

C.2.2.1 : INDEX TO BILL OF QUANTITIES**SECTION 1 PRELIMINARIES****PART AA PRELIMINARIES****PART AB GENERAL SPECIFICATIONS****PART AH OCCUPATIONAL HEALTH and SAFETY****SECTION 2 STORMWATER****PART DB EARTHWORKS FOR PIPE TRENCHES****PART PG NON PRESSURE PIPELINES and PC CULVERTS****PART PH MANHOLES and APPURTENANT DRAINAGE WORKS****SECTION 3 BULK EARTHWORKS****PART DA EARTHWORKS : BULK****SECTION 4 LAYERWORKS****PART DA EARTHWORKS : BULK****PART EB GRADED CRUSHED STONE****PART ED ROAD ASPHALT****SECTION 5 SERVICE RELOCATIONS****PART DB EARTHWORKS FOR PIPE TRENCHES****SECTION 6 KERBING****PART EF KERBS AND HAUNCHES****SECTION 7 SIDEWALKS AND MEDIAN ISLANDS****PART EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS****SECTION 8 ROAD CROSSINGS****PART DB EARTHWORKS FOR PIPE TRENCHES****SECTION 9 SUBSOIL****PART PG NON PRESSURE PIPELINES and PC CULVERTS**

THE WIDENING OF PETER ROAD - WARD 37

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THE WIDENING OF PETER ROAD - WARD 37

C.2.2.2 : BILL OF QUANTITIES**SECTION 1 PRELIMINARIES****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	week	24		
		<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	week	24		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R**PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.AB.1.2 PS.AB.1.3 PS.AB.1.4 PS.19.2	Contractor's Camp Site / Store Yard and Accomodation of Employees	sum	1		
2	PS.AB.4	Notice Board/s	no.	1		
3	PS.AB.16	Time related costs for Contractors liasion with External Service Providers - clearances (Telkom / Electricity / Water / Waste Water / Fibre Providers). Including for relocation / lowering of existing services and manholes / inspection chambers - Appointment of Service Providers construction representative to monitor relocations.	week	6		
4	PS.AB.18	Provision allowance for standing time costs per day for establishment / de-establishment of verified and approved disruptions by Community / Business Forums / Concerned Parties / Emerging Contractors / and other Associations / Covid Lockdown for standing time / disruption cost and other associated costs relative to programmed activity on critical path, payment based on daily proven costs in terms of labour on site / actual plant on site, standing time costs at time of incident for duration of recorded and reported disruption, prior to any suspension of the site in terms of relevant GCC Clause/s - Costs during any suspension are not applicable.	sum	1		

Part Continued on next page

THE WIDENING OF PETER ROAD - WARD 37
Part Continued PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
5	C1.2.3.1 PS.15	Allowance for a full time appointed CLO covering tasks as per CLO Duty Schedule	PC Sum	150000	1.00	150 000.00
6	C1.2.3.1 PS.15	Proven Handling costs and profit in respect of item 1.AB.5 - Maximum 10%	%	150000		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES
R
PART AH OCCUPATIONAL HEALTH and SAFETY

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>The tenderer shall ensure that the sum of 1.AH.1 / 1.AH.2 / 1AH.3 shall not be less than one percent (1%) of the Tender Amount, excluding PC Sum handling cost items. (excluding VAT)</u>				
1	PS.10 C.3.4.1	Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations 2014	sum	1		
2	PS.10 C.3.4.1	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations 2014	week	24		
3	PS.10	Submission of the Health and Safety File.	sum	1		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES
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THE WIDENING OF PETER ROAD - WARD 37**SECTION 2 STORMWATER****PART DB EARTHWORKS FOR PIPE TRENCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.5 PS.DB.3 PS.DB.4 PS.DB.7 PS.DB.18 PS.DB.27	Excavate and backfill in all material for 450 mm diameter pipe where depth is :- - Over 0.0 m and not exceeding 1,5m	m3	10		
2	DB.8.5 PS.DB.3 PS.DB.4 PS.DB.7 PS.DB.18	Excavate and backfill in all material for 450 mm diameter pipe where depth is :- - Over 1,5 m and not exceeding 2,0 m - inclusive of installation and removal of temporary shoring	m3	20		
3	DB.8.5 DB.8.6 DB.8.7 DB.8.8 DB.8.15	Disposal of unsuitable, soft, intermediate, hard and/or surplus material including material displaced by pipe from trench excavation. Rate to include all haulage and royalties to spoil at approved tip site.	m3	5		
4	DB.8.10 PS.DB.1	Placing and compacting of Class B bedding for pipes	m3	15		
5	DB.8.10 PS.DB.23	Placing and compacting of selected granular fill material to 300mm above pipe cradle	m3	5		
6	DB.8.10 PS.DB.24	Placing and compacting of G7 imported backfill from 300mm above pipe cradle to road / median or sidewalk formation level	m3	15		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R

PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.2 PS.PG.8	450 mm diameter concrete Class 100D	m	100		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

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PART PH MANHOLES and APPURTENANT DRAINAGE WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PH.8.1 PH.8.5 PS.PH.4	Raise / Lower Telkom Manhole or Chamber consisting of Brickwork / Concrete and replace / reuse Cover and Frame to suit road levels.	no.	1		
2	PH.8.1 PH.8.7 PS.PH.4 PS.PH.8	Raise / Lower existing sewer manhole cover and frame - 250mm concrete rings and replace with Heavy duty compression moulded polymer cover, type SL117GY 800 Roadway Slab / Type 2A Complete per SANS 1882:2003, SABS Approved, fully installed	no.	10		

Part Continued on next page

THE WIDENING OF PETER ROAD - WARD 37**Part Continued PART PH MANHOLES and APPURTENANT DRAINAGE WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
3	PH.8.1 PH.8.7 PS.PH.4 PS.PH.8	Raise / Lower existing valves cover and frame	no.	6		
4	PH.8.1 PH.8.7 PS.PH.3 PS.PH.8	Raise / Lower existing manhole cover and frame - services for others	no.	5		
5	PH.8.1 PH.8.2 PS.PH.1 PS.PH.4	Manhole type A. Depth :- - Over 0,0 m and not exceeding 1,5 m - 230mm NFX brickwork - excluding Heavy Duty Concrete Frame and Lid - per standard drawing 38571	no.	4		
6	PH.8.1 PH.8.2 PS.PH.1 PS.PH.4	Manhole type A. Depth :- - Over 1,5 m and not exceeding 2,0 m - 230mm NFX brickwork - excluding Heavy Duty Frame and Lid - per standard drawing 38571	no.	1		
7	PH.8.1 PH.8.3 PS.PH.4 PS.PH.8	Partly demolish and reconstruct standard inlet type S1. to suit road widening : Depth :- - Over 0,0 m and not exceeding 1,5 m - NFX brickwork with Heavy duty compression moulded polymer cover, type SL117GY 800 Roadway Slab Complete per SANS 1882:2003, SABS Approved, fully installed	no.	1		
8	PH.8.1 PH.8.3 PS.PH.4 PS.PH.8	Partly demolish and reconstruct existing standard inlet type S1. to suit road widening : Depth :- - Over 1,5 m and not exceeding 2,0 m - NFX brickwork with Heavy duty compression moulded polymer cover, type SL117GY 800 Roadway Slab Complete per SANS 1882:2003, SABS Approved, fully installed	no.	1		
9	PH.8.1 PH.8.3 PS.PH.4 PS.PH.8	Partly demolish and reconstruct existing standard inlet type S2 to suit road widening : Depth :- - Over 0,0 m and not exceeding 1,5 m - NFX brickwork with Heavy duty compression moulded polymer combination catchpit cover, type S2 Complete per SANS 1882:2003, SABS Approved, fully installed	no.	1		
10	PH.8.1 PH.8.3 PS.PH.4 PS.PH.8	Partly demolish and reconstruct existing standard inlet type S2 to suit road widening : Depth :- - Over 1,5 m and not exceeding 2,0 m - NFX brickwork with Heavy duty compression moulded polymer combination catchpit cover, type S2 Complete per SANS 1882:2003, SABS Approved, fully installed	no.	2		

