Section	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 1200				
12.00		GENERAL REQUIREMENTS AND PROVISIONS				
B12.01		Excavation for the exposing of, or searching of services:				
		(a) 0m up to and incuding 1m				
	LI	(i) Soft material	m³	1000		
B12.02		Relocation and protection of existing services:				
		(a) Existing services to be relocated and or protected during construction	Prov sum	1	5 000 000,00	5 000 000,00
		(b) Handling cost and profit in respect of sub item B12,02 (a) above	%	5000000		
B12.03		Construction of Survey Beacons				
		(a) Provisional Sum for new survey beacons to be constructed or for existing survey beacons to be protected during construction	Prov sum	1	20 000,00	20 000,00
		(b) Handling cost and profit in respect of sub item B12,03 (a) above	%	20000		
B12.04		Health and Safety				
		(a) Fixed obligations for the preparation of risk assessments, safe work procedures, the project H & S file, the H & S plan and any other H & S matters that the contractor deems necessary,	L/sum	1		
		(b) Fixed obligations for completing and checking the Project H & S file and handing over to the Client on completion of the works,	L/sum	1		
		(c) Time related obligations for updating and amending the risk assessments, safe work procedures, the project H & S file, the H & S plan and full compliance with all H & S matters during the construction of the works under the contract,	month	12		
		Community Liason Officer (CLO) (Items included are remuneration, accredited EPWP training courses for selected labour, site office consumables and personal protective equipment.)	month	12		
		Training				
		(a) Technical skills	Prov sum	1	300 000,00	300 000,00
		(c)Remuneration of workers undergoing training including wages	Prov sum	1	80 000,00	80 000,00
		(d) Contractor's charge to allow for handling costs and profit in respect to sub item B12.04 (a) & ( c)	%	380000		
		(h)Training of Emerging Contractors	Prov Sum	1	175 000,00	175 000,00
		(i) Contractor's charge to allow for handling costs and profit in (h)	%	175000		
Tat-10	ind "	l savard				
Total Carr	iea Fo	orward 101				

Section	LIC Item Description	Unit	Quantity	Rate	Amount R
12.00	SECTION 1200 GENERAL REQUIREMENTS AND PROVISIONS				
	Scope of Works Reserved for SMMEs Development				
	Manholes, Kerbing, Paving, Edge Beams, Guard Rails				
B12.09	Administration of Local Emerging Contractors	Prov Sum	1	125 000,00	125 000,00
	(a) Contractor's handling costs and other charges	%	125000		
B12/1500	Accommodation of Traffic SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/15.00	Prov. Sum % %	1 3050000 3050000	3 050 000,00	3 050 000,00
B12/1600	Overhaul SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/16.00	Prov. Sum % %	1 277500 277500	277 500,00	277 500,00
B12/2300	Concrete Kerbing, Concrete Channeling, Chutes and Downpipes and Concrete linings for open drains SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/23.00	Prov. Sum % %	1 2250000 2250000	2 250 000,00	2 250 000,00
B12/3300	Mass Earthworks SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/33.00	Prov. Sum % %	1 42000 42000	42 000,00	42 000,00
B12/5600	Road Signs SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/56.00	Prov. Sum % %	1 62500 62500	62 500,00	62 500,00
B12/5700	Road Markings SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/57.00	Prov. Sum % %	1 3950000 3950000	3 950 000,00	3 950 000,00
C12/1700	Clearing and Grubbing SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/17.00	Prov. Sum % %	1 855000 855000	855 000,00	855 000,00
C12/2100	Drains SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/21.00	Prov. Sum % %	1 687500 687500	687 500,00	687 500,00
C12/2200	Prefabricated Culverts SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/22.00	Prov. Sum % %	1 2550000 2550000	2 550 000,00	2 550 000,00
Total Carr	ied Forward				
L	102				

12.00   GENERAL REQUIREMENTS AND PROVISIONS	Number	LIC Item Description	Unit	Quantity	Rate	Amount R
Concrete kerbing, Concrete Channelling, Chutes and Downpipes, and Concrete Linings for Open Drains SMMES Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs term B12/23 0.0  C12/5600  Roadsign SMMES Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs term B12/56 0.0  C12/5700 Road Marking SMMES Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs term B12/56 0.0  C12/5700 Landscaping and Planting Plants SMMEs Perliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs term B12/57.00  C12/5800 Landscaping and Planting Plants SMMEs Perliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs term B12/58.00  C12/5700 C12/5800 C12/5700 C12/5800 Landscaping and Planting Plants SMMEs term B12/58.00 C12/5700 C12/5800 C12/5700 C12/	12.00	SECTION 1200	ig I		I	
SIMMEs Preliminary & Generals   Simmes   Simme	C12/2300	Concrete kerbing, Concrete Channelling, Chutes	and Prov. Sum	1	628 500,00	628 500,00
SIMMEs Preliminary & Generals   % 175000   175000   C12/5700   Road Marking   SIMMEs Preliminary & Generals   Contractor's handling costs and other charges in respect to Development of SIMMEs item B12/57.00   C12/5800   Landscaping and Planting Plants   SIMMEs Preliminary & Generals   Contractor's handling costs and other charges in respect to Development of SIMMEs item B12/58.00   Prov. Sum   1 290 000,00   290 000,00   (% 290 000)   290 000,00   (% 290 000)   (% 290 000		SMMEs Preliminary & Generals Contractor's handling costs and other charges in	% %			
SMMEs Preliminary & Generals Contractor's hardling costs and other charges in respect to Development of SMMEs item B12/57.00 Landscaping and Planting Plants SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/58.00 C12/7300 C12/7300 C12/7300 C12/7300 C2/7300 C3/7300	C12/5600	SMMEs Preliminary & Generals Contractor's handling costs and other charges in	% %	175000	175 000,00	175 000,00
SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/58.00  Concrete Block Paving for Roads SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/56.00  Prov. Sum 1 1365 000,00 1365000 1365000 1365000 1365000	C12/5700	SMMEs Preliminary & Generals Contractor's handling costs and other charges in	% %	290000	290 000,00	290 000,00
SMMEs Preliminary & Generals Contractor's handling costs and other charges in respect to Development of SMMEs item B12/56.00  % 1385000  1385000	C12/5800	SMMEs Preliminary & Generals Contractor's handling costs and other charges in	% %	1435000	1 435 000,00	1 435 000,00
Total Carried Forward To Summary	C12/7300	SMMEs Preliminary & Generals Contractor's handling costs and other charges in	% %	1365000	1 365 000,00	1 365 000,00
	Total Carı	 ied Forward To Summary			l	

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 1300				
13.00		CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS				
13.01		Contractor's general obligations				
		(a) Fixed obligations	L/sum	1		
		(b) Value-related obligations	L/sum	1		
		(c) Time-related obligations	month	12		
Total Car	ried F	orward To Summary				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 1400				
14,00		HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL				
B14.01		Office and laboratory accommodation				
		(a) Offices (interior floor space only)	m²	15		
		(e) Ablution units	No	2		
14.02		Office and laboratory furniture				
		(a) Chairs	No	6		
		(d) Desks, complete with drawers and locks	No	3		
		(e) Drawing tables	No	1		
		(f) Conference tables	No	1		
B14.03		Office and laboratory fittings Installations and equipment				
		(a) Items measured by number				
		(i) 220/250 volt power points	No	3		
		(ii) 400/231 volt 3-phase power points	No	1		
		(iii) Double 80 watt fluorescent light fittings complete with ballast and tubes	No	2		
		(iv) Double 55 watt fluorescent light fittings complete with ballast and tubes	No	1		
		(v) Single incandescent light fittings complete with 100 watt globes	No	1		
		(vi) Air conditioning units with 2,2 kW minimum capacity, mounted and with own power connection	No	1		
		(vii) Provision of telephone service, including the cost of calls in connection with contract administration and telephone rental	PC sum	1	25 000,00	25 000,00
		Contractor's handling costs and other charges in respect to above item B14.03(vii)	%	25000		
		(viii) Notice boards as specified	m²	5		
Total Carı	ried F	orward To Summary	1			

Section	Description		Amount R
	SUMMARY OF SECTIONS	l l	
1200	GENERAL REQUIREMENTS AND PROVISIONS		
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS		
1400	HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL		
	SUBTOTAL		
	TOTAL CARRIED OVER TO SECTION E		

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 1500		,		
15.00 B15.01		ACCOMMODATION OF TRAFFIC  Accommodating traffic and maintaining temporary deviations, detours, barricades, signs and traffic safety officers.	Month	12		
B15.03	LI	Temporary traffic-control facilities				
	LI	(a) Flagmen/ Traffic Controllers	man-day	2800		
	LI	(b) Portable STOP and GO-RY signs	No	12		
		(c) Barriers				
		(1) Plastic Barrier Jersey ( 2000x1000)	No	550		
		(d) Delineators (DTG50J) (size indicated):				
	LI	(1) Single	No	100		
	LI	(j) Traffic cones (size indicated) 700mm	No	100		
15.08		Repairs, alterations and/or additions to existing roads used as temporary deviations	Prov sum	1	100 000,00	100 000,00
		(a) Handling cost and profit in respect of sub item B15.08 above	%	100000		
Total		201		1		

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
16.00		SECTION 1600 OVERHAUL				
B16.02		(b) Overhaul on material hauled in excess of 1,0 km	m³-km	3700		
		(ordinary overhaul)				
Total		202				

Number	LIC Item Description	Unit	Quantity	Rate	Amount R
18.00	SECTION 1800 DAYWORKS				
B18.01	Personnel during normal working hours:				
	(i) Unskilled labour	hr	3136		
	(ii) Semi-skilled labour	hr	1568		
	(iii) Skilled labour	hr	1568		
	(iv) Ganger	hr	1568		
B18.02	Personnel outside normal working hours:				
	(a) Outside normal working hours and Saturdays:				
	(i) Unskilled labour	hr	4 864		
	(ii) Semi-skilled labour	hr	1 568		
	(iii) Skilled labour	hr	1 568		
	(iv) Ganger	hr	1 568		
	(b) Sundays and Public Holidays:				
	(i) Unskilled labour	hr	4 864		
	(ii) Semi-skilled labour	hr	1 568		
	(iii) Skilled labour	hr	1 568		
	(iv) Ganger	hr	1 568		
B18.03	Plant and Equipment:				
	(i) Tracked Excavator (18-22 ton)	hr	288		
	(ii) Front end loader minimum power 90kW	hr	288		
	(iii) Backhoe loader (TLB) (7-8 ton)	hr	288		
	(iv) Grader (CAT 140G or equivalent)	hr	288		
	(v) Compressor plus two jackhammers and two paving breakers, including hoses and tools (7 m³/minute mass approximately 150 cpm)	hr	288		
	(vi) Vibratory roller (10-14 ton, single drum, smooth)	hr	288		
	(vii) Static roller (11-13 ton)	hr	288		
	(viii) Pedestrian Roller (800-900 kg, 630 mm wide drum)	hr	288		
	(ix) Small compaction equipment (plate vibrator)	hr	288		
	(x) Pneumatic tyre roller (27 ton)	hr	288		
	(xi) Tipper Truck (10 m³)	hr	288		
	(xii) Water tanker (10 000 litre)	hr	288		
	(xiii) Concrete mixer (capacity 350 litre)	hr	288		
Total Carri	ed Forward		<u> </u>	L	

