush with plasterwork	No.				18			12		30		
D11		Cement plaster in single coat minimum 20mm thick to internal faces of brickwork and concrete surfaces and finishing with steel trowel to control building	m²				590			360		950		
D12		Granolithic screed:												
D12.1		Tinted 20mm thick to floors including polishing	m²					2600		100		2700		
D13		Tinted granolithic skirting 20mm thick and 100mm up walls above floor, including for rounding neatly and finishing to floors and to straight level line against wall and forming all mitre returns and stopped ends	m					45		40		85		
D14		Setting pipes up to 400mm ND through brickwork and plaster including building brickwork around, for grouting solid with mortar and finishing plasterwork and for face brickwork neatly, pipes and ducts less than 50 mm dia not measured	Nº					100		50		150		
D15		4-ply malthoid in 2 layers to top of walls under concrete roofs	m					86		75		161		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT		DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD															
D16			Cutting and forming chases in brickwork for electrical conduits, switches and socket outlets, including for filling around conduits and boxes with mortar after these have been set in position (PROV)	m				50			50		100		
D17			Painting												
			Prepare surfaces and remove all loose material and apply:												
D17.1		LI	Alkali resistant primer and painting interior plaster or concrete surface in buildings with three coats of approved PVC latex type paint	m ²				590			360		950		
D17.2		LI	One coat 'Merit Plaster Primer' and two coats 'Double Velvet Pure Acrylic' paint or equal and approved on ceilings, cornice and fascia boards	m ²				460			300		760		
D17.3		LI	One coat wood primer and two coats 'Plascon Velvaglo Polyurethane' paint on wooden doors	m ²				32			50		82		
D18			Tiling:												
			Supply all materials, handle and install:												
D18.1			Wall tiles	m ²							80		80		
D18.2			Floor tiles	m ²							150		150		
D20			Rainwater Harvesting												
D20.1			uPVC gutters and downpipes complete	m				40					40		
D20.2			5000 Litre jojo water tank with 75mm diameter inlet at top, 50mm overflow outlet (stand measured elsewhere)	No				2					2		
SUBTOTAL CARRIED FORWARD															

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
		Electrical:												
D21		Supply, handle and install lighting, switches and plug points as detailed. Rates to include for conduits and cabling												
D21.1		Control Building - Drawing No. J079(07)-D09	Sum							1		1		
D21.2		Gaurdhouse - Drawing No. J079(07)-D15	Sum							1		1		
D22		Plumbing:												
		Supply, handle and install plumbing equipment, rate to include for piping and accessories:												
D22.1		Small oval shape ceramic W.H basin concealed brackets complete with typical vanity cabinet and pillar tap and fittings	Nº				4			4		8		
D22.2		9 litre vitreous china cistern complete with low level washdown W.C pan with seat, cover and fittings	Nº				6			3		9		
D22.3		1500mm x 535mm stainless steel DEB sink complete with No 171/041 swivel tap fittings	Nº				1			1		2		
D22.4		Large hall hung urinal basins	Nº				1			2		3		
D22.5		6m long x 110mm dia class 6 uPVC sewer pipes	m							34		34		
D22.6		110mm dia gulley and P-trap	Nº							6		6		
D22.7		Precast gulley concrete surround	Nº				5					5		
D22.8		50mm dia PVC pipes	m							50		50		
D23		Roofing												
		Rates to include for supplying, handling and installation :												
		Gangnail or similar approved SA pine roof trusses as detailed	Sum											
D23.1		Control Building - Drawing No. J079(07)-D09	Sum							1		1		
SUBTOTAL CARRIED FORWARD														

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
D23.2		Gaurdhouse - Drawing No. J079(07)-D15	Sum							1		1		
D23.2		3000 x 600 x 0.6mm galvanised IBR roof sheeting	m ²							280		280		
D23.3		Extra over item D23.2 for ridge cappings	m							30		30		
