

**FLOOD DAMAGE REMEDIATION: ROAD LAYERWORKS REINSTATEMENT, SERVICES, CULVERT REPAIRS
AND PROTECTION WORKS FOR SOMLANDELA DRIVE, WARD 55/ 107 IN INANDA/KWAMASHU AREA**

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BILL OF QUANTITIES

SECTION 1 SOMLANDELA DRIVE

PART AA PRELIMINARIES

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>GENERAL CONDITIONS OF CONTRACT (GCC 2015) READ IN CONJUNCTION WITH THE CONTRACT DATA</u>				
1	GCC 2015	Fixed Charge obligations	sum	1		
2	GCC 2015	Time Related obligations	sum	1		
		<u>SANS 1921-1 : GENERAL ENGINEERING AND CONSTRUCTION WORKS READ IN CONJUNCTION WITH THE ASSOCIATED SPECIFICATION DATA IN THE SCOPE OF WORKS</u>				
3	SANS 1921-1	Fixed Charge Items	sum	1		
4	SANS 1921-1	Time Related Items	sum	1		
		<u>COMMUNITY LIASISON OFFICER</u>				
5	PS.13	Allow for a CLO to be appointed.	PC Sum	55000	1.00	55 000.00
6		Allow for a percentage (%) mark-up on item 5 above	%	55000		
		<u>LOCAL LABOUR</u>				
7	PS.12	Allow for the weekly submission of proof of employment of local labour	week	16		
		<u>STAKEHOLDER MANAGEMENT AND LIAISON</u>				
8		Stakeholder Management and Liaison	week	16		

TOTAL CARRIED TO SECTION 1 SUMMARY: SOMLANDELA DRIVE

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PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	GCC 6.2.1	Sureties	sum	1		
2	GCC 8.6.1.1	Workmans compensation	sum	1		
3	GCC 8.6.1.1	Insurance of works, damage to persons and property etc.	sum	1		
4	AB.4	Contractor's Camp Site / Store Yard	sum	1		
5	AB.7	Initial supply of all signs, barricades and delineators	sum	1		
6	AB.7	Road Deviations	sum	1		
7	PS.AB.11	Proving of existing services by hand	m3	10		
8		Survey control and setting out of works	sum	1		

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Part Continued PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
9	AB.6	Allowance for samples, geotechnical and acceptance testing by a SANAS accredited specialist material lab as required by Engineer	PC Sum	5000	1.00	5 000.00
10	AB.6	Contractors mark-up on item above	%	5000		
11	AB.10	Cost of Samples and Contractor's Preliminary and Site Control Testing	sum	1		
12		Relocation/ lowering of existing services	sum	1		
13	PS.AB.10	Repair existing services/ mains including all fittings, pipes, plant and labour	sum	1		
14	PS.AB.8	Allow for Progress Photographs (Contractor to submit BOTH a CD and USB weekly with photographs depicting works on site and as required by the Engineer, be able to print out a minimum of 40 photographs in colour per	week	16		
15	AB.7	Maintenance of Pedestrian and Traffic Facilities	week	16		
16	AB.7	Maintenance of all signs, barricades and delineators	week	16		
17		Contractors superintendance	week	16		
18	PS.11	Site Security	week	16		
19	PS.DW	Dayworks (TLB hire)	hr	5		

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PART AH OCCUPATIONAL HEALTH and SAFETY

Item	Clause	Description	Unit	Quantity	Rate	Amount
1		Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
2		Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	week	16		
3		Submission of the Health and Safety File	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: SOMLANDELA DRIVE
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PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General clearance and grubbing in contractor's camp site	m2	400		
2	B.8.2	General clearance and grubbing within the reserve including removal of trees	m2	450		
3	B.8.2	Clearing within the stream and remove all dirt	m2	200		

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Part Continued PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
4	B.8.10	Removal of unreinforced concrete	m3	80		
5		Removal of existing broken guardrails	m	20		
6		Removal of stones and boulders	m3	5		
7		Remove existing asphalt roadways to tip.	m3	350		
8		Removal of existing sidewalk	m2	250		

TOTAL CARRIED TO SECTION 1 SUMMARY: SOMLANDELA DRIVE
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PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Grade 25/19 mass concrete to be used at Engineers discretion	m3	10		
2	C.8.1	Concrete chutes	m	30		
3	C.8.1	Construct concrete v-drains (50mm deep)/to match existing	m	50		

TOTAL CARRIED TO SECTION 1 SUMMARY: SOMLANDELA DRIVE
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PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.3	Excavate soft material and and place directly into fill and and compact to 95% MOD A.A.S.H.T.O. rate to include haulage and royalties	m3	55		
2	DA.8.3	Excavate unsuitable material below embankments or formation and spoil at spoil site. The spoil site to be approved by Engineer prior to spoiling.	m3	15		
3	DA.8.3	Extra over above for excavation of intermediate material to spoil at spoil site. The spoil site is to be approved by Engineer prior to spoiling.	m3	5		
4	DA.8.4	Import suitable fill material (G7 or better Quality) from Contractor's off-site source and compact to 93% MOD A.A.S.H.T.O inclusive of haulage and royalties	m3	1200		
5		Rip and recompact 150mm insitu material	m3	60		
6	DA.8.6	Trimming of embankments	m2	50		
7	DA.8.9	Formation	m2	350		
8	DA.8.10	Overhaul material in excess of freehaul distance of 1.0 km - spoil site to be approved by Engineer prior to spoiling.	m3 * km	100		

