

Upgrading & expansion of Potsdam WWTP - Mechanical & Electrical works

Contract number 146Q/2021/22

Section C2.2: Schedule of Quantities

Schedule No.E.14: Multicore Cables & Earth Wires

Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
E.14	EMCA	<u>SCHEDULE E.14: MULTICORE CABLES & EARTH WIRES</u>				
E.14.1	EMCA 18.1	<u>SCHEDULE E.14.1 - DESIGN, DRAWINGS AND GENERAL</u>				
.1	EMCA 18.1 (a)	The Contractor will provide the following design calculations, drawings, method statements, cable routes, cable schedules in excel format which will include but limited to From, To, Distance and Tag numbers all to the approval of the Engineer [Refer to particular specification EMCA 3.3.2, 8.7 & 17]	Sum	-	-	
.2	EMCA 18.1 (b)	Provide operating and maintenance manuals, all data sheets [a) cables, b) joint kits, c) ladders, d) glands, conduit, fasteners and all that are used and etc] and furthermore the Contractor to supply as built" drawings	Sum	-	-	
E.14.2	EMCA 18.2	<u>SCHEDULE E.14.2 - SUPPLY AND DELIVERY TO SITE</u>				
1	EMCA 18.2 (a)	Supply and delivery to site of multicore cables and earthwires and cable name tags for the following cables as per the particular:				
1.1		4000Amp [Red Phase, Blue Phase, White Phase, Black Phase] and 50% internal earth [Green/Yellow Phase] IP54 enclosed in non-ventilated copper Busbar Trunking from each transformer to each incomer. SABS Approved Cast Resin	m	200		
1.2		240mm ² 4C PVC SWA PVC Cu Cable	m	2300		
1.3		185mm ² 4C PVC SWA PVC Cu Cable	m	260		
1.4		120mm ² 4C PVC SWA PVC Cu Cable	m	250		
1.5		35mm ² 4C PVC SWA PVC Cu Cable	m	1260		
1.6		25mm ² 4C PVC SWA PVC Cu Cable	m	400		
1.7		10mm ² 4C PVC SWA PVC Cu Cable	m	260		
1.8		6mm ² 4C PVC SWA PVC Cu Cable	m	8100		
Carried Forward						

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E14 -1(R)

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Schedule of Quantities

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Schedule No.E. 14: Multicore Cables & Earth Wires

Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
1.9		4mm ² 4C PVC SWA PVC Cu Cable	m	1780		
1.10		2.5mm ² 4C PVC SWA PVC Cu Cable	m	4550		
1.11		2.5mm ² 3C PVC SWA PVC Cu Cable	m	26000		
1.12		1.5mm ² 3C PVC SWA PVC Cu Cable	m	4550		
1.13		70mm ² Kwena Earth Cable	m	2810		
1.14		10mm ² Kwena Earth Cable	m	18100		
1.15		1.5mm ² x 4pr twisted PVC SWA PVC (individually and overall screened)	m	42580		
1.16		1.5mm ² x 2pr twisted PVC SWA PVC (individually and overall screened)	m	350		
1.17		1.5mm ² x 12pr twisted PVC SWA PVC (individually and overall screened)	m	1360		
1.18		1.5mm ² 3C PVC ALU PVC [Round Surfix] Cu Cable	m	600		
1.19		2.5mm ² 3C PVC ALU PVC [Round Surfix] Cu Cable	m	600		
2	EMCA 18.2 (b)	Supply and delivery to site of all multicore cables and earthwires termination materials [equal or similar to Enviro Glands, neoprene shrouds, lugs, insulating, materials, cable ties and corrosion proof bolts, washers, spring washers, nuts, etc] to terminate the following cables as per the particular specification				
2.1		4000Amp [Red Phase, Blue Phase, White Phase, Black Phase] and 50% internal earth [Green/Yellow Phase] IP54 enclosed in non-ventilated copper Busbar Trunking from each transformer to each incomer. SABS Approved Cast Resin	Each	4		
2.2		240mm ² 4C PVC SWA PVC Cu Cable	Each	58		
2.3		185mm ² 4C PVC SWA PVC Cu Cable	Each	4		
2.4		120mm ² 4C PVC SWA PVC Cu Cable	Each	10		
Carried Forward						