Part Continued on next page

THE WIDENING OF PETER ROAD - WARD 37**Part Continued PART PH MANHOLES and APPURTENANT DRAINAGE WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
11	PH.8.1 PH.8.2 PS.PH.12	Break into existing brick manhole wall for pipe and make good	no.	5		
12	PH.8.1 PS.PH.3	Additional 230mm NFX brickwork for manhole construction in addition to standard dimensions / depth relative to type of inlet or manhole as indicated on standard drawings	m2	10		
13	PH.8.1 PH.8.5.2 PS.PH.12	Excavate and backfill for non-standard manhole and minor drainage structures	m3	20		
14	PH.8.1 PH.8.5 PS.PH.8	Compression moulded Polymer Heavy duty cover and frame positioned, installed and surveyed on standard manholes brickwork below road formation level below carriageways - manholes to be lifted with standard brickwork and slab to final levels payed seperately on completion of layerworks	no.	5		
15	PH.8.2 PS.PH.8	Compression moulded Polymer Heavy duty polymer cover, type 2A per SANS 1882:2003, SABS Approved, fully installed (Solid Cover)	no.	2		
16	PH.8.2 PS.PH.8	Compression moulded Polymer Heavy duty cover and frame Type, type 2B per SANS 1882:2003, SABS Approved, fully installed (Drainage Holes)	no.	4		
17	PH.8.2 PS.PH.8	Compression moulded Polymer Heavy duty combination catchpit cover, type S2 Complete per SANS 1882:2003, SABS Approved, fully installed, including left or right slay	no.	2		
18	PH.8.2 PS.PH.8	Compression moulded Polymer Heavy duty combination catchpit cover, type D3 Complete per SANS 1882:2003, SABS Approved, fully installed including left and right slay	no.	1		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

THE WIDENING OF PETER ROAD - WARD 37**SECTION 3 BULK EARTHWORKS****PART DA EARTHWORKS : BULK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.1 DA.8.3 PS.DA.3 PS.DA	Cut to Spoil Off Site to approved tip site. Rate to include all excavation, loading, haulage and royalties to spoil at approved tip site, stockpile handling costs inclusive	m3	1360		
2	DA.8.1 DA.8.7 PS.DA.6 PS.DA	Cut to Fill On Site from excavation or stockpile. Rate to include all excavation, loading, haulage, spreading, compaction and royalties to - stockpile handling costs inclusive	m3	150		
3	DA.8.1 DA.8.6	Fill Slope Finishing - compact, level, rake and remove rubble, stones	m2	500		
4	DA.8.1 DA.8.6	Cut Slope Finishing - compact, level, rake and remove rubble, stones	m2	500		
5	DA.8.1 DA.8.7 PS.DA.3 PS.DA.4	Cut to Spoil from below formation. Rate to include all excavation, loading, haulage and royalties to - stockpile handling costs inclusive	m3	485		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

THE WIDENING OF PETER ROAD - WARD 37**SECTION 4 LAYERWORKS****PART DA EARTHWORKS : BULK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.4 PS.DA.5 PS.DA.6 PS.DA.11	Import, place, process and compact in 150mm layers Sub-Base G7 or better material to 95% Mod. A.A.S.H.T.O. suitable fill material. Material from contractor's off-site source commercial inclusive of haulage and royalties (150mm thick compacted layers) - Natural Gravel or soil CBR @ 93% MOD MDD>15%	m3	500		
2	DA.8.9 PS.DA.7	Formation at 640 mm below Final Road Level	m2	3500		
3	DA.8.9 PS.DA.16	Extra over item 4.DA.2 for areas formation in cut or where fill layer thickness is less than 150 mm	m2	350		
4	DA.8.4 PS.DA.9 PS.DA.16	Import, place, process and compact 37.5mm Dumprock in 450mm layers . Material from contractor's off-site source commercial inclusive of haulage and royalties in areas of wet ground / seepage. Rate shall include for the chocking of the voids with lesser size stone chips and fines to achieve uniform layer.- provisional	m3	150		
5	PS.DA.9	Geotextile Membrane Separation - Type A4 or approved equivalent below dumprock layer as separation where required.	m2	1500		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R****PART EB GRADED CRUSHED STONE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EB.8(1) PS.EB.1	Import, place, process and compact G2 Graded crushed stone or better material to 95% Mod. A.A.S.H.T.O. Material from contractor's off-site source. inclusive of haulage and royalties, 150 mm thick. Tonnage per tally slip	t	550		
2	EB.8(2) PS.EB.2	Prime coat applied at the rate of 0,6 l/m ² (inverted emulsion) MSP1	m2	1650		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

THE WIDENING OF PETER ROAD - WARD 37

PART ED ROAD ASPHALT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.ED.1 PS.ED.4 PS.ED.5 PS.ED.9	Private Plant Asphalt Sa-H14 - Level II(A) - per Manual 35 - eThekwini Modified. Bitumen content % as per mix design entered at time of use. Compaction min 93% MVD, max 96% MVD	t	900		
2	PS.ED.11	Tack Coat 0.3litres/m2	m2	6600		
3	PS.ED.8	Saw-cutting asphalt to an average depth not exceeding 50mm	m	250		
4	PS.ED.8	Saw-cutting asphalt to an average depth: Exceeding 50 mm but not exceeding 100 mm	m	500		
5	PS.ED.1	Extra Over 4.ED.1 for hand laying and compaction of asphalt below wearing course level to specified compaction of min 93% MVD, max 96% MVD, in no more than 60mm thick layers in restricted areas where the width of the widening is less than the pavers minimum proven screed dimensions. Test results to be provided for each hand placed layer.	t	250		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

