

SUMMARY		
SECTION A : PRELIMINARY AND GENERAL	R	1 124 620.00
SECTION B: STORMWATER DRAINAGE	R	4 722 922.48
SECTION C: ATTENUATION DAM	R	9 928 321.85
SECTION D: ROAD WORKS	R	399 122.90
SUB TOTAL A	R	16 174 987.22
Plus: CONTINGENCIES		
SUB TOTAL B	R	16 174 987.22
Plus: 5% CONTRACT PRICE ADJUSTMENT (CPA)	R	-
SUB TOTAL C	R	16 174 987.22
Plus: 15% VALUE ADDED TAX (VAT)	R	2 426 248.08
TOTAL	R	18 601 235.30
Completion Period	12	Months
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SECTION A: PRELIMINARY AND GENERAL

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
A	SANS 1200 A	SECTION A: PRELIMINARY AND GENERAL							
A1	8.3	SCHEDULED FIXED-CHARGE AND VALUE RELATED ITEMS							
A1.1	8.3.1	Contractual Requirements	Sum	1	200 000.00	200 000.00	1	200 000.00	200 000.00
	8.3.2	Establish of Facilities on the Site :							
	8.3.2.1	Facilities for Engineer:							
A1.2		a) Furnished office	Sum	1	40 000.00	40 000.00	1	40 000.00	40 000.00
A1.3		b) Telephone	Sum	1	10 000.00	10 000.00	1	10 000.00	10 000.00
A1.4		c) Nameboards	Sum	1	10 000.00	10 000.00	1	10 000.00	10 000.00
	8.3.2.2	Facilities for Contractor:							
A1.5		a) Offices and storage sheds	Sum	1	30 000.00	30 000.00	1	30 000.00	30 000.00
A1.6		b) Telephone	Sum	1	8 000.00	8 000.00	1	8 000.00	8 000.00
A1.7		c) Nameboards	Sum	1	10 000.00	10 000.00	1	10 000.00	10 000.00
A1.8		d) Living accommodation	Sum	1	20 000.00	20 000.00	1	20 000.00	20 000.00
A1.9		e) Ablution and latrine facilities	Sum	1	10 000.00	10 000.00	1	10 000.00	10 000.00
A1.10		f) Tools and equipment	Sum	1	20 000.00	20 000.00	1	20 000.00	20 000.00
A1.11		g) Water supplies, electrical power and communications	Sum	1	8 000.00	8 000.00	1	8 000.00	8 000.00
A1.12		h) Dealing with water	Sum	1	3 000.00	3 000.00	1	3 000.00	3 000.00
A1.13		i) Access	Sum	1	2 000.00	2 000.00	1	2 000.00	2 000.00
A1.14		j) First aid and Medical Services	Sum	1	2 500.00	2 500.00	1	2 500.00	2 500.00
THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE						373 500.00			373 500.00

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				373 500.00			373 500.00
A1.15		k) Inductions	Sum	1	5 000.00	5 000.00	1	5 000.00	5 000.00
A1.16		Name Board	Sum	1			1		
A1.17	8.3.4	Removal of Site Establishment	Sum	1	5 000.00	5 000.00	1	5 000.00	5 000.00
A2	8.4	SCHEDULED TIME-RELATED ITEMS							
A2.1	8.4.1	Contractual Requirements	Sum	1	40 000.00	40 000.00	1	40 000.00	40 000.00
	8.4.2	Operate and maintain facilities on the Site:							
	8.4.2.1	Facilities for Engineer							
A2.2		a) Furnished offices	Month	12	1 000.00	12 000.00	12	1 000.00	12 000.00
A2.3		b) Telephone	Month	12	1 000.00	12 000.00	12	1 000.00	12 000.00
A2.4		c) Nameboards	Month	12	1 000.00	12 000.00	12	1 000.00	12 000.00
A2.5		d) Survey assistants and materials	Month	12	1 500.00	18 000.00	12	1 500.00	18 000.00
	8.4.2.2	Facilities for Contractor							
A2.6		a) Offices and storage sheds	Month	12	1 000.00	12 000.00	12	1 000.00	12 000.00
A2.7		b) Workshops	Month	12	500.00	6 000.00	12	500.00	6 000.00
A2.8		c) Laboratories	Month	12	1 000.00	12 000.00	12	1 000.00	12 000.00
A2.9		d) Living accommodation	Month	12	2 200.00	26 400.00	12	2 200.00	26 400.00
A2.10		e) Ablution and latrine facilities	Month	12	400.00	4 800.00	12	400.00	4 800.00
A2.11		f) Tools and equipment	Month	12	500.00	6 000.00	12	500.00	6 000.00
	THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE					544 700.00			544 700.00