D23.4		4mm rhino board ceiling, rates to include for supply and installation of 38 x 50mm pine brandering and 75mm rhino cornice	m ²							260		260		
D23.5		Supply and install 12 x 225mm fascia board	m							65		65		
D24		Cupboards												
		Supply all materials, handle and install:												
D24.1		Standard floor units	m							20		20		
D24.2		Standard wall units	m							20		20		
D25		Windows												
		Supply, handle and build into brickwork galvanised steel window frames, rates to include for 4mm thick glazing and 10mm dia burglar bars painted with white paint												
D25.1		NC4	Nº							5		5		
D25.2		NC22	Nº							4		4		
D25.3		E2	Nº							2		2		
D25.4		E1	Nº							3		3		
D25.5		D4H	Nº							1		1		
		Wooden doors and frames												
D26		Rate to include for frame , hinges , locks and varnishing												
D26.1		Double door size 1.525 wide x 2.0m high door (external door)	Nº							2		2		
D26.2		Single door size 0.8 wide x 2.0m high door (External door)	Nº							5		5		
D26.3		Single door size 0.8 wide x 2.0m high door (Internal door)	Nº							12		12		
TOTAL FOR SECTION D CARRIED TO SUMMARY														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
	SABS 1200 LB	SECTION E : PIPEWORK												
E1		Mild steel pipes and fittings. Supply , handle and install mild steel pipes and fittings. Rate to include for all gaskets , nuts , bolts and jointing material. Flanges to table 1000/3 SABS 1123												
		3.3mm wall thickness for 150mm dia and smaller pipes and fittings and are to be heavy duty hot dipped galvanised, 4.5mm wall thickness for pipes and fittings larger than 150mm dia and are to be 350 micron epoxy coated and lined.												
		Pipes												
E1.1		100mm dia x 700mm long D/FL pipe	N°						16			16		
E1.2		250mm dia x 1000mm long D/FL pipe	N°						1			1		
E1.3		350mm dia x 1300mm long D/FL pipe	N°						3			3		
E1.4		350mm dia x 4000mm long FL/PE pipe	N°						2			2		
E1.5		200mm dia x 2570mm long FL/PE pipe	N°						2			2		
		Bends												
E1.6		100mm dia x 90 deg D/FL bend 3 segments 180mm C/F	N°						18			18		
E1.6a		100mm dia x 90 deg FL/PE bend 3 segments 180mm C/F	N°						16			16		
E1.7		200mm dia x 90 deg FL/PE bend 3 segments 180mm C/F	N°						16			16		
E1.8		300mm dia x 11.25 deg D/FL bend 2 segments 200mm C/F	N°						1			1		
E1.9		300mm dia x 30 deg D/fl bend 3 segments 250mm C/F	N°						1			1		
E1.10		350mm dia x 106 deg FL/PE bend 4 segments 1200mm C/F	N°						2			2		
E1.12		250mm dia x 90 deg D/FL bend 3 segments 280mm C/F	N°						2			2		
E1.13		150mm dia x 90 deg D/FL bend 3 segments 180mm C/F	N°						1			1		
SUBTOTAL CARRIED FORWARD														

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total	QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD															
E1.14		350mm dia x 90 deg D/FL bend 3 segments 355mm C/F	N°						2				2		
		Coupling / Flange adaptors													
E1.15		200mm dia flexible coupling to suit steel pipe	N°						5				5		
E1.16		350mm dia flexible coupling, one end to suit PVC pipe and the other to suit steel pipe	N°						2				2		
E1.17		250mm dia flange adaptor - plain end to suit 273mm OD steel pipe	N°						2				2		
		Tees													
E1.18		250mm dia x 250mm dia FL/PE tee. Barrel plain ended 700mm long-central flanged barrel 280mm C/F	N°						1				0		
E1.19		200mm dia x 200mm dia all flanged tee 230mm C/F	N°						2				2		
		Reducers													
E1.20		250mm to 200mm dia flanged reducer 280mm F/F	N°						2				2		
E1.21		150mm dia to 100mm dia flanged reducer 200mm F/F	N°						4				4		
E2		Stainless steel pipes and fittings													
		Supply , handle and install Stainless Steel fittings grade 304L, wall thickness 3,7mm. All fittings to be pickled and passivated after welding (flanges to SABS 1123 table 1600/3). Stainless steel bolts and nuts to be coated with A nickle anti seize compound													