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Schedule No.E. 14: Multicore Cables & Earth Wires

Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
2.5		35mm ² 4C PVC SWA PVC Cu Cable	Each	24		
2.6		25mm ² 4C PVC SWA PVC Cu Cable	Each	10		
2.7		10mm ² 4C PVC SWA PVC Cu Cable	Each	4		
2.8		6mm ² 4C PVC SWA PVC Cu Cable	Each	84		
2.9		4mm ² 4C PVC SWA PVC Cu Cable	Each	68		
2.10		2.5mm ² 4C PVC SWA PVC Cu Cable	Each	260		
2.11		2.5mm ² 3C PVC SWA PVC Cu Cable	Each	86		
2.12		1.5mm ² 3C PVC SWA PVC Cu Cable	Each	86		
2.13		70mm ² Kwena Earth Cable	Each	72		
2.14		10mm ² Kwena Earth Cable	Each	184		
2.15		1.5mm ² x 4pr twisted PVC SWA PVC (individually and overall screened)	Each	510		
2.16		1.5mm ² x 2pr twisted PVC SWA PVC (individually and overall screened)	Each	70		
2.17		1.5mm ² x 12pr twisted PVC SWA PVC (individually and overall screened)	Each	26		
2.18		1.5mm ² 3C PVC ALU PVC [Round Surfix] Cu Cable	Each	50		
2.19		2.5mm ² 3C PVC ALU PVC [Round Surfix] Cu Cable	Each	50		
2.37		3000Amp [Red Phase, Blue Phase, White Phase, Black Phase] and 50% internal earth [Green/Yellow Phase] IP54 enclosed in non-ventilated copper Busbar Trunking Bends.SABS Approved . Cast Resin	Each	16		
2.38		3000Amp [Red Phase, Blue Phase, White Phase, Black Phase] and 50% internal earth [Green/ Yellow Phase] IP54 enclosed in non-ventilated copper Busbar Trunking MCC Ends.SABS Approved Cast Resin.	Each	4		
2.39		3000Amp [Red Phase, Blue Phase, White Phase, Black Phase] and 50% internal earth [Green/Yellow Phase] IP54 enclosed in non-ventilated copper Busbar Trunking joints.SABS Approved Cast Resin.	Each	34		
Carried Forward						

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Schedule No.E. 14: Multicore Cables & Earth Wires

Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
3	EMCA 18.2 (c)	Supply and delivery to site of cable route markers	Each	50		
4	EMCA 18.2 (d)	Supply and delivery to site of concrete cable slabs	Each	38		
5	EMCA 18.2 (e)	Supply, delivery to site of 316 Stainless Steel heavy-duty cable ladder, trunking, welded wire mesh and accessories including all necessary supports, clamps strapping, brackets, reducer splice, hangers, threaded rods, trunking, bolts, nuts and anchor bolts etc as per the particular specification				
5.1		150mm Wide cable ladder	m	290		
5.2		300mm Wide cable ladder	m	180		
5.3		400mm Wide cable ladder	m	80		
5.4		600mm Wide cable ladder	m	60		
5.5		800mm Wide cable ladder	m	80		
5.6		1000mm Wide cable ladder	m	66		
5.7		150mm Wide cable ladder flat covers	m	145		
5.8		300mm Wide cable ladder flat covers	m	90		
5.9		400mm Wide cable ladder flat covers	m	40		
5.10		600mm Wide cable ladder flat covers	m	30		
5.11		800mm Wide cable ladder flat covers	m	40		
5.12		1000mm Wide cable ladder flat covers	m	33		
6	EMCA 18.2 (f)	Supply, delivery to site of 316 Stainless Steel heavy-duty cable ladder, trunking, welded wire mesh and accessories including all necessary supports, clamps strapping, brackets, reducer splice, hangers, threaded rods, trunking, bolts, nuts and anchor bolts etc as per the particular specification				
6.1		150mm wide 90° Horizontal Bend	Each	20		
6.2		150mm wide 90° Internal elbow (Riser)	Each	20		
Carried Forward						

