

Appendix A - DETAILED CALCULATION SCHEDULE

EDC Report 12



Level i	item Description Rushforth Rd WTP	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3 1	Design & Developemnt	Item	1	3,110,000.00	3,110,000.00	~8.0% of Direct Costs
4 1.1	Design management	Item	1	680,000.00	680,000.00	
1.1.1	Design management	Item	1	680,000.00	680,000.00	Overal detailed design benchmarked @ 7.9% of Direct Costs.  Split betweeen disciplines apportioned based on previous WTP projects.  Split between detailed design by Principal and D&C Contractor to be determined based on procurement strategy.
4 1.2	Process Engineering	Item	1	460,000.00	460,000.00	
1.2.1	Process Engineering	Item	1	460,000.00	460,000.00	
4 1.3	Hydraulic Engineering	Item	1	250,000.00	250,000.00	
1.3.1	Hydraulic Engineering	Item	1	250,000.00	250,000.00	
4 1.4	Geotechnical engineering	Item	1	150,000.00	150,000.00	
1.4.1	Geotechnical engineering	Item	1	150,000.00	150,000.00	
4 1.5	Civil Engineering	Item	1	460,000.00	460,000.00	
1.5.1	Civil Engineering	Item	1	460,000.00	460,000.00	
4 1.6	Structural Engineering	Item	1	370,000.00	370,000.00	
1.6.1	Structural Engineering	Item	1	370,000.00	370,000.00	
4 1.7	Mechanical Engineering	Item	1	370,000.00	370,000.00	
1.7.1	Mechanical Engineering	Item	1	370,000.00	370,000.00	
4 1.8	Electrical & controls engineering	Item	1	310,000.00	310,000.00	
1.8.1	Electrical & controls engineering	Item	1	310,000.00	310,000.00	
4 1.9	Environmental Engineering	Item	1	60,000.00	60,000.00	
1.9.1	PFAS investigation	Item	1	60,000.00	60,000.00	
3 2	Preliminaries	Item	1	4,538,900.12	4,538,900.12	~11.7% of Direct costs
4 2.1	Non-recurring	Item	1	1,210,551.93	1,210,551.93	
5 2.1.1	Site Establishment / Mobilisation	Item	1	447,795.63	447,795.63	
6 2.1.1.1	Dilapidation survey	Item	1	7,650.00	7,650.00	
2.1.1.1.	1 Civil Engineer	Hr	30	255.00	7,650.00	
6 2.1.1.2	Environmental pre-clearance survey	Item	1	0.00		
2.1.1.2.	1 Pre-clearance survey (Ecologist) - NOT REQUIRED	Hr	0	200.00	Rate only	
6 2.1.1.3	Temp fencing	Item	1	9,413.80	9,413.80	
2.1.1.3.	1 Temporary fencing to compound perimeter	m	389	24.20	9,413.80	Allowance for plant & sheds only until permanent fence can be installed
6 2.1.1.4	Establish enviro controls	Item	1	123,803.08	123,803.08	



Level	ltem	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
	2.1.1.4.1	Rumble grid, two lanes, suitable for 32t trucks, supply, fix and remove at completion including make-good to roadway	mth	12	2,892.00	34,703.97	
	2.1.1.4.2	Dirty water drain to work-front perimeter at lower levels	m	600	13.78	8,269.24	
	2.1.1.4.3	Sediment fence	m	1,200	7.91	9,488.45	
	2.1.1.4.4	Haybales wrapped in geotextile, staked	No.	80	66.77	5,341.42	
	2.1.1.4.5	Water quality meter	No.	1	9,000.00	9,000.00	
	2.1.1.4.6	Sump pumps & layflats, purchase	No.	4	4,000.00	16,000.00	
	2.1.1.4.7	Allowance for deflocing agent	Item	1	5,000.00	5,000.00	
	2.1.1.4.8	Sediment dams / turkeys nest establishment	No.	3	7,000.00	21,000.00	
	2.1.1.4.9	Make-good sed dams / turkeys nest	No.	3	5,000.00	15,000.00	
	6 2.1.1.5	Hardstands / temp access	Item	1	27,851.95	27,851.95	
С	2.1.1.5.1	Assumed existing 32ML reservoir can be utilised for the main compound area					
	2.1.1.5.1.1	Topsoil strip	m3	140	23.04		Assumed 200mm thick, 100 x 7 for temporary access roads
	2.1.1.5.1.2	Cut/fill in OTR haul <250m	m3	810	7.29		Cut existing 32ML reservoir emabankment for vehicle access and egress
	2.1.1.5.1.3	Geotextile separation layer	m2	700	2.04	1,425.46	Temp access roads/hardstands
	2.1.1.5.1.4	Gravel to temporary access roads 300mm thick, supply, place, compact, trim	m3	210	82.35		Temp access roads/hardstands, Recycled DGB20 100m x 7m x 300mm
							10011 X 7111 X 30011111
	6 2.1.1.6	Mob site accomodation	Item	1	141,656.80	141,656.80	100111 × 7111 × 300111111
	6 <b>2.1.1.6</b> 2.1.1.6.1		<b>Item</b> Item	<b>1</b>	<b>141,656.80</b> 7,840.80		10011 X 711 X 30011111
		Mob site accomodation  Delivery: 12 x 12 office complex, 12 x 9 meeting				141,656.80	10011 X 711 X 30011111
	2.1.1.6.1	Mob site accomodation  Delivery: 12 x 12 office complex, 12 x 9 meeting room, 6 x 3 M/F ablutuions  Fit-out: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions installation inc. stairs, external deck, external awning roof, furniture & fittings, LED lights, motion sensor to lighting, zip	Item	1	7,840.80	<b>141,656.80</b> 7,840.80	Toolii X 7111 X 30011111
	2.1.1.6.1	Mob site accomodation  Delivery: 12 x 12 office complex, 12 x 9 meeting room, 6 x 3 M/F ablutuions  Fit-out: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions installation inc. stairs, external deck, external awning roof, furniture & fittings, LED lights, motion sensor to lighting, zip boil unit, blinds, door closers, weaether seals  Earth Anchor & Certification: 12 x 12 office	ltem Item	1	7,840.80 86,325.00	141,656.80 7,840.80 86,325.00	
	2.1.1.6.2 2.1.1.6.2 2.1.1.6.3	Mob site accomodation  Delivery: 12 x 12 office complex, 12 x 9 meeting room, 6 x 3 M/F ablutuions  Fit-out: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions installation inc. stairs, external deck, external awning roof, furniture & fittings, LED lights, motion sensor to lighting, zip boil unit, blinds, door closers, weaether seals  Earth Anchor & Certification: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions  Generator, bunded tanks & temp DB	Item Item	1 1	7,840.80 86,325.00 13,491.00	141,656.80 7,840.80 86,325.00	
	2.1.1.6.2 2.1.1.6.2 2.1.1.6.3	Mob site accomodation  Delivery: 12 x 12 office complex, 12 x 9 meeting room, 6 x 3 M/F ablutuions  Fit-out: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions installation inc. stairs, external deck, external awning roof, furniture & fittings, LED lights, motion sensor to lighting, zip boil unit, blinds, door closers, weaether seals  Earth Anchor & Certification: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions  Generator, bunded tanks & temp DB establishment  Allowance for temporary potable water connection to existing on-site water supply	Item Item	1 1 1	7,840.80 86,325.00 13,491.00	141,656.80 7,840.80 86,325.00 13,491.00	
	2.1.1.6.2 2.1.1.6.3 2.1.1.6.4 2.1.1.6.5	Mob site accomodation  Delivery: 12 x 12 office complex, 12 x 9 meeting room, 6 x 3 M/F ablutuions  Fit-out: 12 x 12 office complex, 12 x 9 meeting room 8, 6 x 3 ablutions installation inc. stairs, external deck, external awning roof, furniture & fittings, LED lights, motion sensor to lighting, zip boil unit, blinds, door closers, weaether seals  Earth Anchor & Certification: 12 x 12 office complex, 12 x 9 meeting room & 6 X 3 ablutions  Generator, bunded tanks & temp DB establishment  Allowance for temporary potable water connection to existing on-site water supply including trenching, cut-in and termination  Establish IT fibre/satelite connection, local	Item Item Item	1 1 1	7,840.80 86,325.00 13,491.00 14,000.00 5,000.00	141,656.80 7,840.80 86,325.00 13,491.00 14,000.00 5,000.00	
	2.1.1.6.2 2.1.1.6.3 2.1.1.6.4 2.1.1.6.5 2.1.1.6.6	Mob site accomodation  Delivery: 12 x 12 office complex, 12 x 9 meeting room, 6 x 3 M/F ablutuions  Fit-out: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions installation inc. stairs, external deck, external awning roof, furniture & fittings, LED lights, motion sensor to lighting, zip boil unit, blinds, door closers, weaether seals  Earth Anchor & Certification: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions  Generator, bunded tanks & temp DB establishment  Allowance for temporary potable water connection to existing on-site water supply including trenching, cut-in and termination  Establish IT fibre/satelite connection, local cabling, server, racks, etc	Item Item Item Item Item Item	1 1 1 1	7,840.80 86,325.00 13,491.00 14,000.00 5,000.00	141,656.80 7,840.80 86,325.00 13,491.00 14,000.00 5,000.00 45,000.00	Becnhmark 0.1% DJC's
	2.1.1.6.2  2.1.1.6.3  2.1.1.6.4  2.1.1.6.5  2.1.1.6.6	Mob site accomodation  Delivery: 12 x 12 office complex, 12 x 9 meeting room, 6 x 3 M/F ablutuions  Fit-out: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions installation inc. stairs, external deck, external awning roof, furniture & fittings, LED lights, motion sensor to lighting, zip boil unit, blinds, door closers, weaether seals  Earth Anchor & Certification: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions  Generator, bunded tanks & temp DB establishment  Allowance for temporary potable water connection to existing on-site water supply including trenching, cut-in and termination  Establish IT fibre/satelite connection, local cabling, server, racks, etc  Safety Equipment  Allowance for PPE, plastic barriers, fall restraints, temporary hand-railing, bollards, safety signage,	Item Item Item Item Item Item	1 1 1 1 1 1 1	7,840.80 86,325.00 13,491.00 14,000.00 5,000.00 15,000.00	141,656.80 7,840.80 86,325.00 13,491.00 14,000.00 5,000.00 45,000.00	
	2.1.1.6.1 2.1.1.6.2 2.1.1.6.3 2.1.1.6.4 2.1.1.6.5 2.1.1.6.6 6 2.1.1.7 2.1.1.7.1	Mob site accomodation  Delivery: 12 x 12 office complex, 12 x 9 meeting room, 6 x 3 M/F ablutuions  Fit-out: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions installation inc. stairs, external deck, external awning roof, furniture & fittings, LED lights, motion sensor to lighting, zip boil unit, blinds, door closers, weaether seals  Earth Anchor & Certification: 12 x 12 office complex, 12 x 9 meeting room & 6 x 3 ablutions  Generator, bunded tanks & temp DB establishment  Allowance for temporary potable water connection to existing on-site water supply including trenching, cut-in and termination  Establish IT fibre/satelite connection, local cabling, server, racks, etc  Safety Equipment  Allowance for PPE, plastic barriers, fall restraints, temporary hand-railing, bollards, safety signage, etc. 0.1% DJC's	Item Item Item Item Item Item Item Item	1 1 1 1 1 1 1 1	7,840.80 86,325.00 13,491.00 14,000.00 5,000.00 45,000.00 45,000.00	141,656.80 7,840.80 86,325.00 13,491.00 14,000.00 5,000.00 45,000.00	