E2.1		150mm dia x 500mm long FL/PE puddle pipe with puddle collar 125mm from PE	N°						8				8		
E2.2		150mm dia x 600mm long D/FL puddle pipe with central puddle collar	N°						1				1		
E2.3		200mm dia x 500mm long FL/PE puddle pipe with puddle collar 125mm from PE	N°						2				2		
SUBTOTAL CARRIED FORWARD															

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
E2.4		200mm dia x 750mm long D/FL puddle pipe with central puddle collar	N°						4			4		
E2.5		300mm dia x 500mm long FL/PE puddle pipe with puddle collar 125mm from PE	N°						4			4		
E2.6		350mm dia x 500mm long FL/PE puddle pipe with puddle collar 125mm from PE	N°						4			4		
E2.7		150mm dia x 750mm long D/FL puddle pipe with central puddle collar	N°						4			4		
E2.8		200mm dia x 600mm long D/FL pipe	N°						2			2		
E2.9		200mm dia x 70 deg FL/PE bend 3 segments 340mm C/F	N°						2			2		
E2.10		200mm dia x 2200mm long FL/PE pipe	N°						2			2		
E2.11		200mm dia flexible coupling for joining plain ended pipes	N°						2			2		
E2.12		400mm dia x 500mm long FL/PE puddle pipe with puddle collar 125mm from PE end	N°						3			3		
E2.13		300mm dia x 600mm long FL/PE puddle pipe with central puddle collar	N°						1			1		
E2.14		150mm dia x 600mm long FL/PE with puddle pipe with puddle collar 150mm from PE	N°						2			2		
E3		Valves												
		Supply , handle and install SABS approved flanged wedge gate valves. Flanges to table 1000/3 SABS 1123. Rate to include all nuts , bolts , gaskets and jointing material.												
E3.1		100mm dia valve with handwheel	N°						16			16		
E3.2		150mm dia valve with square cap	N°						26			26		
E3.3		200mm dia valve with square cap	N°						4			4		
E3.4		350mm dia valve with square cap	N°						2			2		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
E4		PVC pipes and fittings												
		Pressure Pipes												
		Supply, handle, lay and test SABS approved PVC pipes and fittings. Flanges to SABS 1123 table 1600. Rate to include for cutting pipes to lengths to suit on site												
E4.1		160mm dia uPVC class 10 Z lok pipes in 6m lenth	m						800			800		
E4.3		250mm dia uPVC class 10 Z lok pipes in 6m lenth	m						80			80		
E4.4		300mm dia uPVC class 10 Z lok pipes in 6m lenth	m						60			60		
E4.5		350mm dia uPVC class 10 Z lok pipes in 6m lenth	m						300			300		
E4.6		PVC Bends												
E4.6.1		160mm dia x 90 deg Z Lok PVC bend	N°						8			8		
E4.6.2		200mm dia x 90 deg Z Lok PVC bend	N°						8			8		
E4.6.3		250mm dia x 90 deg Z Lok PVC bend	N°						1			1		
E4.6.4		300mm dia x 90 deg Z Lok PVC bend	N°						2			2		
E4.6.5		350mm dia x 90 deg Z Lok PVC bend	N°						4			4		
		Sewer Pipes												
E4.7	SABS 1200 LD	Solid wall uPVC sewer pipes with integral jpoints to SABS 791 in 6m lengths												
	8.2.1	Supply, handle, lay in bedding for flexible pipes as specified and test uPVC sewer pipes												
E4.7.1		160mm OD Class 34							80			80		
E4.7.2		200mm OD Class 34							50			50		
E4.7.3		450mm OD Class 34							100			100		
		Cast iron fittings for PVC pipes												
E4.5		Cast iron Flange adaptors												
E4.5.1		150mm dia cast iron flange adaptor for PVC pipes	N°						19			19		
E4.5.2		200mm dia cast iron flange adaptor for PVC pipes	N°						8			8		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
E4.5.3		250mm dia cast iron flange adaptor for PVC pipes	N°						2			2		
E4.5.4		300mm dia cast iron flange adaptor for PVC pipes	N°						4			4		
E4.5.5		350mm dia cast iron flange adaptor for PVC pipes	N°						5			5		
		Cast iron Tees												
E4.5.6		150mm dia x 100 mm dia FL/PE tee. Barrel PE branch flanged	N°						14			14		
E4.5.7		150mm dia x 150 mm dia PE tee.	N°						2			2		
E4.5.8		150mm dia x 150 mm dia FL/PE tee. Barrel PE branch flanged	N°						1			1		
	SABS 1200L	PE 63 HDPE pipes (Type 4) and Fittings												
E4.6	8.2.1	Supply, lay, joint, bed on Class C for flexible pipe bedding, test and disinfect. Excavation and bedding measured elsewhere.												