Number	LIC		Unit	Quantity	Rate	Amount R
19.00		SECTION 1800 DAYWORKS				
18.00		DAYWORKS				
B18.03		(xiv) Generator (5 kVA)	hr	288		
		(xv) Low bed (30-40 ton)	hr	288		
B18.04		Materials:				
		(a) Procurement of materials	L/Sum	1	100 000,00	100 000,00
		(b) Contractor's handling costs, profit and all other charges in respect of sub-item B18.04(a) above	%	100 000		
B18.05		Transport:				
		(a) LDV	km	5 000		
		(b) Flatbed truck (including mobile crane with 5 ton capacity)	km	5 000		
		(c) Lowbed horse and trailer	km	5 000		
Total Car	ried F	orward To Summary				
•		204				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
04.00		SECTION 2100			- I	
21.00		DRAINS				
21.03		Excavation for subsoil drainage systems:				
	LI	"(a) Excavating soft material situated within the following depth ranges below the surface level:"				
	LI	(i) 0 m up to 1,5 m	m³	1000		
	LI	(ii) 1.5 m up to 3,0 m	m³	500		
		"(b) Extra over subitem 21.03(a) for excavation in hard material, irrespective of depth"	m³	250		
21.04		Impermeable backfilling to subsoil drainage systems				
		a) Selected fill material from excavations in pipe tenches	m³	500		
21.06	LI	Natural permeable material in subsoil drainage systems (crushed stone)				
	LI	(b) Crushed stone obtained from commercial sources (19mm average diameter)	m³	600		
21.07		Natural permeable material in subsoil drainage systems (sand)				
		(b) Sand from commercial sources (G7 material)	m³	500		
21.08		Pipes in subsoil drainage systems				
		(c) Perforated Class 25 160mm diameter high density type poly-ethylene pressure (HDPE) pipes and fittings, complete with couplings, end caps, etc., complete	m	750		
21.09		Polyethylene sheeting, 0.15mm thick, or similar approved material, for lining subsoil drainage systems	m²	3000		
21.1		Synthetic-fibre filter fabric				
		a) Geofabric filter blanket wrapped around stone encasing with 150mm side and 300mm end laps including stitching.	m²	3000		
21.17		Test flushing of pipe subsoil drains	No	12		
B21.18		Excavation for the clearing of existing drainage systems				
		(a) Manholes and inlet and outlet structures	m³	15		
		Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter				
		(i) 450mm dia pipe (Class 100D)	m	650		
		(ii) 500mm dia pipe (Class 100D)	m	600		
		(iii) 600mm dia pipe (class 100D)	m	1800		
		(iv) 825mm dia (Class 100D)	m	700		
		(v) 1200 mm dia. (Class 100D)	m	600		
		(v) 1200 mm dia. (Class 100D)	m	600		
Total Car	ried F	orward To Summary			•	

22.00   LI   PREFAREICATED CULVERTS	Number	LIC	Itom Description	l Init	Quantity	Doto	Amount D
PREFABRICATED CULVERTS	Number	LIC		Unit	Quantity	Rate	Amount R
replacement of existing stormwater controls  Manholes catchipits, precast inlet and outlet structures complete  (a) Manholes  (ii) Brick manholes complete as per typical detail JRA-SD-SVM-004  (i) 1.6m to 1.5m deep  (ii) 1.5m to 2.0m deep  (ii) 2.0m to 3m deep  (iv) 3.0m to 4.5m deep  (iv) 3.0m to 4.5m deep  (iv) Catch pits and Kerb Inlets  (2) complete as per typical detail JRA-SD-SWM-001  (i) 1.0m to 1.5m deep  (ii) 1.5, to 3.0m deep  (iii) 3.0m to 4.5m deep  (iv) 3.0m to 4.5m deep  (iv) 4.5m dia pipe (Class 100D)  (iv) 825mm dia (Class 100D)  (iv) 825mm dia (Class 100D)  (iv) 1.200 mm dia, (Class 100D)  (iv) 1.200 mm dia, pipe (Class 100D)  (iv) 4.50m dia pipe (Class 100D)  (iv) 4.5	22.00	LI					
(a) Manholes (1) Brick manholes complete as per typical detail JRA-SD-SWM-004 (i) 1.0m to 1.5m deep (ii) 1.5m to 2.0m deep (iii) 2.0m to 3m deep (iv) 3.0m to 4.5m deep (b) Catch pits and Kerb Inlets (2) complete as per typical detail JRA-SD-SWM-001 (i) 1.0m to 1.5m deep (ii) 3.0m to 4.5m deep (iii) 3.0m to 4.5m deep CCTV conditional assessment of existing stomwater Lines (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (class 100D) (iv) 825mm dia (Class 100D) (v) 1200 mm dia, ic) etc. (all causes) using high pressure valer jetting equipment at +450Bar pressure for pipe diameter (i) 450mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iv) 825mm dia pipe (Class 100D) (iv) 450mm dia pipe (Class 100D) (iv) 500mm dia pipe (Class 100D) (iv) 825mm dia (Class 100D) (iv) 9200 mm dia, (Class 100D) (iv) 9200 mm dia, (Class 100D) (iv) 1200 mm dia, (Class 100D) (iv) 1200 mm dia, (Class 100D) (iv) 1200 mm dia, (Class 100D)							
(1) Brick manholes complete as per typical detail JRA-SD-SWM-004 (i) 1.5m to 1.5m deep (ii) 1.5m to 2.0m deep (iii) 2.0m to 3m deep (iv) 3.0m to 4.5m deep (ii) 1.5 to 3.0m deep (iii) 3.0m to 4.5m deep (iii) 3.0m to 4.5m deep (iii) 3.0m to 4.5m deep No 5 CCTV conditional assessment of existing stormwater Lines (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (class 100D) (iv) 825mm dia (Class 100D) Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter (i) 450mm dia pipe (Class 100D) Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia (Class 100D) (iv) 1200 mm dia (Class 100D) (iv) 1200 mm dia. (Class 100D) (iv) 1200 mm dia. (Class 100D)	22.17						
SD-SWM-004 (i) 1.0m to 1.5m deep (ii) 2.0m to 3m deep (iii) 2.0m to 3m deep (iv) 3.0m to 4.5m deep (iv) 3.0m to 4.5m deep (b) Catch pits and Kerb inlets (2) complete as per typical detail JRA-SD-SWM-001 (i) 1.0m to 1.5m deep (ii) 1.5, to 3.0m deep (iii) 3.0m to 4.5m deep (iii) 3.0m to 4.5m deep (iii) 3.0m to 4.5m deep CCTV conditional assessment of existing stormwater Lines (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (class 100D) (iv) 825mm dia (Class 100D) (v) 1200 mm dia. (Class 100D) Removal of sand, slit, roots, etc. (all causes) using high pressure vater jetting equipment at +450Bar pressure for pipe diameter (i) 450mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iv) 825mm dia (Class 100D) (iv) 825mm dia (Class 100D) (iv) 825mm dia (Class 100D) (v) 1200 mm dia. (Class 100D)			(a) Manholes				
(ii) 1.5m to 2.0m deep (iii) 2.0m to 3m deep (iv) 3.0m to 4.5m deep (b) Catch pits and Kerb Inlets (2) complete as per typical detail JRA-SD-SWM-001 (i) 1.0m to 1.5m deep (ii) 3.0m to 4.5m deep (iii) 3.0m to 4.5m deep No 5 (iii) 3.0m to 4.5m deep No 5 CCTV conditional assessment of existing stormwater Lines (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (class 100D) (iv) 825mm dia (Class 100D) Removal of sand, silt, roots, etc. (all causes) using high pressure vater jetting equipment at +450Bar pressure for pipe diameter (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iv) 825mm dia (Class 100D) (iii) 600mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iv) 825mm dia (Class 100D) (iv) 1200 mm dia. (Class 100D)							
(iii) 2.0m to 3m deep (iv) 3.0m to 4.5m deep (b) Catch pits and Kerb Inlets (2) complete as per typical detail JRA-SD-SWM-001 (i) 1.0m to 1.5m deep (ii) 1.5, to 3.0m deep (iii) 3.0m to 4.5m deep No 5 (iii) 3.0m to 4.5m deep No 5 CCTV conditional assessment of existing stormwater Lines (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (class 100D) (iv) 825mm dia (Class 100D) Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter (i) 450mm dia pipe (Class 100D) (iii) 500mm dia pipe (Class 100D) Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (class 100D) (iii) 600mm dia pipe (class 100D) (iv) 825mm dia (Class 100D) (v) 1200 mm dia. (Class 100D)			(i) 1.0m to 1.5m deep	No	15		
(iv) 3.0m to 4.5m deep (b) Catch pits and Kerb Inlets (2) complete as per typical detail JRA-SD-SWM-001  (i) 1.0m to 1.5m deep (ii) 3.0m to 4.5m deep (iii) 3.0m to 4.5m deep No 5 CCTV conditional assessment of existing stormwater Lines (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (class 100D) (v) 1200 mm dia. (Class 100D) Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter (i) 450mm dia pipe (Class 100D) Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) m 650 (iii) 500mm dia pipe (Class 100D) m 660 (v) 1200 mm dia. (Class 100D) m 700 (v) 1200 mm dia. (Class 100D) m 700 (v) 1200 mm dia. (Class 100D) m 600 (v) 1200 mm dia. (Class 100D) m 600 (v) 1200 mm dia. (Class 100D) m 600			(ii) 1.5m to 2.0m deep	No	12		
(b) Catch pits and Kerb Inlets (2) complete as per typical detail JRA-SD-SWM-001  (i) 1.0m to 1.5m deep (ii) 3.0m to 4.5m deep (iii) 500mm dia pipe (Class 100D) (iii) 500mm dia pipe (Class 100D) (iv) 825mm dia (Class 100D) (v) 1200 mm dia. (Class 100D)  Removal of sand, silt, roots, etc. (all causes) using high pressure for pipe diameter (i) 450mm dia pipe (Class 100D)  Removal of sand (silt, roots, etc. (all causes) using high pressure for pipe diameter (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iv) 825mm dia (Class 100D) (v) 1200 mm dia. (Class 100D)			(iii) 2.0m to 3m deep	No	6		
(2) complete as per typical detail JRA-SD-SWM-001  (i) 1.0m to 1.5m deep  (ii) 1.5, to 3.0m deep  (iii) 3.0m to 4.5m deep  CCTV conditional assessment of existing stormwater Lines  (i) 450mm dia pipe (Class 100D)  (ii) 500mm dia pipe (Class 100D)  (iii) 600mm dia pipe (Class 100D)  (iv) 825mm dia (Class 100D)  Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter  (i) 450mm dia pipe (Class 100D)  (ii) 500mm dia pipe (Class 100D)  m 650  (iii) 500mm dia pipe (Class 100D)  m 650  (iii) 600mm dia pipe (Class 100D)  m 600  (iv) 825mm dia (Class 100D)  m 700  (v) 1200 mm dia. (Class 100D)  m 600  (v) 1200 mm dia. (Class 100D)  m 600  (v) 1200 mm dia. (Class 100D)  m 600			(iv) 3.0m to 4.5m deep	No	6		
(i) 1.0m to 1.5m deep (ii) 1.5, to 3.0m deep (iii) 3.0m to 4.5m deep No 5 (iii) 3.0m to 4.5m deep CCTV conditional assessment of existing stormwater Lines (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iv) 825mm dia (Class 100D) (v) 1200 mm dia. (Class 100D) Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iv) 825mm dia (Class 100D) (iv) 825mm dia (Class 100D) (iv) 825mm dia (Class 100D) (iv) 1200 mm dia. (Class 100D)			(b) Catch pits and Kerb Inlets				
(ii) 1.5, to 3.0m deep (iii) 3.0m to 4.5m deep CCTV conditional assessment of existing stormwater Lines (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (class 100D) (iv) 825mm dia (Class 100D) Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter (i) 450mm dia pipe (Class 100D) (ii) 500mm dia pipe (Class 100D) (iii) 600mm dia pipe (Class 100D) (iii) 600mm dia pipe (class 100D) (iv) 825mm dia (Class 100D) (iv) 825mm dia (Class 100D) (iv) 825mm dia (Class 100D) (iv) 1200 mm dia. (Class 100D)			(2) complete as per typical detail JRA-SD-SWM-001				
(iii) 3.0m to 4.5m deep  CCTV conditional assessment of existing stormwater Lines  (i) 450mm dia pipe (Class 100D)  (ii) 500mm dia pipe (Class 100D)  (iii) 600mm dia pipe (class 100D)  (iv) 825mm dia (Class 100D)  (v) 1200 mm dia. (Class 100D)  Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter  (i) 450mm dia pipe (Class 100D)  (ii) 500mm dia pipe (Class 100D)  (iii) 600mm dia pipe (class 100D)  (iv) 825mm dia (Class 100D)  (iv) 1200 mm dia. (Class 100D)  (v) 1200 mm dia. (Class 100D)  (v) 1200 mm dia. (Class 100D)  m 600			(i) 1.0m to 1.5m deep	No	20		
CCTV conditional assessment of existing stormwater Lines  (i) 450mm dia pipe (Class 100D)			(ii) 1.5, to 3.0m deep	No	5		
Lines (i) 450mm dia pipe (Class 100D)			(iii) 3.0m to 4.5m deep	No	5		
(ii) 500mm dia pipe (Class 100D)  (iii) 600mm dia pipe (class 100D)  (iv) 825mm dia (Class 100D)  (v) 1200 mm dia. (Class 100D)  Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter  (i) 450mm dia pipe (Class 100D)  (ii) 500mm dia pipe (Class 100D)  (iii) 600mm dia pipe (class 100D)  (iv) 825mm dia (Class 100D)  (iv) 825mm dia (Class 100D)  (v) 1200 mm dia. (Class 100D)  (v) 1200 mm dia. (Class 100D)  (v) 1200 mm dia. (Class 100D)  m 600							
(iii) 600mm dia pipe (class 100D)  (iv) 825mm dia (Class 100D)  (v) 1200 mm dia. (Class 100D)  Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter  (i) 450mm dia pipe (Class 100D)  (ii) 500mm dia pipe (Class 100D)  (iii) 600mm dia pipe (class 100D)  (iv) 825mm dia (Class 100D)  (v) 1200 mm dia. (Class 100D)  (v) 1200 mm dia. (Class 100D)  (v) 1200 mm dia. (Class 100D)  m 600			(i) 450mm dia pipe (Class 100D)	m	650		
(iv) 825mm dia (Class 100D)  (v) 1200 mm dia. (Class 100D)  Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter  (i) 450mm dia pipe (Class 100D)  (ii) 500mm dia pipe (Class 100D)  (iii) 600mm dia pipe (class 100D)  (iv) 825mm dia (Class 100D)  (v) 1200 mm dia. (Class 100D)  m 600  (v) 1200 mm dia. (Class 100D)  m 600			(ii) 500mm dia pipe (Class 100D)	m	600		
(v) 1200 mm dia. (Class 100D)  Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter  (i) 450mm dia pipe (Class 100D)  (ii) 500mm dia pipe (Class 100D)  (iii) 600mm dia pipe (class 100D)  (iv) 825mm dia (Class 100D)  (v) 1200 mm dia. (Class 100D)  (v) 1200 mm dia. (Class 100D)  (v) 1200 mm dia. (Class 100D)  m 600			(iii) 600mm dia pipe (class 100D)	m	1800		
Removal of sand, silt, roots, etc. (all causes) using high pressure water jetting equipment at +450Bar pressure for pipe diameter  (i) 450mm dia pipe (Class 100D) m 650  (ii) 500mm dia pipe (Class 100D) m 1800  (iii) 600mm dia pipe (class 100D) m 700  (iv) 825mm dia (Class 100D) m 600  (v) 1200 mm dia. (Class 100D) m 600  (v) 1200 mm dia. (Class 100D) m 600			(iv) 825mm dia (Class 100D)	m	700		
high pressure water jetting equipment at +450Bar pressure for pipe diameter  (i) 450mm dia pipe (Class 100D)			(v) 1200 mm dia. (Class 100D)	m	600		
(ii) 500mm dia pipe (Class 100D) m 600 (iii) 600mm dia pipe (class 100D) m 1800 (iv) 825mm dia (Class 100D) m 700 (v) 1200 mm dia. (Class 100D) m 600 (v) 1200 mm dia. (Class 100D) m 600			high pressure water jetting equipment at +450Bar				
(iii) 600mm dia pipe (class 100D) m 1800 (iv) 825mm dia (Class 100D) m 700 (v) 1200 mm dia. (Class 100D) m 600 (v) 1200 mm dia. (Class 100D) m 600			(i) 450mm dia pipe (Class 100D)	m	650		
(iv) 825mm dia (Class 100D)  (v) 1200 mm dia. (Class 100D)  m 600  (v) 1200 mm dia. (Class 100D)  m 600			(ii) 500mm dia pipe (Class 100D)	m	600		
(v) 1200 mm dia. (Class 100D) m 600 (v) 1200 mm dia. (Class 100D) m 600			(iii) 600mm dia pipe (class 100D)	m	1800		
(v) 1200 mm dia. (Class 100D) m 600			(iv) 825mm dia (Class 100D)	m	700		
			(v) 1200 mm dia. (Class 100D)	m	600		
Total Carried Forward To Summary			(v) 1200 mm dia. (Class 100D)	m	600		
Total Carried Forward To Summary							
Total Carried Forward To Summary							
206	Total Cari	ied F					