Level	ltem	Description	Unit	Qty		Rate (	Value Excluding GST)	Remarks
Level	2.1.1.8.3	Float, semi >50 <100km	No.	Qiy	10	900.00	9,000.00	Remarks
	2.1.1.8.4	Float low loader >50 <100km	No.		6	1,080.00	6,480.00	
	2.1.1.8.5	Crane float 120t	No.		4	3,660.00	14,640.00	
5	5 2.1.2	Investigation	Item		1	24,635.59	24,635.59	
6	6 2.1.2.1	Geotech investigation - detailed	Item		1	18,040.00	18,040.00	
	2.1.2.1.1	Geotechnical investigation	Item		1	18,040.00	18,040.00	geotech eng + snr geotech eng 20 hrs + drill rig & crew 20 hrs
6	6 2.1.2.2	Contamination investigation	Item		1	0.00		
С	2.1.2.2.1	Contamination investigation performed pre- tender by Principal - refer Design ==> Environmental Engineering						
6	6 2.1.2.3	Exisitng services search	Item		1	6,595.59	6,595.59	
	2.1.2.3.1	Identify services, scan with GPR and EMF	Item		1	3,982.00	3,982.00	20 hrs scanning, 6 hrs drafting
	2.1.2.3.2	Positive identification of existing services	Item		1	2,613.59	2,613.59	Vac truck & labourer 10 hrs
	2.1.2.3.3	Surveying and drafting of identified services	Item		0	8,497.50 R	Rate only	Assumed not required
5	5 2.1.3	Management Plans	Item		1	47,016.00	47,016.00	
6	6 2.1.3.1	CEMP	Item		1	14,016.00	14,016.00	
	2.1.3.1.1	Preparation of CEMP	Item		1	14,016.00	14,016.00	P.E. 12 days to procure sub-plans and write CEMP
6	6 2.1.3.2	Aboriginal Heritage	Item		1	0.00		
	2.1.3.2.1	Aboriginal Heritage Management Plan	No.		0	10,000.00 R	Rate only	Assumed unexpected finds protocol only required
6	6 2.1.3.3	Non aboriginal heritage	Item		1	5,000.00	5,000.00	
	2.1.3.3.1	Non-aboriginal Heritage Management Plan	No.		1	5,000.00	5,000.00	Assumed existing plans exist for known artifacts
6	2.1.3.3.1 6 <b>2.1.3.4</b>	Non-aboriginal Heritage Management Plan  Flora & fauna management	No.		1	5,000.00	5,000.00	Assumed existing plans exist for known artifacts
6						·		Assumed existing plans exist for known artifacts
	6 2.1.3.4	Flora & fauna management	Item		1	10,000.00	10,000.00	Assumed existing plans exist for known artifacts
	<b>5 2.1.3.4</b> 2.1.3.4.1	Flora & fauna management Flora & Fauna Management Plan	<b>Item</b> No.		<b>1</b>	<b>10,000.00</b> 10,000.00	<b>10,000.00</b> 10,000.00	Assumed existing plans exist for known artifacts
6	6 <b>2.1.3.4</b> 2.1.3.4.1 6 <b>2.1.3.5</b>	Flora & fauna management Flora & Fauna Management Plan  ERSED Management	item No. Item		1 1	10,000.00 10,000.00 10,000.00	10,000.00 10,000.00 10,000.00	Assumed existing plans exist for known artifacts
6	6 2.1.3.4 2.1.3.4.1 6 2.1.3.5 2.1.3.5.1	Flora & fauna management  Flora & Fauna Management Plan  ERSED Management  Erosion & Sediment Control Plans	Item No. Item No.		1 1 1	10,000.00 10,000.00 10,000.00 10,000.00	10,000.00 10,000.00 10,000.00 10,000.00 8,000.00	MAY NOT BE REQUIRED WHERE PRE-
6	6 2.1.3.4 2.1.3.4.1 6 2.1.3.5 2.1.3.5.1 6 2.1.3.6	Flora & fauna management  Flora & Fauna Management Plan  ERSED Management  Erosion & Sediment Control Plans	Item No. Item No. Item		1 1 1	10,000.00 10,000.00 10,000.00 10,000.00 8,000.00	10,000.00 10,000.00 10,000.00 10,000.00 8,000.00	
6	6 2.1.3.4 2.1.3.4.1 6 2.1.3.5 2.1.3.5.1 6 2.1.3.6	Flora & fauna management  Flora & Fauna Management Plan  ERSED Management  Erosion & Sediment Control Plans  Contaminated soils/PFAS Management Plan	Item No. Item No. Item		1 1 1	10,000.00 10,000.00 10,000.00 10,000.00 8,000.00	10,000.00 10,000.00 10,000.00 10,000.00 8,000.00	MAY NOT BE REQUIRED WHERE PRE- TESTING/PFAS INVESTIGATION ESTABLSHES
6	6 2.1.3.4 2.1.3.4.1 6 2.1.3.5 2.1.3.5.1 6 2.1.3.6	Flora & fauna management  Flora & Fauna Management Plan  ERSED Management  Erosion & Sediment Control Plans  Contaminated soils/PFAS Management Plan  Contaminated soils/PFAS Management Plan	Item No. Item No. Item No.		1 1 1 1	10,000.00 10,000.00 10,000.00 10,000.00 8,000.00	10,000.00 10,000.00 10,000.00 10,000.00 8,000.00	MAY NOT BE REQUIRED WHERE PRE- TESTING/PFAS INVESTIGATION ESTABLSHES
6	6 2.1.3.4 2.1.3.4.1 6 2.1.3.5 2.1.3.5.1 6 2.1.3.6 2.1.3.6.1	Flora & fauna management  Flora & Fauna Management Plan  ERSED Management  Erosion & Sediment Control Plans  Contaminated soils/PFAS Management Plan  Contaminated soils/PFAS Management Plan	Item No. Item No. Item No. Item		1 1 1 1	10,000.00 10,000.00 10,000.00 10,000.00 8,000.00 8,000.00	10,000.00 10,000.00 10,000.00 10,000.00 8,000.00 487,350.00	MAY NOT BE REQUIRED WHERE PRE- TESTING/PFAS INVESTIGATION ESTABLSHES
6 6 5	6 2.1.3.4 2.1.3.4.1 6 2.1.3.5 2.1.3.5.1 6 2.1.3.6 2.1.3.6.1	Flora & fauna management  Flora & Fauna Management Plan  ERSED Management  Erosion & Sediment Control Plans  Contaminated soils/PFAS Management Plan  Contaminated soils/PFAS Management Plan  Fees & Insurance  LSL fee	Item No. Item No. Item Item Item		1 1 1 1 1	10,000.00 10,000.00 10,000.00 10,000.00 8,000.00 8,000.00	10,000.00 10,000.00 10,000.00 10,000.00 8,000.00 8,000.00 487,350.00	MAY NOT BE REQUIRED WHERE PRE- TESTING/PFAS INVESTIGATION ESTABLSHES



Level Item 6 2.1.4.3	Description Contract Works Insurance	Unit Item	Qty 1	Rate 203,000.00	Value (Excluding GST) 203,000.00	Remarks
2.1.4.3.1	CW Insurance	Item	1	203,000.00		includes provision for 1 No. excess payment \$50,000
6 2.1.4.4	Public Liability Insurance	Item	1	76,500.00	76,500.00	
2.1.4.4.1	PL Insurance	Item	1	76,500.00	76,500.00	
6 2.1.4.5	Bank Guarantee Fees	Item	1	52,300.00	52,300.00	
2.1.4.5.1	Bank Guarantees	Item	1	52,300.00		2 No. x 2.5%, 2 for project duration, 1 for 12mths post completion
5 2.1.5	Demobilisation	Item	1	203,754.71	203,754.71	
6 2.1.5.1	Demob site accomodation	Item	1	10,480.80	10,480.80	
2.1.5.1.1	$12 \times 12$ office complex $\times 2$ No., $12 \times 9$ meeting room $\times 2$ No., $6 \times 3$ M/F ablutuions removal	Item	1	7,840.80	7,840.80	
2.1.5.1.2	Cleaning fee 12 x 3	No.	8	275.00	2,200.00	
2.1.5.1.3	Cleaning fee 6 x 3	No.	2	220.00	440.00	
6 2.1.5.2	Plant float	Item	1	77,780.00	77,780.00	
2.1.5.2.1	Float <13t tilt tray w/ towbar, >50 <100km	No.	80	520.00	41,600.00	
2.1.5.2.2	Float, rigid truck >50 <100km	No.	30	690.00	20,700.00	
2.1.5.2.3	Float, semi >50 <100km	No.	10	900.00	9,000.00	
2.1.5.2.4	Float low loader >50 <100km	No.	6	1,080.00	6,480.00	
6 2.1.5.3	Remove & make-good temporary hardstands / access roads	Item	1	38,998.28	38,998.28	
2.1.5.3.1	Removal of temporary fencing	m	390	9.60	3,745.33	
2.1.5.3.2	Make-good temporary drains	m	1,200	6.89	8,269.24	
2.1.5.3.3	Make-good sediment dam	No.	3	413.46	1,240.39	
2.1.5.3.4	Remove temporary gravel and haul to disposal site <2.0km	m3	140	19.42		Assumed disposal of gravel to local landowner at no cost. Allowance made for haulage up to 2km.
2.1.5.3.5	Ameliorate and spread stockpiled topsoil 200mm thick	m3	480	14.91	7,155.04	
2.1.5.3.6	Spraygrass including establishment period	m2	2,400	6.61	15,869.86	3 mth establishment with watercart visits
6 2.1.5.4	Site clean-up	Item	1	76,495.63	76,495.63	
2.1.5.4.1	Allowance for clean-up	No.	1	76,495.63	76,495.63	Excavator, tipper & labourer 40 hrs + 20t GSW
4 2.2	Recurring	weeks	50	66,566.96	3,328,348.19	
5 2.2.1	Project Mgt & Supervision	week	50	52,052.27	2,602,613.66	7.6 FTE positions excl. survey & peggy
6 2.2.1.1	Project Management & Engineering	Item	1	1,513,230.00	1,513,230.00	
2.2.1.1.1	General Manager / Construction Manager	week	5	12,175.00	60,875.00	10%
2.2.1.1.2	Project Manager	week	50	10,855.00	542,750.00	Full time
2.2.1.1.3	Engineer Snr	week	50	5,840.00	292,000.00	Full time
2.2.1.1.4	Engineer	week	40	5,036.60	201,464.00	80%
2.2.1.1.5	Planner	week	10	5,036.60	50,366.00	20%



2.2.1.1.6	Description	Unit	Qty	Rate	Value (Excluding GST) Remarks
2.2.1.1.0	Commercial Manager	week	5	6,055.00	30,275.00 10%
2.2.1.1.7	Procurement Officer	week	10	5,200.00	52,000.00 20%
2.2.1.1.8	Contract Administrator	week	40	4,640.00	185,600.00 80%
2.2.1.1.9	HSEQ Manager	week	10	4,895.00	48,950.00 20%
2.2.1.1.10	Safety Officer	week	10	4,895.00	48,950.00 20%
6 2.2.1.2	Supervision	Item	1	892,902.86	892,902.86
2.2.1.2.1	General Superintendent	week	50	7,820.91	·
2.2.1.2.2	Supervisor	week	100	5,018.58	501,857.50 Full time x 2
6 2.2.1.3	Surveying	Item	1	100,650.00	100,650.00
2.2.1.3.1	Survey crew, establish benchmarks, establish cadastral boundaries, horizontal set-out, earthworks levels and qty's, structure set-out, underground services set-out	week	10	10,065.00	100,650.00 30 hrs per week
6 2.2.1.4	Grey Labour				
2.2.1.4.1	Peggy	week	30	3,194.36	95,830.80
5 2.2.2	Site Running Expenses	week	40	18,143.36	725,734.53
6 2.2.2.1	Site Accomodation	Item	1	102,875.95	102,875.95
2.2.2.1.1	Site office complex 12 x 12, inc. desks, 10 No. and swivel chairs, 14 No.	Week	40	1,009.24	40,369.51
2.2.2.1.2	Meeting room 12 x 9 inc. furniture	Week	40	688.22	27,528.87
	Crib hut 12 x 3 inc. fitout	Weeks	80	217.09	17,367.21
2.2.2.1.3	CHD Hat 12 x 3 Hrc. Htout		00	217.03	17,307.21
2.2.2.1.3	Ablutions 6.0 x 3.0 MF	week	40	323.40	
		week Week			12,936.00
2.2.2.1.4	Ablutions 6.0 x 3.0 MF		40	323.40	12,936.00 4,674.36
2.2.2.1.4	Ablutions 6.0 x 3.0 MF  Container	Week	40 80	323.40 58.43	12,936.00 4,674.36 116,966.98
2.2.2.1.4 2.2.2.1.5 6 2.2.2.2	Ablutions 6.0 x 3.0 MF  Container  Waste	Week	40 80 <b>1</b>	323.40 58.43 <b>116,966.98</b>	12,936.00 4,674.36 116,966.98 116,966.98 4t GSW per week, 2 skips (recycling)
2.2.2.1.4 2.2.2.1.5 6 2.2.2.2 2.2.2.2.1	Ablutions 6.0 x 3.0 MF  Container  Waste  Site waste	Week  Item  week	40 80 <b>1</b> 78	323.40 58.43 <b>116,966.98</b> 1,499.58	12,936.00 4,674.36 116,966.98 116,966.98 4t GSW per week, 2 skips (recycling) 52,192.00
2.2.2.1.4 2.2.2.1.5 6 2.2.2.2 2.2.2.2.1 6 2.2.2.3	Ablutions 6.0 x 3.0 MF  Container  Waste  Site waste	Week  Item  week  Item	40 80 1 78	323.40 58.43 <b>116,966.98</b> 1,499.58 <b>52,192.00</b>	12,936.00 4,674.36  116,966.98 116,966.98 4t GSW per week, 2 skips (recycling)  52,192.00 52,192.00 assume permanent power available within 3mths of completion
2.2.2.1.4 2.2.2.1.5 6 2.2.2.2 2.2.2.2.1 6 2.2.2.3 2.2.2.3.1	Ablutions 6.0 x 3.0 MF  Container  Waste  Site waste  Power  Generator, 80KVa inc. fuel	Week  Item  week  Item  week	40 80 1 78 1 28	323.40 58.43 116,966.98 1,499.58 52,192.00 1,864.00	12,936.00 4,674.36  116,966.98 116,966.98 4t GSW per week, 2 skips (recycling)  52,192.00 52,192.00 assume permanent power available within 3mths of completion
2.2.2.1.4 2.2.2.1.5 6 2.2.2.2 2.2.2.2.1 6 2.2.2.3 2.2.2.3.1	Ablutions 6.0 x 3.0 MF  Container  Waste  Site waste  Power  Generator, 80KVa inc. fuel  Water  Allowance for potable water delivered by	Week  Item  week  Item  week	40 80 1 78 1 28	323.40 58.43 116,966.98 1,499.58 52,192.00 1,864.00	12,936.00 4,674.36  116,966.98 116,966.98 4t GSW per week, 2 skips (recycling)  52,192.00 52,192.00 assume permanent power available within 3mths of completion  Rate only  Assumed potable water available on site
2.2.2.1.4 2.2.2.1.5 6 2.2.2.2 2.2.2.2.1 6 2.2.3 2.2.2.3.1 6 2.2.4 2.2.2.4.1	Ablutions 6.0 x 3.0 MF  Container  Waste  Site waste  Power  Generator, 80KVa inc. fuel  Water  Allowance for potable water delivered by watercart	Week  Item  week  Item  week  Item  week	40 80 1 78 1 28	323.40 58.43 116,966.98 1,499.58 52,192.00 1,864.00	12,936.00 4,674.36  116,966.98 116,966.98 4t GSW per week, 2 skips (recycling)  52,192.00 52,192.00 assume permanent power available within 3mths of completion  Rate only Assumed potable water available on site
2.2.2.1.4 2.2.2.1.5 6 2.2.2.2 2.2.2.2.1 6 2.2.2.3 2.2.2.3.1 6 2.2.2.4 2.2.2.4.1	Ablutions 6.0 x 3.0 MF  Container  Waste  Site waste  Power  Generator, 80KVa inc. fuel  Water  Allowance for potable water delivered by watercart	Week  Item  week  Item  week  Item  week	40 80 1 78 1 28	323.40 58.43 116,966.98 1,499.58 52,192.00 1,864.00 591.24	12,936.00 4,674.36  116,966.98 116,966.98 4t GSW per week, 2 skips (recycling)  52,192.00 52,192.00 assume permanent power available within 3mths of completion  Rate only Assumed potable water available on site  17,600.00 17,600.00 Opportunity for sewer connection
2.2.2.1.4 2.2.2.1.5 6 2.2.2.2 2.2.2.2.1 6 2.2.2.3 2.2.2.3.1 6 2.2.2.4 2.2.2.4.1 6 2.2.2.5 2.2.2.5.1	Ablutions 6.0 x 3.0 MF  Container  Waste  Site waste  Power  Generator, 80KVa inc. fuel  Water  Allowance for potable water delivered by watercart  Sewer  Waste water pump out	Week  Item  week  Item  week  Item  week  Item  week	40 80 1 78 1 28 1 0	323.40 58.43 116,966.98 1,499.58 52,192.00 1,864.00 591.24 17,600.00 440.00	12,936.00 4,674.36  116,966.98 116,966.98 4t GSW per week, 2 skips (recycling)  52,192.00 52,192.00 assume permanent power available within 3mths of completion  Rate only Assumed potable water available on site  17,600.00 17,600.00 Opportunity for sewer connection  5,051.20
2.2.2.1.4 2.2.2.1.5 6 2.2.2.2 2.2.2.2.1 6 2.2.3 2.2.2.3.1 6 2.2.2.4 2.2.2.4.1 6 2.2.2.5 2.2.2.5.1	Ablutions 6.0 x 3.0 MF  Container  Waste  Site waste  Power  Generator, 80KVa inc. fuel  Water  Allowance for potable water delivered by watercart  Sewer  Waste water pump out	Item week Item week Item week Item week Item Item	40 80 1 78 1 28 1 0	323.40 58.43 116,966.98 1,499.58 52,192.00 1,864.00 0.00 591.24 17,600.00 440.00	12,936.00 4,674.36  116,966.98 116,966.98 4t GSW per week, 2 skips (recycling)  52,192.00 52,192.00 assume permanent power available within 3mths of completion  Rate only Assumed potable water available on site  17,600.00 17,600.00 Opportunity for sewer connection  5,051.20 5,051.20 2 No.