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THE WIDENING OF PETER ROAD - WARD 37
SECTION 5 SERVICE RELOCATIONS
PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.19 PS.DB.7	Prove services by hand excavation where directed by the Employer's Agent (provisional), where depth is: - - Over 0,0 m and not exceeding 1,5 m	m3	20		
2	DB.8.1 PS.DB.5 PS.DB.12 PS.DB.15 PS.DB.16 SCOPE PS.2 PS.3	Repair / Relocation / Lowering / Installation of various Water services - materials provided by Water Department. Connection to Properties. Appointment of Metro Approved Plumber (excluding damage to services by Contractor - own cost) - Existing AC Watermains to be relocated / renewed / converted to steel as per approved design drawings. All tie-ins to be done by Metro Water. Existing mains, once relocated to be abandoned and removed. All affected services to be relocated before month 24 or sooner of the Contract Duration - There will be no claims for any associated costs within this period. The relocations shall have to accomodated within the construction programme at various times as certain other items affect the critical path. All bulk earthworks cut / fill to be completed to achieve formation prior to relocations unless service affects an operation on the programme critical path.	PC Sum	20000	1.00	20 000.00
3	PS.DB.5	Proven Handling costs and profit in respect of item 5.DB.2 - Maximum 10%	%	20000		
4	PS.DB.5 PS.DB.13 PS.DB.15 PS.DB.16 SCOPE PS.2 PS.4	Repair / Relocation / Lowering / Installation of Sewer / Wastewater services. Connection to Properties. Appointment of Metro Approved Plumber	PC Sum	20000	1.00	20 000.00
5	PS.DB.5	Proven Handling costs and profit in respect of item 5.DB.4 - Maximum 10%	%	20000		

THE WIDENING OF PETER ROAD - WARD 37

Part Continued **PART** DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
6	PS.DB.5 PS.DB.15 PS.DB.16 SCOPE PS.2 PS.6	Repair / Relocation / Lowering / Connections / Terminations / Installation of New Electrical services / Light Poles . Appointment of Metro Approved Electrician. All affected services to be relocated before month 24 or sooner of the Contract Duration - There will be no claims for any associated costs within this period. The relocations shall have to accomodated within the construction programme at various times as certain other items affect the critical path. All bulk earthworks cut / fill to be completed to achieve formation prior to relocations unless service affects an operation on the programme critical path. New ELP services shall be programmed to happen on completion of road edge prior to sidewalk asphalt / median brickwork is installed.	PC Sum	20000	1.00	20 000.00
7	PS.DB.5	Proven Handling costs and profit in respect of item 5.DB.6 - Maximum 10%	%	20000		
8	PS.DB.5 PS.DB.14 PS.DB.15 PS.DB.16 SCOPE PS.2 PS.8	Repair / Relocation / Lowering / Installation of various Fibre services to locations indicated on service drawings and as per wayleaves / conditions. Existing materials / cabling / fibres to be recovered for reuse / relocation at no extra cost. (Services in the ownership of numerous different fibre service providers). Appointment of Fibre Optic approved technicians. Relocation, ducting - materials provided by service providers. All affected services to be relocated before month 24 or sooner of the Contract Duration - There will be no claims for any associated costs within this period. The relocations shall have to accomodated within the construction programme at various times as certain other items affect the critical path. All bulk earthworks cut / fill to be completed to achieve formation prior to relocations unless service affects an operation on the programme critical path.	PC Sum	20000	1.00	20 000.00
9	PS.DB.5	Proven Handling costs and profit in respect of item 5.DB.8 - Maximum 10%	%	20000		