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 2300		, , , , , , , , , , , , , , , , , , ,		
23.00	LI	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS				
B23.02		Concrete kerbing-channelling combination				
		a) Fig 7 kerb-channel combination (rate includes the demolision and removal of existing kerbs)	m	5000		
Total						
		207				L

Number	LIC Item Description	Unit	Quantity	Rate	Amount R
32.00	SECTION 3300  SELECTION, STOCKPILING AND BREAKING DOWN THE MATERIAL FROM BORROW PITS, CUTTINGS AND EXISTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL LAYERS				
32.06	Stockpiling of milled material material( bulking factor included)				
	(d)Milled Material				
	(i)Material stock pilled within 2km radius of site	m³	3700		
	(ii)Material stock pilled in excess of 2km radius of site	m³	3700		
Total Ca	ried Forward To Summary				
I Otal Cari	ried Forward 16 Summary 208				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
33.00		SECTION 3300 MASS EARTHWORKS				
33.10		Roadbed preparation and the compaction of material				
		(b) Compaction to 93% of modified AASHTO density	m³	700		
Total		209				

Number	LIC Item Description	Unit	Quantity	Rate	Amount R
34.00	SECTION 3400 PAVEMENT LAYERS OF GRAVEL MATERIAL	<del></del>			
34.03	Pavement layers constructed from gravel obtained from commercial sources including unlimited free haul				
	individual				
	(f) Gravel subbase (chemically stabilized material)				
	compacted to 95% of modified AASHTO density,				
	using:				
	(2) Cemented material (Lower Subbase 200mm thickness)	m³	1000		
	(3) Cemented material (Upper Subbase 200mm thickness)	m³	1000		
Total Care	ried Forward To Summary				
Total Call	210				

Number	LIC Item Description	Unit	Quantity	Rate	Amount R
35.00	SECTION 3500 STABILIZATION		<u> </u>		
35.01	Chemical stabilization (200mm) extra over unstabilized compacted layers (3% Cement)				
	(b) Sub Base				
	(iii) 200mm thickness	m³	3000		
35.02	Chemical stabilizing agent:				
	(a) Ordinary portland cement	t	250		
35.04	Provision and application of water for curing	kl	2625		
Total Cari	ied Forward To Summary				

Number	LIC Item Description	Unit	Quantity	Rate	Amount R
38.00	SECTION 3800 BREAKING UP EXISTING PAVEMENT LAYERS				
38.02	Milling out existing bituminous material with an average milling depth:				
	(a) Not exceeding 30 mm	m³	7600		
	(b) Exceeding 60mm	m³	2800		
38.03	Milling out cemented material including stockpiling:				
B38.04	Excavating and spoiling material from an existing pavement and/or the underlying fill:				
	(c) Cemented Crushed Stone	m³	700		
	(d) Bituminous material (RAP)	m³	10400		
38.10	Preparing stockpile sites	m³	4160		
Total Car	ried Forward To Summary				

#### JDA C/N001

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
39.00		SECTION 3900 PATCHING AND REPAIRING EDGE BREAKS				
39.02		Excavation in existing pavements for patching in :				
		(a) Asphalt layers				
		(2) Exceeding 5 m² but not exceeding 100 m²	t	100		
Total Carr	ried F	orward To Summary				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 4100				
41.00	LI	PRIME COAT				
41.01		Prime Coat				
		(c) MC-30 Cut Back Bitumen	I	3388		
<b>—</b>						
I otal Cari	ried F	orward To Summary				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 4200		,		
42.00		ASPHALT BASE AND SURFACING				
42.04		Tack coat of 30% stable-grade emulsion	litre	21000		
42.11		Asphalt layer constructed for rehabilitation purposes in				
		accordance with the provisions of subsubclauses				
		4213(f)(ii) or 4213(f)(iii):				
		(a) Base constructed with new asphalt (using				
		SE-1 with a maximum stone size of 20mm)				
		S T THE STATE OF SECTION STATE OF SECTIO				
		(i) Continuously graded, 80mm thick	t	2000		
		(i) Continuously graded, continuities		2000		
		400 6 :				
		(b) Surfacing or overlay constructed with new				
		asphalt (AP-1 maximum stone size 14mm)				
		(i) Combination and all Comments think		4050		
		(i) Continuously graded, 30mm thick	t	1950		
			2			
42.17		Asphalt reinforcing - complete (PVA GRID 25mm x	m²	37000		
		25mm)				
Total Cari	ried F	orward To Summary				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 5600				
56.00 B56.01		ROAD SIGNS  Road sign boards with painted or coloured semi-matt background, Symbols, lettering and borders in semi-matt black or in Class I retroreflective material, where the sign board is constructed from				
		(c) Prepainted galvanized steel plate (chromadek 1,6 mm thick or approved equivalent):				
		(1) Regulatory - Control signs				
		(i) R2	No	9		
		(ii) R2.1	No	10		
		(2) Regulatory - Command signs				
		(i) R103	No	12		
		(3) Regulatory - Prohibitation signs				
		(i) R213	No	12		
		(4) Regulatory - Reservation signs				
		(i) R354 (ii) R315	No No	8 1		
		(5) Warning - Hazard Marker Signs	NO	'		
		(i) W402	No	12		
		(7.7.52				
Total		216				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
57.00		SECTION 5700 ROAD MARKINGS				
57.01		Road marking paint:				
		1,5 mm Thick Thermo Plastic road marking applied according to manufacturers specifications				
		(a) White lines (broken or unbroken)				
	LI	(1) 100 mm wide	km	6		
	LI	(2) 150 mm wide	km	5		
	LI	(3) 200 mm wide	km	4		
	LI	(4) 300 mm wide	km	4		
		(b)Yellow/ Red lines ( broken or unbroken )				
	LI	(1) 100 mm wide	km	4		
	LI	(2) 150 mm wide	km	4		
	LI	(3) 200 mm wide	km	3		
	LI	(4) 300 mm wide	km	3		
		2,5 mm Thick Thermo Plastic road marking applied according to manufacturers specifications				
		(1) 100 mm wide	km	4		
		(2) 150 mm wide	km	4		
		(3) 200 mm wide	km	2		
		(4) 300 mm wide	km	2		
		(d) White lettering and symbols	m²	750		
		(e) Yellow lettering and symbols	m²	375		
		(f) Transverse lines, painted island and arrestor bed markins (any colour)	m²	1500		
		(g) Kerb markings (any colour)	m²	1200		
		(h) Bus lane markings 1000mm wide (red)	km	3		
		Direction arrows and general road marking				
		(a) RM5	No	10		
		(b) RM7.2	No	8		
		(c) RM8.1	No	7		
		(d) RM8.2	No	6		
		(e) RM8.3	No	17		
Total Carr	ied Fo	orward				

Number	LIC Item Description	Unit	Quantity	Rate	Amount R
57.00	SECTION 5700 ROAD MARKINGS				
	Direction arrows and general road marking				
	(f) RM8.4	No	4		
	(g) RM8.5	No	14		
	(h) WM5	No	18		
	(i) WM7.1	No	9		
	(j) WM7.2	No	8		
	(k) WM7.3	No	16		
	(I) WM7.4	No	2		
	(m) WM7.5	No	13		
	(N) WM6.4	No	2		
57.05	Road studs and Rubble blocks				
	ACD - or other approved - composite rumble blocks no: A2014/00840 size 263 x 85 x 60mm high fixed to asphalt surfacing complete to manufacturers specification (4,25 blocks/m) of yellow colour	m	2200		
Total	218	ı		l	

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 5700/1				
57.00/1		TRAFFIC SIGNALLING  Provision to make allowance for Signal Design				
		Provision to make allowance for Signal Design, Approval, Testing and Comissioning				
		Traffic Signal Installation up to Commissioning as per JRA Approved Proposed Design	Prov Sum	1	5 000 000,00	5 000 000,00
		(a) Handling cost and profit in respect of sub item B57.00/1 above	%	5000000		
Total Car	ried F	orward To Summary				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 8100	l.			
81.00		TESTING MATERIALS AND WORKMANSHIP				
81.02		Other special tests requested by the engineer	Prov sum	1	200 000,00	200 000,00
		(b) Handling cost and profit on respect of sub item 81,02 above	%	200000		
Total Cari	ried F	orward To Summary				