NYAKALLONG: CONSTRUCTION OF STORMWATER SYSTEM - PHASE 1

REVISED BILL OF QUANTITIES

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				544 700.00			544 700.00
A2.12		g) Water supplies, electrical power and communications	Month	12	1 000.00	12 000.00	12	1 000.00	12 000.00
A2.13		h) Dealing with water	Sum	1	10 000.00	10 000.00	1	10 000.00	10 000.00
A2.14		i) Access	Sum	1	2 000.00	2 000.00	1	2 000.00	2 000.00
A2.15		j) First aid and Medical Services	Sum	1	2 500.00	2 500.00	1	2 500.00	2 500.00
A2.16		k) Inductions	Sum	1	10 000.00	10 000.00	1	10 000.00	10 000.00
A2.17	8.4.3	Supervision for Duration of Construction	Month	12	4 000.00	48 000.00	12	4 000.00	48 000.00
A2.18	8.4.4	Company and head office overhead costs for the Duration of the Contract	Month	12	2 000.00	24 000.00	12	2 000.00	24 000.00
A2.19	8.4.5	Other Time-related Obligations	Sum	1	10 000.00	10 000.00	1	10 000.00	10 000.00
A3	8.8	Temporary Works				-			
A3.1	8.8.2	Dealing with Traffic (or accommodation of traffic)	Sum	1	5 000.00	5 000.00	1	5 000.00	5 000.00
	8.8.4	Existing Services				-			
A3.2	Omissions: VO#2	a) Supply or hire of specialist equipment for the detection of a particular service	Sum	1	5 000.00	5 000.00	0	5 000.00	-
A3.3		b) The use of equipment referred to in item (a) above	Sum	1	2 500.00	2 500.00	0	2 500.00	-
A3.4		c) Excavation by hand in soft material to expose services	m3 or daywork	10	100.00	1 000.00	10	100.00	1 000.00
A4	8.8.5	Cost of Survey in terms of the Land Survey Act				-			
A4.1		a) Trigonometrical survey and plot boundary pegs - locate and record	Sum	1	15 000.00	15 000.00	1	15 000.00	15 000.00
A4.2		b) Trigonometrical survey and plot boundary pegs - protect and re-establish	Sum	1	5 000.00	5 000.00	1	5 000.00	5 000.00
A4.3	Additions: VO#2	Setting out of the Work by a Registered Land Surveyor	Sum	1	20 000.00		1	20 000.00	20 000.00
A4.4		Contractor's overheads, charges and profit on Item A4.3	%	20000	10%		20000	10%	2 000.00
		THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE				696 700.00			711 200.00

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				696 700.00			711 200.00
A5	8.5	SUMS STATED PROVISIONALLY BY ENGINEER							
A5.1		Provision for Dayworks	Prov Sum	1	20 000.00	20 000.00	1	20 000.00	20 000.00
	PSA 8.6	Prime Cost Items							
A5.2	Omissions: VO#2	Additional quality control test by approved laboratory instructed by Engineer. (The cost of not conforming to standards shall not be included for payment)	PC Sum	1	20 000.00	20 000.00	0	20 000.00	-
A5.3		Superintendence and administration of item A5.2 above	%	20000	10%	2 000.00	0	10%	-
		Community Liaison Officer							
A5.4	Omissions: VO#1	Allow for remuneration of Community Liaison Officer (CLO)	PC Sum	1	42 000.00	42 000.00			
	PS 5.1								
	Additions: VO#1			1			1	48 000.00	48 000.00
A5.5		Handling and profit on item A5.4	%	42000	10%	4 200.00	48 000.00	10%	4 800.00
		Project Liaison Committee							
A5.6	PS 5.1	Community Liaison Committee (PLC) 4 members at R150.00 / member / meeting	PC Sum	1	7 200.00	7 200.00	1	7 200.00	7 200.00
A5.7		Handling costs and profit on item A5.6	%	7200	10%	720.00	7200	10%	720.00
		THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE				792 820.00			791 920.00