E4.6.1		75mm dia Class 16	m						2000			2000		
E4.6.2		40mm dia Class 16	m						80			80		
E4.6.3		32mm dia Class 16	m						120			120		
E5		Provision of bedding												
E5.1	8.2.1	Selected from trenches, and/or other excavations without the need for screening or other treatment:												
E5.1.1		Selected granular material	m³						120	0	0	120		
E5.1.2		Selected fill material	m³						120	0	0	120		
E5.2	8.2.1	Selected from trenches, and/or other excavations including for screening or other treatment:												
E5.2.1		Selected granular material	m³						200	0	0	200		
E5.2.2		Selected fill material	m³						200	0	0	200		
E5.3		Supply of bedding from commercial sources, where ordered												
E5.3.1		Selected granular material	m³						240	0	0	240		
E5.3.2		Selected fill material	m³						240	0	0	240		
E5.4	8.2.3	Concrete bedding cradle	m³						15	0	0	15		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
E5.5	8.2.4	Concrete encasing of pipes in trenches in 20/19 concrete	m³						90	0	0	90		
E6		Meter Chambers												
		Supply hot dip galvanised pipe specials for meter chambers. Meters supplied by M&E Contractor												
E6.1		150mm dia Meinecke Cosmos sewage meter strainer	Nº						2			2		
E6.2		150mm Dia. X 445mm long D/FL stainless steel tee	Nº						1			1		
E6.3		150mm Dia x 790mm D/FL Stainless steel pipe	Nº						1			1		
E6.4		100mm Dia D/FL Stainless steel 90 degree bend.	Nº						4			4		
E6.5		100mm Dia x 350mm D/FL Stainless steel pipe	Nº						2			2		
E6.6		100mm Dia x 800mm D/FL Stainless steel pipe	Nº						2			2		
E6.7		100mm dia x 1400mm D/FL steel pipe	Nº						2			2		
E7		Precast Manholes												
		Supply and construct precast concrete manholes complete (excluding half round channel) as shown on Drawing Nº J079(07)-D12. Rate to include for access shafts for depths greater than 3,0m, step irons, sealing with bitumen manhole ring jointing etc:												
E7.1		0m to 1,0m												
E7.1.1		1,000mm dia	Nº					8	5			13		
E7.2		1,0m to 2,0m												
E7.2.1		1250mm dia	Nº						3			3		
E7.3		2,0m to 3,0 m												
E7.3.1		1500mm dia	Nº						2			2		
E7.4		3,0m to 4,0 m												
E7.4.1		1500mm dia	Nº						1			1		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
E7.5		Greater than 4,0m												
E7.5.1		1500mm dia	Nº						2			2		
E7.6		EO Item E7.1 TO E7.5 for channelling as shown on Drawing N° J079 (07)-D12												
E7.6.1		Type 1												
E7.6.1.1		160 mm dia	Nº					8	2			10		
E7.6.2		Type 5												
E7.6.2.1		160 mm dia	Nº						2			2		
E7.6.3		Type 7a												
E7.6.3.1		160 mm dia	Nº						2			2		
E7.6.4		Type 8												
E7.6.4.1		160mm dia	Nº						2			2		
E7.6.5		Type 7b												
E7.6.5.1		160 mm dia	Nº						2			2		
E7.6.6		Type 7c												
E7.6.6.1		160 mm dia	Nº						3			3		
E7.7	PSLD 7.2.6	Watertightness testing of manholes	Nº						13			13		
E7.8		Stub puddle pipes												
		Pipe to be coated with solvent and dusted with river sand (75 mm on either side of puddle)												
		Supply, handle and cast 500 mm long stub puddle pipe through concrete manhole wall. Puddle collar to be 220 mm dia x 10 mm thick welded 75 mm from one end for:												
E7.8.1		150mm uPVC pipe	Nº						8			8		
		Fire Hydrant												
E8		Supply, handle, install Standard 75mm Durban Pattern Fire hydrant complete as shown on Drawing N° J079(07)-D12	Nº						1			1		
TOTAL FOR SECTION E CARRIED TO SUMMARY														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
		SECTION F : STEELWORKS AND METAL WORKS												
		Aluminium sluice gates and frames suitably designed for installation in the following channels (Contractor to supply drawings or brochures of proposed gates and frames at tender stage)												