THE WIDENING OF PETER ROAD - WARD 37

Part Continued **PART DB EARTHWORKS FOR PIPE TRENCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
10	PS.DB.5 PS.DB.14 PS.DB.15 PS.DB.16 SCOPE PS.2 PS.7 PS.8	Repair / Relocation / Lowering / Installation of various Telkom Fibre and Copper services - materials provided by Telkom / Openseve. Connection to Properties. Below and Above ground, including poles and stays, ducting, microductings of various sizes. Appointment of Telkom / Openseve approved technicians. All affected services to be relocated before month 24 or sooner of the Contract Duration - There will be no claims for any associated costs within this period. The relocations shall have to accomodated within the construction programme at various times as certain other items affect the critical path. All bulk earthworks cut / fill to be completed to achieve formation prior to relocations unless service affects an operation on the programme critical path.	PC Sum	10000	1.00	10 000.00
11	PS.DB.5	Proven Handling costs and profit in respect of item 5.DB.10 - Maximum 10%	%	10000		
12	B.8.3	General clearance and grubbing for pipelines in road reserve - HP Jetting and CCTV Inspection - on quotation basis	PC Sum	10000	1.00	10 000.00
13	B.8.3	Proven Handling costs and profit in respect of item 5.DB.12 - Maximum 10%	%	10000		
14	PS.DB.20 PS.DB.22	Establishment on site for Horizontal directional drilling, including moving to and setting up equipment at each position	sum	1		
15	PS.DB.20 PS.DB.23	Drilling and Installing holes 250mm diam at required depth to required length for insertion of services	m	20		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

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THE WIDENING OF PETER ROAD - WARD 37**SECTION 6 **KERBING******PART **EF KERBS AND HAUNCHES****

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EF.8.1 PS.EF.1 PS.EF.1.1 PS.EF.5	Fig 6 Type A - barrier kerb and channel / fillet (inclusive of all shuttering steel or wooden) - per standard drawing 38577	m	550		
2	EF.8.1 PS.EF.1 PS.EF.1.4 PS.EF.5	Fig 6 Type A - tapered transition kerb channel / fillet (inclusive of all required shuttering steel or wooden) - per standard drawing 38577	m	40		
3	PS.EF.1 PS.EF.1.4 PS.EF.1.5 PS.EF.5	Fig 6 Type A - scoop kerb and channel / fillet (inclusive of all required shuttering) - per standard drawing 38577	m	170		
4	EF.8.1 PS.EF.1 PS.EF.1.2 PS.EF.5	Fig 3 Type A - barrier kerb channel / fillet (inclusive of all required shuttering) - per standard drawing 38577	m	50		
5	EF.8.1 PS.EF.6	Extra over item 6.EF.1 to 6.EF.4 for curves of radius less than 25 m	m	120		
6	EF.8.1 PS.EF.6	Extra over item 6.EF.1 to 6.EF.4 for curves of radius less than 2 m	m	10		
7	EF.8.1 PS.EF.6	Extra over item 6.EF.1 to 6.EF.4 for graded channel including marking and setting out of grade	m	40		
8	PS.EF.2 PS.EF.4	Excavation for new kerb and channel/ fillet in existing hardened asphalt layers / graded crushed stone / cement stabilised layers - if applicable in terms of kerb detail drawing for Type A Kerbing and Channelling Base.	m3	100		
9	PS.EF.3 PS.EF.5	Additional concrete Grade 20/13 to kerb foundation / channel / fillet where road layer thickness exceeds standard Type A kerb base dimensions relative to layerworks and formation level (depth determined by Employer's Agent from typical kerb drawings)	m3	20		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

THE WIDENING OF PETER ROAD - WARD 37**SECTION 7 SIDEWALKS AND MEDIAN ISLANDS****PART EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EG.8.1 PS.EG.1 PS.EG.3	Asphalt sidewalks / other areas / driveways of varying widths minimum 50mm compacted thickness, including 100mm G4 Graded Crushed Stone from commercial source. Sa-S10 - Level I - per Manual 35 - eThekwini Modified	m2	900		
2	EG.8.5 PS.EG.1 PS.EG.3	Asphalt commercial vehicular access scoop minimum 80mm compacted thickness, inclusive of 150mm G4 compacted to 98% mod AASHTO below scoops from commercial source - per standard drawing 38579. Sa-S10 - Level I - per Manual 35 - eThekwini Modified	m2	100		
3	EG.8.4 PS.EG.1 PS.EG.4 PS.EG.9 PS.EG.10	Concrete G-Block paved commercial vehicular access scoop - per standard drawing 38579, including weedkiller prior to laying blocks and weedkiller prior to vacating site.	m2	650		
4	PS.EG.1 PS.EG.6	Import, place, process and compact G4 graded crushed stone or better material to 95% Mod. A.A.S.H.T.O. suitable fill material below corobrick pavers. Material from contractor's off-site source. Inclusive of haulage and royalties, 150mm thick, compacted to 98% mod AASHTO under brick pavers only. Tonnage per tally slip,	m3	100		
5	PS.EG.11	Removal of existing rubble and wastage to spoil. Rate to include all haulage and royalties to spoil at approved tip site.	m3	50		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