# **園Becahunter**h₂O

Level 6 2.2	Item !.2.8	Description Petty Cash	Unit Item	Qty 1	Rate 20,000.00	Value (Excluding GST) 20,000.00	Remarks
2.2	2.2.8.1	Petty Cash	week	40	500.00	20,000.00	
6 2.2	2.2.9	Small tools	Item	1	67,500.00	67,500.00	
2.2	2.2.9.1	Small tools allowance	Item	1	67,500.00	67,500.00	Benchmark 0.15% of DJC's
6 2.2	2.2.10	Plant & equipment	Item	1	258,100.00	258,100.00	
2.2	2.2.10.1	Maeda/telehandler, dry inc. fuel	week	40	1,592.50	63,700.00	
2.2	2.2.10.2	Crane, 120t	week	4	24,400.00	97,600.00	
2.2	2.2.10.3	Franna 18t	week	10	9,680.00	96,800.00	
6 2.2	2.2.11	Enviro	Item	1	27,877.44	27,877.44	
7 2.2	2.2.11.1	Enviro testing	Item	1	4,300.00	4,300.00	
2.2	2.2.11.1.1	Water quality testing	No.	10	130.00	1,300.00	
2.2	.2.11.1.2	Soil classification testing, (5,000t lot)	No.	5	600.00	3,000.00	Opportunity for 0 tests where all spoil remains on site
7 2.2	2.2.11.2	CEMP auditing	Item	1	8,000.00	8,000.00	
2.2	2.2.11.2.1	Environmental audit	No.	1	8,000.00	8,000.00	
7 2.2	2.2.11.3	Enviro controls maintenance	Item	1	15,577.44	15,577.44	
2.2	2.2.11.3.1	Allowance for environmental controls maintenance	week	40	389.44	15,577.44	Labourer 4hrs/week + misc materials
6 2.2	2.2.12	Safety	Item	1	29,570.96	29,570.96	
7 2.2	2.2.12.1	Inductions	Item	1	13,570.96	13,570.96	
2.2	2.2.12.1.1	Inductions	No.	50	271.42	13,570.96	
7 2.2	2.2.12.2	Safety Audits	Item	1	16,000.00	16,000.00	
2.2	2.2.12.2.1	Safety audits	No.	2	8,000.00	16,000.00	
7 2.2	2.2.12.3	Safety equipment	Item	1	0.00		
c 2.2	2.2.12.3.1	Included in Preliminaries ==> Non-recurring ==> Establishment					
3 3		Direct Costs	Item	1	38,846,378.42	38,846,378.42	
4 3.1	l	Site Wide Infrastructure	Item	1	3,269,671.08	3,269,671.08	
5 3.1	.1	Earthworks, roads and drainage	Item	1	2,972,582.79	2,972,582.79	
6 3.1	.1.1	Clearing & grubbing	Item	1	0.00		
c 3.1	.1.1.1	Not applicable					
6 3.1	.1.2	Stormwater drainage	Item	1	259,079.37	259,079.37	
c 3.1	.1.2.1	Stormwater pits, pipes and structures have been assumed due to civil design being completed to concept stage only without detailed stormwater design					
3.1	.1.2.1.1	Kerb inlet pit w/ class D grate - 1200 x 1200mm, exceeding 1.0m but not exceeding 1.5m deep	No	12	6,285.43	75,425.12	Size assumed. Depth assumed to avoid clashes with conduits & process pipework
3.1	.1.2.1.2	Kerb inlet pit w/ class D grate - 1200 x 1200mm, exceeding 2.0m but not exceeding 2.5m deep	No	2	7,475.11	14,950.22	Size assumed. Depth assumed to avoid clashes with conduits & process pipework



.,					Value	
Level Item	Description	Unit	Qty	Rate	(Excluding GST)	Remarks
3.1.1.2.1.3	225mm dia. stormwater pipe 1.50m to 2.50m deep	m	113	317.24	35,848.32	Depths assumed to avoid clashes with conduits and process pipework
3.1.1.2.1.4	375mm dia. stormwater pipe 1.50 to 2.0m deep	m	262	446.06	116,866.58	Depths assumed to avoid clashes with conduits and process pipework
3.1.1.2.1.5	Excavation in OTR for OSD basin/s inc. haul to spoil	m3	50	56.88	2,843.80	
3.1.1.2.1.6	Trim and grade basin base and batters ready to receive planting	m2	65	21.90	1,423.21	
3.1.1.2.1.7	OSD basin inlet headwall including rip rap and geotextile fabric	No	2	2,931.93	5,863.86	ALLOWANCE FOR HEADWALL TO SUIT DN375. RIP RAP ASSUMED 1.0M X 1.0M X 0.5M
3.1.1.2.1.8	OSD basin outlet headwall including rip rap and geotextile fabric	No	2	2,929.13	5,858.26	ALLOWANCE FOR HEADWALL TO SUIT DN375. RIP RAP ASSUMED 1.0M X 1.0M X 0.5M
6 3.1.1.3	Fire Water Ringmain					
3.1.1.3.1	HDPE DN150 pipework below-ground, supply & install	m	406	176.74	71,758.42	
3.1.1.3.2	DN150 HDPE pipework above-ground supply & install	m	180	419.56	75,520.08	
3.1.1.3.3	Fire hydrants, supply & install	No.	8	650.00	5,200.00	Nominal allowance
6 3.1.1.4	Earthworks	Item	1	1,551,971.09	1,551,971.09	
7 3.1.1.4.1	Cut / Fill					
3.1.1.4.1.1	Stripping topsoil from cleared site areas, stockpiling any suitable for re-use in landscaping works	m3	2,618	20.12	52,672.74	ASSUMED TOPSOIL 200MM THICK
3.1.1.4.1.2	Haul road construction	m2	1,050	30.00	31,500.00	TO EXISTING BORROW PIT
3.1.1.4.1.3	Cut & haul to to spoil stockpile <250m	m3	1,758	17.65	31,021.48	Clay hauled to existing borrow pit location
3.1.1.4.1.4	Removal of soft spots, haul to disposal, replace with suitable material (assumed won on site)	m3	1,309	50.17	65,666.67	ASSUMED 20% OF SUBGRADE (BY AREA) UNSUITBALE, REMOVED TO DEPTH OF 500MM
3.1.1.4.1.5	Import select fill	t	10,400	25.00	260,000.00	Crusher dust - Boral
3.1.1.4.1.6	Place & compact fill to subgrade levels	m3	4,952	14.35	71,050.27	ASSUMED CUT MATERIAL IS SUTIABLE FOR REUSE AS FILL
3.1.1.4.1.7	Trim & compact to bulk levels	m2	13,089	1.03	13,421.37	
3.1.1.4.1.8	Trim and compact batters 1:3	m2	1,905	10.02	19,088.50	
7 3.1.1.4.2	Retaining walls					
8 3.1.1.4.2.1	R.E. Wall	m2	658	1,531.23	1,007,550.06	
3.1.1.4.2.1.1	R.E. supplier design	Item	1	19,000.00	19,000.00	
3.1.1.4.2.1.2	Reinforced Earth Terra Plus Wall supply inc plain grey panels 2 x 2 off form finish, - galv. steel reinforcement strips, - delivered to site	m2	658	533.00	350,714.00	
3.1.1.4.2.1.3	Imported fill to Reco R.E. wall backfill specification	t	6,471	42.00	271,782.00	
3.1.1.4.2.1.4	Import free draining material (crushed rock 20 minus)	t	290	48.00	13,920.00	
3.1.1.4.2.1.5	Geofabric class C, supply	m2	460	3.68	1,692.80	

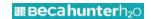


Level						Value	
	Item	Description	Unit	Qty	Rate	(Excluding GST)	Remarks
3.1.1.4		Haul from stockpile, place & compact general fill	m3	6,639	14.35		Assumed spoil is double handled from stockpile fill zone
3.1.1.4	4.2.1.8	Supply and place stip footing, nominally 400 x 100	m3	5	1,800.00	9,000.00	
3.1.1.4		R.E. panel erection inc. reinforcing strip lay & fix, panel recess infill w. epoxy mortar	m2	658	321.83		Producion rate 25m2/day fix panels. 4 man crev Refer Reco Construction Manual
6 3.1.1.5	5	Road pavements	Item	1	904,352.87	904,352.87	
7 3.1.1.5	5.1	Rigid Pavement	m2	3,454	177.38	612,672.25	
3.1.1.5		Final trim to subgrade (area includes extra 200mm beyond kerb)	m2	4,491	1.66	7,439.83	
3.1.1.5	5.1.2	Subsoil drainage to back of kerb	m	1,200	5.39	6,468.80	
3.1.1.5	5.1.3	Kerb & gutter SA profile	m	1,200	91.85	110,222.16	
3.1.1.5	5.1.4	Dish drain SB profile	m	35	147.57	5,164.81	
3.1.1.5			m3	553	164.21	90,810.57	
		160mm thick DGB20 basecourse compacted to 95 MDD inc. 1% stabilisation (85:15 slag/lime)					
3.1.1.5	5.1.6	SL92 mesh in pavement slab	m2	3,454	22.61	78,096.96	
3.1.1.5	5.1.7	S32MPa (4MPa flexural strength) natural	m3	553	477.69	264,161.69	
		concrete (80 slump, 25 max. agg, SL cement) in 160mm thick pavement slab					
3.1.1.5		Expansion joints (dowel joints) in pavement slab	m	116	164.51	19,083.59	N20 @ 400 cts w/ sikaflex seal to joint
3.1.1.5		Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod	m	230	27.09	6,230.09	Inc. sikflex seal to joint
3.1.1.5	5.1.10	Allowance for curing	m2	3,454	5.26	18,161.75	
3.1.1.5	5.1.11	Line-marking	m	494	3.00	1,482.00	
3.1.1.5	5.1.12	Line-marking symbols	No.	5	650.00	3,250.00	
3.1.1.5		Line-marking hatched areas / zebra crossings	m2	42	50.00	2,100.00	
7 3.1.1.5	5.2	Flexible Pavement	m2	1,509	169.12	255,200.62	
3.1.1.5		Final trim to subgrade	m2	1,962	1.66		Assumed flexible pavement to areas with no turning forces from trucks
3.1.1.5		Pavement, 450mm thick DGB20 in layers n.e. 150mm each	m3	680	111.78	76,011.16	
3.1.1.5	5.2.3	Preparation of the existing surface	m2	1,509	2.20	3,319.80	
3.1.1.5	5.2.4	Prime AMC0 material, spray rate 1I/m2	Litre	1,509	4.60	6,941.40	
3.1.1.5		Heavy duty dense graded asphalt in surfacing course (C320) AC14, 50mm thick	t	185	390.00	72,150.00	
3.1.1.5			t	258	360.00	92,880.00	
		Heavy duty dense graded asphalt in intermediate course (A15E) AC14, 70mm thick					
	5.2.7	Line-marking	m	216	3.00	648.00	
3.1.1.5	5.3	Barriers	m	114	320.00	36,480.00	
3.1.1.5 7 3.1.1.5							
		Concrete barrier	m	114	320.00	36,480.00	
7 3.1.1.5	5.3.1	Concrete barrier Pedestrian access	m Item	114	320.00 <b>104,700.96</b>	36,480.00 <b>104,700.96</b>	