F1		850 wide x 1200mm deep at mixed liquor outlet	N°	2								2		
F2		Gate and frame at sludge drying beds Drawing No. J079(07)-D10	N°					16				16		
F3		Handrailing												
		Galvanised steel tubular handrailing assemblies complete and installed:												
F3.1		Horizontal	m	180	5		40					225		
F3.2		Shaped ends	N°	72			4					76		
F3.3		Galvanised access hand hold stanchions suitably braced with knee and handrails	N°	3			3			2		8		
F4		Supply and install hot dip galvanised open grid flooring	m²	10	5	5	20					40		
F5		Supply and install Galvanised transformer doors:												
		<i>Prices of door to include for frames, butt hinges, door handles, hasp and staple:</i>												
F5.1		Size 2.70m x 1,524m fully louvred on each leaf	N°				3					3		
F5.2		Size 2.10m x 0.82m fully louvred on each leaf	N°				5					5		
		Supply and install 1 tonne chain and tackle block suitable for use with crawl beam	N°				5					5		
F6		Supply and Install Galvanised Louvres:												
F6.1		900mm x 745mm x 240 thick with vermin proof insect mesh and R10 burglar bars - Trox technic type WG1 or similar approved including building into brickwork	N°				28					28		
SUBTOTAL CARRIED FORWARD														

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
F7		Crawl Beam												
F7.1		Supply and install 254 x 146 x 31 kg/m x 10,250 m long galvanised universal beam complete with all fittings, holding bolts, stop bolt support bracket, etc, all as detailed on Drawing J079(07)-D05	Nº				3					3		
F7.2		Crawl beam assembly for pumpstations as detailed in Drawing J079(07)-D11	Nº				3					3		
F7.3		Supply and deliver to site complete with all test certificates and operating instructions one tonne geared chain block with 2 m lift and matching crawl	Nº				6					6		
F8		Supply and install manhole cover and frame 610 x 610 (refer Drawing. No.J079(07)-D12	Nº				6		2			8		
F9		600 x 600 Fiberite cover and frame with locking bar					3					3		
F10		1400 x 900 Fiberite cover and frame with locking bar					3					3		
F11		Ladders												
F11.1		Access ladder into meter chambers as detailed in Drawing J079(D07)-D07	Nº				3					3		
F11.2		Access ladder into pumpstation wet well as detailed in Drawing J079(D07)-D07	Nº				3					3		
		Valve extension spindle												
F12		Supply and install galvanised valve extension spindles. Rate to include for supporting spindles at 1.5m centres												
F12.1		Bio reactor overall height = 5.2m	Nº	2	2							4		
F12.2		Sludge sump overall height = 2.5m	Nº				3					3		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total	QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD															
		Stainless steel items													
F13		Inlet works inclined screen Drawing No J079(07)-D10	N°	1		1							2		
F11.1		Sludge sump inclined screen Drawing No J079(07)-D10	N°	2	2								4		
F11.2		600 square screen for scour for bioreactor Drawing No J079(07)-D10	N°	2									2		
		Aluminium rakes													
F12		Rake to suit screen supplied under item F11.1	N°	2	2	1							5		
F13		Rake to suit screen supplied under item F11.2	N°	2		1							3		
		Aluminium gates and frames													
F14		900 wide x 1000 high gate and frame for inlet works	N°			2							2		
F15		500 wide x 1000 high gate and frame for inlet works	N°			2							2		
F16		1000 wide x 1000 high gate and frame for inlet works	N°			2							2		
TOTAL FOR SECTION F CARRIED TO SUMMARY															

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
		SECTION G: SUNDRIES												
G1		Drainage Media												
		Supply and place the following in sub-soil (cut-off) drains around structures and in no-fines concrete under structures where required:												