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Reference No. 146Q/2021/22

E14 -4(R)

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Section C2.2: Schedule of Quantities

Schedule No.E.14: Multicore Cables & Earth Wires

Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
6.3		150mm wide 90° External elbow (Dropper)	Each	20		
6.4		150mm wide Tee	Each	20		
6.5		150mm wide 4 Way Cross-over	Each	20		
6.6		300mm wide 90° Horizontal Bend	Each	10		
6.7		300mm wide 90° Internal elbow (Riser)	Each	10		
6.8		300mm wide 90° External elbow (Dropper)	Each	10		
6.9		300mm wide Tee	Each	10		
6.10		300mm wide 4 Way Cross-over	Each	10		
6.11		400mm wide 90° Horizontal Bend	Each	16		
6.12		400mm wide 90° Internal elbow (Riser)	Each	16		
6.13		400mm wide 90° External elbow (Dropper)	Each	16		
6.14		400mm wide Tee	Each	16		
6.15		400mm wide 4 Way Cross-over	Each	16		
6.16		600mm wide 90° Horizontal Bend	Each	20		
6.17		600mm wide 90° Internal elbow (Riser)	Each	20		
6.18		600mmwide 90° External elbow (Dropper)	Each	20		
6.19		600mm wide Tee	Each	20		
6.20		600mm wide 4 Way Cross-over	Each	20		
6.21		800mm wide 90° Horizontal Bend	Each	18		
6.22		800mm wide 90° Internal elbow (Riser)	Each	18		
6.23		800mmwide 90° External elbow (Dropper)	Each	18		
6.24		800mm wide Tee	Each	18		
6.25		800mm wide 4 Way Cross-over	Each	18		
6.26		1000mm wide 90° Horizontal Bend	Each	5		
6.27		1000mm wide 90° Internal elbow (Riser)	Each	5		
Carried Forward						

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Section C2.2: Schedule of Quantities

Schedule No.E. 14: Multicore Cables & Earth Wires

Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
6.28		1000mmwide 90° External elbow (Dropper)	Each	5		
6.29		1000mm wide Tee	Each	5		
6.30		1000mm wide 4 Way Cross-over	Each	5		
6	EMCA 18.2 (g)	Supply, delivery to site of all 316 stainless steel heavy-duty cable ladder supports, bolts, holders and etc that is required as per the particular specification	Sum	-	-	
7	EMCA 18.2 (h)	Supply and delivery to site of pump set sensor termination cubicles	Each	10		
8	EMCA 18.2 (i)	Supply and delivery to site of HPDE heavy-duty cable sleeves, joints, sealing rings, couplings, end plugs, spacer modules, bell mounth, manderel, duct brush flexibend, stainless steel draw wire long bend as per the particular specification				
		110mm² HDPE Sleeves equal or similar to kabelflex	m	100		
		160mm² HDPE Sleeves equal or similar to kabelflex	m	200		
		50mm² HDPE Sleeves equal or similar to Optex	m	300		
9	EMCA 18.2 (j)	Equal or similar Pratley EZEE-Fit with solid cover IP68 including non sparking connectors, insulating sleeves,identification tag, mounting screws, locknuts , lockout device with lock, lid securing chain and all accessories				
9.1		Box 0	Each	80		
		Compression Kits (Small)	Each	80		
		Compression Kits (large)	Each	80		
		Blanking Plugs	Each	40		
9.2		Box 1	Each	80		
		Reducing Glands [25-20]	Each	80		
		Compression Kits (Small)	Each	80		
		Compression Kits (large)	Each	40		
		Blanking Plugs	Each	160		
9.3		Box 2	Each	80		
		Reducing Glands [32-20]	Each	80		
		Reducing Glands [32-25]	Each	80		
		Compression Kits	Each	40		
		Blanking Plugs	Each	160		
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Schedule No.E.14: Multicore Cables & Earth Wires

Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
9.4		Box 3	Each	80		
		Reducing Glands [40-20]	Each	80		
		Reducing Glands [40-25]	Each	80		
		Reducing Glands [40-32]	Each	40		
		Compression Kits	Each	80		
		Blanking Plugs	Each	160		
9.5		Box 4	Each	80		
		Reducing Glands [50-20]	Each	80		
		Reducing Glands [50-25]	Each	80		
		Reducing Glands [50-32]	Each	40		
		Reducing Glands [50-40]	Each	160		
		Compression Kits	Each	80		
		Blanking Plugs	Each	160		
10	EMCA 18.2 (k)	316 Stainless Steel Conduit with saddles, fasteners,surface mounted against brick or concrete every 500mm and all accessories				
		20mm Conduit	m	1500		
		20mm conduit saddles	Each	750		
		Solid Coupling Female Threaded Adaptor	Each	350		
		Round Conduit box plus cover	Each	350		
11	EMCA 18.2 (l)	Supply and delivery to site of all soil for the bedding of cables during excavations including cleaning of cable routes complete as per particular specification	m ³	200		
E.14.3	EMCA 18.3	<u>SCHEDULE E.14.3 - INSTALLATION</u>				
1	EMCA 18.3 (a)	Installation of all multicore cables and earthwires and cable name tags for the following cables as per the particular:				
1.1		4000Amp [Red Phase, Blue Phase, White Phase, Black Phase] and 50% internal earth [Green/Yellow Phase] IP54 enclosed in non-ventilated copper Busbar Trunking from each transformer to each incomer. SABS Approved Cast Resin	m	200		
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Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
1.2		240mm ² 4C PVC SWA PVC Cu Cable	m	2300		
1.3		185mm ² 4C PVC SWA PVC Cu Cable	m	260		
1.4		120mm ² 4C PVC SWA PVC Cu Cable	m	250		
1.5		35mm ² 4C PVC SWA PVC Cu Cable	m	1260		
1.6		25mm ² 4C PVC SWA PVC Cu Cable	m	400		
1.7		10mm ² 4C PVC SWA PVC Cu Cable	m	260		
1.8		6mm ² 4C PVC SWA PVC Cu Cable	m	8100		
1.9		4mm ² 4C PVC SWA PVC Cu Cable	m	1780		
1.10		2.5mm ² 4C PVC SWA PVC Cu Cable	m	4550		
1.11		2.5mm ² 3C PVC SWA PVC Cu Cable	m	26000		
1.12		1.5mm ² 3C PVC SWA PVC Cu Cable	m	4550		
1.13		70mm ² Kwena Earth Cable	m	2810		
1.14		10mm ² Kwena Earth Cable	m	18100		
1.15		1.5mm ² x 4pr twisted PVC SWA PVC (individually and overall screened)	m	42580		
1.16		1.5mm ² x 2pr twisted PVC SWA PVC (individually and overall screened)	m	350		
1.17		1.5mm ² x 12pr twisted PVC SWA PVC (individually and overall screened)	m	1360		
1.18		1.5mm ² 3C PVC ALU PVC [Round Surfix] Cu Cable	m	600		
1.19		2.5mm ² 3C PVC ALU PVC [Round Surfix] Cu Cable	m	600		
2	EMCA 18.3 (b)	Installation of all multicore cables and earthwires termination materials [equal or similar to Enviro Glands, neoprene shrouds, lugs, insulating, materials, cable ties and corrosion proof bolts, washers, spring washers, nuts, etc] to terminate the following cables as per the particular specification				
Carried Forward						