THE WIDENING OF PETER ROAD - WARD 37**SECTION 8 ROAD CROSSINGS****PART DB EARTHWORKS FOR PIPE TRENCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.1 DB.8.8	Disposal of unsuitable or surplus material including material displaced by pipe from trench excavation Rate to include all haulage and royalties to spoil at approved tip site.	m3	50		
2	DB.8.1 DB.8.5 PS.DB.2 PS.DB.7 PS.DB.9 PS.DB.20	Excavate and backfill in all material for duct crossings; - where depth is .. -- over 0.0m and not exceeding 2.0m / measured from formation level	m3	10		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

THE WIDENING OF PETER ROAD - WARD 37**SECTION 9 SUBSOIL****PART PG NON PRESSURE PIPELINES and PC CULVERTS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.1 PG.8.2 PS.PG.1 PS.PG.2	110mm Subsoil Termination Stub	m	20		
2	PG.8.1 PG.8.2 PS.PG.1	110mm Perforated Subsoil Pipes - Netlon Perforated subsoil or approved equivalent	m	100		
3	PS.PG.5	Drainage Grade Geotextile - Type A2 or approved equivalent filtration grade - trench depth < 2m	m2	150		
4	PG.8.1 PG.8.12 PS.PG.3	Provision of 19mm stone chippings for subsoil drain from commercial or offsite source	m3	20		
5	PG.8.3 PS.PG.12	Extra over item 9.PG.2 for junctions and branches on 0 to 200 mm nominal diameter heavy duty U.P.V.C. pipes	no.	20		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

THE WIDENING OF PETER ROAD - WARD 37**SECTION 10 ROADMARKINGS****PART TA ROAD SIGNS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	TA.8.1 PS.TA.2	Supply and erect road sign boards, area not exceeding 2m2 - Permanent Red/White	no.	2		
2	TA.8.4	Concrete grade 20/19 for road sign footings	m3	2		
3	TA.8.2	Supply and erect 75mm x 75mm square hot dipped galvanised steel supports for sign boards. Rate to include excavation and backfill for road sign supports. Permanent	no.	3		
4	TA.8.7 PS.TA.1	Dismantling and storing road signs, area not exceeding 2m2	no.	2		
5	TA.8.8 PS.TA.3	Re-erecting road signs stored on site, area not exceeding 2m2	no.	3		
6	TA.8.1 PS.TA.1 PS.TA.4 PS.TA.5 PS.TA.6 PS.TA.7	Supply and erect road sign boards, area not exceeding 2m2 - Temporary Red/Yellow	no.	2		
7	PS.TA.8	160mm diameter PVC sign Sleeves include for excavation, supply and placing of the sleeve and backfilling.	m	3		
8	TA.8.2 PS.TA.8	Supply and erect 160mm diameter creosoted / treated timber poles supports for sign boards inserted into sleeves.	no.	5		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R****PART TB ROAD MARKINGS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	TB.8.1.1 PS.TB.1	Permanent Road lines 100mm wide (white) including setting out and premarking -thermoplastic	m	2000		
2	TB.8.1.1 PS.TB.1	Permanent Road lines 150mm wide (white), including setting out and premarking -thermoplastic	m	20		
3	TB.8.1.1 PS.TB.1	Permanent Road lines 150mm wide (red), including setting out and premarking	m	50		
4	TB.8.1.2 PS.TB.2	Permanent Road Marking for lettering, symbols and traffic islands (white), including setting out lettering, symbols and traffic island markings. Thermoplastic	m2	50		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

THE WIDENING OF PETER ROAD - WARD 37**SECTION 11 GABIONS****PART F PROTECTION WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.6 PS.F.19	Galvanised and Coated Gabion boxes : 500 mm depth : Rock unweathered and solid without flaking evident. The correct size to be used must be 100 – 250 mm approved size / shape / colour for gabions baskets). Baskets to be handpacked in 1/3 height layers - baskets to be retensioned per lift. Inclusive of basket frames if required to maintain line and level without bulging.	m3	10		
2	F.8.6 PS.F.19	Galvanised at Coated Gabion boxes : 1000 mm depth : Rock unweathered and solid without flaking evident. The correct size to be used must be 100 – 250 mm approved size / shape / colour for gabions baskets). Baskets to be handpacked in 1/3 height layers - baskets to be retensioned per lift. Inclusive of basket frames if required to maintain line and level without bulging.	m3	10		
3	F.8.6 PS.F.19 PS.F.20	Extra over item 11.F.1 and 11.F.2 for non- standard shape gabion boxes and mattresses. Baskets to be handpacked in 1/3 height layers - baskets to be retensioned per lift. Inclusive of basket frames if required to maintain line and level without bulging.	m3	2		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