		Supply and place the following drainage media in the sludge drying beds:												
	LI	50mm stone fill to drainage channel	m ³					20				20		
G1.1	LI	38mm stone in bottom layer varying from 50mm to 100mm thick	m ³					205				205		
G1.2	LI	19mm stone in 50mm thick layer	m ³					80				80		
G1.3	LI	12mm to 6mm stone in 50mm thick layer	m ³					80				80		
G1.4	LI	Approved clean coarse river sand in 150mm thick layer	m ³					192				192		
G1.5	LI	Approved fine wind-blown beach sand as top layer 150mm thick	m ³					192				192		
	LI	40mm stone on pumpstation roof slab	m ³					5				5		
G2		Marker Posts												
G2.1	LI	Supply and install marker beacons as shown on Drawing N° J079(07)-D12 at all horizontal bends on pipeline and where ordered by the Engineer, incl. for painting twice with yellow road	N°							20		20		
G2.2	LI	Supply and install LV, SV and AV marker posts as per Drawing N° J079-D06 (painted with brown marking paint) including for concrete surround	N°							6		6		
		Denso Protection												
G3		Supply and apply Denso protection to SCJ's, flanges, VJ couplings and VJ adaptor joints :												
G3.1	LI	100-200 mm dia	N°							20		20		
G3.2	LI	201-400mm dia	N°							10		10		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
G3.3		Greater than 300mm dia		12	6							18		
G4		Supply and install complete, fibreglass scum baffle, 700mm wide x 2400mm long at bioreactor outlet	N°	2								2		
G5		Connection to Existing												
G5.1		Allow for everything necessary for connecting to existing pipes and / or structures including for dealing with the flow, cutting in, sealing and making good after (pipe fittings included elsewhere)	Sum			1				1		2		
G6		Allow a provisional sum for emptying and cleaning of the existing maturation ponds	Sum	1								1		R 2 000 000,00
G7		Allow a provisional sum for lining of the existing maturation ponds	Sum	1								1		R 1 000 000,00
G8		Roadworks												
G8.1	PSA 8.2.1	Clear and grub Site	ha								1	1		
G8.2	8.2.2	Remove and grub large trees and tree stumps of girth 0m to 2,0m	No.								12	12		
G8.3	SABS 1200DB	Earthworks for pipe trenches												
G8.3.1	1200 DB	Excavate and backfill for pipes 300 up to 600mm diameter. For total trench depth:												
G8.3.2		Exceeding 1.0 m and not exceeding 2.0 m	m								350	350		
G8.3.3		Exceeding 2.0 m and not exceeding 3.0 m	m								150	150		
G8.3.4		Greater than 3m deep	m								100	100		
G8.4		Extra-over Item G8.3 for hardrock excavation	m³								100	100		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
G8.5	SABS 1200DM	Earthworks Road Subgrade												
G8.5.1		Rip existing base material in layers of 150mm or as directed, stockpile separately for use as subbase material as directed	m ³								3750	3750		
G.8.5.2	8.3.3(a)	Road-bed preparation and compaction of material to 95% mod. AASHTO maximum dry density	m ³								1 350	1350		
G.8.5.3	8.3.3(b)	In-place treatment of road-bed in intermediate or hard material	m ³								540	540		
G8.6		Earthworks												
G8.6.1	8.3.4	Cut to fill subgrade material and compact to 95% mod AASHTO maximum density including haulage within site	m ³								2450	2450		
G8.6.2	8.3.4	Cut unsuitable material and spoil as directed by the Engineer within 10 km free-haul distance	m ³								250	250		
G8.6.3	8.3.4	Borrow material from source identified by contractor including handling, haulage , etc place and compact to 95% mod. AASHTO maximum density in 150mm thick layers (G7 quality material)	m ³								3 750	3750		
G8.6.4	8.3.8	Removal of oversize material	m ³								100	100		
G8.7		Extra Over Items G8.6 for hard excavation	m ³								250	250		
G8.8		Stormwater Pipes												
	8.2.1	LI Supply, handle, lay, bed Class 50D concrete pipe Type spigot socket on all types of bedding												