SUMMARY OF SECTIONS  1500  ACCOMODATION OF TRAFFIC  OVERHAUL  1800  DAYWORKS  2100  PREFABRICATED CULVERTS  CONCRETE KERBING, CONCRETE CHANNELING, CHUTES AND DOWNPIPES, AND CONCRETE LING, STOCKPILING AND BREAKING DOWN THE MATERIAL FROM BORROW PITS, AND PLACING AND COMPACTING THE GRAVEL LAYERS  3300  MASS EARTHWORKS  10cluded  3500  STABILIZATION  BREAKING UP EXISTING PAVEMENT LAYERS 3900  PATCHING AND EPAIRING EDGE BREAKS  4100  PRIME COAT  4200  ROAD SIGNS  TRAFFIC SIGNALS  TESTING MATERIALS AND WORKMANSHIP  SUBSTOTAL  SUBSTOTAL  SUBSTOTAL  TOTAL CARRIED OVER TO SECTION E	Section	Description	Amount R
1600 OVERHAUL Included  1800 DAYWORKS  2100 DRAINS  2200 PREFABRICATED CULVERTS  2300 CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND COWNERIES, AND DOWNERPES, AND CONCRETE LININGS FOR OPEN DRAINS  3200 SELECTION, STOCKPILING AND BREAKING DOWN THE MATERIAL FROM BORROW PITS, CUTTINGS AND SUSTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL LAYERS  3300 MASS EARTHWORKS Included  3400 PAVEMENT LAYERS OF GRAVEL MATERIAL.  3500 STABILIZATION  3800 BREAKING UP EXISTING PAVEMENT LAYERS  3900 PATCHING AND REPAIRING EDGE BREAKS  4100 PRIME COAT  4200 ASPHALT BASE AND SURFACING  5600 ROAD MARKINGS Included  57001 TRAFFIC SIGNALS  8100 SUBTOTAL  SUBTOTAL		SUMMARY OF SECTIONS	
DAYWORKS DRAINS PREFABRICATED CULVERTS  CONCRETE KERBING, CONCRETE CHANNELING, CHUTES AND DOWNPIPES, AND CONCRETE LINKINGS FOR OPEN DRAINS  SELECTION, STOCKPILING AND BREAKING DOWN THE MATERIAL, FROM BORROW PITS, CUITINGS AND EXISTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL AVERS  MASS EARTHWORKS Included  PAVEMENT LAYERS OF GRAVEL MATERIAL  SOO STABILIZATION BREAKING UP EXISTING PAVEMENT LAYERS 3900 PATCHING AND REPAIRING EDGE BREAKS 4100 PRIME COAT  4200 ASPHALT BASE AND SURFACING 5700 ROAD SIGNS Included Included  TRAFFIC SIGNALS  SUBTOTAL	1500	ACCOMODATION OF TRAFFIC	Included
2100 DRAINS 2200 PREFABRICATED CULVERTS 2300 CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS 3200 SELECTION, STOCKPILING AND BREAKING DOWN THE MATERIAL FROM BORROW PITS, CULTITIOS AND EXISTING PAVEMENT LAYERS, AND ELACING AND COMPACTING THE GRAVEL LAYERS 3300 MASS EARTHWORKS 3400 PAVEMENT LAYERS OF GRAVEL MATERIAL 3500 STABILIZATION 3800 BREAKING UP EXISTING PAVEMENT LAYERS 3900 PATCHING AND REPAIRING EDGE BREAKS 4100 PRIME COAT 4200 ASPHALT BASE AND SURFACING 5600 ROAD SIGNS Included 5700/11 TRAFFIC SIGNALS 8100 TESTING MATERIALS AND WORKMANSHIP	1600	OVERHAUL	Included
2200 PREFABRICATED CULVERTS  CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS  3200 SELECTION, STOCKPLING AND BREAKING DOWN THE MATERIAL, FROM BORROW PITS, CUTTINGS AND EXISTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL LAYERS  3300 MASS EARTHWORKS Included  PAVEMENT LAYERS OF GRAVEL MATERIAL 3500 STABILIZATION  3800 BREAKING UP EXISTING PAVEMENT LAYERS 3900 PATCHING AND REPAIRING EDGE BREAKS  4100 PRIME COAT  4200 ASPHALT BASE AND SURFACING  5000 ROAD SIGNS Included  5700/1 TRAFFIC SIGNALS  5700/1 TRAFFIC SIGNALS  SUBTOTAL  SUBTOTAL	1800	DAYWORKS	
CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS  3200  SELECTION, STOCKPILING AND BREAKING DOWN THE MATERIAL FROM BORROW PITS, CUTTINGS AND EXISTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL LAYERS  3300  MASS EARTHWORKS  Included  PAVEMENT LAYERS OF GRAVEL MATERIAL  3500  STABILIZATION  3800  BREAKING UP EXISTING PAVEMENT LAYERS 3900  PATCHING AND REPAIRING EDGE BREAKS  4100  PRIME COAT  4200  ASPHALT BASE AND SURFACING  5600  ROAD SIGNS  Included  Included  TRAFFIC SIGNALS  TESTING MATERIALS AND WORKMANSHIP	2100	DRAINS	
CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS  3200 SELECTION, STOCKPILING AND BREAKING DOWN THE MATERIAL FROM BORROW PITS, CUTTINGS AND EXISTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL LAYERS  3300 MASS EARTHWORKS Included  3400 PAVEMENT LAYERS OF GRAVEL MATERIAL  3500 STABILIZATION  3800 BREAKING UP EXISTING PAVEMENT LAYERS  3900 PATCHING AND REPAIRING EDGE BREAKS  4100 PRIME COAT  4200 ASPHALT BASE AND SURFACING  5600 ROAD SIGNS Included  5700 TRAFFIC SIGNALS  TESTING MATERIALS AND WORKMANSHIP	2200	PREFABRICATED CULVERTS	
DOWN THE MATERIAL FROM BORROW PITS, CUTTINGS AND EXISTING PAVEMENT LAVERS, AND PLACING AND COMPACTING THE GRAVEL LAYERS  3300 MASS EARTHWORKS Included  3400 PAVEMENT LAYERS OF GRAVEL MATERIAL 3500 STABILIZATION  3800 BREAKING UP EXISTING PAVEMENT LAYERS 3900 PATCHING AND REPAIRING EDGE BREAKS 4100 PRIME COAT 4200 ASPHALT BASE AND SURFACING 5600 ROAD SIGNS Included 5700 ROAD MARKINGS Included 5700/1 TRAFFIC SIGNALS 8100 TESTING MATERIALS AND WORKMANSHIP	2300	CHANNELLING, CHUTES AND DOWNPIPES, AND	Included
3400 PAVEMENT LAYERS OF GRAVEL MATERIAL 3500 STABILIZATION 3800 BREAKING UP EXISTING PAVEMENT LAYERS 3900 PATCHING AND REPAIRING EDGE BREAKS 4100 PRIME COAT 4200 ASPHALT BASE AND SURFACING 5600 ROAD SIGNS Included 5700 ROAD MARKINGS Included 5700/1 TRAFFIC SIGNALS 8100 SUBTOTAL	3200	DOWN THE MATERIAL FROM BORROW PITS, CUTTINGS AND EXISTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL	
3500 STABILIZATION 3800 BREAKING UP EXISTING PAVEMENT LAYERS 3900 PATCHING AND REPAIRING EDGE BREAKS 4100 PRIME COAT 4200 ASPHALT BASE AND SURFACING 5600 ROAD SIGNS Included 5700 ROAD MARKINGS Included 5700/1 TRAFFIC SIGNALS 8100 TESTING MATERIALS AND WORKMANSHIP	3300	MASS EARTHWORKS	Included
BREAKING UP EXISTING PAVEMENT LAYERS  3900 PATCHING AND REPAIRING EDGE BREAKS  4100 PRIME COAT  4200 ASPHALT BASE AND SURFACING  5600 ROAD SIGNS Included  5700 ROAD MARKINGS  TRAFFIC SIGNALS  1100 TESTING MATERIALS AND WORKMANSHIP	3400	PAVEMENT LAYERS OF GRAVEL MATERIAL	
3900 PATCHING AND REPAIRING EDGE BREAKS 4100 PRIME COAT 4200 ASPHALT BASE AND SURFACING 5600 ROAD SIGNS Included 5700 ROAD MARKINGS Included 5700/1 TRAFFIC SIGNALS 8100 TESTING MATERIALS AND WORKMANSHIP	3500	STABILIZATION	
4100 PRIME COAT  4200 ASPHALT BASE AND SURFACING  5600 ROAD SIGNS  ROAD MARKINGS  1ncluded  5700/1 TRAFFIC SIGNALS  TESTING MATERIALS AND WORKMANSHIP	3800	BREAKING UP EXISTING PAVEMENT LAYERS	
ASPHALT BASE AND SURFACING  ROAD SIGNS  ROAD MARKINGS  TRAFFIC SIGNALS  TESTING MATERIALS AND WORKMANSHIP  SUBTOTAL  SUBTOTAL	3900	PATCHING AND REPAIRING EDGE BREAKS	
5600 ROAD SIGNS Included 5700 ROAD MARKINGS Included 5700/1 TRAFFIC SIGNALS 8100 TESTING MATERIALS AND WORKMANSHIP  SUBTOTAL	4100	PRIME COAT	
5700 ROAD MARKINGS  5700/1 TRAFFIC SIGNALS  8100 TESTING MATERIALS AND WORKMANSHIP  SUBTOTAL	4200	ASPHALT BASE AND SURFACING	
5700/1  8100  TRAFFIC SIGNALS  TESTING MATERIALS AND WORKMANSHIP  SUBTOTAL	5600	ROAD SIGNS	Included
8100 TESTING MATERIALS AND WORKMANSHIP  SUBTOTAL	5700	ROAD MARKINGS	Included
SUBTOTAL	5700/1	TRAFFIC SIGNALS	
	8100	TESTING MATERIALS AND WORKMANSHIP	
TOTAL CARRIED OVER TO SECTION E		SUBTOTAL	
I TOTAL CADDIED OVED TO SECTION E		TOTAL CARRIED OVER TO SECTION 5	