NYAKALLONG: CONSTRUCTION OF STORMWATER SYSTEM - PHASE 1

REVISED BILL OF QUANTITIES

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				792 820.00			791 920.00
A6	PSA 8.9.1	Compliance with the Occupational Health and Saftey Act and applicable regulatons							
A6.1		a) Provision of a health and safety plan	Sum	1	5 000.00	5 000.00	1	5 000.00	5 000.00
A6.2		b) Provision of a health and safety file	Sum	1	2 500.00	2 500.00	1	2 500.00	2 500.00
A6.3		c) Provision of a safety officer (full time)	Sum	1	30 000.00	30 000.00	1	30 000.00	30 000.00
A6.4		d) Health and safety training	Sum	1	5 000.00	5 000.00	1	5 000.00	5 000.00
A6.5	Omissions: VO#2	e) Provision of personal protective clothing and equipment	Sum	1	10 000.00	10 000.00			
	Additions: VO#2	e) Provision of personal protective clothing and equipment	Sum	1			1	20 000.00	20 000.00
	8.9.2	Safety and Health Management							
A6.6		a) Entrance Medical Wages (shifts per man)	No	60	120.00	7 200.00	60	120.00	7 200.00
A6.7		b) Entrance Medical	No	60	90.00	5 400.00	60	90.00	5 400.00
A6.8		d) Exit Medical Wages (shifts per man)	No	60	120.00	7 200.00	60	120.00	7 200.00
A6.9		e) Exit Medical	No	60	90.00	5 400.00	60	90.00	5 400.00
	PSA 8.10.1	Inductions							
A6.10		Allowance for induction training by Client for Contractors personnel	Sum	1	200 000.00	200 000.00	1	200 000.00	200 000.00
	PSA 8.11	Management of Subcontractors							
A6.11	PS8.7 PS8.9	Compliance with OH&S Act and Regulations (Including the construction regulations 2014)	Sum	1	10 000.00	10 000.00	1	10 000.00	10 000.00
A6.12		Provisional sum for audit on OH&S	Prov Sum	1	30 000.00	30 000.00	1	30 000.00	30 000.00
A7	PSPA4	Site Finishing	Sum	1	5 000.00	5 000.00	1	5 000.00	5 000.00
		PRELIMINARY AND GENERAL CARRIED TO SUMMARY				1 115 520.00			1 124 620.00

SECTION B: STORMWATER DRAINAGE

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
B		SECTION B: STORMWATER DRAINAGE							
B1.1	SABS 1200 C	Site Clearance							
B1.1.1	8.2.1	a) Clear and grub all rubble of any nature, trees and tree stumps of any size including existing fences and temporary structures along the route for the stormwater drainage (PSC)	m ²	7 500	8.00	60 000.00	7500	8.00	60 000.00
B1.2	8.3.2(a) PSLE1	Excavate by hand for open drains in all materials, from the design shape as shown on detail drawings, trim and dispose of excess material to an off-site location, for open drains and channels (Note: Free haul distance is 0.5km as set out in the document PSD3 and PSDB13)							
B1.2.1		a) Between 0.0 and 1.5m	m ³	500	65.00	32 500.00	500	65.00	32 500.00
B1.2.2	8.3.2(b)	Extra-over items 4.3.1, 4.3.2 and 4.3.3 for: (provisional)							
	PSLE1	Hard rock excavation	m ³	50	400.00	20 000.00	50	400.00	20 000.00
B1.2.3	8.3.2(c)	Excavate and dispose of unsuitable material from the channel within the free haul distance (provisional)	m ³	10	100.00	1 000.00	10	100.00	1 000.00
B1.2.4	PSLE1	Excavation in all material, cut to daylight for stormwater channel outlet and dispose of surplus unsuitable material within the free haul distance (provisional)	m ³	5	100.00	500.00	5	100.00	500.00
THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE						114 000.00			114 000.00

NYAKALLONG: CONSTRUCTION OF STORMWATER SYSTEM - PHASE 1

PROGRESS PAYMENT CERTIFICATE FORMS

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				114 000.00			114 000.00
B1.3		Excavation Ancillaries Make up deficiency in backfill material (provisional)							
B1.3.1	8.3.3.1(a)	From other necessary excavations on site	m³	20	50.00	1 000.00	20	50.00	1 000.00
B1.3.2		Dealing with overburden	m³	5	50.00	250.00	5	50.00	250.00
B1.3.3	8.3.3.4	Over haul of material for excavation spoil and excavation ancillaries (provisional) Extra over item 4.3.1, 4.3.2 and 4.3.3 (PSD3 and PSDB13)							
B1.3.3.1		a) Short haul (0.5km - 1.0km)	m³	-			-		
B1.3.3.2		b) Long haul (1.0km +)	m³	-			-		
B1.3.4	8.2.7	Hand trimming of channel excavation	m²	1200	25.00	30 000.00	1200	25.00	30 000.00
	Additions: VO#2	Keeping excavations free from water							
B1.3.5		Construct and operate extraction well for ground water control	Prov Sum	1			1	200 000.00	200 000.00
B1.4	SABS 1200 MK	Channel Lining							
B1.4.1		Construct Trapezoidal Channel (type 1) complete as per drawing no. NYK-200-SW-01-C-00	m	194	350.00	67 900.00	194	350.00	67 900.00
B1.4.2		Construct Trapezoidal Channel (type 2) complete as per drawing no. NYK-200-SW-01-C-00	m	76	350.00	26 600.00	76	350.00	26 600.00
B1.4.3		Construct Trapezoidal Channel (type 3) complete as per drawing no. NYK-200-SW-01-C-00	m	62	350.00	21 700.00	62	350.00	21 700.00
B1.4.4		Construct Trapezoidal Channel (type 4) complete as per drawing no. NYK-200-SW-01-C-00	m	52	350.00	18 200.00	52	350.00	18 200.00
B1.4.5		Construct Trapezoidal Channel (type 5) complete as per drawing no. NYK-200-SW-01-C-00	m	50	350.00	17 500.00	50	350.00	17 500.00
	THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE					297 150.00			497 150.00