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Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
2.1		4000Amp [Red Phase, Blue Phase, White Phase, Black Phase] and 50% internal earth [Green/Yellow Phase] IP65 enclosed in non-ventilated copper Busbar Trunking from each transformer to each incomer. Busbars shall conform to the latest IEC 61439 (1&6) IS 8623 (1-2) and shall be certified. Thermoset blu-E-Coat epoxy insulation shall be used. One busbar for each transformer.	Each	4		
2.2		240mm ² 4C PVC SWA PVC Cu Cable	Each	58		
2.3		185mm ² 4C PVC SWA PVC Cu Cable	Each	4		
2.4		120mm ² 4C PVC SWA PVC Cu Cable	Each	10		
2.5		35mm ² 4C PVC SWA PVC Cu Cable	Each	24		
2.6		25mm ² 4C PVC SWA PVC Cu Cable	Each	10		
2.7		10mm ² 4C PVC SWA PVC Cu Cable	Each	4		
2.8		6mm ² 4C PVC SWA PVC Cu Cable	Each	84		
2.9		4mm ² 4C PVC SWA PVC Cu Cable	Each	68		
2.10		2.5mm ² 4C PVC SWA PVC Cu Cable	Each	260		
2.11		2.5mm ² 3C PVC SWA PVC Cu Cable	Each	86		
2.12		1.5mm ² 3C PVC SWA PVC Cu Cable	Each	86		
2.13		70mm ² Kwena Earth Cable	Each	72		
2.14		10mm ² Kwena Earth Cable	Each	184		
2.15		1.5mm ² x 4pr twisted PVC SWA PVC (individually and overall screened)	Each	510		
2.16		1.5mm ² x 2pr twisted PVC SWA PVC (individually and overall screened)	Each	70		
2.17		1.5mm ² x 12pr twisted PVC SWA PVC (individually and overall screened)	Each	26		
2.18		1.5mm ² 3C PVC ALU PVC [Round Surfix] Cu Cable	Each	50		
2.19		2.5mm ² 3C PVC ALU PVC [Round Surfix] Cu Cable	Each	50		
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Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
2.37		3000Amp [Red Phase, Blue Phase, White Phase, Black Phase] and 50% internal earth [Green/Yellow Phase] IP54 enclosed in non-ventilated copper Busbar Trunking Bends.SABS Approved Cast Resin.	Each	16		
2.38		3000Amp [Red Phase, Blue Phase, White Phase, Black Phase] and 50% internal earth [Green/Yellow Phase] IP54 enclosed in non-ventilated copper Busbar Trunking MCC Ends.SABS Approved Cast Resin.	Each	4		
2.39		3000Amp [Red Phase, Blue Phase, White Phase, Black Phase] and 50% internal earth [Green/Yellow Phase] IP54 enclosed in non-ventilated copper Busbar Trunking joints.SABS Approved Cast Resin.	Each	34		
3	EMCA 18.3 (c)	Installation of all cable route markers	Each	50		
4	EMCA 18.3 (d)	Installation of all concrete cable slabs	Each	38		
5	EMCA 18.3 (e)	Installation of all 316 Stainless Steel heavy-duty cable ladder, trunking, welded wire mesh and accessories including all necessary supports, clamps strapping, brackets, reducer splice, hangers, threaded rods, trunking, bolts, nuts and anchor bolts etc as per the particular specification				
5.1		150mm Wide cable ladder	m	290		
5.2		300mm Wide cable ladder	m	180		
5.3		400mm Wide cable ladder	m	80		
5.4		600mm Wide cable ladder	m	60		
5.5		800mm Wide cable ladder	m	80		
5.6		1000mm Wide cable ladder	m	66		
5.7		150mm Wide cable ladder flat covers	m	145		
5.8		300mm Wide cable ladder flat covers	m	90		
5.9		400mm Wide cable ladder flat covers	m	40		
Carried Forward						