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 1700				
17.00		CLEARING AND GRUBBING				
17.02		Removal and grubbing of large trees and tree stumps:				
		(a) Girth exceeding 1 m up to and including 2 m	No	6		
B17.07		Take up / demolish and remove from site, including carting away to designated spoilt site				
		d) Milling out existing bituminous material with a maximum thickness exceeding 60mm	m²	11983		
		e) Existing concrete pavers, including removal of waterproof membrane	m²	2194		
		f) Take up and remove existing yardstone / pebbles (average 100mm thick layer)	m²	350		
		g) Take up and remove existing precast and / or insitu concrete kerbing	m	800		
		h) Take up and remove existing precast deliniator kerbs (rumbling blocks)	m	400		
		i) Demolish existing stormwater kerb inlet, including stopping off and sealing ends of existing stormwater pipes, grubbing up and removing concrete base, backfilling hole with suitable imported material from commercial sources and compacting in 150mm thick layers to a minimum of 93% Mod. AASHTO maximum density, including working in confined areas.	No	6		
		j) Demolish existing manhole, including stopping off and sealing ends of existing stormwater or sewer pipes, grubbing up and removing concrete base, backfilling hole with suitable imported material from commercial sources and compacting in 150mm thick layers to a minimum of 93% Mod. AASHTO maximum density, including working in confined areas.	No	8		
		k) Take down and remove existing street lights, including disconnecting cabling and making safe, grubbing up and removing concrete base, backfilling hole with suitable imported material from commercial sources and compacting in 150mm thick layers to a minimum of 93% Mod. AASHTO maximum density, including working in confined areas	No	28		
Total		301				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 2100				
21.00		DRAINS				
21.03		Excavation for subsoil drainage systems:				
	LI	"(a) Excavating soft material situated within the following depth ranges below the surface level:"				
	LI	(i) 0 m up to 1,5 m	m³	511		
	LI	(ii) 1.5 m up to 3,0 m	m³	367		
		"(b) Extra over subitem 21.03(a) for excavation in hard material, irrespective of depth"	m³	176		
21.04		Impermeable backfilling to subsoil drainage systems				
		a) Selected fill material from excavations in pipe tenches	m³	240		
21.06	LI	Natural permeable material in subsoil drainage systems (crushed stone)				
	LI	(b) Crushed stone obtained from commercial sources (19mm average diameter)	m³	399		
21.07		Natural permeable material in subsoil drainage systems (sand)				
		(b) Sand from commercial sources (G7 material)	m³	240		
21.08		Pipes in subsoil drainage systems				
		(c) Perforated Class 25 160mm diameter high density type poly-ethylene pressure (HDPE) pipes and fittings, complete with couplings, end caps, etc., complete	m	690		
21.09		Polyethylene sheeting, 0.15mm thick, or similar approved material, for lining subsoil drainage systems	m²	2822		
21.1		Synthetic-fibre filter fabric				
		a) Geofabric filter blanket wrapped around stone encasing with 150mm side and 300mm end laps including stitching.	m²	2822		
21.17		Test flushing of pipe subsoil drains	No	8		
21.18		Excavation for the clearing of existing drainage systems				
		(a) Manholes and inlet and outlet structures	m³	14		
Total						
Total		302				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 2200				
2200		PREFABRICATED CULVERTS				
22.01		Excavation:				
		(a) Excavating soft material situated within the following depth ranges below the surface:				
		(i) 0 m up to 1,5 m	m³	493		
		(ii) Exceeding 1,5 m and up to 3,0 m	m³	530		
		(b) Extra over subitem 22.01(a) for excavation in hard material, irrespective of depth	m³	205		
22.02		Backfilling:				
		(a) Using the excavated material	m³	358		
		(b) Using imported selected G5 material	m³	665		
		(c) Extra over subitems 22.02(a) and (b) for soil cement backfilling				
		(i) with 3% Cement	m³	512		
22.03		Concrete pipe culverts:				
		(a) On class C bedding				
		(i) 350mm Diameter Class SC 100D load concrete non-pressure pipes, with spigot and socket ends jointed together with and including neoprene sealed joints	m	50		
		(ii) 450mm Diameter Class SC 100D load concrete non-pressure pipes, with spigot and socket ends jointed together with and including neoprene sealed joints	m	150		
		(iii) 600mm Diameter Class SC 100D load concrete non-pressure pipes, with spigot and socket ends jointed together with and including neoprene sealed joints	m	250		
22.07		Cast in-situ concrete and formwork:				
		(f) Services protection slab size 1500 x 900 x 150mm thick overall, with a mass not exceeding 500kg, manufactured using 30MPa/19mm reinforced concrete, with single layer mesh ref 391 installed 50mm from bottom, supplied complete with 4 No. R10 lifting hooks cast in top surface of slab in required position, including Class F2 surface finish formwork to bottom and sides, transporting, hoisting and placing in final position complete	No	256		
Total Carr	ied Fo	orward 303				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 2200				
22.00	LI	PREFABRICATED CULVERTS				
22.12		Removing existing concrete, brickwork or masonry:				
		(a) Plain concrete	m³	20		
		(b) Reinforced concrete	m³	20		
22.14		Removing and stacking existing prefabricated culverts:				
		(a) 300mm Diameter precast concrete pipe, including locating, excavating, exposing, stopping off, lifting, loading, transporting to spoil site, off-loading, stacking, backfilling tenches and compacting in 150mm thick layers to 93% Mod. AASHTO maximum density, disposal of excess excavated material to designated spoil site, etc., complete	m	50		
		(b) 450mm Diameter precast concrete pipe, including locating, excavating, exposing, stopping off, lifting, loading, transporting to spoil site, off-loading, stacking, backfilling tenches and compacting in 150mm thick layers to 93% Mod. AASHTO maximum density, disposal of excess excavated material to designated spoil site, etc., complete	m	150		
		(c) 600mm Diameter precast concrete pipe, including locating, excavating, exposing, stopping off, lifting, loading, transporting to spoil site, off-loading, stacking, backfilling tenches and compacting in 150mm thick layers to 93% Mod. AASHTO maximum density, disposal of excess excavated material to designated spoil site, etc., complete	m	250		
22.17		Manholes, catchpits, precast inlet and outlet structures complete:				
		(a) Brick manhole size 940 x 940mm internally, complete with 100mm thick mesh ref. 193 reinforced concrete base, 230mm thick NFX brick walls, one coat internal cement plaster, concrete cover slab, step irons, concrete benching, excavations, backfilling, carting away of surplus excavated material, 750mm diameter x 153kg type 1A heavy duty manhole cover and frame:				
		(i) Manhole with 2 no. inlets for precast concrete pipes (pipes elsewhere measured), depth to invert exceeding 1000mm and not exceeding 1500mm deep	No	2		
		(b) Catchpit size 600 x 800mm internally, complete with 100mm thick mesh ref. 193 reinforced concrete base, 230mm thick NFX brick walls, one coat internal cement plaster, concrete cover slab, step irons, concrete benching, excavations, backfilling, carting away of surplus excavated material, 400 x 570mm x 48kg heavy duty stormwater grating and frame:				
		(i) Catchpit with 2 no. inlets for precast concrete pipes (pipes elsewhere measured), depth to invert exceeding 1000mm and not exceeding 1500mm deep	No	2		
Total Carr	iod F	) Drugerd				
Total Carr	iea Fo	orward 304				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 2200				
22.00	LI	PREFABRICATED CULVERTS				
		(c) Kerb inlet size 5540 x 940mm internally, complete with 100mm thick mesh ref. 193 reinforced concrete base, 230mm thick NFX brick walls, one coat internal cement plaster, concrete cover slabs, step irons, concrete benching, excavations, backfilling, carting away of surplus excavated material, 610mm diameter x 97kg type 2B medium duty manhole cover and frame				
		(i) Kerb inlet with 2 no. inlets for precast concrete pipes (pipes elsewhere measured), depth to invert exceeding 1500mm and not exceeding 2000mm deep	No	6		
		(ii) Lifting-key for manhole cover (handed to JDA)	No	2		
		(f) The raising or lowering of existing manholes				
		Raising of existing manholes by removing existing concrete top slab with manhole cover and frame, preparing existing surface and adding an additional 300mm to top of existing manhole, including supplying and installing new cover slab, manhole cover and frame, executed complete				
		(i) Existing 600 x 600mm brick manhole	No	5		
		(ii) Existing 900 x 900mm brick manhole	No	3		
		(iii) Existing 1050mm diameter precast concrete manhole	No	2		
22.26		Hand excavation to determine the positions of existing services				
		a) Excavate by hand tools to locate and expose existing services, including backfilling and compacting to 90% Mod. AASHTO maximum density, carting away of surplus excavated material	m³	20		
Takel						
Total		305				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 2300		-		
23.00	LI	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS				
23.01		Concrete kerbing:  (a) Precast concrete rectangular edge kerb SABS 927 Fig. 3 (size 150mm wide x 300mm high), complete with 15MPa/19mm in-situ concrete haunching at joints:				
		(i) Radius up to 15 m	m	80		
		(ii) Radius over 15 m and straight sections	m	400		
		(iii) Dropped Kerbing for wheel chair crossing	m	20		
		(iv) Dilineator kerb (rumble blocks)	m	20		
		(v) 90 x 110mm D-section extruded rubber fender with lugs at not exceeding 500mm centres, epoxy grouted into precast concrete kerb (elsewhere measured)	m	116		
23.02		Concrete kerbing-channelling combination:				
		(a) Combination precast concrete rectangular edge kerb SABS 927 Fig. 3 (size 150mm wide x 300mm high) and precast concrete tapered edge channel kerb SABS Fig. 14 (300mm wide x 125mm extreme height), complete with 15MPa/19mm in-situ concrete haunching at joints				
		(i) Radius up to 15 m	m	60		
		(ii) Radius over 15 m and straight sections	m	350		
23.03		Concrete chutes:				
		(a) Combination 40MPa precast concrete rectangular Sanral U-channel size 370mm wide x 405mm high x 1200mm lengths, bottom of channel to 125mm radius, channel reinforced with 210kg per m3 steel reinforcement, 370mm wide x 85mm thick x 600mm lengths perforated median grid cover, grouted with cement mortar in final posiiton to top of U-channel, complete with 15MPa/19mm in-situ concrete haunching at joints (channel and grid cover), including excavations, levelling, compacting, backfilling and compacting to sides, carting away excess excavated earth material, etc., complete	m	110		
B23.21		Precast concrete bollards:				
		a) 800mm High 10W 4000K light up black bollard, including 1 x 10W LED light, excavation, unreinforced concrete base, formwork, backfilling and compacting, etc., complete	No	10		
		b) Precast concrete diagonal bollard size 1200 x 250 x 250mm installed strictly in accordance with the manufacturer's instructions	No	80		
Total		306				

Number	LIC Item Description	Unit	Quantity	Rate	Amount R
	SECTION 3300				
3300	MASS EARTHWORKS				
	Note: All materials to include for free haul from sourc or to disposal site, to be located by the contractor, irrespective of the distance	е			
33.01	Cut and borrow to fill, including unlimited free-haul:				
	(a) Material in compacted layer thickness of 200 mm and less:				
	(ii) Compacted to 93% of Maximun Dry Density	m³	402		
33.04	Cut to spoil including unlimited free haul. Material obtained from:				
	(a) Soft excavation (roadworks)	m³	6525		
	(a) Soft excavation (pavements)	m³	201		
	(b) Intermediate excavation	m³	327		
	(c) Hard excavation	m³	163		
33.07	Removal of unsuitable material (including unlimited free-haul):				
	(a) In layer thicknesses exceeding 200 mm				
	(i) Stable material	m³	653		
	(c) Extra over for intermediate material	m³	65		
	(d) Extra over for hard material	m³	33		
33.08	Widening of cuts (extra over items 33.01,33.02 and 33.04):				
	(c) in all other materials	m³	327		
33.10	Roadbed preparation and the compaction of material:				
	(a) Compaction to 90% of Mod AASHTO Maximun Density (roadworks)	m³	1797		
	(a) Compaction to 90% of Mod AASHTO Maximun Density (pavements)	m³	201		
otal Carri	ied Forward				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 3300				
3300		MASS EARTHWORKS				
33.13		Finishing-off cut and fill slopes, medians and interchange areas:				
		(a) Cut slopes	m²	180		
		(b) Fill slopes	m²	180		
		(c) Medians and interchange areas	m²	1440		
33.14		Extra over item 33.01 for excavating material from the pavements and fills of existing roads:				
		(a) Non-cemented material	m³	201		
		(b) Cemented material	m³	201		
33.15		Extra over item 33.14 for excavating in pavements and fills of existing roads in restricted areas in:				
		(a) Non-cemented material	m³	201		
		(b) Cemented material	m³	201		
33.18		Extra over items 33.10, 33.11 and 33.12 for preparing and / or treating the roadbed and compacting material in restricted areas:				
		(a) Item 33.10 for roadbed preparation and the compaction of material (roadworks)	m³	1797		
Total Car	ried F	I Forward To Summary		1	1	

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 3400		l .		
34.00		PAVEMENT LAYERS OF GRAVEL MATERIAL				
34.01		Pavement layers constructed from gravel taken from cut or borrow, including unlimited free-haul:				
		(a) Gravel selected layer compacted to:				
		(i) 93% of Mod AASHTO Density, using G7 material 150 mm thick (roadworks)	m³	1497		
		(i) 93% of Mod AASHTO Density, using G7 material 150 mm thick (pavements)	m³	749		
		(d) Gravel subbase (chemically stabilized material) compacted to:				
		(iii) 96% of Mod AASHTO Density, using non- cemented G5 material 200 mm thick	m³	2997		
		(g) Gravel shoulders wearing course Type 1 compacted to:				
		(ii) 95% of Mod AASHTO Density 150 mm thick	m³	225		
B34.14		Extra over item 34.01 for supply of gravel material from commercial sources (including overhaul) for the following pavement layers:				
		(a) Gravel selected layer, G7 quality material (roadworks)	m³	1797		
		(a) Gravel selected layer, G7 quality material (pavement)	m³	201		
		(b) Gravel subbase, G5 quality material	m³	3247		
		(c) Gravel wearing course, Type 1	m³	449		
Total Cari	ried F	orward To Summary				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 3500				
35.00		STABILIZATION				
35.01		Chemical stabilization extra over unstabilized compacted layers				
		(a) Subbase layers of				
		(i) 200 mm thickness	m³	2997		
35.02		Chemical stabilizing agent:				
		(a) Ordinary Portland Cement	t	211		
35.04		Provision and application of water for curing	kł	300		
35.05		Curing by covering with subsequent layer (immediate placement on instruction of the Engineer)	m²	11980		
35.13		Extra over items 35.01 and 35.07 for trial sections	m³	300		
Total Car	ried F	orward To Summary				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R			
		SECTION 4100		<u> </u>	<u> </u>				
41.00	LI	PRIME COAT							
41.01		Prime coat:							
		(f) Bitumen emulsion bases prime	litre	8557					
41.02		Aggregate for blinding:							
		(i) BTB base compacted to 93% of Mod. RICE, 80 mm thick	m²	7733					
		(iI) EME base compacted to 94% of Mod. RICE, 90 mm thick	m²	8500					
41.03		Extra over item 41.01 for applying the prime coat in areas accessible only to hand held equipment	litre	856					
I otal Car	Total Carried Forward To Summary								

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 4200		,		
42.00		ASPHALT BASE AND SURFACING				
42.02		Asphalt Surfacing:				
		(a) Continuously graded,				
		Apply 40mm (average) thick continuously graded asphalt surfacing using AP-1 (50/70 penetration grade) bitumen, including approved binder	m²	5990		
42.04		Tack coat of 30% stable-grade emulsion	litre	8664		
42.05		Binder variations				
		(a) 50/70 Penetration Grade Bitumens	t	28		
42.06		Variations in active filler content:				
		(a) Cement	t	5		
		(b) Lime	t	5		
		(c) Milled granulated blast-furnce slag	t	5		
		(d) Fly-ash	t	5		
42.08		100 mm cores in asphalt paving	No	5		
42.15		Application of prime coat and/or tack coat to the edges of the layers	litre	428		
B42.21		Aggregate variations	t	28		
B42.22		Intersection of old with new, including tieing in of all layerworks and finishing flush top surface of asphalt	m	120		
Total Carı	ried F	l forward To Summary		l		