NYAKALLONG: CONSTRUCTION OF STORMWATER SYSTEM - PHASE 1

PROGRESS PAYMENT CERTIFICATE FORMS

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				297 150.00			497 150.00
B1.4.6	SABS 1200 MK	Sealed joints in concrete linings of open drains using 10mm Flexcell Joint with Polysulphide sealants spaced at 5m intervals Bitumen paint to vertical face of concrete , before adjoining panels are cast. 10mm Bitumen impregnated softboard expansion joint 125mm high between concrete faces	m	205.00	45.00	9 225.00	205	45.00	9 225.00
B1.5		End Structure							
B1.5.1		8.2.6.1	Construct end structure complete with wing walls, head walls, apron slab and reinforcement steel where required etc. including backfilling as per drawing no. NYK-200-SW-01-C-00 and dispose of surplus material within the free haul distance	No.	7.00	2 000.00	14 000.00	7	2 000.00
		Construction of road crossings with pipe culvert for:							
B1.5.2		a) Type 1	No.	2.00	1 800.00	3 600.00	2	1 800.00	3 600.00
B1.6		Pipe/Portal Culvert Installation							
B1.6.1	8.3.2(a) PSLE1	Excavate in all materials, form and compact the bedding cradle for trenches for stormwater pipes/portal culverts for depths:							
B1.6.1.1		a) Between 0.0 and 1.5m	m³	1155.00	65.00	75 075.00	1155	65.00	75 075.00
B1.6.1.2		b) Between 1.5 and 2.5m	m³	4391.00	70.00	307 370.00	4391	70.00	307 370.00
	8.3.2(b)	Extra-over items 4.3.1, 4.3.2 and 4.3.3 for: (provisional)							
B1.6.1.3	PSLE1	Hard rock excavation	m³	110.92	400.00	44 368.00	110.92	400.00	44 368.00
	THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE					750 788.00			950 788.00

NYAKALLONG: CONSTRUCTION OF STORMWATER SYSTEM - PHASE 1

PROGRESS PAYMENT CERTIFICATE FORMS

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				750 788.00			950 788.00
B1.6.2	8.3.2(c)	Excavate and dispose of unsuitable material from the Trench within the free haul distance (provisional)	m³	110.92	60.00	6 655.20	110.92	60.00	6 655.20
B1.6.3	PSLE1	Excavation in all material, cut to daylight for stormwater pipe outlet and dispose of surplus unsuitable material within the free haul distance (provisional)	m³	20.00	65.00	1 300.00	20	65.00	1 300.00
B1.6.4		Backfill of Trenches by Hand							
B1.6.4.1		Backfill the bedding blanket using selected material from excavation within 500m in 150mm layers to 93% Mod AASHTO for cohesive soils or 98% density to 300mm above the top of the pipes, backfill the balance of the trench using selected material from excavations within 500m to 90% Mod AASHTO density and dispose of surplus and unstable material	m³	38.00	45.00	1 710.00	38	45.00	1 710.00
B1.6.5		Backfill of Trenches by Plant							
B1.6.5.1		Backfill the bedding blanket using selected material from excavation within 500m in 150mm layers to 93% Mod AASHTO for cohesive soils or 98% density to 300mm above the top of the pipes, backfill the balance of the trench using selected material from excavations within 500m to 95% Mod AASHTO density and dispose of surplus and unstable material	m³	760.00	40.00	30 400.00	760	40.00	30 400.00
	THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE					790 853.20			990 853.20

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				790 853.20			990 853.20
B1.6.6		Backfill Ancillaries							
		Make up deficiency in backfill material							
B1.6.6.1		From other necessary excavations on site	m³	-					
B1.6.6.2		By importation from designated borrow pits (PSD4)	m³	3200.00	120.00	384 000.00	3200	120.00	384 000.00
B1.6.6.3		By importation from commercial or off-site sources selected by the Contractor including the total haul distance	m³	-			-		
B1.6.6.4		Open up and close down of designated borrow pit	ha	-			-		
B1.6.6.5		Dealing with overburden	m³	160.00	50.00	8 000.00	160	50.00	8 000.00
B1.6.6.6		Overhaul of material for excavation ancillaries (PSD3 and PSDB13)							
B1.6.6.7		Extra over for short haul (0,5km - 1.0km)	m³	-			-		
B1.6.6.8		Extra over for long haul (1.0km +)	m³	-			-		
B1.6.6.9	Additions: VO#2	Cement-stabilised backfilling with 5% cement and compacted in 100mm thick layers to 90% of Mod AASHTO density	m³	53.54			53.54	1 257.14	67 307.28
	THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE					1 182 853.20			1 450 160.48

