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The Provision of Incremental Services to Informal Settlements within the Southern Region: Footpaths and associated stormwater control in Ward 79 Settlement Umlazi H-H7

BILL OF QUANTITIES

SECTION 1 PRELIMINARY AND GENERAL

PART AA PRELIMINARIES

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>GENERAL CONDITIONS OF CONTRACT (GCC2015) READ IN CONJUNCTION WITH 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		
5	C1.2.3.1	COMMUNITY LIAISON OFFICER	PC Sum	73000	1.00	73 000.00
6		Allow for CLO to be appointed	%	73000		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

R

PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>FIXED CHARGES</u>				
1	PS.AB.2	Offices for Engineer and Staff	sum	1		
2	PS.AB.4/	Contractor's Camp Site / Store Yard	sum	1		
3	AB.5	Notice Board as per Annexure C3.6.1	no.	1		
4	PS.15.3	Deductions for re-tests requested when density of a layer is not as per specification as determined by Acceptance Testing (minus R1000 per set)	sum	1		
5	PS.AB.7	Initial Supply of all signs, barricades and delineators	sum	1		
6	PS.11.1	Survey for, and Preparation of, 'As-Built' Drawings	sum	1		
7		Allow the following additional items which the tenderer require to be priced separately:-	sum	1		
8		a)	sum	1		
9		c)	sum	1		
10		b)	sum	1		

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Part Continued **PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>TIME RELATED CHARGES</u>				
11	PS.AB.2	Offices for Engineer and Staff	sum	1		
12	PS.AB.4/	Contractors Camp Site/Store Yard	sum	1		
13	AB.6	Cost of Samples and Contractor's Preliminary and Site and Site Control Testing	sum	1		
14	AB.7	Maintenance of Pedestrian and Traffic Facilities	sum	1		
15	AB.7	Maintenance of all signs, barricades and delineators	sum	1		
16	PS.11.2	Setting out of works	sum	1		
17	PS.12	Site Security	sum	1		
18	PS.AB.8	De-establishment and re-establishment of Site camp	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

R

PART AH OCCUPATIONAL HEALTH and SAFETY

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AH.14.1/ PS.10	Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
2	AH.14.2/ PS.10	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
3	AH.14.3/ PS.10	Submission of the Health and Safety File	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

R

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SECTION 2 FOOTPATHS

PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General clearance and grubbing including trees up to a maximum girth of 1.5m	m2	605		
2	B.8.4	Removal of trees of girth exceeding 1,5 m	no.	2		
3	B.8.9	Removal of existing brickwork	m3	3		
4	PS.B.8.13	Removal of reinforced/unreinforced concrete	m3	8		
5	PS.B.8.24	Removal of informal retaining structures	m2	8		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS

R

PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Grade 20MPa/19mm concrete for Footpaths (Class 3 - Wood Float Surface Finish)	m3	25		
2	C.8.1	Grade 20MPa/19mm concrete for Handrail Post Bases and Bollard Bases	m3	3		
3	C.8.2	Welded fabric reinforcement - Ref Mesh 193	t	0.5		
4	PS.C.8.4	Movement Joints for footpaths as per Detail Drawing 49253-003	m	15		
5	PS.C.8.5	Saw cut joints for footpaths as per Detail Drawing 49253-003	m	105		
6	C.8.3	Class 1 Formwork for concrete works	m2	150		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS

R

PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.2	Remove topsoil to stockpile and if surplus to requirements, spoil in an approved dump site. Rate to include for stockpile handling	m3	45		
2	DA.8.3	Excavation material, deposit and spread material as fill or stockpile or, if surplus to requirements, spoil in an approved dump site. Rate to include for stockpile handling.	m3	315		
3	DA.8.3	Extra over on item 2 for excavation in intermediate material	m3	70		
4	DA.8.3	Extra over on item 2 for excavation in hard material	m3	55		