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 5600		•		
56.00		ROAD SIGNS				
56.01		Road sign boards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class 1 retro-reflective material, where the sign board is constructed from:  (c) Prepainted galvanized steel plate (chromadek 1,6mm thick or approved equivalent):				
		(i) Area not exceeding 2 m²	m² m²	37 19		
		(ii) Area exceeding 2 m² but not 10 m²	111	19		
56.02		Extra over item 56.01 for using:				
		(a) Background of retro-reflective material of:				
		(i) Class I (Engineering grade)	m²	17		
		(iii) Class III (High-intensity grade)	m²	39		
		(b) Lettering, symbols, numbers, arrows, emblems and borders of retro- reflective material: (ii) Class III	m²	56		
56.03		Road sign supports (overhead road sign structures excluded):  (a) Steel tubing				
		(i) 76mm Diameter x 5mm wall thickness galvanized circular hollow sections	t	2		
56.05		Excavation and backfilling for road sign supports (not applicable to kilometre posts)	m³	12		
56.06		Extra over item 56.05 for cement-treated soil backfill	m³	12		
56.08		Dismantling, storing and re-erecting road signs with a surface area of (including grubbing up and removing concrete base, backfilling hole with suitable imported material from commercial sources and compacting in 150mm thick layers to a minimum of 93% Mod. AASHTO maximum density, including working in confined areas):				
		(a) Up to 2 m²	No	17		
		(b) Exceeding 2 m² but not exceeding 10 m²	No	4		
56.09		Dismantling and storing road signs with a surface area of (including grubbing up and removing concrete base, backfilling hole with suitable imported material from commercial sources and compacting in 150mm thick layers to a minimum of 93% Mod. AASHTO maximum density, including working in confined areas):				
		(a) Up to 2 m <sup>2</sup>	No	17		
		(b) Exceeding 2 m² but not exceeding 10 m²	No	4		
Total		1		I.		
		212				l

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 5700				
57.00		ROAD MARKINGS				
57.01		Road marking paint:				
		(g) Kerb Marking ( any color)	m²	22		
57.02		Retro-reflective road-marking paint:				
	LI	(a) White lines (broken or unbroken)				
	LI	(i) 100 mm wide	km	2		
	LI	(i) 100 mm wide circular on plan	km	2		
	LI	(ii) 300 mm wide	km	2		
		(iii) 600 mm wide	km	1		
	LI	(b) Yellow line (broken or unbroken)				
	LI	(i) 100mm wide	km	1		
	LI	(i) 100mm wide circular on plan	km	2		
	LI	(c) Red line (broken or unbroken)				
		(i) 600mm wide	km	1		
		(d) White lettering and symbols	m²	45		
		(e) Yellow lettering and symbols	m²	45		
		(f) Transverse lines, painted island and arrestor bed markings (any color)	m²	90		
57.04		Variations in rate of application:				
		(a) White paint	l	97		
		(b) Yellow paint	l	19		
		(c) Red paint	l	96		
57.05		Roadstuds				
		75mm wide x 101mm long x 67mm Extreme height hot dipped galvanized road stub, fixed in required position in top of asphalt surfacing (elsewhere measured)	No	56		
Total Carr	iod Es	) Drivard				
I OLAI CAII	i <del>c</del> u FC	314				

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 5700				
57.00		ROAD MARKINGS				
57.06		Setting out and premarking of lines (excluding trafficisland markings, lettering and symbols)	km	6		
57.07		Re-establishing the painting unit at the end of the during the maintenance period	Sum	1		
57.08		Removal of existing, temporary or permanent road markings by:				
		(a) Sandblasting, shot-blasting or high pressure water- jet, including all necessary power supply, making good damage caused by process, etc., complete	m²	200		
Total						
Total		315				

Number	LIC	·	Unit	Quantity	Rate	Amount R
E0 00		SECTION 5800  LANDSCAPING AND PLANTING PLANTS				
58.00		LANDSCAPING AND PLANTING PLANTS				
58.09		(a) Providing the trees and shrubs:				
		(i) Celtis Africana 4.55m high	No	12		
		(ii) Abelia postrata (4l container)	No	20		
		(iii) Agapanthus spp Blue (2l container)	No	20		
		(iv) Bauhinia galpinii (4l container)	No	20		
		(v) Plumbago auriculata (0,5l container)	No	20		
		(b) Planting and establishing:				
		(i) Trees	No	12		
		(ii) Shrubs	No	80		
B58.12		Succulents:				
		a) Succulents and cactus plants as per CoJ landscaping and indigenous plant guidelines	m²	58		
B58.13		Compost, lime and fertilizer:				
		(a) Compost in plant beds, holes for trees, shrubs, etc	m³	22		
B58.14		Benches, tables, etc.				
		a) Precast concrete bench size 1800 x 450 x 450mm installed strictly in accordance with the manufacturer's instructions	No	4		
		Garden furniture with grey exposed aggregate finish to precast concrete components, including excavation, unreinforced concrete footings where applicable, backfilling and compacting, etc., complete				
		a) 3 Seater bench	No	2		
		b) 17 Litre (155kg) waste bin size 490mm diameter x 760mm high	No	4		
B58.15		Tree boxes				
		Tree boxes with grey exposed aggregate finish to precast concrete components, including excavation, unreinforced concrete footings where applicable, backfilling and compacting, etc., complete				
		a) 1000 x 1000 x 1000mm Tree box	No	12		
B58.16		Tree grids				
		a) Precast concrete tree grid size 1200 x 1200 x 60mm thick, supplied in four sections and with an overall centre diameter of 420mm, installed strictly in accordance with the manufacturer's instructions	No	2		
		orward				

SECTION 5800  ILANDSCAPING AND PLANTING PLANTS  a) Solar walkway light on and including 3500mm high post, including excavations, casting in concrete base, backfilling, compacting, etc., complete  b) Recessed floor lights including fixing in final position, all excavations, wiring, conduits, backfilling and compacting, etc., complete  B58.18  EXTERNAL STAINLESS STEEL BALUSTRADES Brushed stainless steel handrails comprising 70 x 8mm thick stainless steel sloping vertical uprights / posts at 965mm centres, with 12mm diameter pin welded to top, 51mm diameter x 4mm wall thickness stainless steel hollow section handrails fixed to pin, 25mm diameter x 1.6mm wall thickness stainless steel hollow section horizontal rails at 125mm vertical centres, the vertical uprights / posts welded to and including 100 x 120 x 6mm thick stainless steel base plate, with 51mm diameter x 4mm wall thickness x 150mm long circular hollow section welded centrally to	
B58.17 Light fittings:  a) Solar walkway light on and including 3500mm high post, including excavations, casting in concrete base, backfilling, compacting, etc., complete  b) Recessed floor lights including fixing in final position, all excavations, wiring, conduits, backfilling and compacting, etc., complete  B58.18 EXTERNAL STAINLESS STEEL BALUSTRADES Brushed stainless steel handrails comprising 70 x 8mm thick stainless steel sloping vertical uprights / posts at 965mm centres, with 12mm diameter pin welded to top, 51mm diameter x 4mm wall thickness stainless steel hollow section handrails fixed to pin, 25mm diameter x 1.6mm wall thickness stainless steel hollow section horizontal rails at 125mm vertical centres, the vertical uprights / posts welded to and including 100 x 120 x 6mm thick stainless steel base plate, with 51mm diameter x 4mm wall thickness x	
a) Solar walkway light on and including 3500mm high post, including excavations, casting in concrete base, backfilling, compacting, etc., complete  b) Recessed floor lights including fixing in final position, all excavations, wiring, conduits, backfilling and compacting, etc., complete  EXTERNAL STAINLESS STEEL BALUSTRADES Brushed stainless steel handrails comprising 70 x 8mm thick stainless steel sloping vertical uprights / posts at 965mm centres, with 12mm diameter pin welded to top, 51mm diameter x 4mm wall thickness stainless steel hollow section handrails fixed to pin, 25mm diameter x 1.6mm wall thickness stainless steel hollow section horizontal rails at 125mm vertical centres, the vertical uprights / posts welded to and including 100 x 120 x 6mm thick stainless steel base plate, with 51mm diameter x 4mm wall thickness x	
post, including excavations, casting in concrete base, backfilling, compacting, etc., complete  b) Recessed floor lights including fixing in final position, all excavations, wiring, conduits, backfilling and compacting, etc., complete  EXTERNAL STAINLESS STEEL BALUSTRADES Brushed stainless steel handrails comprising 70 x 8mm thick stainless steel sloping vertical uprights / posts at 965mm centres, with 12mm diameter pin welded to top, 51mm diameter x 4mm wall thickness stainless steel hollow section handrails fixed to pin, 25mm diameter x 1.6mm wall thickness stainless steel hollow section horizontal rails at 125mm vertical centres, the vertical uprights / posts welded to and including 100 x 120 x 6mm thick stainless steel base plate, with 51mm diameter x 4mm wall thickness x	
position, all excavations, wiring, conduits, backfilling and compacting, etc., complete  EXTERNAL STAINLESS STEEL BALUSTRADES Brushed stainless steel handrails comprising 70 x 8mm thick stainless steel sloping vertical uprights / posts at 965mm centres, with 12mm diameter pin welded to top, 51mm diameter x 4mm wall thickness stainless steel hollow section handrails fixed to pin, 25mm diameter x 1.6mm wall thickness stainless steel hollow section horizontal rails at 125mm vertical centres, the vertical uprights / posts welded to and including 100 x 120 x 6mm thick stainless steel base plate, with 51mm diameter x 4mm wall thickness x	
Brushed stainless steel handrails comprising 70 x 8mm thick stainless steel sloping vertical uprights / posts at 965mm centres, with 12mm diameter pin welded to top, 51mm diameter x 4mm wall thickness stainless steel hollow section handrails fixed to pin, 25mm diameter x 1.6mm wall thickness stainless steel hollow section horizontal rails at 125mm vertical centres, the vertical uprights / posts welded to and including 100 x 120 x 6mm thick stainless steel base plate, with 51mm diameter x 4mm wall thickness x	
8mm thick stainless steel sloping vertical uprights / posts at 965mm centres, with 12mm diameter pin welded to top, 51mm diameter x 4mm wall thickness stainless steel hollow section handrails fixed to pin, 25mm diameter x 1.6mm wall thickness stainless steel hollow section horizontal rails at 125mm vertical centres, the vertical uprights / posts welded to and including 100 x 120 x 6mm thick stainless steel base plate, with 51mm diameter x 4mm wall thickness x	
bottom of base plate and epoxy grouted into final position, in and including 60mm diameter x 150mm deep core hole drilled in top surface of concrete, executed complete	
a) Balustrade 600mm high m 33	
b) Extra over 600mm high balustrade for bends / No 2 angles	
c) Extra over 600mm high balustrade for stopped ends No 2	
d) Balustrade 1050mm high m 124	
e) Extra over 1050mm high balustrade for bends / No 4 angles	
f) Extra over 1050mm high balustrade for stopped No 4 ends	
B58.19 The following in concrete planter boxes	
Restricted excavation not exceeding 2m deep for trenct m³ 16	
Cart away of surplus excavated material m³ 16	
Imported topsoil in planter boxes m³ 15	
Rip, scarify and compact in situ material m² 32	
Total Carried Forward	

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 5800				
58.00		LANDSCAPING AND PLANTING PLANTS				
B58.19		15MPa/19mm Concrete in blinding	m³	2		
		25MPa/19mm Concrete in footings to planters	m³	5		
		25MPa/19mm Concrete in planter walls	m³	9		
		Smooth formwork to sides of planter walls	m²	119		
		Mild steel bar reinforcement - all diameters	t	1		
		High tensile steel bar reinforcement - all diameters	t	2		
B58.19		375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'	m²	68		
		Two coats bituminious paint to exposed surfaces of waterproofing	m²	68		
		50mm Diameter PVC weep pipe 300mm long, including casting in exact position	No	28		
		High tensile steel bar reinforcement - all diameters	t	2		
		375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'	m²	68		
		Two coats bituminious paint to exposed surfaces of waterproofing	m²	68		
		50mm Diameter PVC weep pipe 300mm long, including casting in exact position	No	28		
B58.20		The following in concrete retaining walls				
		Restricted excavation not exceeding 2m deep for trench	m³	12		
		Cart away of surplus excavated material	m³	12		
		Rip, scarify and compact in situ material	m²	24		
		15MPa/19mm Concrete in blinding	m³	1		
		25MPa/19mm Concrete in footings to retaining walls	m³	4		
		25MPa/19mm Concrete in retaining walls	m³	5		
Total Carr	ed Fo	orward 318				