THE WIDENING OF PETER ROAD - WARD 37**SECTION 12 REINSTATEMENT AND GENERAL****PART B SITE CLEARANCE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2 PS.B	General clearance and grubbing in road reserve - where directed by the Employer's Agent.	m2	1500		
2	B.8.2 PS.B	General clearance and grubbing in private property - where directed by the Employer's Agent.	m2	1500		
3	B.8.14 PS.B.4 PS.B.5	Break up / scarify and removal of roadways / kerbing and asphalt sidewalk to approved spoil site. Rate to include all haulage and royalties to spoil at approved tip site. Volume measure per tally slip or weighbridge slip.	m2	100		
4	PS.B.14 PS.B.4 PS.B.5	Break up and removal of various types of retaining walls or equivalent, Block / Brick including base, reinforced or unreinforced. Rate to include all haulage and royalties to spoil at approved tip site.	m2	15		
5	B.8.4 PS.B.14	Removal of various types of Heavy Vehicle Tyres / Barriers within the road reserve to be disposed off at an approved site	no.	220		
6	B.8.4 PS.B.15	Cutting and Removal of trees of various height and girth exceeding 1,5 m including de-stumping and spoil at tip - Rate to include all haulage and royalties to spoil at approved tip site.(Numerous trees exceeding 10m height)	no.	5		
7	B.8.10 PS.B.14	Break up and Removal of unreinforced concrete. Rate to include all haulage and royalties to spoil at approved tip site.	m3	25		
8	B.8.11 PS.B.14	Break up and Removal of reinforced concrete. Rate to include all haulage and royalties to spoil at approved tip site.	m3	25		
9	B.8.19	Excavate and Removal of disused pipes and spoil at tip. Rate to include all haulage to spoil at approved tip site.	m	20		
10	B.8.20 PS.B.11	Seal ends of pipes with 230 mm brickwork	m2	5		
11	B.8.15 PS.B.4 PS.B.5	Removal of interlocking blocks in paved areas - to be stored on site for re-use	m3	10		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

THE WIDENING OF PETER ROAD - WARD 37**PART C CONCRETE WORK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1 PS.C.6 PS.C.8	Grade 15/26 concrete in soft spots where directed by the Employer's Agent	m3	10		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R**PART ED ROAD ASPHALT**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	ED.8.3.1 PS.ED.7 PS.ED.8	Tie In Joints (i) Transverse Joints	m	30		
2	PS.ED.10	Milling of existing asphalt surface and spoil at tip. Depth 0 - 100 mm, inclusive of all plant establishment and de-establishment (where directed by Engineer)	m2	250		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R**PART F PROTECTION WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.7 PS.F.12	115 mm brickwork - Common NFX Single Skin as per Standard Drawing 38581	m2	80		
2	F.8.7 PS.F.13	115 mm brickwork - Facebrick single skin to front face	m2	80		
3	PS.F.14	Supply and lay Terrace Block TB 500 block (or approved equivalent), not exceeding 2m height inclusive of sand filling as per detail, 12:1 cement stabilised G7 fill to top of wall, 1300mm wide geofabric extending into fill laid under 3rd row (Kaymat U44 or approved equivalent, inclusive of sliders	m2	20		
4	PS.F.11	Works done to property frontages - where agreed by the Employer's Agent	PC Sum	15000	1.00	15 000.00
5	PS.F.11	Proven Handling cost and profit in respect of item 12.F.4	%	15000		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

R**PART S REINSTATEMENT**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	S.8.1 PS.S.5	Reinstatement of ground surface - raking / levelling - removal of stones / rubble	m2	1500		
2	S.8.4	Reinstatement of wire or plastic coated mesh fence, 1,8 m high	m	20		
3	S.8.4	Reinstatement of precast concrete fence 1,8 m high	m	20		

Part Continued on next page

THE WIDENING OF PETER ROAD - WARD 37**Part Continued PART S REINSTATEMENT**

Item	Clause	Description	Unit	Quantity	Rate	Amount
4	PS.S.2	Repair and Reinstatement of existing kerbing previously installed that already exists on site. Fig 6 Barrier Kerb	m	50		
5	PS.S.3 PS.S.1	Reinstatement of hardened areas / roadways / service trench crossings - Patching 60mm Asphalt, 150mm Crusher Run G4 - Various widths, restricted conditions.	m2	50		
6	PS.S.4	Surface reinstatement in private properties and other developed areas - Patching 60mm Asphalt, 150mm Crusher Run G4	m2	50		
7	PS.S.7	Concrete Edge Beams 250mm x 250mm, Concrete Grade 20/26 Mpa	m3	20		