evel Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.1.1.6.1.1	Footpath 1.20m wide, 75mm thick, 1 layer SL72 mesh on 50mm sand basecourse	m2	467	128.71	60,106.70	
7 3.1.1.6.2	Access Stairs (1 No.)	MR	7	6,370.61	44,594.26	Stairs from RL 71 to RL78 x 2 No.
3.1.1.6.2.1	Pad footings complete	m3	2	1,800.00	3,600.00	
3.1.1.6.2.2	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection,	t	0.85	13,873.35	11,792.35	
	install					Support structure to stairs
3.1.1.6.2.3	Galvanized steel stair stingers & treads	MR	7	1,665.92	11,661.47	
3.1.1.6.2.4	Webforge A325MPG mesh grating, HDG, fixed to steel trimmers	m2	9	450.00	4,050.00	Walkways and landings
3.1.1.6.2.5	Handrails, comprising, toe board, midrail & handrail supply & install	m	37	364.61	13,490.44	
5 3.1.2	Mechanical & Process	Item	1	297,088.29	297,088.29	
6 3.1.2.1	Equipment	Item	1	116,459.41	116,459.41	
7 3.1.2.1.1	Raw Water					
3.1.2.1.1.1	Raw water analyser panel, E&H + others	No.	1	12,250.00	12,250.00	
3.1.2.1.1.2	Raw water analyser panel - install	No.	1	1,687.32	1,687.32	
7 3.1.2.1.2	82 CCT					
3.1.2.1.2.1	Inlet water analyser panel	No.	1	30,220.00	30,220.00	
3.1.2.1.2.2	Analyser panel - install	No.	1	1,687.32	1,687.32	
7 3.1.2.1.3	Waste Water Balance Tank					
3.1.2.1.3.1	Instrument Water Pump	No.	1	2,500.00	2,500.00	
3.1.2.1.3.2	Pump install	No.	1	6,749.30	6,749.30	
7 3.1.2.1.4	O/W Separator	Item	1	61,365.47	61,365.47	
8 3.1.2.1.4.1	Slab	m3	18	3,082.95	55,493.15	
8 <b>3.1.2.1.4.1</b> 3.1.2.1.4.1.1	Slab Blinding	<b>m3</b> m2	<b>18</b> 105	<b>3,082.95</b> 42.86	<b>55,493.15</b> 4,499.93	
3.1.2.1.4.1.1	Blinding	m2	105	42.86	4,499.93 7,689.83	
3.1.2.1.4.1.1 3.1.2.1.4.1.2	Blinding Edge form - 300mm	m2 m	105 42	42.86 183.09	4,499.93 7,689.83 773.31	140 kg/m3
3.1.2.1.4.1.1 3.1.2.1.4.1.2 3.1.2.1.4.1.3	Blinding Edge form - 300mm Membrane	m2 m m2	105 42 137	42.86 183.09 5.64	4,499.93 7,689.83 773.31 10,997.84 10,025.32	140 kg/m3 300x300 edge beams, 150 slab
3.1.2.1.4.1.1 3.1.2.1.4.1.2 3.1.2.1.4.1.3 3.1.2.1.4.1.4	Blinding  Edge form - 300mm  Membrane  Supply & fix Reinforcing	m2 m m2 Tonnes	105 42 137 2.52	42.86 183.09 5.64 4,364.22	4,499.93 7,689.83 773.31 10,997.84 10,025.32 541.75	
3.1.2.1.4.1.1 3.1.2.1.4.1.2 3.1.2.1.4.1.3 3.1.2.1.4.1.4 3.1.2.1.4.1.5	Blinding  Edge form - 300mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground  Saw cut joints in pavement slab 30 x 6mm saw	m2 m m2 Tonnes m3	105 42 137 2.52	42.86 183.09 5.64 4,364.22 556.96	4,499.93 7,689.83 773.31 10,997.84 10,025.32 541.75	300x300 edge beams, 150 slab
3.1.2.1.4.1.1 3.1.2.1.4.1.2 3.1.2.1.4.1.3 3.1.2.1.4.1.4 3.1.2.1.4.1.5	Blinding  Edge form - 300mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod	m2 m m2 Tonnes m3	105 42 137 2.52 18	42.86 183.09 5.64 4,364.22 556.96	4,499.93 7,689.83 773.31 10,997.84 10,025.32 541.75	300x300 edge beams, 150 slab
3.1.2.1.4.1.1 3.1.2.1.4.1.2 3.1.2.1.4.1.3 3.1.2.1.4.1.4 3.1.2.1.4.1.5 3.1.2.1.4.1.6	Edge form - 300mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Kerb 150 x 150  Allowance for setdowns, cast-ins, penetrations	m2 m m2 Tonnes m3 m	105 42 137 2.52 18 20	42.86 183.09 5.64 4,364.22 556.96 27.09	4,499.93 7,689.83 773.31 10,997.84 10,025.32 541.75 10,500.00 9,214.73	300x300 edge beams, 150 slab
3.1.2.1.4.1.1 3.1.2.1.4.1.2 3.1.2.1.4.1.3 3.1.2.1.4.1.4 3.1.2.1.4.1.5 3.1.2.1.4.1.6 3.1.2.1.4.1.7 3.1.2.1.4.1.8	Edge form - 300mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Kerb 150 x 150  Allowance for setdowns, cast-ins, penetrations not yet detailed	m2 m m2 Tonnes m3 m m	105 42 137 2.52 18 20 42 105	42.86 183.09 5.64 4,364.22 556.96 27.09 250.00 87.76	4,499.93 7,689.83 773.31 10,997.84 10,025.32 541.75 10,500.00 9,214.73	300x300 edge beams, 150 slab
3.1.2.1.4.1.1 3.1.2.1.4.1.2 3.1.2.1.4.1.3 3.1.2.1.4.1.4 3.1.2.1.4.1.5 3.1.2.1.4.1.6 3.1.2.1.4.1.7 3.1.2.1.4.1.8 3.1.2.1.4.1.9	Edge form - 300mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Kerb 150 x 150  Allowance for setdowns, cast-ins, penetrations not yet detailed  Curing	m2 m m2 Tonnes m3 m m	105 42 137 2.52 18 20 42 105	42.86 183.09 5.64 4,364.22 556.96 27.09 250.00 87.76	4,499.93 7,689.83 773.31 10,997.84 10,025.32 541.75 10,500.00 9,214.73	300x300 edge beams, 150 slab
3.1.2.1.4.1.1 3.1.2.1.4.1.2 3.1.2.1.4.1.3 3.1.2.1.4.1.4 3.1.2.1.4.1.5 3.1.2.1.4.1.6 3.1.2.1.4.1.7 3.1.2.1.4.1.8 3.1.2.1.4.1.9	Edge form - 300mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Kerb 150 x 150  Allowance for setdowns, cast-ins, penetrations not yet detailed  Curing  Mechanical	m2 m m2 Tonnes m3 m m m2	105 42 137 2.52 18 20 42 105	42.86 183.09 5.64 4,364.22 556.96 27.09 250.00 87.76 11.91	4,499.93 7,689.83 773.31 10,997.84 10,025.32 541.75 10,500.00 9,214.73 1,250.44 4,185.00	300x300 edge beams, 150 slab





Level Item 7 3.1.2.2.1	Description Compressed Air	Unit	Qty	Rate	Value (Excluding GST)	Remarks
8 3.1.2.2.1.1	Supply					
3.1.2.2.1.1.1	BALL VALVE, DN25, SS316, Sched. 10, Asmuss 3 piece ball valve Seat Material 316SS	No.	13	52.98	688.74	
3.1.2.2.1.1.2	BALL VALVE, DN50, SS316, Sched. 10, Asmuss 3 piece ball valve Seat Material 316SS	No.	15	159.00	2,385.00	
3.1.2.2.1.1.3	BUTTERFLY VALVE, DN50	No.	2	250.00	500.00	
3.1.2.2.1.1.4	Check valve, DN50, SS316, sched. 10 supply	No.	2	759.00	1,518.00	
3.1.2.2.1.1.5	PRESSURE REGULATING VALVE, DN50, PVCS80, GF Type 586 Seat Material, PVC / FKM	No.	1	1,391.50	1,391.50	
8 3.1.2.2.1.2	Install					
3.1.2.2.1.2.1	DN25 Valve Installation	/ea	14	192.63	2,696.85	
3.1.2.2.1.2.2	DN50 Valve Installation	/ea	20	276.91	5,538.18	
7 3.1.2.2.2	Service Water					
8 3.1.2.2.2.1	RPZD					
3.1.2.2.2.1.1	BACKFLOW PREVENTER-RPZD, DN25, PVCS80, Seat Material 316SS	No.	8	1,505.00	12,040.00	
3.1.2.2.2.1.2	BACKFLOW PREVENTER-RPZD, DN32, SS316, Sched. 10, Wilkins 375 Seat Material, Wilkins 375 Series Flanged, 2x bray butterfly valves, Y strainer	No.	1	1,667.00	1,667.00	
3.1.2.2.2.1.3	BACKFLOW PREVENTER-RPZD, DN50, SS316, Sched. 10, Wilkins 375 Seat Material, Wilkins 375 Series Flanged, 2x bray butterfly valves, Y strainer	No.	3	1,667.00	5,001.00	
3.1.2.2.2.1.4	BACKFLOW PREVENTER-RPZD, DN80, SS316, Sched. 10, Seat Material 316SS	No.	1	4,138.31	4,138.31	
3.1.2.2.2.1.5	BACKFLOW PREVENTER-RPZD, DN100, SS316, Sched. 10, Seat Material 316SS	No.	1	6,000.00	6,000.00	
8 3.1.2.2.2.2	BALL VALVE					
3.1.2.2.2.2.1	Ball valve, DN25, SS316, sched. 10 supply	No.	145	110.00	15,950.00	
3.1.2.2.2.2.2	BALL VALVE, DN32, PVCS80, GF 546 Pro Seat Material, PVC / FKM	No.	2	225.13	450.26	
3.1.2.2.2.2.3	Ball valve, DN50, SS316, sched. 10 supply	No.	4	313.00	1,252.00	
3.1.2.2.2.2.4	BALL VALVE, DN80, PVCS80, GF 546 Pro Seat Material, PVC/ FKM	No.	7	653.00	4,571.00	
3.1.2.2.2.2.5	Ball Valve, DN100, SS316, Sched. 10, GF Type 517 Seat Material, PVC / PTFE	No.	7	2,265.00	15,855.00	
8 3.1.2.2.2.3	BUTTERFLY VALVE					
3.1.2.2.2.3.1	Butterfly Valve, DN80, SS316, Sched. 10, Bray Series 3L Seat Material, Ductile iron body, 316SST disc, 431SST shaft, Vulcanised EPDM seat.	No.	2	359.00	718.00	
8 3.1.2.2.2.4	CHECK VALVE					
3.1.2.2.2.4.1	CHECK VALVE, DN25, SS316, Sched. 10, GF Type 561 Seat Material, PVC / FKM	No.	25	103.29	2,582.25	



Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.1.2.2.2.4.2	CHECK VALVE, DN80, PVCS80, Bray Bray/Rite Seat Material 316SS	No.	4	601.00	2,404.00	
3.1.2.2.2.4.3	CHECK VALVE, DN100, SS316, Sched. 10, Bray Bray/Rite Seat Material 316SS	No.	3	868.79	2,606.37	
8 3.1.2.2.2.5	DIAPGRAGM VALVE					
3.1.2.2.2.5.1	DIAPHRAGM VALVE, DN25, PVCS80, GF Type 514 Seat Material, PVC / PTFE	No.	25	307.77	7,694.25	
8 3.1.2.2.2.6	FLOAT VALVE					
3.1.2.2.2.6.1	FLOAT VALVE, DN25, SS316, Sched. 10, Allowance Seat Material 316SS	No.	3	500.00	1,500.00	
8 3.1.2.2.2.7	MOTORISED BALL VALVE					
3.1.2.2.2.7.1	Ball Valve Motorised, DN15, SS316, Sched. 10, Seat Material 316SS	No.	12	632.00	7,584.00	
8 3.1.2.2.2.8	PRESSURE REGULATING VALVE					
3.1.2.2.2.8.1	L PRESSURE REGULATING VALVE, DN25, PVCS80, GF Type 586 Seat Material, PVC / FKM	No.	5	536.00	2,680.00	
3.1.2.2.2.8.2	PRESSURE REGULATING VALVE, DN32, PVCS80, Burkert 228393 Seat Material 316SS	No.	2	345.00	690.00	
3.1.2.2.2.8.3	PRESSURE REGULATING VALVE, DN50, PVCS80, GF Type 586 Seat Material, PVC / FKM	No.	1	1,391.50	1,391.50	
3.1.2.2.2.8.4	PRESSURE REGULATING VALVE, DN80, PVCS80, GF Type 586 Seat Material, PVC / FKM	No.	1	3,197.00	3,197.00	
8 3.1.2.2.2.9	SOLENOID VALVE					
3.1.2.2.2.9.1	L Solenoid Valve, DN25, PVCS80, Burkert 228393	No.	1	536.00	536.00	
3.1.2.2.2.9.2	2 Solenoid Valve, DN32, PVCS80, Burkert 228402	No.	4	1,524.00	6,096.00	
8 3.1.2.2.2.10	Install					
3.1.2.2.2.10	.1 DN25 Valve Installation	/ea	224	192.63	43,149.63	
3.1.2.2.2.10	.2 DN32 Valve Installation	/ea	9	204.67	1,842.05	
3.1.2.2.2.10	.3 DN50 Valve Installation	/ea	9	276.91	2,492.18	
3.1.2.2.2.10	.4 DN80 Valve Installation	/ea	15	385.26	5,778.97	
3.1.2.2.2.10	.5 DN100 Valve Installation	/ea	10	517.70	5,176.99	
3.1.2.2.2.10	.6 DN200 Valve Installation	/ea	1	866.85	866.85	
4 3.2	Ancillary Systems (water and air) (02, 03, 04, 66)	Item	1	985,928.22	985,928.22	
5 3.2.1	Mechanical & Process	Item	1	985,928.22	985,928.22	
6 3.2.1.1	Equipment	Item	1	478,564.43	478,564.43	
7 3.2.1.1.1	04 Potable Water System					
3.2.1.1.1.1	Potable water pump	NO.	2	7,591.00	15,182.00	
3.2.1.1.1.2	Pump install, small	No.	2	6,749.30	13,498.60	



Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.2.1.1.1.3	Potable water pressure vessel (grundfos)	No.	1	148.00	148.00	
3.2.1.1.1.4	Safety Shower Enware ECE270	No.	15	2,050.00	30,750.00	
3.2.1.1.1.5	Safety Shower install	No.	15	1,476.41	22,146.14	
7 3.2.1.1.2	66 Backwash Blowers					
3.2.1.1.2.1	DAFF Air Scour Blower 1 Vendor Package	No.	2	68,235.00		noted on equipment schedule in process area 66 backwash blowers
3.2.1.1.2.2	DAFF Air Scour Blower package - install	Item	1	21,091.56	21,091.56	
7 3.2.1.1.3	03 Service Water					
3.2.1.1.3.1	Service Water Pump accumulator vessel	No.	1	500.00	500.00	
3.2.1.1.3.2	Service Water booster pump	No.	2	2,438.00	4,876.00	
3.2.1.1.3.3	Pump install	No.	2	6,749.30	13,498.60	
3.2.1.1.3.4	Service Water booster pump motor	No.	2	1,500.00	3,000.00	
3.2.1.1.3.5	Service water booster set	No.	1	45,505.00	45,505.00	
3.2.1.1.3.6	Booster set install	No.	1	16,873.25	16,873.25	
3.2.1.1.3.7	CO2 Service water booster pump 1	No.	1	55,664.00	55,664.00	
3.2.1.1.3.8	Pump install	No.	1	16,873.25	16,873.25	
7 3.2.1.1.4	02 Compressed Air					
3.2.1.1.4.1	Air receiver Atlas Copco 3m3	No.	1	16,069.00	16,069.00	
3.2.1.1.4.2	Air receiver install	No.	1	2,109.16	2,109.16	
3.2.1.1.4.3	Compressed Air system (package) GA7VSD + FF including dryer, Atlas Copco	No.	1	39,000.00	39,000.00	
3.2.1.1.4.4	Compressed Air system install	Item	1	25,309.87	25,309.87	
6 3.2.1.2	Pipework	Item	1	507,363.79	507,363.79	
7 3.2.1.2.1	04 Potable Water System					
3.2.1.2.1.1	Pipework supply DN50 SS136 S10	m	350	250.06	87,522.14	Potable Water
3.2.1.2.1.2	Pipework install below gnd DN50	m	280	134.63	37,695.77	Potable Water
3.2.1.2.1.3	DN50 SCH 10 SS pipe & fittings above ground installation	m	70	178.82		Potable Water
7 3.2.1.2.2	03 Service Water					
3.2.1.2.2.1	Pipework supply DN100 SS136 S10	m	550	446.18	245,397.90	Service Water Distribution
3.2.1.2.2.2	Pipework install below gnd DN100	m	225	217.17	48,864.04	Service Water Distribution
3.2.1.2.2.3	DN100 SCH 10 SS Pipe & Fittings above-ground Installation	m	225	269.75		Service Water Distribution
3.2.1.2.2.4	Pipework supply DN200 SS136 S10 supply & fabricate	m	10	998.42		Service Water pumps suction
3.2.1.2.2.5	DN200 SCH 10 SS pipe & fittings above ground installation	m	10	468.89	4,688.94	Service Water pumps suction
4 3.3	Flocculation Tanks (001)	Itom		2 710 414 02	2 710 444 02	
5 3.3.1	Civils	Item Item	1	2,718,414.92 33,963.53		
6 3.3.1.1	Foundations	Item	1	26,104.69	26,104.69	



Level Item 3.3.1.1.1	Description	Unit m2	Qty 190	<b>Rate</b> 137.39	Value (Excluding GST)	Remarks
5.5.1.1.1	Allowance for foundations	mz	190	137.39	26,104.69	Allowance for bored piers 600mm dia. 2.0m long. 1 per 11m2
6 3.3.1.2	Detailed excavation	Item	1	7,858.84	7,858.84	
3.3.1.2.1	Detailed excavation	m3	64	67.19	4,300.44	800 x 800 eadge beam and under internal walls
3.3.1.2.2	Cart & dispose spoil [ASSUME VENM]	Tonnes	135	5.81	784.97	
3.3.1.2.3	Trim & compact subgrade	m2	190	14.60	2,773.43	
5 3.3.2	Structural	Item	1	1,921,228.00	1,921,228.00	
6 3.3.2.1	Slab on ground	m3	127	2,999.08	380,883.18	
3.3.2.1.1	Blinding	m2	190	42.86	8,142.74	
3.3.2.1.2	Foretcon membrane	m2	247	5.64	1,394.21	
3.3.2.1.3	Edge form 800mm high	m	70	183.09	12,816.38	
3.3.2.1.4	Supply & fix Reinforcing	Tonnes	30.58	4,364.22	133,457.91	220 kg/m3
3.3.2.1.5	Cast-in pressure releif valves, 40mm ID	No.	12	1,539.27	18,471.29	2 per tank
3.3.2.1.6	Supply & place S40 concrete to slab on ground	m3	127	644.79	81,888.55	edge & int. beams 800x800, slab 400mm thick
3.3.2.1.7	Extra over - finishing to falls	m2	190	33.93	6,446.21	
3.3.2.1.8	Curing	m2	190	11.91	2,262.70	
3.3.2.1.9	Formwork to kerb/upstand 200mm high	m	318	233.58	74,278.20	
3.3.2.1.10	Supply & place S40 concrete to kerb 200 X 400	m3	13	644.79	8,382.29	
3.3.2.1.11	250mm wide Supercast Rearguard waterstop	m	222	140.00	31,080.00	
3.3.2.1.12	Allowance for resin injection to cracks	m2	190	11.91	2,262.70	
6 3.3.2.2	Walls	m2	925	1,294.01	1,196,963.32	
3.3.2.2.1	Scaffold stretcher stairs 7.0m rise erection	No.	6	3,355.00	20,130.00	
3.3.2.2.2	Scaffold stretcher stairs 7.0m rise hire	Week	72.00	40.00	2,880.00	
3.3.2.2.3	Scaffold stretcher stairs 7.0m rise removal	No.	6	1,600.00	9,600.00	
3.3.2.2.4	Formwork to walls, class 2, >4.0m high	m2	388	363.63	141,088.60	
3.3.2.2.5	Formwork to walls, class 3, >4.0m high	m2	1,462	302.50	442,248.84	
3.3.2.2.6	Supply & fix reinforcing to walls	t	65.34	4,364.22	285,158.28	220kg/m3
3.3.2.2.7	Form penetration 300mm wide to under-weir	m	91	151.25	13,763.56	
3.3.2.2.8	Form penetration 400mm wide to penstock	m	17	181.50	3,085.46	
3.3.2.2.9	Supply, place & finish S40 concrete to walls	m3	297	554.83	164,783.95	400mm thick external, 300mm thick internal
3.3.2.2.10	Curing	m2	1,850	11.91	22,031.52	
3.3.2.2.11	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	925	87.76	81,177.35	
3.3.2.2.12	Allowance for resin injection to cracks	m2	925	11.91	11,015.76	
6 3.3.2.3	Launder	m3	21	5,107.73	107,262.38	
3.3.2.3.1	Formwork to suspended slab	m2	31.69	482.37	15,286.26	
3.3.2.3.2	Formwork to walls, class 2	m2	62	363.63	22,545.09	



					Value	
3.3.2.3.3	<b>Description</b> Formwork to walls, class 3	Unit m2	Qty 59	Rate 302.50	(Excluding GST) 17,847.25	Remarks
3.3.2.3.4	Supply & fix reinforcing to walls	t	4.58	4,364.22	19,988.14 220kg/m3	
3.3.2.3.5	Reid bar connection detail at wall/launder interface	m	31	250.00	7,750.00	
3.3.2.3.6	Supply, place & finish S40 concrete to floor & walls	m3	21	497.98	10,457.54 300mm thic	ck
3.3.2.3.7	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	94	87.76	8,249.37	
3.3.2.3.8	Acid etch to slab finish	m2	32	9.08	290.67	
3.3.2.3.9	Grout Sika Monotop [ASSUMED] average 50mm deep	m2	32	19.21	614.69	
3.3.2.3.10	Cast-in DICL puddle flange	No.	1	3,113.93	3,113.93	
3.3.2.3.11	Allowance for resin injection to cracks	m2	94	11.91	1,119.44	
6 3.3.2.4	Access stairs & platforms	Item	1	236,119.12	236,119.12	
7 3.3.2.4.1	Access Stairs	MR	11.60	6,044.54	70,116.71	
3.3.2.4.1.1	Pad footings complete	m3	4	1,800.00	7,200.00	
3.3.2.4.1.2	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install	t	1.70	13,873.35	23,584.69 Support stro	ucture to stairs
3.3.2.4.1.3	Galvanized steel stair stingers & treads	MR	11.60	1,665.92	19,324.73	
3.3.2.4.1.4	Webforge A325MPG mesh grating, HDG, fixed to steel trimmers	m2	8	450.00	3,600.00 Landings	
3.3.2.4.1.5	Handrails, comprising, toe board, midrail & handrail supply & install	m	45	364.61	16,407.29	
7 3.3.2.4.2	Platforms	m2	189	878.32	166,002.41	
3.3.2.4.2.1	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install	t	4.73	13,873.35	65,620.94 25kg/m2	
3.3.2.4.2.2	Webforge A325MPG mesh grating, HDG, fixed to steel trimmers	m2	189.04	450.00	85,068.00 Landings	
3.3.2.4.2.2 3.3.2.4.2.3		m2 m	189.04 42	450.00 364.61		
	steel trimmers  Handrails, comprising, toe board, midrail &				Landings 15,313.47	
3.3.2.4.2.3	steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install	m	42	364.61	Landings 15,313.47	
3.3.2.4.2.3 5 3.3.3	steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical & Process	m Item	42 1	364.61 <b>763,223.39</b>	Landings 15,313.47 <b>763,223.39</b>	
3.3.2.4.2.3 5 3.3.3 6 3.3.3.1	steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical & Process  Equipment	m Item	42 1 1	364.61 763,223.39 93,861.19	Landings 15,313.47 763,223.39 93,861.19 51,324.00	
3.3.2.4.2.3  5 3.3.3  6 3.3.3.1  3.3.3.1.1	steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical & Process  Equipment  Floc mixer, Series 1000, Mixtec	m Item Item No.	1 1 1	364.61 763,223.39 93,861.19 4,277.00	Landings 15,313.47 763,223.39 93,861.19 51,324.00	
3.3.2.4.2.3  5 3.3.3  6 3.3.3.1  3.3.3.1.1  3.3.3.1.2	steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical & Process  Equipment  Floc mixer, Series 1000, Mixtec  Mixer install	m Item Item No. No.	1 1 1 12	<b>763,223.39 93,861.19</b> 4,277.00 2,109.16	Tendings  15,313.47  763,223.39  93,861.19  51,324.00  25,309.87	
3.3.2.4.2.3  5 3.3.3  6 3.3.3.1  3.3.3.1.1  3.3.3.1.2  3.3.3.1.3	steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical & Process  Equipment  Floc mixer, Series 1000, Mixtec  Mixer install  pH analyser panel (coagulation)	m Item Item No. No.	1 1 1 12 12	364.61 763,223.39 93,861.19 4,277.00 2,109.16 15,540.00	Landings 15,313.47 763,223.39 93,861.19 51,324.00 25,309.87 15,540.00	
3.3.2.4.2.3  5 3.3.3  6 3.3.3.1.1  3.3.3.1.2  3.3.3.1.3  3.3.3.1.4	steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical & Process  Equipment  Floc mixer, Series 1000, Mixtec  Mixer install  pH analyser panel (coagulation)  Ph analyser panel - install	m Item Item No. No. No. No.	1 1 1 12 12 1 1	364.61  763,223.39  93,861.19  4,277.00  2,109.16  15,540.00  1,687.32	Landings 15,313.47  763,223.39 93,861.19 51,324.00 25,309.87 15,540.00 1,687.32	
3.3.2.4.2.3  5 3.3.3  6 3.3.3.1.1  3.3.3.1.2  3.3.3.1.3  3.3.3.1.4	steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical & Process  Equipment  Floc mixer, Series 1000, Mixtec  Mixer install  pH analyser panel (coagulation)  Ph analyser panel - install	m Item Item No. No. No. No.	1 1 1 12 12 1 1	364.61  763,223.39  93,861.19  4,277.00  2,109.16  15,540.00  1,687.32	Landings 15,313.47  763,223.39 93,861.19 51,324.00 25,309.87 15,540.00 1,687.32	
3.3.2.4.2.3  5 3.3.3  6 3.3.3.1  3.3.3.1.2  3.3.3.1.3  3.3.3.1.4  6 3.3.3.2  7 3.3.3.2.1	steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical & Process  Equipment  Floc mixer, Series 1000, Mixtec  Mixer install  pH analyser panel (coagulation)  Ph analyser panel - install  Pipework  DAF Components 37	m Item Item No. No. No. No.	1 1 1 12 12 1 1	364.61  763,223.39  93,861.19  4,277.00  2,109.16  15,540.00  1,687.32	Landings 15,313.47  763,223.39 93,861.19 51,324.00 25,309.87 15,540.00 1,687.32	