NYAKALLONG: CONSTRUCTION OF STORMWATER SYSTEM - PHASE 1

PROGRESS PAYMENT CERTIFICATE FORMS

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				1 182 853.20			1 450 160.48
B1.7		Bedding (Stormwater Pipes)							
		Provision of Bedding							
B1.7.1		Provision of bedding from trench excavations							
B1.7.1.1		Selected granular bedding material (PSLB 1.1)	m³	630.00	30.00	18 900.00	630	30.00	18 900.00
B1.7.1.2		Selected blanket fill material (PSLB 1.2)	m³	1890.00	30.00	56 700.00	1890	30.00	56 700.00
B1.7.1.3	Additions: VO#2	By Importation from commercial sources 450mm thick with approved dumprock material obtained from any source. Compacted in 150mm layers to 93% of Mod AASHTO density	m³	350.00			350	280.00	98 000.00
B1.7.2		Supply, handle, lay, joint, bed Class C as per the detail drawings concrete pipes with type of ogee joints (rate to include taping all joints and of concrete fill of lifting holes)							
B1.7.2.1		a) 450mm nominal diameter class 75D	m	35.00	475.00	16 625.00	35	475.00	16 625.00
B1.7.2.2		b) 525mm nominal diameter class 75D	m	31.00	515.00	15 965.00	31	515.00	15 965.00
B1.7.2.3		c) 600mm nominal diameter class 75D	m	32.00	560.00	17 920.00	32	560.00	17 920.00
B1.7.2.4		d) 675mm nominal diameter class 75D	m	28.00	605.00	16 940.00	28	605.00	16 940.00
B1.7.2.5		e) 750mm nominal diameter class 75D	m	36.00	650.00	23 400.00	36	650.00	23 400.00
B1.7.2.6		f) 1050mm nominal diameter class 75D	m	465.00	965.00	448 725.00	465	965.00	448 725.00
B1.7.2.7		g) 1No. 1800mm x 900mm Portal Culvert, class 75S	m	303.00	2 507.00	759 621.00	303	2 507.00	759 621.00
B1.7.2.8		h) 1No. 2100mm x 900mm Portal Culvert, class 75S	m	44.00	3 015.00	132 660.00	44	3 015.00	132 660.00
B1.7.2.9		i) 1No. 3000mm x 900mm Portal Culvert, class 75S	m	101.00	3 650.00	368 650.00	101	3 650.00	368 650.00
	THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE					3 058 959.20			3 424 266.48

NYAKALLONG: CONSTRUCTION OF STORMWATER SYSTEM - PHASE 1

PROGRESS PAYMENT CERTIFICATE FORMS

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				3 058 959.20			3 424 266.48
B1.8	SABS 1200 MK	End Structure							
B1.8.1	8.2.6.1	Construct end structure complete with wing walls, head walls, apron slab and reinforcement steel where required etc. including backfilling as per drawing no. NYK-200-SW-01-C-00 and dispose of surplus material within the free haul distance	No	8.00	3 400.00	27 200.00	8	3 400.00	27 200.00
B1.9	SABS 1200 MK	Junction Boxes							
B1.9.1	8.2.6.1	Culvert Junction Box incoming and outgoing culverts, complete with floor, roof slab, cover and benching etc. As per drawing no. NYK-200-SW-01-C-00 and dispose of surplus material within the free haul distance.	No.	-			-		
B1.10		Manholes, Catch Pits, Silt Traps, etc.							
		Manholes							
		Supply and install complete solid wall HDPe manholes including benching, excavation and backfill in all materials and disposal of surplus material, fitting covers and frames, spacer, adaptor slabs and stepirons for the following depths:							
B1.10.1		a) Between 0.0 and 1.5m	No	22.00	3 460.00	76 120.00	22	3 460.00	76 120.00
B1.10.2		b) Between 1.5 and 2.5m	No	10.00	3 720.00	37 200.00	10	3 720.00	37 200.00
B1.10.3		c) Between 2.5 and 3.5m	No	1.00	4 000.00	4 000.00	1	4 000.00	4 000.00
B1.10.4		d) Between 3.5 and 4.5m	No						
B1.10.5		e) Between 4.5 and 5.5m	No						
	THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE					3 203 479.20			3 568 786.48

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PROGRESS PAYMENT CERTIFICATE FORMS