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PART EB GRADED CRUSHED STONE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EB.8.1	Supply, load,transport and process base layer G2 graded crushed stone, 150mm thick from commercial or off-site source, caompacked to 98% NOD A.A.S.H.T.O	m3	36		
2	EB.8.1	Supply, load,transport and process base layer G5 graded crushed stone, 150mm thick from commercial or off-site source, caompacked to 95% NOD A.A.S.H.T.O	m3	40		
3	EB.8.2	Supply and apply prime coat at 0.6l/m2	m2	400		

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PART ED ROAD ASPHALT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	ED.8.1	Continuously graded wearing course of thickness 40mm. Private Plant Asphalt Sa-S14. Bitumen content 5% as per mix design entered at the time of use	t	30		
2		Saw cut existing road edge. Saw Cut to expose 50mm wide G2 layer of the existing roadway to aid as a key between existing and new asphalt wearing course	m	250		
3	EB.8.4	Tack coat	m2	400		

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PART EF KERBS AND HAUNCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EF.8.1	Supply and lay Fig 6 (Type C) mountable kerbs or match existing on site	m	60		
2	EF.8.1	Supply and lay Fig 6 (Type D) kerbing with 150mm channel. Rate to include for channel/fillet as per Std Drawing	m	150		
3	EF.8.1	Supply and lay Fig 6 (Type A) kerbing with 300mm channel. Rate to include for channel/fillet as per Std Drawing	m	120		
4	EF.8.1	Extra over for curves of radius less than 25mm	m	20		

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PART EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EG.8.1	Asphalt sidewalk/ footpath with 100mm G2 graded crushed stone overlaid by 25mm Mix A Asphalt. Rate to include tack coat and weedkiller.	m2	300		

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PART EH STEEL GUARDRAILS & CONC. MEDIAN BARRIERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1		Supply and erect galvanised straight steel guardrails on precast concrete post	m	50		
2		Supply and install precast concrete posts @ 3.81 c/c	no.	14		
3		Supply and install reflective plates at 7.62 c/c	no.	8		
4		Supply and erect end wings	no.	6		

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PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.6	Supply and lay of PVC coated 2m high Gabion Boxes, as per the detail drawings. Rate to include excavation, backfill, stone and geofabric as surround to cage	m3	14		
2	F.8.6	Supply and lay of PVC coated 3m high Gabion Boxes, as per the detail drawings. Rate to include excavation, backfill, stone and geofabric as surround to cage	m3	224		
3	F.8.6	Supply and lay of PVC coated 4m high Gabion Boxes, as per the detail drawings. Rate to include excavation, backfill, stone and geofabric as surround to cage	m3	600		
4	F.8.6	Backfilling using material from site	m	15		
5	F.8.6	Repair to existing gabion boxes. Rate to include additional excavation, backfill, stone and geofabric as surround to cage	m3	45		

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PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.7	Specialized (2.8m x 2.8m) box culvert cleaning/unblocking. Rate to include all repair works required.	no.	6		
2		Repairs to existing sewer line. Rate to include all the necessary fittings, joints and extra material required	m	30		
3		Manhole Type A (Inlet type S1) with heavy duty concrete cover. Depth:-- Over 0.0m and not exceeding 2.0m	no.	3		
4		Standard inlet type D3. Depth:-- Over 0.0m and not exceeding 2.0m	no.	4		

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PART TA ROAD SIGNS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	TA.8.1	Supply and erect road sign boards, area not exceeding 2m2	m2	2		
2	TA.8.4	Concrete grade 20/19 for road sign footings	m3	5		
3	TA.8.3	Excavate and backfill for road sign supports	m3	5		
4	TA.8.2	Supply and erect 75mm x 75mm square hot dipped galvanised steel supports. Rate to include all haulage.	m	5		

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PART TB ROAD MARKINGS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	TB.8.1.2	Road Marking for lettering, symbols and traffic islands (white), including setting out lettering, symbols and traffic island markings.	m2	5		
2	TB.8.1.2	Road Marking for lettering, symbols and traffic islands (yellow), including setting out lettering, symbols and traffic island markings.	m2	5		
3	TB.8.1.1 AA.TB.1	Painted road lines 150mm wide (white), including setting out and premarking	m	50		
4	TB.8.1.1 AA.TB.1	Painted road lines 150mm wide (yellow), including setting out and premarking	m	20		
5	TB.8.1.1 AA.TB.1	Painted road lines 300mm wide (white), including setting out and premarking	m	50		

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SUMMARY OF BILL OF QUANTITIES

1	SOMLANDELA DRIVE		R _____
	AA PRELIMINARIES	R _____	
	AB GENERAL SPECIFICATIONS	R _____	
	AH OCCUPATIONAL HEALTH and SAFETY	R _____	
	B SITE CLEARANCE	R _____	
	C CONCRETE WORK	R _____	
	DA EARTHWORKS : BULK	R _____	
	EB GRADED CRUSHED STONE	R _____	
	ED ROAD ASPHALT	R _____	
	EF KERBS AND HAUNCHES	R _____	
	EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS	R _____	
	EH STEEL GUARDRAILS & CONC. MEDIAN BARRIERS	R _____	
	F PROTECTION WORKS	R _____	
	PG NON PRESSURE PIPELINES and PC CULVERTS	R _____	
	TA ROAD SIGNS	R _____	
	TB ROAD MARKINGS	R _____	
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	SUB TOTAL		R _____
	ADD VAT (15%) - (only if a registered VAT Vendor)		R _____
	TOTAL CARRIED TO FORM OF TENDER		R _____