G8.8.1		a) 300 mm diameter	m								50	50		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari- fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD														
G8.8.2		LI b) 450 mm diameter	m								50	50		
G8.8.3		LI c) 600 mm diameter	m								50	50		
G8.9		Headwalls												
		Headwalls complete including for excavation and foundations to suit												
G8.9.1		LI a) 300 mm diameter	No.								5	5		
G8.9.2		LI b) 450 mm diameter	No.								2	2		
G8.9.3		LI c) 600 mm diameter	No.								5	5		
G8.10		Subbase												
	1200 MH	<i>Tenderers are to note that rates should include for haulage as no overhaul will be paid for these items</i>												
	1200 ME 8.3.3	Construct pavement layers including jointing to existing pavement												
G8.10.1	8.3.5	200 mm G5 subbase material from existing stockpile reshaped with G2 material make-up and recompacted to 95% MODAASHTO.	m ³								1750	1750		
G8.10.2	8.3.5	200 mm G5 subbase material from source identified by contractor and compacted to 98% MODAASHTO.	m ³								1 500	1500		
G8.10.3		150mm G2 subbase material from source identified by contractor and compacted to 98% MODAASHTO.	m ³								600	600		
G9		Pheripheral Drain around Bioreactor and Clarifier												
G9.1		150mm dia agricultural drain pipe	m	200	142							342		
G9.2		LI 25 to 40mm dia stone surround to drain	m ³	60	30							90		
G9.3		LI Approved filter cloth to top and sides surrounding stones	m ²	420	120							540		
G10		Fencing												
G10.1		LI Supply, handle and erect clearvu fencing constructed of 76mm x 12mm horizontal aperture wire 40mm x 60mm square tubing posts complete with razor wire as shown on Drawing J079(07)-D12 (Sheet 3 of 3)	m							1500		1500		
SUBTOTAL CARRIED FORWARD														

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT		DESCRIPTION	UNIT	Biox	Clari-fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total QTY	RATE	AMOUNT
SUBTOTAL BROUGHT FORWARD															
G10.2		LI	Remove and relocate existing fencing as directed on site	m							10		10		
G10.3		LI	Supply and erect clearvu double gate as shown on Drawing J079(07)-D12 (Sheet 3 of 3)	No.							1		1		
G11			Paving												
G11.1		LI	Precast concrete paving blocks complete with 50mm thick sand bed layer	m²							1000		1000		
G11.2		LI	Figure 8 precast kerbing	m							900		900		
G11.3		LI	One layer 500 micron consol plastic green waterproof sheeting sealed at laps with gunplas pressire sensitive tape	m²							1000		1000		
G12			Provisional sum for other work as discovered and directed on site	Sum	1								1		R 1 000 000,00
TOTAL FOR SECTION D CARRIED TO SUMMARY															

UMKHANYAKUDE DISTRICT MUNICIPALITY
THEMBALETHU SANITATION PROJECT
CONTRACT SCMU 002/2023/2024: CONSTRUCTION OF CIVIL WORKS FOR THE UPGRADING OF THE MKUZE WASTEWATER TREATMENT WORKS AT MKUZE

ITEM	PAYMENT	DESCRIPTION	UNIT	Biox	Clari-fier	Inlet Works	Pump Stations	Sludge Beds	Pipe lines	Other	Road Works	Total	QTY	RATE	AMOUNT
		SECTION H: DAYWORKS SCHEDULE													
H1		Labour													
H1.1		Plumber	hrs										16		
H1.2		Foreman	hrs										16		
H1.3		Bricklayer	hrs										16		
H1.4		Carpenter	hrs										16		
H1.5		General labour	hrs										16		
H1.6		Watchmen	hrs										16		
H2		Plant													
H2.1		Plate compactor	hrs										12		
H2.2		Dewatering pump	hrs										15		
H2.3		Generator	hrs										16		
H2.4		Front End Loader/TLB	hrs										16		
		Excavator	hrs										20		
H3		Materials													
H3.1		19mm stone	m³										20		
H3.2		River sand	m³										50		
H3.3		190mm Thick blockwork	m²										50		
H3.4		Cement	Bag										10		
TOTAL SECTION E CARRIED FORWARD TO SUMMARY															