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				3 203 479.20			3 568 786.48
B1.11		Silt Traps Supply and install complete silt traps including benching, excavation and backfill in all materials and disposal of surplus material, fitting covers and frames, spacer, adaptor slabs and stepirons for the following depths (MH measured elsewhere):							
B1.11.1		0.0 m up to 1.5m	PC Sum	1.00	90 000.00	90 000.00	1	90 000.00	90 000.00
B1,11,2		Costs and profit on item B1.11.1 above	%	90 000.00	10%	9 000.00	90000	10%	9 000.00
B1.12		Field Inlets Supply and install field inlet including benching, excavation and backfill in all materials and disposal of surplus material, fitting for Grid inlets as per drawing No. NYK-205-SW-01-C-00							
B1.12.1		a) 0.0 m up to 1.5m	No	8.00	2 875.00	23 000.00	8	2 875.00	23 000.00
B1.12.2		b) Run intake slab	No.	8.00	1 200.00	9 600.00	8	1 200.00	9 600.00
B1.13		Headwalls Provide materials and construct brick headwall, complete with reinforcement mesh to floor slab and spilling basin depths (build and measure to detail drawings)(allow for painting on exposed faces);(Rate to include forming bedding with 93% mod AASHTO and spilling basin) for pipe sizes:							
B1.13.1		a) 450mm nominal diameter class 75D	No	1.00	2 550.00	2 550.00	1	2 550.00	2 550.00
B1.13.2		b) 525mm nominal diameter class 75D	No	1.00	2 550.00	2 550.00	1	2 550.00	2 550.00
		THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE				3 340 179.20			3 705 486.48

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PROGRESS PAYMENT CERTIFICATE FORMS

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)			
					RATE	AMOUNT	QTY	RATE	AMOUNT	
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				3 340 179.20			3 705 486.48	
B1.13.3	8.3.7	c) 600mm nominal diameter class 75D	No	1	2 650.00	2 650.00	1.00	2 650.00	2 650.00	
B1.13.4		d) 675mm nominal diameter class 75D	No	1	2 850.00	2 850.00	1.00	2 850.00	2 850.00	
B1.13.5		e) 750mm nominal diameter class 75D	No	1	3 000.00	3 000.00	1.00	3 000.00	3 000.00	
B1.13.6		f) 1050mm nominal diameter class 75D	No	1	3 100.00	3 100.00	1.00	3 100.00	3 100.00	
B1.13.7		g) 1No. 1800mm x 900mm Portal Culvert, class 75S	No	-			-		-	
B1.13.8		h) 1No. 2100mm x 900mm Portal Culvert, class 75S	No	-			-		-	
B1.13.9		i) 1No. 3000mm x 900mm Portal Culvert, class 75S	No	1	7 500.00	7 500.00	1.00	7 500.00	7 500.00	
B1.14		Accommodation of Traffic								
B1.14.1		All precautions taken, including all personnel to guarantee safe accommodation of traffic (PSA5, PSD9 and PSDB8)		Prov Sum	1	150 000.00	150 000.00	1.00	150 000.00	150 000.00
B1.15		Additions: VO#2 1200L	Encasing of Pipes							
B1.15.1	8.2.12	Concrete casing of pipes (20MPa)	m³	10.56			10.56	1 800.00	19 008.00	
B1.16	1200DB	Existing services that intersect or adjoin a trench								
	8.3.5	a) Services that intersect a trench:								
B1.16.1		Water mains up to 200 mm dia	No	1			1.00	250.00	250.00	
B1.16.2		Sewers up to 200 mm dia	No	1			1.00	250.00	250.00	
B1.17	1200G	Concrete Grade 30MPa								
B1.17.1		30/19 strength base slab 330mm thick	m³	192.84			192.84	2 200.00	424 248.00	
B1.18		Steel Reinforcement								
B1.18.1		Mesh ref. 388	t	6.63			6.63	11 000.00	72 930.00	
B1.18.2		H/T Reinforcing	t	30.15			30.15	11 000.00	331 650.00	
B1.18.3		M/S Reinforcing	t							
	TOTAL CARRIED FORWARD TO SUMMARY					3 509 279.20			4 722 922.48	

SECTION C: ATTENUATION DAM

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
C	SANS 1200 C	SECTION C: ATTENUATION DAM							
C1	8.2	Site Clearance							
C1.1	8.2.1	Clear and grub (including vegetation, trees and tree stumps of girth up to 1m, 3m width and 6m in areas with dense shrubs)							
	Omissions: VO#1	Attenuation Dam	m ²	2 500	80.00	200 000.00			
	Additions: VO#1	Reviewed scheduled quantity (GCC 6.3.3)		51 727.61			51727.61	80.00	4 138 208.46
C1.2	8.2.2	Clear and grub large trees and tree stumps of girth over 1m and up to 2m	No	-			-		
C1.3	8.2.10	Strip and remove topsoil to nominal depth of 150mm and stockpile for later re-use as directed by the engineer							
		Attenuation Dam	m ²	83 700	5.00	418 500.00	83700	5.00	418 500.00
	SANS 1200 D	Earthworks							
C1.4	8.3	Earthworks							
C1.4.1	8.3.3	Excavate in all materials (including trimming and shaping) and use for backfill/embankments or stockpile/dispose within freehaul distance for:							
		Attenuation Dam	m ³	52 666	40.00	2 106 640.00	52666	40.00	2 106 640.00
C1.4.2	Omissions: VO#1	Extra over item B.1.1 for:							
		Hard rock excavation (Provisional)							
		Attenuation Dam	m ³	2 633	400.00	1 053 200.00	0	400.00	-
THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE						3 778 340.00			6 663 348.46