TOTAL CARRIED TO C.2.2.3 : SUMMARY OF BILL OF QUANTITIES**R**

BILL OF QUANTITIES SECTION SUMMARY

SECTION 1 PRELIMINARIES

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

BILL OF QUANTITIES SECTION SUMMARY

SECTION 2 STORMWATER

PART	DB	EARTHWORKS FOR PIPE TRENCHES	
PART	PG	NON PRESSURE PIPELINES and PC CULVERTS	
PART	PH	MANHOLES and APPURTENANT DRAINAGE WORKS	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY

SECTION 3 BULK EARTHWORKS

PART DA	EARTHWORKS : BULK	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY

SECTION 4 LAYERWORKS

PART DA	EARTHWORKS : BULK	
PART EB	GRADED CRUSHED STONE	
PART ED	ROAD ASPHALT	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY

SECTION 5 SERVICE RELOCATIONS

PART	DB	EARTHWORKS FOR PIPE TRENCHES	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY

SECTION 6 **KERBING**

PART	EF	KERBS AND HAUNCHES	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY

SECTION 7 SIDEWALKS AND MEDIAN ISLANDS

PART EG	SIDEWALKS, FOOTPATHS and MEDIAN AREAS	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY

SECTION 8 ROAD CROSSINGS

PART DB	EARTHWORKS FOR PIPE TRENCHES	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY

SECTION 9 SUBSOIL

PART	PG	NON PRESSURE PIPELINES and PC CULVERTS	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY

SECTION 10 ROADMARKINGS

PART TA	ROAD SIGNS	
PART TB	ROAD MARKINGS	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY

SECTION 11 GABIONS

PART F PROTECTION WORKS	
TOTAL CARRIED TO FINAL SUMMARY	

BILL OF QUANTITIES SECTION SUMMARY

SECTION 12 REINSTATEMENT AND GENERAL

PART B	SITE CLEARANCE	
PART C	CONCRETE WORK	
PART ED	ROAD ASPHALT	
PART F	PROTECTION WORKS	
PART S	REINSTATEMENT	
TOTAL CARRIED TO FINAL SUMMARY		

THE WIDENING OF PETER ROAD - WARD 37

C.2.2.3 : SUMMARY OF BILL OF QUANTITIES

Section

1	PRELIMINARIES		R	_____
	AA PRELIMINARIES	R		_____
	AB GENERAL SPECIFICATIONS	R		_____
	AH OCCUPATIONAL HEALTH and SAFETY	R		_____
2	STORMWATER		R	_____
	DB EARTHWORKS FOR PIPE TRENCHES	R		_____
	PG NON PRESSURE PIPELINES and PC CULVERTS	R		_____
	PH MANHOLES and APPURTENANT DRAINAGE WORKS	R		_____
3	BULK EARTHWORKS		R	_____
	DA EARTHWORKS : BULK	R		_____
4	LAYERWORKS		R	_____
	DA EARTHWORKS : BULK	R		_____
	EB GRADED CRUSHED STONE	R		_____
	ED ROAD ASPHALT	R		_____
5	SERVICE RELOCATIONS		R	_____
	DB EARTHWORKS FOR PIPE TRENCHES	R		_____
6	KERBING		R	_____
	EF KERBS AND HAUNCHES	R		_____
7	SIDEWALKS AND MEDIAN ISLANDS		R	_____
	EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS	R		_____
8	ROAD CROSSINGS		R	_____
	DB EARTHWORKS FOR PIPE TRENCHES	R		_____
9	SUBSOIL		R	_____
	PG NON PRESSURE PIPELINES and PC CULVERTS	R		_____
10	ROADMARKINGS		R	_____
	TA ROAD SIGNS	R		_____
	TB ROAD MARKINGS	R		_____
11	GABIONS		R	_____
	F PROTECTION WORKS	R		_____
12	REINSTATEMENT AND GENERAL		R	_____
	B SITE CLEARANCE	R		_____
	C CONCRETE WORK	R		_____
	ED ROAD ASPHALT	R		_____
	F PROTECTION WORKS	R		_____
	S REINSTATEMENT	R		_____

THE WIDENING OF PETER ROAD - WARD 37

Section

SUB TOTAL

R _____

ADD VAT (15%) - (only if a registered VAT Vendor)

R _____

TOTAL CARRIED TO FORM OF OFFER AND ACCEPTANCE (C.1.1)

R _____