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Part Continued **PART DA EARTHWORKS : BULK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
5	DA.8.3	Excavate soft material to spoil	m3	70		
6	DA.8.4	Import G7 Material from commercial sources	m3	25		
7	DA.8.5	Compact imported G7 material to 95% Mod. AASHTO.	m3	25		
8	PS.DA.8.11	Rip and re-compact insitu material to 95% Mod AASHTO	m3	40		
9	DA.8.6	Trimming of embankments	m2	205		
10	DA.8.9	Formation	m2	305		
11	DA.8.9	Extra over item 10 above for areas of cut or where the fill layer thickness is less than 150mm	m3	8		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS

R

PART EF KERBS AND HAUNCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EF.8.1	Fig.12 Kerb	m	345		
2	EF.8.1	Extra over item 1 for curves of radius less than 25 m	m	40		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS

R

PART EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.EG.8.7	Precast Concrete Steps (Base steps or similar approved) including Grade 20MPa/13mm base as per Standard Details Drawing 49253-003	no.	120		
2	PS.EG.8.8	Handrails as per Standard Detail Drawing 49253-003	m	100		
3	PS.EG.8.9	Precast Handrail Posts as per Standard Detail Drawing 49253-003	no.	29		
4	PS.EG.8.10	Precast Concrete Bollards as per Standard Detail Drawing 49253-003	no.	3		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS

R

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.1	Topsoiling on banks, verges and service lines from stockpile - thickness 100mm	m2	105		

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Part Continued PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
2	PS.F.8.3	Grass planting on banks, verges and service lines. Rate to include for supply and lay of Cynodon 'Dactylon' grass, fertilizer and maintenance etc.	m2	105		

TOTAL CARRIED TO SECTION 2 SUMMARY: FOOTPATHS R

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SECTION 3 STORMWATER DRAINAGE

PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.3	General clearance and grubbing for pipelines within a servitude for a width of 2m	m2	60		

TOTAL CARRIED TO SECTION 3 SUMMARY: STORMWATER DRAINAGE

R

PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Grade 25MPa/19mm concrete for 500mm wide x 100mm thick 'V' drain.	m3	10		
2	C.8.2	Welded fabric reinforcement Ref : Mesh 193	t	0.2		
3	C.8.3	Class 1 Formwork for concrete 'V' drain	m2	5		

TOTAL CARRIED TO SECTION 3 SUMMARY: STORMWATER DRAINAGE

R

PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.4	Remove topsoil to stockpile for re-use	m2	30		
2	DB.8.4	Remove 100mm topsoil to spoil	m2	30		
3	DB.8.19	Probe existing services by hand excavation (provisional), where depth is: - - Over 0,0 m and not exceeding 1,5 m	m3	10		

TOTAL CARRIED TO SECTION 3 SUMMARY: STORMWATER DRAINAGE

R

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.1	Topsoiling from stockpile as directed by the Engineer - thickness 100mm	m2	60		
2	PS.F.8.3	Grass planting as directed by the Engineer. Rate to include for supply and lay of Cynodon 'Dactylon' grass, fertilizers, pesticides etc	m2	60		
3	F.8.6	Gabion Mattresses: 300mm thick	m3	3		

TOTAL CARRIED TO SECTION 3 SUMMARY: STORMWATER DRAINAGE

R

The Provision of Incremental Services to Informal Settlements within the Southern Region: Footpaths and associated stormwater control in Ward 79 Settlement Umlazi H-H7

SECTION 4 RETAINING STRUCTURES - CIVIL WORKS

PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General site clearance and grubbing	m2	175		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

PART C CONCRETE WORK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Grade 25MPa/26mm concrete for retaining wall bases	m3	15		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.4	Import G7 material from commercial sources	m3	60		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.9	Provision of 19 mm single size stone chippings for subsoil drain from commercial or off-site source	m3	5		
2	DB.8.9	Provision of clean coarse sand for pipe trench bedding and the drainage blanket behind the wall from commercial or offsite source	m3	55		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