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PROGRESS PAYMENT CERTIFICATE FORMS

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				3 778 340.00			6 663 348.46
	8.3.4	Importing of materials							
C1.4.3	3.3.4 (a)	Extra over item C1.4.1 for import of topsoil 75mm thick and lightly compact	m3	627.75	80.00	50 220.00	627.75	80.00	50 220.00
C1.4.4	8.3.10	Extra over item C1.4.1 for placing of topsoil 75mm thick from stock pile and lightly compact	m3	6 277.50	50.00	313 875.00	6 277.50	50.00	313 875.00
	SANS 1200 G	Conrete							
C1.5	8.3	Concrete							
C1.5.1	8.1.3	25MPa/19mm strength concrete Low flow V-drain channel	m ³	514	1 800.00	925 200.00	514.00	1 800.00	925 200.00
C1.6	8.2	Formwork							
C1.6.1		Rough Formwork							
		Formwork to produce a rough finish to:							
		Low flow V-drain channel	m ²	-		-			
C1.6.2		Smooth Formwork							
		Vertical formwork, including cutting, small angle fillets not exceeding 20mm x 20mm etc., to produce a smooth finish as from a new steel shutter including filling imperfections with cement grout and rubbing down excrescences, etc., to:							
		Low flow V-drain channel	m ²	3 425	100.00	342 500.00	3 425.00	100.00	342 500.00
	THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE					5 410 135.00			8 295 143.46

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				5 410 135.00			8 295 143.46
C1.7	8.3	Finishes to Unformed Surfaces							
		Wood float finish to top surface of floorslab and walls to: Low flow V-drain channel	m²	2 128	15.00	31 923.00	2128.2	15.00	31 923.00
C1.8	8.4	Reinforcement							
C1.8.1		Mesh Ref 388	m²	3 425	45.00	154 125.00	3425	45.00	154 125.00
C1.8.2		H/T Reinforcing	t	25			25.15		
C1.8.3		M/S Reinforcing	t	-			-		
C1.9	Omissions: VO#1	Fencing							
C1.9.1		Erect chain-link (diamond) mesh fencing complete with wire accessories, posts, stays and droppers for perimeter fencing							
		Attenuation Dam	m	1245			1245	442.61	
C1.9	Additions: VO#2	Fencing							
C1.9.1		Supply and install galvanised and aluminium coated 1,8m high perimeter panel fence including posts, accessories and 500mm flatwrap							
		Attenuation Dam	m	1245			1245	1 086.31	1 352 455.95
C1.9.2		Install 1,8m high bi parting swing security gate for 6m gap width complete with lock set							
		Attenuation Dam	No	2			2	47 337.22	94 674.44
	TOTAL CARRIED FORWARD TO SUMMARY					5 596 183.00			9 928 321.85

SECTION D: ROAD WORKS

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
D		SECTION D: ROADWORKS							
D1	SANS 1200C	Site clearance							
D1.1	8.2.1 PSC3-1	Clear and grub	km	-					
D2	SANS 1200 DM	Earthworks							
D2.1	8.3.4 PSDM8-1	Cut to fill for sidewalk area and roadbed area and compact to 93% of MAMDD	m ³	136.95	65.00	8 901.75	136.95	65.00	8 901.75
D2.2	8.3.4 PSDM5-8 PSDM8-1	Imported fill for sidewalk area and compact to 93% of MAMDD, imported from any other source or other excavations on site	m ³	75.00	80.00	6 000.00	75	80.00	6 000.00
D2.3	8.3.7	Cut to spoil unsuitable material or excess material from excavations in box cut and sidewalk area	m ³	45.37	30.00	1 361.10	45.37	30.00	1 361.10
D3	8.3.6	Extra-over Items C1, C2 and C3 inclusive, for excavating and breaking down material in:							
D3.1		Hard rock excavation	m ³	Rate Only	500.00	Rate Only	Rate Only	500.00	Rate Only
D4	PSM8-3	Treatment of road-bed							
D4.1	8.3.3 PSDM8-1	Road-bed preparation and compaction of in-situ material to 93% MAMMD density	m ³	18.15	55.00	998.25	18.15	55.00	998.25
THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE						17 261.10			17 261.10

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PROGRESS PAYMENT CERTIFICATE FORMS

PROCESSED PAYMENT CERTIFICATE FORM									
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				17 261.10			17 261.10
D5	1200 MF PSMF1	Base							
D5.1	8.3.3	Construct 150mm thick base with approved material imported from any other source and compacted to 95% MAMMD	m³	27.23	550.00	14 976.50	27.23	550.00	14 976.50
D5.2	PSME2	Construct 100 mm thick sidewalk gravel wearing course with approved material and compact to 95% of MAMDD	m³	75.00	350.00	26 250.00	75	350.00	26 250.00
D5.3	PSMF4	Extra-over Item C5.1 for processing base with stabilizing agent	m³	27.23	250.00	6 807.50	27.23	250.00	6 807.50
	8.3.8	Stabilizing agent:							
D5.3.1		a) Road lime	t	Rate Only	2 800.00	Rate Only	Rate Only	2 800.00	Rate Only
D5.3.2		b) Portland cement	t	2.58	200.00	516.00	2.58	200.00	516.00
THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE						65 811.10			65 811.10