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Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
5.10	EMCA 18.3 (f)	600mm Wide cable ladder flat covers	m	30		
5.11		800mm Wide cable ladder flat covers	m	40		
5.12		1000mm Wide cable ladder flat covers	m	33		
6		Installation of all 316 Stainless Steel heavy-duty cable ladder, trunking, welded wire mesh and accessories including all necessary supports, clamps strapping, brackets, reducer splice, hangers, threaded rods, trunking, bolts, nuts and anchor bolts etc as per the particular specification				
6.1		150mm wide 90° Horizontal Bend	Each	20		
6.2		150mm wide 90° Internal elbow (Riser)	Each	20		
6.3		150mm wide 90° External elbow (Dropper)	Each	20		
6.4		150mm wide Tee	Each	20		
6.5		150mm wide 4 Way Cross-over	Each	20		
6.6		300mm wide 90° Horizontal Bend	Each	10		
6.7		300mm wide 90° Internal elbow (Riser)	Each	10		
6.8		300mm wide 90° External elbow (Dropper)	Each	10		
6.9		300mm wide Tee	Each	10		
6.10		300mm wide 4 Way Cross-over	Each	10		
6.11		400mm wide 90° Horizontal Bend	Each	16		
6.12		400mm wide 90° Internal elbow (Riser)	Each	16		
6.13		400mm wide 90° External elbow (Dropper)	Each	16		
6.14		400mm wide Tee	Each	16		
6.15		400mm wide 4 Way Cross-over	Each	16		
6.16		600mm wide 90° Horizontal Bend	Each	20		
6.17		600mm wide 90° Internal elbow (Riser)	Each	20		
6.18		600mmwide 90° External elbow (Dropper)	Each	20		
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Brought Forward						
6.19		600mm wide Tee	Each	20		
6.20		600mm wide 4 Way Cross-over	Each	20		
6.21		800mm wide 90° Horizontal Bend	Each	18		
6.22		800mm wide 90° Internal elbow (Riser)	Each	18		
6.23		800mmwide 90° External elbow (Dropper)	Each	18		
6.24		800mm wide Tee	Each	18		
6.25		800mm wide 4 Way Cross-over	Each	18		
6.26		1000mm wide 90° Horizontal Bend	Each	5		
6.27		1000mm wide 90° Internal elbow (Riser)	Each	5		
6.28		1000mmwide 90° External elbow (Dropper)	Each	5		
6.29		1000mm wide Tee	Each	5		
6.30		1000mm wide 4 Way Cross-over	Each	5		
6	EMCA 18.3 (g)	Installation of all 316 stainless steel heavy-duty cable ladder supports, bolts, holders and etc that is required as per the particular specification	Sum	-	-	
7	EMCA 18.3 (h)	Installation of all pump set sensor termination cubicles	Each	10		
8	EMCA 18.3 (i)	Installation of all HPDE heavy-duty cable sleeves, joints, sealing rings, couplings, end plugs, spacer modules, bell mounth, manderel, duct brush flexibend, stainless steel draw wire long bend as per the particular specification				
		110mm² HDPE Sleeves equal or similar to kabelflex	m	100		
		160mm² HDPE Sleeves equal or similar to kabelflex	m	200		
		50mm² HDPE Sleeves equal or similar to Optex	m	300		
9	EMCA 18.3 (j)	Installation of all Equal or similar Pratley EZEE-Fit with solid coverIP68 including non sparking connectors, insulating sleeves,identification tag, mounting screws, locknuts , lockout device with lock, lid securing chain and all accessories				
Carried Forward						

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Contract number 146Q/2021/22

Section C2.2: Schedule of Quantities

Schedule No.E. 14: Multicore Cables & Earth Wires

Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
9.1		Box 0	Each	80		
		Compression Kits (Small)	Each	80		
		Compression Kits (large)	Each	80		
		Blanking Plugs	Each	40		
9.2		Box 1	Each	80		
		Reducing Glands [25-20]	Each	80		
		Compression Kits (Small)	Each	80		
		Compression Kits (large)	Each	40		
		Blanking Plugs	Each	160		
9.3		Box 2	Each	80		
		Reducing Glands [32-20]	Each	80		
		Reducing Glands [32-25]	Each	80		
		Compression Kits	Each	40		
		Blanking Plugs	Each	160		
9.4		Box 3	Each	80		
		Reducing Glands [40-20]	Each	80		
		Reducing Glands [40-25]	Each	80		
		Reducing Glands [40-32]	Each	40		
		Compression Kits	Each	80		
		Blanking Plugs	Each	160		
9.5		Box 4	Each	80		
		Reducing Glands [50-20]	Each	80		
		Reducing Glands [50-25]	Each	80		
		Reducing Glands [50-32]	Each	40		
		Reducing Glands [50-40]	Each	160		
		Compression Kits	Each	80		
		Blanking Plugs	Each	160		
10	EMCA 18.3 (k)	Installation of all 316 Stainless Steel Conduit with saddles, fasteners,surface mounted against brick or concrete every 500mm and all accessories				
		20mm Conduit	m	1500		
		20mm conduit saddles	Each	750		
		Solid Coupling Female Threaded Adaptor	Each	350		
		Round Conduit box plus cover	Each	350		
11	EMCA 18.3 (l)	Installation of all soil for the bedding of cables during excavations including cleaning of cable routes complete as per particular specification	m ³	200		
Carried Forward						