SECTION 5800  LANDSCAPING AND PLANTING PLANTS  25MPa/19mm Concrete in retaining walls  Mild steel bar reinforcement - all diameters  t 1  High tensile steel bar reinforcement - all diameters  t 1  50mm Diameter PVC weep pipe 300mm long, including casting in exact position  including casting in exact position  Restricted exexavation not exceeding 2m deep for trenches  Cart away of surplus excavated material  m² 32  Imported topsoil in planter boxes  Rip, scarify and compact in situ material  m² 32  Instantial material  m² 4  25MPa/19mm Concrete in folding m³ 4  25MPa/19mm Concrete in folding m³ 10  Mild steel bar reinforcement - all diameters  t 1  High tensile steel bar reinforcement - all diameters  t 1  High tensile steel bar reinforcement - all diameters  t 1  One brick walls in planters  150mm brickforce  50 x 300mm Pracast concrete coping  m 44  Somm Thick stone cladding to planter walls  376 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, scaled to primed surface by 'torch-tusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters  Total	Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
Smooth formwork to sides of retaining walls  Smooth formwork to sides of retaining walls  Mild steel bar reinforcement - all diameters  t 1  High tensile steel bar reinforcement - all diameters  t 1  50mm Diameter PVC weep pipe 300mm long, including casting in exact position  The following in brick planter boxes Restricted excavation not exceeding 2m deep for trenches  Cart away of surplus excavated material  imported topsoil in planter boxes  Rip, scarify and compact in situ material  m² 32  Imported topsoil in planter boxes  Rip, scarify and compact in situ material  m² 4  25MPa/19mm Concrete in footings to planters  m² 10  Mild steel bar reinforcement - all diameters  t 1  High tensile steel bar reinforcement - all diameters  t 1  High tensile steel bar reinforcement - all diameters  t 56  150mm brickforce  s0 x 300mm Precast concrete coping  m 44  Somm Thick stone cladding to planter walls  and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing  Cne coat cement plaster to external face of planters  m² 29  One coat cement plaster to external face of planters  m² 29  Somm Diameter PVC weep pipe 300mm long, including casting in exact position							
Smooth formwork to sides of retaining wails  Mild steel bar reinforcement - all diameters  t 1  High tensile steel bar reinforcement - all diameters  t 1  50mm Diameter PVC weep pipe 300mm long, including casting in exact position  The following in brick planter boxes  Restricted excavation not exceeding 2m deep for trenches  Cart away of surplus excavated material m² 32  Imported topsoil in planter boxes m³ 28  Rip, scarify and compact in situ material m² 67  15MPa/19mm Concrete in bilinding m³ 4  25MPa/19mm Concrete in bilinding m³ 10  Mild steel bar reinforcement - all diameters t 1  High tensile steel bar reinforcement - all diameters t 1  One brick walls in planters m³ 56  150mm brickforce m 666  50 x 300mm Precast concrete coping m 44  50mm Thick stone cladding to planter wails m³ 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchusion'  Two coats biluminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters m³ 29  One coat cement plaster to external face of planters m³ 29  One coat cement plaster to external face of planters m³ 29  Somm Diameter PVC weep pipe 300mm long, including casting in exact position	58.00		LANDSCAPING AND PLANTING PLANTS				
Mild steel bar reinforcement - all diameters t 1 High tensile steel bar reinforcement - all diameters t 1 Somm Diameter PVC weep pipe 300mm long, including casting in exact position on the control of t	B58.20		25MPa/19mm Concrete in retaining walls	m³	5		
High tensile steel bar reinforcement - all diameters  50mm Diameter PVC weep pipe 300mm long, including casting in exact position  The following in brick planter boxes Rostricted exevation not exceeding 2m deep for trenches  Cart away of surplus excavated material m² 32  Imported topsoil in planter boxes Rip, scarify and compact in situ material m² 4  ESMPa/19mm Concrete in blinding m² 4  25MPa/19mm Concrete in footings to planters m³ 10  Mild steel bar reinforcement - all diameters t 1  High tensile steel bar reinforcement - all diameters t 1  Cone brick walls in planters m³ 56  150mm brickforce m 666  50 x 300mm Precast concrete coping m 44  50mm Thick stone cladding to planter walls m² 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchusion'  Two coats bituminious paint to exposed surfaces of waterproofing One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  One coat cement plaster to external face of planters m² 29  Somm Diameter PVC weep pipe 300mm long, including casting in exact position			Smooth formwork to sides of retaining walls	m²	34		
Somm Diameter PVC weep pipe 300mm long, including casting in exact position  The following in brick planter boxes Restricted excavation not exceeding 2m deep for trenches  Cart away of surplus excavated material m³ 32 Imported topsoil in planter boxes m³ 28 Rip, scarify and compact in situ material m2 67 I5MPa/19mm Concrete in blinding m³ 4  25MPa/19mm Concrete in blinding m³ 10 Mild steel bar reinforcement - all diameters t 1  High tensile steel bar reinforcement - all diameters t 1  One brick walls in planters m³ 56  150mm brickforce m 666  50 x 300mm Precast concrete coping m 44  Somm Thick stone cladding to planter walls m³ 34  375 Micron polyester waterproofing applied to sides and bottom of planters, water proofing and to m³ 96  waterproofing Cne coat cement plaster to internal face of planters m³ 29  One coat cement plaster to internal face of planters m³ 29  One coat cement plaster to external face of planters m³ 29  Somm Diameter PVC weep pipe 300mm long, including casting in exact position			Mild steel bar reinforcement - all diameters	t	1		
including casting in exact position  The following in brick planter boxes Restricted excavation not exceeding 2m deep for trenches  Cart away of surplus excavated material m³ 32  Imported topsoil in planter boxes m³ 28  Rip, scarify and compact in situ material m² 67  15MPa/19mm Concrete in blinding m³ 4  25MPa/19mm Concrete in footings to planters m³ 10  Mild steel bar reinforcement - all diameters t 1  High tensile steel bar reinforcement - all diameters t 1  One brick walls in planters m³ 56  150mm brickforce m 666  50 x 300mm Precast concrete coping m 44  50mm Thick stone cladding to planter walls m² 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position			High tensile steel bar reinforcement - all diameters	t	1		
Restricted excavation not exceeding 2m deep for trenches  Cart away of surplus excavated material m³ 32  Imported topsoil in planter boxes m³ 28  Rip, scarify and compact in situ material m2 67  15MPa/19mm Concrete in blinding m³ 4  25MPa/19mm Concrete in footings to planters m³ 10  Mild steel bar reinforcement - all diameters t 1  High tensile steel bar reinforcement - all diameters t 1  One brick walls in planters m³ 56  150mm brick/force m 666  50 x 300mm Precast concrete coping m 44  Somm Thick stone cladding to planter walls m² 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  Somm Diameter PVC weep pipe 300mm long, including casting in exact position				No	12		
Imported topsoil in planter boxes  Rip, scarify and compact in situ material  15MPa/19mm Concrete in blinding  25MPa/19mm Concrete in footings to planters  m²  4  25MPa/19mm Concrete in footings to planters  m³  10  Mild steel bar reinforcement - all diameters  t  1  High tensile steel bar reinforcement - all diameters  t  One brick walls in planters  m²  56  150mm brickforce  m  666  50 x 300mm Precast concrete coping  m  44  50mm Thick stone cladding to planter walls  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters  m²  29  One coat cement plaster to external face of planters  m²  29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position	B58.21		Restricted excavation not exceeding 2m deep for	m³	32		
Rip, scarify and compact in situ material m <sup>2</sup> 67  15MPa/19mm Concrete in blinding m <sup>3</sup> 4  25MPa/19mm Concrete in footings to planters m <sup>3</sup> 10  Mild steel bar reinforcement - all diameters t 1  High tensile steel bar reinforcement - all diameters t 1  One brick walls in planters m <sup>2</sup> 56  150mm brickforce m 666  50 x 300mm Precast concrete coping m 44  50mm Thick stone cladding to planter walls m <sup>2</sup> 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing One coat cement plaster to internal face of planters m <sup>2</sup> 29  One coat cement plaster to external face of planters m <sup>2</sup> 29  S0mm Diameter PVC weep pipe 300mm long, including casting in exact position			Cart away of surplus excavated material	m³	32		
15MPa/19mm Concrete in blinding m³ 4  25MPa/19mm Concrete in footings to planters m³ 10  Mild steel bar reinforcement - all diameters t 1  High tensile steel bar reinforcement - all diameters t 1  One brick walls in planters m² 56  150mm brickforce m 666  50 x 300mm Precast concrete coping m 44  50mm Thick stone cladding to planter walls m² 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position			Imported topsoil in planter boxes	m³	28		
25MPa/19mm Concrete in footings to planters m³ 10  Mild steel bar reinforcement - all diameters t 1  High tensile steel bar reinforcement - all diameters t 1  One brick walls in planters m² 56  150mm brickforce m 666  50 x 300mm Precast concrete coping m 44  50mm Thick stone cladding to planter walls m² 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position			Rip, scarify and compact in situ material	m2	67		
Mild steel bar reinforcement - all diameters t 1  High tensile steel bar reinforcement - all diameters t 1  One brick walls in planters m² 56  150mm brickforce m 666  50 x 300mm Precast concrete coping m 44  50mm Thick stone cladding to planter walls m² 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position			15MPa/19mm Concrete in blinding	m³	4		
High tensile steel bar reinforcement - all diameters t 1  One brick walls in planters m² 56  150mm brickforce m 666  50 x 300mm Precast concrete coping m 44  50mm Thick stone cladding to planter walls m² 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position			25MPa/19mm Concrete in footings to planters	m³	10		
One brick walls in planters  m² 56  150mm brickforce m 666  50 x 300mm Precast concrete coping m 44  50mm Thick stone cladding to planter walls m² 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position			Mild steel bar reinforcement - all diameters	t	1		
150mm brickforce m 666  50 x 300mm Precast concrete coping m 44  50mm Thick stone cladding to planter walls m² 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position			High tensile steel bar reinforcement - all diameters	t	1		
50 x 300mm Precast concrete coping m 44  50mm Thick stone cladding to planter walls m² 34  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position			One brick walls in planters	m²	56		
50mm Thick stone cladding to planter walls  375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters  00ne coat cement plaster to external face of planters  50mm Diameter PVC weep pipe 300mm long, including casting in exact position  m²  34  m²  96  m²  96  w²  96  Valenting in exact position  m²  29  No  35			150mm brickforce	m	666		
375 Micron polyester waterproofing applied to sides and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torchfusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position  No 35			50 x 300mm Precast concrete coping	m	44		
and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torch-fusion'  Two coats bituminious paint to exposed surfaces of waterproofing  One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position			50mm Thick stone cladding to planter walls	m²	34		
waterproofing  One coat cement plaster to internal face of planters m² 29  One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position			and bottom of planters, with 75mm side laps and 100mm end laps, sealed to primed surface by 'torch-	m²	96		
One coat cement plaster to external face of planters m² 29  50mm Diameter PVC weep pipe 300mm long, including casting in exact position No 35				m²	96		
50mm Diameter PVC weep pipe 300mm long, No 35 including casting in exact position			One coat cement plaster to internal face of planters	m²	29		
including casting in exact position			One coat cement plaster to external face of planters	m²	29		
Total			_ · · · · · · · · · · · · · · · · · · ·	No	35		
	Total						

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 7300				
73.00		CONCRETE BLOCK PAVING FOR ROADS				
73.01		Concrete block paving:				
		(a) Supply and install the following paving, laid to falls in patterns on and including 50mm thick sand layer with joints filled in with sand, compacted with a vibration compactor				
		(i) 80mm Thick red interlocking paving	m²	42		
		(ii) 80mm Thick grey interlocking paving	m²	533		
		(iii) 400 x 400 x 60mm Thick grey directional paving	m²	12		
		(iv) 35mm thick Stone black flagstone paving	m²	19		
		(v) Precast concrete cobbles colour grey, size 300 x 150 x 60mm thick manufactured in accordance with SANS 1058:2012, laid in basket weave pattern in accordance with SANS 1200 MJ, and CMA Concrete Block Paving manuals, with a minimum longitudinal fall of 1% on a transverse fall of at least 2%, on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D degree of accuracy 1. Paving to be inspected and re-sanded after 3 months.	m²	324		
		(vi) Precast concrete cobbles colour tan, size 300 x 150 x 60mm thick manufactured in accordance with SANS 1058:2012, laid in basket weave pattern in accordance with SANS 1200 MJ, and CMA Concrete Block Paving manuals, with a minimum longitudinal fall of 1% on a transverse fall of at least 2%, on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D degree of accuracy 1. Paving to be inspected and re-sanded after 3 months.	m²	362		
		(vii) Ditto in bands 300mm wide	m	11		
		(viii) Ditto in bands 400mm wide	m	21		
		(ix) 400 x 400 x 60mm Thick precast concrete 'warning' paver to be laid in accordance with manufacxturer's specifications, or similar approved by Architect.	m²	80		
Total Carri	ied Fr	prward				