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PROGRESS PAYMENT CERTIFICATE FORMS

PROGRESS PAYMENT CERTIFICATE FORM									
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				65 811.10			65 811.10
D6	1200MJ PSMJ	Construct segmented paving							
D6.1	8.2.2 PSMJ 3	Supply and lay 80 mm thick segmented paving blocks complete for surface layer	m ²	150.00	220.00	33 000.00	150	220.00	33 000.00
D6.2	8.2.3	Cutting to fit edge restraints (straight, raking or circular cutting) (80 mm thick block)	m	51.79	120.00	6 214.80	51.79	120.00	6 214.80
D6.3	8.2.2 PSMJ 3	Supply and lay 60 mm thick segmented paving blocks complete for surface layer and sidewalks	m ²	907.00	180.00	163 260.00	907	180.00	163 260.00
D6.4	8.2.3	Cutting to fit edge restraints (straight, raking or circular cutting) (60 mm thick block)	m	258.95	80.00	20 716.00	258.95	80.00	20 716.00
D6.5	8.2.4	Rolling to locked-up condition	m ²	1057.00	30.00	31 710.00	1057	30.00	31 710.00
THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE						320 711.90			320 711.90

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PROGRESS PAYMENT CERTIFICATE FORM									
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY Tender	ESTIMATED WORKS (TENDER)		ESTIMATED WORKS (VARIATIONS)		
					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				320 711.90			320 711.90
D7	1200 MK	Kerbing							
D7.1	8.2.2 PSMK8-1	Mountable Concrete kerbing and Channeling Combined	m	60.00	180.00	10 800.00	60	180.00	10 800.00
D7.2	8.2.2 PSMK8-1	Non-Mountable Concrete kerbing and Channeling Combined	m	52.00	200.00	10 400.00	52	200.00	10 400.00
D7.3	8.2.6.1 PSMK8-2	Cast in situ transition kerbs and channels 2,0 m long	No	12.00	250.00	3 000.00	12	250.00	3 000.00
D8	1200GA 8.4.3	Concrete Grade 25MPa:							
D8.1		a) Edge beam (cast 2.0m sections)	m ³	10.10	180.00	1 818.00	10.1	180.00	1 818.00
		b) Concrete drif be casted in three sections	m ³	20.00					
D9	1200MK 8.2.9	Formwork:							
D9.1		a) To sides with formwork on internal face only	m ²	2.50	120.00	300.00	2.5	120.00	300.00
D9.2		b) To sides with formwork both internal and external	m ²	2.70	120.00	324.00	2.7	120.00	324.00
D9.3		c) To ends of slabs	m ²	1.00	120.00	120.00	1	120.00	120.00
D10	1200GA 8.4.4	Unformed surface finishes:							
D10.1		b) Steel float finish	m ²	8.30	30.00	249.00	8.3	30.00	249.00
THIS PAGE BID TOTAL CARRIED FORWARD TO NEXT PAGE						347 722.90			347 722.90

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					RATE	AMOUNT	QTY	RATE	AMOUNT
		BID TOTAL BROUGHT FORWARD FROM PREVIOUS PAGE				347 722.90			347 722.90
D11		Prime coat:							
D11.1		(a) RTH 3/12P or RTL 3/12P tar prime	litre						
D11.2		(b) MC-30 cut-back bitumen (0.8 application rate)	litre	208.00	25.00	5 200.00	208.00	25.00	5 200.00
D12		Aggregate for blinding	m ²	Rate only		Rate only	Rate only		Rate only
D13		Asphalt Surfacing:							
D13.1		(a) 40 mm Continuously graded, medium grade, using 60/70 penetration grade bitumen	m ²	220.00	210.00	46 200.00	220.00	210.00	46 200.00
D13.2		Tack coat of 30% stable-grade emulsion	litre	Rate Only	100.00	Rate Only	Rate Only	100.00	Rate Only
D13.3		Variation in active filler content							
D13.3.1		(a) Cement	ton	Rate Only	2 500.00	Rate Only	Rate Only	2 500.00	Rate Only
D13.3.2		(b) Lime	ton	Rate Only	3 000.00	Rate Only	Rate Only	3 000.00	Rate Only
D13.3.3		(c) Milled granulated blast-furnace slag	ton	Rate Only	3 500.00	Rate Only	Rate Only	3 500.00	Rate Only
D13.3.4		(d) Fly-ash	ton	Rate Only	3 500.00	Rate Only	Rate Only	3 500.00	Rate Only
		TOTAL CARRIED FORWARD TO SUMMARY				399 122.90			399 122.90