PART DD EARTHWORKS FOR STRUCTURES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DD.8.2	Excavate soft material, load, haul, deposit, stockpile or if surplus to requirements, spoil in an approved dump site.	m3	90		
2	DD.8.2	Extra over item 1 for hard material	m3	25		
3	DD.8.2	Extra over item 1 for rock	m3	15		
4	DD.8.5	Backfill G7/G9 material and compact to 93% MOD AASHTO	m3	90		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

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PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Supply and construct the following blocks:</u>				
1	PS.F.8.9	Supply and construct dry stack retaining wall using Geolok - G400 or similar approved	m2	165		
2	PS.F.8.10	Soilcrete or stabilised fill material	m3	45		
3	PS.F.8.11	Drainage for retaining walls - 50mm diameter uPVC pipe	no.	40		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

R

PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.12.1	Geotextile blanket for retaining walls(2.3mm thick, Penetration load = 2.5KN, Porosity = 93%)	m2	345		
2	PG.8.12.1	Geotextile blanket as surround to Subsoil Drains (1.6mm thick, Penetration load = 1.7KN, Porosity = 93%)	m2	90		
3	PG.8.12.2	110 mm diameter pitch fibre sub-soil pipes	m	75		
4	PS.PG.8.14	Sub-soil drain connection to existing system	no.	3		
5	PS.PG.8.15	Sub-soil termination stub	no.	3		

TOTAL CARRIED TO SECTION 4 SUMMARY: RETAINING STRUCTURES - CIVIL WORKS

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BILL OF QUANTITIES SECTION SUMMARY

SECTION 1 PRELIMINARY AND GENERAL

PART	AA	PRELIMINARIES	
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PART	AH	OCCUPATIONAL HEALTH and SAFETY	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY**SECTION 2 FOOTPATHS**

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PART DA	EARTHWORKS : BULK	
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PART EG	SIDEWALKS, FOOTPATHS and MEDIAN AREAS	
PART F	PROTECTION WORKS	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY**SECTION 3 STORMWATER DRAINAGE**

PART B	SITE CLEARANCE	
PART C	CONCRETE WORK	
PART DB	EARTHWORKS FOR PIPE TRENCHES	
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TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY**SECTION 4 RETAINING STRUCTURES - CIVIL WORKS**

PART B	SITE CLEARANCE	
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PART DA	EARTHWORKS : BULK	
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TOTAL CARRIED TO FINAL SUMMARY		

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SUMMARY OF BILL OF QUANTITIES

1	PRELIMINARY AND GENERAL		R	_____
AA	PRELIMINARIES	R	_____	
AB	GENERAL SPECIFICATIONS	R	_____	
AH	OCCUPATIONAL HEALTH and SAFETY	R	_____	
2	FOOTPATHS		R	_____
B	SITE CLEARANCE	R	_____	
C	CONCRETE WORK	R	_____	
DA	EARTHWORKS : BULK	R	_____	
EF	KERBS AND HAUNCHES	R	_____	
EG	SIDEWALKS, FOOTPATHS and MEDIAN AREAS	R	_____	
F	PROTECTION WORKS	R	_____	
3	STORMWATER DRAINAGE		R	_____
B	SITE CLEARANCE	R	_____	
C	CONCRETE WORK	R	_____	
DB	EARTHWORKS FOR PIPE TRENCHES	R	_____	
F	PROTECTION WORKS	R	_____	
4	RETAINING STRUCTURES - CIVIL WORKS		R	_____
B	SITE CLEARANCE	R	_____	
C	CONCRETE WORK	R	_____	
DA	EARTHWORKS : BULK	R	_____	
DB	EARTHWORKS FOR PIPE TRENCHES	R	_____	
DD	EARTHWORKS FOR STRUCTURES	R	_____	
F	PROTECTION WORKS	R	_____	
PG	NON PRESSURE PIPELINES and PC CULVERTS	R	_____	
SUB TOTAL			R	_____
ADD VAT (15%) - (only if a registered VAT Vendor)			R	_____
TOTAL CARRIED TO FORM OF TENDER			R	_____