ESTIMATES						
Lovel Heave	Description	11-14	Ob.,	Data	Value (Excluding GST)	Domonko
Level Item 3.3.3.2.1.1.3	Description Pipework supply DN350 SS136 S10 supply &	<b>Unit</b> m	Qty 84	<b>Rate</b> 1,722.79	144,714.13	Remarks
	fabricate					
3.3.3.2.1.1.4	DN350 SCH 10 SS pipe & fittings above ground installation	m	84	895.31	75,206.12	
8 3.3.3.2.1.2	DICL					
3.3.3.2.1.2.1	Supply DICL DN900 PN35 SO-SP standard lengths, inc. pipe sleeve & freight	m	50	800.00	40,000.00	
3.3.3.2.1.2.2	Supply DICL DN900 PN35 bend 45 degress	No.	3	9,000.00	27,000.00 Assume	d
3.3.3.2.1.2.3	Supply DICL DN900 PN35 bend 22.5 degress	No.	3	8,800.00	26,400.00 Assume	i
3.3.3.2.1.2.4	Supply DICL reducer DN900 - DN750	No.	1	9,500.00	9,500.00 Assume	d
3.3.3.2.1.2.5	Pipework install below gnd DN900	m	40	781.31	31,252.44 15m/da	production
3.3.3.2.1.2.6		m	10	2,370.06	23,700.56	
	DN900 Pipe & Fittings above-ground installation					
6 3.3.3.3	Valves	Item	1	283,226.34	283,226.34	
8 3.3.3.1	BALL VALVES					
3.3.3.3.1.1	Ball valve, DN25, SS316, sched. 10 supply	No.	4	110.00	440.00	
3.3.3.3.1.2	Ball valve, DN50, SS316, sched. 10 supply	No.	1	313.00		
3.3.3.3.1.2	Ball Valve, D130, 33310, 3010a. 10 Supply	NO.	1	313.00	313.00	
8 3.3.3.3.2	GATE VALVES					
3.3.3.2.1	GATE VALVE, DN150, SS316, Sched. 10, Reece Dura Seat Material 316SS	No.	2	674.41	1,348.82	
3.3.3.3.2.2	GATE VALVE, DN750, DICL, AVK S55/80 Seat Material 316SS	No.	4	58,595.00	234,380.00	
8 3.3.3.3	BUTTERFLY VALVES					
3.3.3.3.1	Butterfly Valve, DN400, SS316, Sched. 10, Seat Material, Ductile iron body, 316SST disc, 431SST shaft, Vulcanised EPDM seat.	No.	1	6,375.74	6,375.74	
8 3.3.3.4	Valves Install					
3.3.3.4.1	DN25 Valve Installation	/ea	4	192.63	770.53	
3.3.3.4.2	DN50 Valve Installation	/ea	1	276.91	276.91	
3.3.3.4.3	DN150 Valve Installation	/ea	2	650.13		
3.3.3.4.4	DN400 Valve Installation	/ea	1	2,141.60		
3.3.3.4.5	DN750 Valve Installation	/ea	4	3,923.77		
3.3.3.4.6	DN25 Valve Installation	/ea	4	192.63		
3.3.3.3.4.7	DN50 Valve Installation	/ea	1	276.91		
3.3.3.3.4.8	DN150 Valve Installation		2	650.13		
		/ea				
3.3.3.4.9	DN400 Valve Installation	/ea	1	2,141.60		
3.3.3.4.10	DN750 Valve Installation	/ea	4	3,923.77	15,695.08	
4 3.4	DAFF Tanks (002)	Item	1	6,061,787.17	6,061,787.17	
5 3.4.1	Civils	Item	1	40,971.34	40,971.34	
6 3.4.1.1	Foundations	Item	1	33,661.30	33,661.30	
3.4.1.1.1	Allowance for foundations	m2	245	137.39	33,661.30 Allowan 1 per 11	ce for bored piers 600mm dia. 2.0m long, m2



# **園Becahunter**h₂O

Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
6 3.4.1.2	Detailed excavation	Item	1	7,310.04	7,310.04	
3.4.1.2.1	Detailed excavation	m3	47	67.19	3,158.13	800 x 800 eadge beam and under internal wall
3.4.1.2.2	Cart & dispose spoil [ASSUME VENM]	Tonnes	99	5.81	575.64	
3.4.1.2.3	Trim & compact subgrade	m2	245	14.60	3,576.27	
5 3.4.2	Structural	Item	1	2,367,944.83	2,367,944.83	
6 3.4.2.1	Slab on ground	m3	136	3,084.01	419,424.92	
3.4.2.1.1	Blinding	m2	245	42.86	10,499.84	
3.4.2.1.2	Foretcon membrane	m2	319	5.64	1,800.62	
3.4.2.1.3	Edge form 800mm high	m	74	183.09	13,548.75	
3.4.2.1.4	Supply & fix Reinforcing	Tonnes	45	4,364.22	196,390.00	220 kg/m3
3.4.2.1.5	Cast-in pressure releif valves, 40mm ID	No.	12	1,539.27	18,471.29	2 per tank
3.4.2.1.6	Supply & place S40 concrete to slab on ground	m3	136	644.79	87,691.68	edge & int. beams 800x800, slab 400mm thick
3.4.2.1.7	Extra over - finishing to falls	m2	216	33.93	7,328.32	
3.4.2.1.8	Curing	m2	245	11.91	2,917.69	
3.4.2.1.9	Formwork to kerb/upstand 200mm high	m	235	233.58	54,891.12	
3.4.2.1.10	Supply & place S40 concrete to kerb 200 X 400	m3	10	644.79	6,447.92	
3.4.2.1.11	250mm wide Supercast Rearguard waterstop	m	118	140.00	16,520.00	
3.4.2.1.12	Allowance for resin injection to cracks	m2	245	11.91	2,917.69	
6 3.4.2.2	Walls	m2	657	4 500 03	4 400 600 44	
			037	1,689.03	1,109,689.44	
3.4.2.2.1	Scaffold stretcher stairs 7.0m rise erection	No.	6	3,355.00	20,130.00	
3.4.2.2.1 3.4.2.2.2						
	Scaffold stretcher stairs 7.0m rise erection	No.	6	3,355.00	20,130.00	
3.4.2.2.2	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire	No. Week	6 72.00	3,355.00 40.00	20,130.00 2,880.00	
3.4.2.2.2 3.4.2.2.3	Scaffold stretcher stairs 7.0m rise erection  Scaffold stretcher stairs 7.0m rise hire  Scaffold stretcher stairs 7.0m rise removal	No. Week No.	6 72.00 6	3,355.00 40.00 1,600.00	20,130.00 2,880.00 9,600.00	
3.4.2.2.2 3.4.2.2.3 3.4.2.2.4	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire Scaffold stretcher stairs 7.0m rise removal Formwork to walls, class 2, >4.0m high	No. Week No. m2	6 72.00 6 255	3,355.00 40.00 1,600.00 363.63	20,130.00 2,880.00 9,600.00 92,725.76	220kg/m3
3.4.2.2.2 3.4.2.2.3 3.4.2.2.4 3.4.2.2.5	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire Scaffold stretcher stairs 7.0m rise removal Formwork to walls, class 2, >4.0m high Formwork to walls, class 3, >4.0m high	No. Week No. m2	6 72.00 6 255 1,059	3,355.00 40.00 1,600.00 363.63 302.50	20,130.00 2,880.00 9,600.00 92,725.76 320,343.04	220kg/m3
3.4.2.2.2 3.4.2.2.3 3.4.2.2.4 3.4.2.2.5 3.4.2.2.6	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire Scaffold stretcher stairs 7.0m rise removal Formwork to walls, class 2, >4.0m high Formwork to walls, class 3, >4.0m high Supply & fix reinforcing to walls	No. Week No. m2 m2	6 72.00 6 255 1,059 44.22	3,355.00 40.00 1,600.00 363.63 302.50 4,364.22	20,130.00 2,880.00 9,600.00 92,725.76 320,343.04 192,985.90	220kg/m3
3.4.2.2.2 3.4.2.2.4 3.4.2.2.5 3.4.2.2.6 3.4.2.2.7	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire Scaffold stretcher stairs 7.0m rise removal Formwork to walls, class 2, >4.0m high Formwork to walls, class 3, >4.0m high Supply & fix reinforcing to walls Penetration at launder	No. Week No. m2 t No.	6 72.00 6 255 1,059 44.22 48	3,355.00 40.00 1,600.00 363.63 302.50 4,364.22 1,321.32	20,130.00 2,880.00 9,600.00 92,725.76 320,343.04 192,985.90 63,423.38 149,468.54	220kg/m3 400mm thick external. 300mm thick internal
3.4.2.2.2 3.4.2.2.4 3.4.2.2.5 3.4.2.2.6 3.4.2.2.7 3.4.2.2.8	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire Scaffold stretcher stairs 7.0m rise removal Formwork to walls, class 2, >4.0m high Formwork to walls, class 3, >4.0m high Supply & fix reinforcing to walls Penetration at launder Cast-in puddle flange	No. Week No. m2 t No. No.	6 72.00 6 255 1,059 44.22 48 48	3,355.00 40.00 1,600.00 363.63 302.50 4,364.22 1,321.32 3,113.93	20,130.00 2,880.00 9,600.00 92,725.76 320,343.04 192,985.90 63,423.38 149,468.54	
3.4.2.2.2 3.4.2.2.4 3.4.2.2.5 3.4.2.2.6 3.4.2.2.7 3.4.2.2.8 3.4.2.2.9	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire Scaffold stretcher stairs 7.0m rise removal Formwork to walls, class 2, >4.0m high Formwork to walls, class 3, >4.0m high Supply & fix reinforcing to walls Penetration at launder Cast-in puddle flange Supply, place & finish S40 concrete to walls	No. Week No. m2 t No. No. n3	6 72.00 6 255 1,059 44.22 48 48 201	3,355.00 40.00 1,600.00 363.63 302.50 4,364.22 1,321.32 3,113.93 554.83	20,130.00 2,880.00 9,600.00 92,725.76 320,343.04 192,985.90 63,423.38 149,468.54 111,520.45	
3.4.2.2.2 3.4.2.2.4 3.4.2.2.5 3.4.2.2.6 3.4.2.2.7 3.4.2.2.8 3.4.2.2.9 3.4.2.2.10	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire Scaffold stretcher stairs 7.0m rise removal Formwork to walls, class 2, >4.0m high Formwork to walls, class 3, >4.0m high Supply & fix reinforcing to walls Penetration at launder Cast-in puddle flange Supply, place & finish S40 concrete to walls Curing Allowance for setdowns, cast-ins, penetrations	No. Week No. m2 t No. No. m3 m2	6 72.00 6 255 1,059 44.22 48 48 201 1,314	3,355.00 40.00 1,600.00 363.63 302.50 4,364.22 1,321.32 3,113.93 554.83 11.91	20,130.00 2,880.00 9,600.00 92,725.76 320,343.04 192,985.90 63,423.38 149,468.54 111,520.45	
3.4.2.2.2 3.4.2.2.4 3.4.2.2.5 3.4.2.2.6 3.4.2.2.7 3.4.2.2.8 3.4.2.2.9 3.4.2.2.10 3.4.2.2.11	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire Scaffold stretcher stairs 7.0m rise removal Formwork to walls, class 2, >4.0m high Formwork to walls, class 3, >4.0m high Supply & fix reinforcing to walls Penetration at launder Cast-in puddle flange Supply, place & finish S40 concrete to walls Curing Allowance for setdowns, cast-ins, penetrations not yet detailed	No. Week No. m2 m2 t No. No. m3 m2	6 72.00 6 255 1,059 44.22 48 48 201 1,314	3,355.00 40.00 1,600.00 363.63 302.50 4,364.22 1,321.32 3,113.93 554.83 11.91 87.76	20,130.00 2,880.00 9,600.00 92,725.76 320,343.04 192,985.90 63,423.38 149,468.54 111,520.45 15,648.33	
3.4.2.2.2 3.4.2.2.4 3.4.2.2.5 3.4.2.2.6 3.4.2.2.7 3.4.2.2.8 3.4.2.2.9 3.4.2.2.10 3.4.2.2.11 3.4.2.2.11	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire Scaffold stretcher stairs 7.0m rise removal Formwork to walls, class 2, >4.0m high Formwork to walls, class 3, >4.0m high Supply & fix reinforcing to walls Penetration at launder Cast-in puddle flange Supply, place & finish S40 concrete to walls Curing Allowance for setdowns, cast-ins, penetrations not yet detailed Allowance for resin injection to cracks	No.  Week  No.  m2  t  No.  No.  m3  m2  m2	6 72.00 6 255 1,059 44.22 48 48 201 1,314 1,314	3,355.00 40.00 1,600.00 363.63 302.50 4,364.22 1,321.32 3,113.93 554.83 11.91 87.76	20,130.00 2,880.00 9,600.00 92,725.76 320,343.04 192,985.90 63,423.38 149,468.54 111,520.45 15,648.33 115,315.71	
3.4.2.2.2 3.4.2.2.4 3.4.2.2.5 3.4.2.2.6 3.4.2.2.7 3.4.2.2.8 3.4.2.2.9 3.4.2.2.10 3.4.2.2.11 3.4.2.2.12	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire Scaffold stretcher stairs 7.0m rise removal Formwork to walls, class 2, >4.0m high Formwork to walls, class 3, >4.0m high Supply & fix reinforcing to walls Penetration at launder Cast-in puddle flange Supply, place & finish S40 concrete to walls Curing Allowance for setdowns, cast-ins, penetrations not yet detailed Allowance for resin injection to cracks	No.  Week  No.  m2  t  No.  No.  m3  m2  m2	6 72.00 6 255 1,059 44.22 48 48 201 1,314 1,314 1,314	3,355.00 40.00 1,600.00 363.63 302.50 4,364.22 1,321.32 3,113.93 554.83 11.91 87.76 11.91	20,130.00 2,880.00 9,600.00 92,725.76 320,343.04 192,985.90 63,423.38 149,468.54 111,520.45 15,648.33 115,315.71 15,648.33	
3.4.2.2.2 3.4.2.2.4 3.4.2.2.5 3.4.2.2.6 3.4.2.2.7 3.4.2.2.8 3.4.2.2.9 3.4.2.2.10 3.4.2.2.11 3.4.2.2.12 6 3.4.2.3 3.4.2.3.1	Scaffold stretcher stairs 7.0m rise erection Scaffold stretcher stairs 7.0m rise hire Scaffold stretcher stairs 7.0m rise removal Formwork to walls, class 2, >4.0m high Formwork to walls, class 3, >4.0m high Supply & fix reinforcing to walls Penetration at launder Cast-in puddle flange Supply, place & finish S40 concrete to walls Curing Allowance for setdowns, cast-ins, penetrations not yet detailed Allowance for resin injection to cracks  Launders Formwork to suspended slab	No.  Week  No.  m2  t  No.  No.  m3  m2  m2  m2  m2	6 72.00 6 255 1,059 44.22 48 48 201 1,314 1,314 1,314	3,355.00 40.00 1,600.00 363.63 302.50 4,364.22 1,321.32 3,113.93 554.83 11.91 87.76 11.91 229,490.59	20,130.00 2,880.00 9,600.00 92,725.76 320,343.04 192,985.90 63,423.38 149,468.54 111,520.45 15,648.33 115,315.71 15,648.33 229,490.59 39,071.87	400mm thick external. 300mm thick internal



Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.4.2.3.5	Supply, place & finish S40 concrete to floor & walls	m3	58	497.98	28,882.73 300	mm thick
3.4.2.3.6	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	192	87.76	16,849.78	
3.4.2.3.7	Acid etch to slab finish	m2	81	9.08	735.75	
3.4.2.3.8	Grout Sika Monotop [ASSUMED] average 50mm deep	m2	81	19.21	1,555.94	
3.4.2.3.9	Allowance for resin injection to cracks	m2	192	11.91	2,286.51	
6 3.4.2.4	Roof and Wall Structure	Item	1	187,845.57	187,845.57	
3.4.2.4.1		t	11.01	13,873.35	152,745.57	
	Structural steel wall and roof framimg comprising; - HD bolts, - steel columns & rafters, - bracing, - stiffeners, cleats, base plates and connections				Allo	wance for 45kg/m2 for steel structure
3.4.2.4.2	Roof purlins at 1200mm centres inc. tie rods, bridging, bolting etc.	m2	294	65.00	19,110.00	
3.4.2.4.3	Wall girts at 1200mm centres inc. tie rods, bridging, bolting etc.	m2	246	65.00	15,990.00	
6 3.4.2.5	Roof and Wall Cladding	Item	1	114,576.00	114,576.00	
3.4.2.5.1	Metal roof cladding inc. safety mesh, sarking & insulation, ridge capping, barge capping	m2	294	140.00	41,160.00	
3.4.2.5.2	Metal wall cladding including corner flashing, trims to openings	m2	246	106.00	26,076.00	
3.4.2.5.3	Awning, colourbond inc. HDG frame over single doors	No.	3	2,500.00	7,500.00	
3.4.2.5.4	Colourbond gutter 200mm dia.	m	56	200.00	11,200.00	
3.4.2.5.5	Sump outlet	No.	4	650.00	2,600.00	
3.4.2.5.6	250mm dia. uPVC downpipe	m	42	160.00	6,720.00	
3.4.2.5.7	Permanent roof safety anchors	No.	8	390.00	3,120.00	
3.4.2.5.8	Ladder bracket	No.	2	600.00	1,200.00	
3.4.2.5.9	Roof ventilators	No.	6	2,500.00	15,000.00	
6 3.4.2.6	Windows and Doors	Item	1	51,100.00	51,100.00	
3.4.2.6.1	Extra over, clear polycarbonate cladding fixed to girts	m2	40	90.00	3,600.00	
3.4.2.6.2	Louvre, single stage colourbond with bird mesh fixed to girts including flashing, 2.5 x 1.5	No.	2	11,000.00	22,000.00	
3.4.2.6.3	Single door - solid core door including sheet metal cladding, frame & hardware	No.	3	4,500.00	13,500.00	
3.4.2.6.4	Double door 2.0m wide x 3.70m high, solid core, metal clad inc. frame & hardware	No.	1	12,000.00	12,000.00	
6 3.4.2.7	Access stairs & platforms	Item	1	255,818.31	255,818.31	
7 3.4.2.7.1	Access Stairs	MR	11.60	5,254.07	60,947.21	



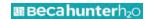
					Value	
Level Item	Description	Unit	Qty	Rate	(Excluding GST)	Remarks
3.4.2.7.1.2	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install	t	1.83	13,873.35	25,388.23	Support structure to stairs and cantilevered walkway
3.4.2.7.1.3	Galvanized steel stair stingers & treads	MR	5.80	1,665.92	9,662.36	
3.4.2.7.1.4	Webforge A325MPG mesh grating, HDG, fixed to steel trimmers	m2	18	450.00	8,100.00	Landings & cantilevered walkway
3.4.2.7.1.5	Handrails, comprising, toe board, midrail & handrail supply & install	m	34	364.61	12,396.62	Landings & cantilevered walkway
7 3.4.2.7.2	Platforms	m2	132	1,476.30	194,871.10	
3.4.2.7.2.1	Structural Steel <15kg/m, Shop Detail/Supply/Fab/Deliver erect	t	2.64	21,483.37	56,716.09	20kg/m2
3.4.2.7.2.2	Webforge A325MPG mesh grating, HDG, fixed to steel trimmers	m2	132	450.00	59,400.00	
3.4.2.7.2.3	Handrails, comprising, toe board, midrail & handrail supply & install	m	216	364.61	78,755.01	
5 3.4.3	Mechanical & Process	Item	1	3,652,871.00	3,652,871.00	
6 3.4.3.1	Equipment	Item	1	1,760,261.61	1,760,261.61	
7 3.4.3.1.1	37 DAF Components					
3.4.3.1.1.1	Recycle pump, Lowarra-Xylem	No.	6	37,668.00	226,008.00	
3.4.3.1.1.2	Pump install, medium	No.	6	10,545.78	63,274.69	
3.4.3.1.1.3	Gantry crane with 5.1m span and 30m travelling beams, capacity assumed 5t, fixed to columns	No.	1	150,000.00	150,000.00	
3.4.3.1.1.4	Monorail crane inc. 8.3m travelling beam, capacity assumed 5t, fixed to roof structure	No.	1	25,000.00	25,000.00	
7 3.4.3.1.2	41 DAF On Filter					
3.4.3.1.2.1	Turbidity Analyser panel	No.	6	9,300.00	55,800.00	
3.4.3.1.2.2	Analyser panel - install	No.	6	1,687.32	10,123.95	
3.4.3.1.2.3	Saturator	No.	3	102,000.00	306,000.00	
3.4.3.1.2.4	Saturator install	No.	3	33,746.50	101,239.50	
3.4.3.1.2.5	Scum harvester	No.	6	77,000.00	462,000.00	
3.4.3.1.2.6	Scum harvester install	No.	6	25,309.87	151,859.24	
3.4.3.1.2.7	Combined filtered water turbidity analyser panel	No.	1	59,958.00	59,958.00	
3.4.3.1.2.8	Analyser panel - install	No.	1	1,687.32	1,687.32	
3.4.3.1.2.9	Silencer DN25 SS316 Sched. 10, 1" conical sintered SS (Process Systems)	No.	6	99.00	594.00	
3.4.3.1.2.10	Penstock 1m wide, motorised, electric actuator, Rotork, AWE	No.	6	21,500.00	129,000.00	
3.4.3.1.2.11	Penstock 1m wide, motorised - install	No.	6	2,952.82	17,716.91	
6 3.4.3.2	Pipework	Item	1	1,657,031.50	1,657,031.50	
8 3.4.3.2.1	DICL					
0 3.4.3.2.1						
3.4.3.2.1.1	DN500 DICL pipe & fittings above ground supply & installation	m	39	2,341.92	91,334.89	





LevelItemDescriptionUnitQtyRate(Excluding GST)3.4.3.2.1.3Supply DICL DN750 PN35 SO-SP standard lengths, m515622.02320,340.30inc. pipe sleeve & freight	
	Remarks
3.4.3.2.1.4 Supply DICL DN750 PN35 bend 12.5 degress No. 10 4,874.00 48,740.00	
3.4.3.2.1.5 Supply DICL DN750 PN35 bend 22.5 degress No. 10 5,214.00 52,140.00	
3.4.3.2.1.6 Pipework install below gnd DN750 m 427 573.13 244,725.50	
3.4.3.2.1.7 DN750 SCH 10 SS Pipe & Fittings above-ground m 89 1,762.43 156,856.61 Installation	
3.4.3.2.1.8 Supply DICL DN900 PN35 SO-SP standard lengths, m 20 800.00 16,000.00 inc. pipe sleeve & freight	
3.4.3.2.1.9 Supply DICL DN900 PN35 bend 45 degress No. 4 9,000.00 36,000.00 Assumed	
3.4.3.2.1.10 Supply DICL DN900 PN35 bend 22.5 degress No. 4 8,800.00 35,200.00 Assumed	
3.4.3.2.1.11 Supply DICL reducer DN900 - DN750 No. 1 9,500.00 9,500.00 Assumed	
3.4.3.2.1.12 Pipework install below gnd DN900 m 18 781.31 14,063.60 15m/day in	production
3.4.3.2.1.13 m 2 2,370.06 4,740.11 DN900 Pipe & Fittings above-ground installation	
8 3.4.3.2.2 PVC	
3.4.3.2.2.1 PVC pipework DN100 Sched. 80 BELOW ground, m 2 242.94 485.88 supply & install	
3.4.3.2.2.2 PVC pipework DN150 Sched. 80 BELOW ground, m 185 495.25 91,620.63 supply & install	
3.4.3.2.2.3 PVC pipework DN300 Sched. 80 BELOW ground, m 25 616.25 15,406.25 supply & install	
8 3.4.3.2.3 Stainless Steel Sched.10	
3.4.3.2.3.1 m 276 513.29 141,667.86 Pipework supply & fabricate DN150 SS136 S10	
3.4.3.2.3.2 DN150 SCH 10 SS Pipe & Fittings above-ground m 276 322.97 89,140.29 Installation	
3.4.3.2.3.3 m 70 1,013.36 70,934.95 Pipework supply & fabricate DN300 SS136 S10	
3.4.3.2.3.4 DN300 SCH 10 SS Pipe & Fittings above-ground m 70 782.86 54,800.46 installation	
3.4.3.2.3.5 m 35 1,661.82 58,163.72 Pipework supply & fabricate DN500 SS136 S10	
3.4.3.2.3.6 DN350 SCH 10 SS Pipe & Fittings above-ground m 35 782.86 27,400.23 installation	
3.4.3.2.3.7 Pipework supply DN750 SS136 S10 m 10 2,123.14 21,231.41	
3.4.3.2.3.7 Pipework supply DN750 SS136 S10 m 10 2,123.14 21,231.41	
3.4.3.2.3.8 DN750 SCH 10 SS Pipe & Fittings above-ground m 10 1,762.43 17,624.34 Installation	
3.4.3.2.3.8 DN750 SCH 10 SS Pipe & Fittings above-ground m 10 1,762.43 17,624.34	
3.4.3.2.3.8 DN750 SCH 10 SS Pipe & Fittings above-ground m 10 1,762.43 17,624.34 Instaliation	
3.4.3.2.3.8 DN750 SCH 10 SS Pipe & Fittings above-ground m 10 1,762.43 17,624.34 Installation 1 79,446.94 79,446.94	
3.4.3.2.3.8 DN750 SCH 10 SS Pipe & Fittings above-ground m 10 1,762.43 17,624.34 Installation 1 79,446.94 79,446.94  8 3.4.3.3.1 RPZD  3.4.3.3.1.1 BACKFLOW PREVENTER-RPZD, DN80, SS316, No. 1 4,138.31 4,138.31	
3.4.3.2.3.8 DN750 SCH 10 SS Pipe & Fittings above-ground m 10 1,762.43 17,624.34 Installation 1 179,446.94 79,446.94  6 3.4.3.3 Valves Item 1 79,446.94 79,446.94  8 3.4.3.3.1 RPZD  3.4.3.3.1.1 BACKFLOW PREVENTER-RPZD, DN80, SS316, No. 1 4,138.31 4,138.31 Sched. 10, Seat Material 316SS	
3.4.3.2.3.8 DN750 SCH 10 SS Pipe & Fittings above-ground m 10 1,762.43 17,624.34 Installation 1 179,446.94 79,446.94  6 3.4.3.3 Valves Item 1 79,446.94 79,446.94  8 3.4.3.3.1 RPZD  3.4.3.3.1.1 BACKFLOW PREVENTER-RPZD, DN80, SS316, No. 1 4,138.31 4,138.31 Sched. 10, Seat Material 316SS  8 3.4.3.3.2 BALL VALVES	