Contract

Part C2: Pricing Data

Reference No. 146Q/2021/22

E14 -13(R)

C2.2

Schedule of Quantities

Upgrading & expansion of Potsdam WWTP - Mechanical & Electrical works

Contract number 146Q/2021/22

Section C2.2: Schedule of Quantities

Schedule No.E. 14: Multicore Cables & Earth Wires

Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
12	EMCA 18.3 (m)	Excavating, back filling, consolidation, importation of soil and dumping of all rock and stone removed during excavations including cleaning of cable routes all according to particular specifications (including hand excavations where necessary along existing cable routes)				
		a) Pickable soil	m ³	300		
		b) Soft rock	m ³	120		
		c) Hard rock	m ³	50		
13		Dumping and removing of all rock and stone removed during excavations including cleaning of cable routes complete as per particular specification. Dumping will at a registered dumping site within the border of Municipal Area. Contractor to allow dumping within a vicinity of 30km the site Contractor to allow all labour, truck hire and dumping site payments	m ³	170		
14		The restoration of road and paving to the original condition complete	m	250		
15		The restoration of concrete paving [1.5m (wdth) x 150mm (height)] to the original condition complete	m	1500		
16		Sifting soil through a 4mm mesh size for the bedding of cables and the backfilling of trenches complete as per particular specification.	m ³	170		
17		Nett amount for core drilling 100mm diameter holes through 250mm concrete	Each	30		
18	PSEMCA 9	Detail surveying and plotting of all existing structures within 3m of the propose route proposed by Contractor (Refer to project specification PSEMCA-9)	m	6000		
19	PSEMCA 9	All new cable routes shall first be planned with information obtained from surveyor and submitted for approval to the Engineer and City of Cape Town. All shall be completed in AutoCad format and Report for approval from the Engineer (Refer to project specification PSEMCA-9)	Sum	-	-	
Carried Forward						

Contract

Part C2: Pricing Data

Reference No. 146Q/2021/22

E14 -14(R)

C2.2

Schedule of Quantities

Upgrading & expansion of Potsdam WWTP - Mechanical & Electrical works

Contract number 146Q/2021/22

Section C2.2: Schedule of Quantities

Schedule No.E.14: Multicore Cables & Earth Wires

Item	Pay. Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
Brought Forward						
20	PSEMCA 9	Time related matters for arranging, coordinating, shut down procedure, approval from City of City of Cape Town (Refer to project specification PSEMCA-9) a) Engineer rate per hour b) Electrician rate per hour c) Artisan rate per hour d) Labourer rate per hour e) Rate per kilometer f) Report printing A4 Black and white g) Medium Voltage testing and confirmation h) Low Voltage testing and confirmation h) Low Voltage testing and confirmation All of the above time related item shall be submitted weekly to the Engineer for approval.	hr hr hr hr km Pages No. No. No.	200 500 800 800 1500 2000 10 100 100		
E.14.4	EMCA 21.4	<u>SCHEDULE E.14.4 - COMMISSIONING</u>				
1	EMCA 21.4 (a)	Testing and commissioning of all cables as above mentioned	Sum	-	-	
2	EMCA 21.4 (b)	Updating, verifying and submission of Electronic Cable schedules with Tag numbers and final agreed lengths	Sum	-	-	
3	EMCA 21.4 (c)	Surveyor to mark-up as-built cable route plans and all mark-up must be on made on the AutoCAD format	Sum	-	-	
E.14.5	EMCA	<u>SCHEDULE E.14.5 - DESIGNER / CONTRACTOR SPECIFIC REQUIREMENTS</u>				
.1	EMCA	All other items or equipment not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant (Specify) <u>SCHEDULE NO. E.14</u> <u>MULTICORE CABLES & EARTH WIRES</u> <u>CARRIED TO SUMMARY</u>				
Carried forward to Summary of Schedules						Total

Contract

Part C2: Pricing Data

Reference No. 146Q/2021/22

E14 -15(R)

C2.2

Schedule of Quantities