SECTION 7300  CONCRETE BLOCK PAVING FOR ROADS  (x) 400 x 400 x 60mm Thick precast concrete directional paver to be laid in accordance with the manufacturer's specifications, or similar approved by Architect.  (xi) Precast concrete interlocking pavers colour grey, size 200 x 100 x 60mm thick manufactured in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012 in a stetcher bond pattern in accordance with SANS 1080-2012, iaid in stetcher bond pattern in accordance with SANS 1080-2012 in a stetcher bond pattern in accordance with SANS 1080-2012 in a stetcher bond pattern in accordance with SANS 1080-2012 in a stetcher bond pattern in accordance with SANS 1080-2012 in a stetcher bond pattern in accordance with SANS 1080-2012 in a stetcher bond pattern in accordance with SANS 1080-2012 in a stetcher bond pattern in accordance with SANS 1080-2012 in a stetcher bond pattern in accordance with stetcher bond pattern in accor	Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
(x) 400 x 400 x 60mm Thick precast concrete directional paver to be laid in accordance with the manufacturer's specifications, or similar approved by Architect.  (xi) Precast concrete interlocking pavers colour grey, size 200 x 100 x 60mm thick manufactured in accordance with SANS 1058-212, laid in stetcher bond pattern in accordance with SANS 1058-212, laid in stetcher bond pattern in accordance with SANS 1058-212, laid in stetcher bond pattern in accordance with SANS 1058-212, laid in stetcher bond pattern in accordance with SANS 1058-212, laid in stetcher bond pattern in accordance with SANS 1058-210 bd degree of accuracy 1. Paving to be inspected and re-sanded after 3 months.  (xii) Precast concrete interlocking pavers colour tan, size 200 x 100 x 60mm thick manufactured in accordance with SANS 1058-212, laid in stetcher bond pattern in accordance with SANS 1058-212, laid in stetcher bond pattern in accordance with SANS 1058-212, laid in stetcher bond pattern in accordance with SANS 1058-2102. It aid in stetcher bond pattern in accordance with SANS 1058-2102 bd gree of accuracy 1. Paving to be inspected and re-sanded after 3 months.  (xiii) In bands 300mm wide be inspected and re-sanded after 3 months.  (xiii) In bands 300mm wide m 117  (xiv) In bands 300mm wide m 117  (xiv) In bands 400mm wide m 13  (b) Cutting units to fit edge restraints:  (i) Straight cutting of paving and remove to waste. m 402  73.03  Provision of approved herbicide and ant poison:  Supply and lay approved weedkiller in strict accordance with the Manufacturer's instructions			SECTION 7300				
directional paver to be laid in accordance with the manufacturer's specifications, or similar approved by Architect.  (xi) Precast concrete interlocking pavers colour grey, size 200 x 100 x 60mm thick manufactured in accordance with SANS 1058-2102, laid in sisticher bond pattern in accordance with SANS 1058-2102, laid in sisticher bond pattern in accordance with SANS 1058-2102, laid in sisticher bond pattern in accordance with SANS 1058-2102, laid in sistinum longitudinal fail of 1% on a transverse fail of at least 2%, on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D degree of accuracy 1. Paving to be inspected and re-sanded after 3 months.  (xii) Precast concrete interlocking pavers colour tan, size 200 x 100 x 60mm thick manufactured in accordance with SANS 1058-2012, laid in setcher bond pattern in accordance with SANS 1200 MJ, and OMA Concrete Biosch Paving manuals, with a minimum longitudinal fail of 1% on a transverse fail of at least 2%, on 25mm compacted sand bed with fine jointing sand swept and vibrated ring joints, all laid on subgrade conforming to SANS 1200 D degree of accuracy 1. Paving to be inspected and re-sanded after 3 months.  (xiii) In bands 300mm wide  m 117  (xiv) In bands 300mm wide  m 13  (b) Cutting units to fit edge restraints:  (i) Straight cutting of paving and remove to waste.  m 268  (ii) Raking cutting of paving and remove to waste.  m 402  73.03  Provision of approved herbicide and ant poison:  Supply and lay approved weedkiller in strict accordance with the Manufacturer's instructions	73.00		CONCRETE BLOCK PAVING FOR ROADS				
size 200 x 100 x 60m thick manufactured in accordance with SANS 1082 12012, fail in statcher bond pattern in accordance with SANS 1308 2012, fail in statcher bond pattern in accordance with SANS 1200 MJ, and CMA Concrete Block Paving manuals, with a minimum longitudinal fail of 1% on a transverse fail of at least 2%, on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all fail on subgrade conforming to SANS 1200 D degree of accuracy 1. Paving to be inspected and re-sanded after 3 months.  73.01  (xii) Precast concrete interlocking pavers colour tan, size 200 x 100 x 60mm thick manufactured in accordance with SANS 1058:2012, laid in stetcher bond pattern in accordance with SANS 1200 MJ, and CMA Concrete Block Paving manuals, with a minimum longitudinal fall of 1% on a transverse fail of at least 2%, on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all fail on subgrade conforming to SANS 1200 D degree of accuracy 1. Paving to be inspected and re-sanded after 3 months.  (xiii) In bands 300mm wide   m 117  (xiv) In bands 300mm wide circular on plan  m 48  (xv) In bands 400mm wide  m 13  (b) Cutting of paving and remove to waste.  m 268  (ii) Raking cutting of paving and remove to waste.  m 268  (iii) Circular cutting of paving and remove to waste.  m 402  73.03  Provision of approved herbicide and ant poison: Supply and lay approved weedkiller in strict accordance with the Manufacturer's instructions	73.01		directional paver to be laid in accordance with the manufacturer's specifications, or similar approved by	m²	78		
size 200 x 100 x 60mm thick manufactured in accordance with SANS 1058:2012, laid in stetcher bond pattern in accordance with SANS 1200 MJ, and CMA Concrete Block Paving manuals, with a minimum longitudinal fall of 1% on a transverse fall of at least 2%, on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D degree of accuracy 1. Paving to be inspected and re-sanded after 3 months.  (xiii) In bands 300mm wide			size 200 x 100 x 60mm thick manufactured in accordance with SANS 1058:2012, laid in stetcher bond pattern in accordance with SANS 1200 MJ, and CMA Concrete Block Paving manuals, with a minimum longitudinal fall of 1% on a transverse fall of at least 2%, on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D degree of accuracy 1. Paving to be inspected and re-sanded	m²	93		
(xiv) In bands 300mm wide circular on plan m 48  (xv) In bands 400mm wide m 13  (b) Cutting units to fit edge restraints:  (i) Straight cutting of paving and remove to waste. m 268  (ii) Raking cutting of paving and remove to waste. m 134  (iii) Circular cutting of paving and remove to waste. m 402  Provision of approved herbicide and ant poison:  Supply and lay approved weedkiller in strict accordance with the Manufacturer's instructions	73.01		size 200 x 100 x 60mm thick manufactured in accordance with SANS 1058:2012, laid in stetcher bond pattern in accordance with SANS 1200 MJ, and CMA Concrete Block Paving manuals, with a minimum longitudinal fall of 1% on a transverse fall of at least 2%, on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D degree of accuracy 1. Paving to be inspected and re-sanded				
(xv) In bands 400mm wide			(xiii) In bands 300mm wide	m	117		
(b) Cutting units to fit edge restraints:  (i) Straight cutting of paving and remove to waste. m 268  (ii) Raking cutting of paving and remove to waste. m 134  (iii) Circular cutting of paving and remove to waste. m 402  Provision of approved herbicide and ant poison:  Supply and lay approved weedkiller in strict accordance with the Manufacturer's instructions			(xiv) In bands 300mm wide circular on plan	m	48		
(i) Straight cutting of paving and remove to waste.  (ii) Raking cutting of paving and remove to waste.  (iii) Circular cutting of paving and remove to waste.  The provision of approved herbicide and ant poison:  Supply and lay approved weedkiller in strict accordance with the Manufacturer's instructions  m 268  m 402  Table 134  Table 268  m 402			(xv) In bands 400mm wide	m	13		
(ii) Raking cutting of paving and remove to waste.  (iii) Circular cutting of paving and remove to waste.  m 402  Provision of approved herbicide and ant poison:  Supply and lay approved weedkiller in strict accordance with the Manufacturer's instructions			(b) Cutting units to fit edge restraints:				
(iii) Circular cutting of paving and remove to waste. m 402  Provision of approved herbicide and ant poison:  Supply and lay approved weedkiller in strict m² 1339 accordance with the Manufacturer's instructions			(i) Straight cutting of paving and remove to waste.	m	268		
Provision of approved herbicide and ant poison:  Supply and lay approved weedkiller in strict m² 1339 accordance with the Manufacturer's instructions			(ii) Raking cutting of paving and remove to waste.	m	134		
Supply and lay approved weedkiller in strict m² 1339 accordance with the Manufacturer's instructions			(iii) Circular cutting of paving and remove to waste.	m	402		
accordance with the Manufacturer's instructions	73.03		Provision of approved herbicide and ant poison:				
Total				m²	1339		
	Total						

Number	LIC	Item Description	Unit	Quantity	Rate	Amount R
		SECTION 8100	!			
81.00		TESTING MATERIALS AND WORKMANSHIP				
81.02		Other special tests requested by the Engineer:				
		(a) Cost of testing	P C Sum	1	30 000,00	30 000,00
		(b) Handling costs and profit in respect of subitem 81.02(a)	%	30000		
81.03		Providing testing equipment:				
		(a) Rolling straight-edge	No	10		
		(b) Core drill	No	10		
Total Cari	ried F	orward To Summary				

Section	Description	Amount R
	SUMMARY OF SECTIONS	
1700	CLEARING AND GRUBBING	Included
2100	DRAINS	Included
2200	PREFABRICATED CULVERTS	Included
2300	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS	Included
3300	MASS EARTHWORKS	
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL	
3500	STABILIZATION	
4100	PRIME COAT	
4200	ASPHALT BASE AND SURFACING	
5600	ROAD SIGNS	Included
5700	ROAD MARKINGS	Included
5800	LANDSCAPING AND PLANTING PLANTS	Included
7300	CONCRETE BLOCK PAVING FOR ROADS	Included
8100	TESTING MATERIALS AND WORKMANSHIP	
	SUBTOTAL	
-	TOTAL CARRIED OVER TO SECTION E	
-		

## JDA C/N001 SECTION D - ELECTRICAL WORKS

Section	LIC	Item Description	Unit	Quantity	Rate	Amount R
Section	LIC	SECTION E1200	Offic	Quantity	Nate	Amount
E1200		GENERAL REQUIREMENTS AND PROVISIONS				
L 1200		GENERAL REQUIREMENTS AND FROVISIONS				
E12.01		Internal and External Electrical Works at Rivonia Road bus station, including all retated scope, commissioning and certification of compliance.	Prov sum	1	3 500 000,00	3 500 000,00
		(a) Handling cost and profit in respect of sub item B12.01 above	%	3500000		
Total Carried Forward To Summary						

# JDA C/N001 SECTION D - ELECTRICAL WORKS

Section	Description	1		Amount R
	SUMMARY OF SECTIONS			
E1200	GENERAL REQUIREMENTS AND PROVISIONS			
	2			
	SUBTOTAL			
	TOTAL CARRIED OVER TO SECTION E	1	 	

### JDA C/N001 SECTION E - SUMMARY OF WORKS

Section	Description			l	Amount R
Section A	SUMMARY OF SECTIONS GENERAL REQUIREMENTS AND PROVISIONS			I	
Jection A	GENERAL REGUIREMENTS AND I ROVISIONS				
Section B	REHABILITATION OF ROAD PAVEMENTS AT				
	KATHERINE STREET				
Section C	ADDITIONAL SCOPE - RIVONIA ROAD				
Section D	ELECTRICAL MODICS				
Section D	ELECTRICAL WORKS				
	SUBTOTAL				
	Add 15% VAT		400FB=+116=		
	TOTAL CARRIED OVER TO C1.1 FORM OF C	HER AND	ACCEPTANCE		