Level	ltem	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
8 3.	4.3.3.3	BUTTERFLY VALVES					
3.	4.3.3.3.1	Butterfly Valve, DN150, SS316, Sched. 10,Seat Material, Ductile iron body, 316SST disc, 431SST shaft, Vulcanised EPDM seat.	No.	10	469.00	4,690.00	
3.	4.3.3.3.2	Butterfly Valve, DN300, SS316, Sched. 10, Bray Series 3L Seat Material, Ductile iron body, 316SST disc, 431SST shaft, Vulcanised EPDM seat.	No.	2	2,210.00	4,420.00	
8 3.	4.3.3.4	CHECK VALVES					
3.	4.3.3.4.1	Check valve, DN50, SS316, sched. 10 supply	No.	2	759.00	1,518.00	
3.	4.3.3.4.2	CHECK VALVE, DN150, SS316, Sched. 10, Bray Bray/Rite Seat Material 316SS	No.	5	1,198.00	5,990.00	
3.	4.3.3.4.3	CHECK VALVE, DN300, SS316, Sched. 10, Seat Material 316SS	No.	1	6,742.61	6,742.61	
8 3.	4.3.3.5	CONTINUOUS VENTING VALVE					
3.	4.3.3.5.1	CONTINUOUS VENTING VALVE, DN25, SS316, Sched. 10, Bermad C30-050 IP Seat Material, Threaded BSP Composite 16 Bar rated Air Out Only	No.	1	739.00	739.00	
8 3.	4.3.3.6	PRESSURE REGULATING VALVE					
3.	4.3.3.6.1	PRESSURE REGULATING VALVE, DN80, PVCS80, GF Type 586 Seat Material, PVC / FKM	No.	1	3,197.00	3,197.00	
8 3.	4.3.3.7	PRESSURE RELEIF VALVE					
3.	4.3.3.7.1	PRESSURE RELIEF VALVE, DN25, SS316, Sched. 10, SMC AR60K-10-D with GC3-10AS-D 1MPa gauge Seat Material 316SS	No.	2	275.00	550.00	
8 3.	4.3.3.8	TEMPERATURE RELEIF VALVE					
3.	4.3.3.8.1	TEMPERATURE RELIEF VALVE, DN25, PVCS80, Pratt SEASV Seat Material, Relieves at 35degC, closes at 29degC	No.	15	677.00	10,155.00	
8 3.	4.3.3.9	VALVE INSTALL					
3.	4.3.3.9.1	DN25 Valve Installation	/ea	62	192.63	11,943.20	
3.	4.3.3.9.2	DN50 Valve Installation	/ea	6	276.91	1,661.45	
3.	4.3.3.9.3	DN80 Valve Installation	/ea	5	385.26	1,926.32	
3.	4.3.3.9.4	DN150 Valve Installation	/ea	15	650.13	9,752.01	
3.	4.3.3.9.5	DN300 Valve Installation	/ea	3	1,324.35	3,973.04	
6 3.	4.3.4	Instrumentation	Item	1	156,130.95	156,130.95	
3.	4.3.4.1	Flow meter, Promag W400, DN150, supply	No.	6	6,462.57	38,775.42	
3.	4.3.4.2	Electro mag-flow meter install, DN150 & below	No.	6	2,006.59	12,039.52	
3.	4.3.4.3	Flow meter, Promag W400, DN300, supply	No.	1	9,968.59	9,968.59	
3.	4.3.4.4	Electro mag-flow meter install, DN300 & below	No.	1	2,528.30	2,528.30	
3.	4.3.4.5	Flow meter, Promag W400, DN400, supply	No.	7	10,470.72	73,295.04	



ESTIMATES						
Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.4.3.4.6	Electro mag-flow meter install, DN400 & below	No.	7	2,789.15	19,524.08	
4 3.5	Electrical Switchroom 1 (003)	Item	1	2,031,183.08	2,031,183.08	
6 3.5.1	Civil	Item	1	17,173.42	17,173.42	
7 3.5.1.1	Foundations	Item	1	13,189.74	13,189.74	
3.5.1.1.1	Allowance for foundations	m2	96	137.39		Allowance for bored piers 600mm dia. 2.0m long 1 per 11m2
7 3.5.1.2	Detailed excavation	Item	1	3,983.68	3,983.68	
3.5.1.2.1	Excavation to setdown	m3	56	14.05	786.91	
3.5.1.2.2	Detailed excavation	m3	14	67.19	940.72	800 x 800 edge & internal beam
3.5.1.2.3	Cart & dispose spoil [ASSUME VENM]	Tonnes	147	5.81	854.74	
3.5.1.2.4	Trim & compact subgrade	m2	96	14.60	1,401.31	
6 3.5.2	Structural / Building	m2	96	3,320.54	318,772.20	
7 3.5.2.1	Slab on ground	m3	38	1,900.42	72,215.91	
3.5.2.1.1	Blinding	m2	96	42.86	4,114.22	
3.5.2.1.2	Edge form - 700mm	m	44	183.09	8,056.01	
3.5.2.1.3	Membrane	m2	135	5.64	762.02	
3.5.2.1.4	Supply & fix Reinforcing	Tonnes	5.32	4,364.22	23,217.66	140 kg/m3
3.5.2.1.5	Earthing connection and welding of reinforcing	No.	2	642.65	1,285.29	
3.5.2.1.6	Supply & place N40 concrete to slab on ground 450mm thick	m3	38	556.96	21,164.57	700x300 edge & internal beams, 250 slab
3.5.2.1.7	Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod	m	24	27.09	650.10	Inc. sikflex seal to joint
3.5.2.1.8	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	96	87.76	8,424.89	
3.5.2.1.9	Curing	m2	96	11.91	1,143.26	
3.5.2.1.10	Footpath 1.20m wide, 75mm thick, 1 layer SL72 mesh on 50mm sand basecourse	m2	26.40	128.71	3,397.89	
7 3.5.2.2	Upstand walls	m2	25	1,463.61	36,590.29	
3.5.2.2.1	Wall form - CL3	m2	48.72	302.50	14,737.59	600mm high
3.5.2.2.2	Formwork to blockout circumference <2.0m	No.	4	1,774.61	7,098.43	
3.5.2.2.3	Formwork rebate to top of wall 150 x 90	m	40	82.37	3,294.85	
3.5.2.2.4	Supply & fix Reinforcing	Tonnes	1.12	4,364.22	4,887.93	140 kg/m3
3.5.2.2.5	Supply, place & finish s40 concrete to walls	m3	8	748.49	5,987.95	300mm thick
3.5.2.2.6	Curing	m2	49	11.91	583.54	
7 3.5.2.3	Walls & Doors	m2	152	434.95	66,112.00	
3.5.2.3.1	Corefilled and reinforced blockwork, 200 series including door openings	m2	152	300.00	45,600.00	
3.5.2.3.2	Paint finish to blockwork	m2	304	28.00	8,512.00	
3.5.2.3.3	Single door - 3hr fire rated, frame & hardware, paint finish	No.	1	5,000.00	5,000.00	



# **園Becahunter**h₂O

				_		Value	
Level	Item 3.5.2.3.4	<b>Description</b> Double door - 3hr fire rated, frame & hardware,	Unit No.	Qty 1	7,000.00	(Excluding GST) 7,000.00	Remarks
		paint finish					
	7 3.5.2.4	Roof Structure & cladding					
	3.5.2.4.1	Colourbond roof sheeting fixed to and including steel trussed framing structure incl. 1 layer insulation	m2	167	350.00	58,450.00	
	3.5.2.4.2	Eaves lining, FC sheeting + paint	m2	62	160.00	9,920.00	
	3.5.2.4.3	Awning, colourbond inc. HDG frame over single doors	No.	1	2,500.00	2,500.00	
	3.5.2.4.4	Awning, colourbond inc. HDG frame over double doors	No.	1	3,224.00	3,224.00	
	3.5.2.4.5	150mm dia. uPVC downpipe	m	16	120.00	1,920.00	
	3.5.2.4.6	Colourbond gutter 150mm dia.	m	22	160.00	3,520.00	
	7 3.5.2.5	Fitout	m2	65	989.54	64,320.00	
	3.5.2.5.1	Allowance for 2hr rated ceiling complete	m2	96	320.00	30,720.00	
	3.5.2.5.2	Raised access floor	m2	96	350.00	33,600.00	
	6 3.5.3	Electrical	Item	1	1,675,237.46	1,675,237.46	
	3.5.3.1	Lightening Protection	Ea	1	2,873.00	2,873.00	
	3.5.3.2	Supply & Install Incomer SWBD	Ea	1	13,484.00	13,484.00	
	3.5.3.3	Supply & Install MCC 01001	Ea	1	591,235.00		Reduced price on MCC due to reduced size of MCC.
	3.5.3.4	Supply & Install PLC Panel 1001	Ea	1	250,000.00	250,000.00	
	3.5.3.5	Supply & Install Active Harmonic Filter	Ea	1	93,679.50	93,679.50	
	3.5.3.6	Supply & Install MCC 03001	Ea	1	394,866.00		Reduced price on MCC due to reduced size of MCC.
	3.5.3.7	Supply & Install DB's - 4 off	Lot	1	39,445.00	39,445.00	
	3.5.3.8	Supply & Install VSD's- 6 off	Lot	1	90,679.00	90,679.00	
	3.5.3.9	Supply & Install UPS-2000 5KVA	Ea	1	30,059.50	30,059.50	
	3.5.3.10	Supply & Install DB's - 5 off	Lot	1	50,275.20	50,275.20	
	3.5.3.11	Supply & Installation of Truck fill panel	Lot	1	12,779.50	12,779.50	
	3.5.3.12	Supply & Install Remote switching Panel	Ea	1	11,070.65	11,070.65	
	3.5.3.13	Supply & Install electrical fitout of switchroom	Lot	1	16,565.43	16,565.43	
	3.5.3.14	Supply & Install VESDA	PCSum	1	10,000.00	10,000.00	
	3.5.3.15	Supply & Install Fire system	PCsum	1	10,000.00	10,000.00	
	3.5.3.16	Supply & Install Security	PCsum	1	8,000.00	8,000.00	
	3.5.3.17	Supply & Install Cable support systems	Lot	1	39,462.88	39,462.88	
	3.5.3.18	Pre commissioning of Switchroom	Lot	1	10,762.80	10,762.80	
	6 3.5.4	Mechanical					
	3.5.4.1	Split system air-conditioner, 8kW	No.	2	10,000.00	20,000.00	
	4 3.6	Backwash Water Tank (004)	Item	1	3,950,733.78	3,950,733.78	
	5 3.6.1	Civil					



Level Item 6 3.6.1.1	Description Foundations	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.6.1.1.1	Allowance for foundations	m2	255	137.39	35,035.24	Allowance for bored piers 600mm dia. 2.0m long, 1 per 11m2
6 3.6.1.2	Detailed excavation	Item	1	21,033.69	21,033.69	
3.6.1.2.1	Detailed excavation	m3	218	67.19	14,648.37	ring beam 1.5x1.5, beams under baffle walls 800x800, slab 450mm thick
3.6.1.2.2	Cart & dispose spoil [ASSUME VENM]	Tonnes	458	5.81	2,663.08	
3.6.1.2.3	Trim & compact subgrade	m2	255	14.60	3,722.24	
5 3.6.2	Structural	Item	1	1,341,101.56	1,341,101.56	
6 3.6.2.1	Ring beam and base slab	m3	329	1,312.69	431,876.00	
3.6.2.1.1	Blinding	m2	255	42.86	10,928.41	
3.6.2.1.2	Membrane	m2	332	5.64	1,874.00	
3.6.2.1.3	Edge form 1.50m high COP	m2	85	300.79	25,567.38	
3.6.2.1.4	Supply & fix Reinforcing	Tonnes	40.48	4,364.22	176,663.71	220 kg/m3
3.6.2.1.5	Supply & place S40 concrete to slab on ground	m3	180	644.79	116,062.52	ring beam 1.5x1.5, slab 450mm thick
3.6.2.1.6	Curing	m2	177	11.91	2,107.88	
3.6.2.1.7	Formwork to kerb/upstand 200mm high COP	m	373	233.58	87,125.05	
3.6.2.1.8	Supply & place S40 concrete to kerb 200 X 400	m3	4	644.79	2,579.17	
3.6.2.1.9	250mm wide Supercast Rearguard waterstop	m	49	140.00	6,860.00	
3.6.2.1.10	Allowance for resin injection to cracks	m2	177	11.91	2,107.88	
6 3.6.2.2	External Walls	m2	402	1,856.92	746,482.15	
3.6.2.2.1	Scaffold stretcher stairs 5.0m rise erection	No.	2	4,000.00	8,000.00	
3.6.2.2.2	Scaffold stretcher stairs 5.0m rise hire	Week	24	65.00	1,560.00	
3.6.2.2.3	Scaffold stretcher stairs 5.0m rise removal	No.	2	3,000.00	6,000.00	
3.6.2.2.4	Formwork to walls, C.O.P. class 3, >4.0m high	m2	453	371.95	168,495.20	
3.6.2.2.5	Formwork to walls, C.O.P. class 2, >4.0m high	m2	465	421.97	196,214.60	Assumed external walls are suitable left as off- form concrete without paint finish due to the remote lcoation
3.6.2.2.6	Supply & fix reinforcing to walls	t	40.92	4,364.22	178,583.97	220kg/m3
3.6.2.2.7	DN750 DICL puddle flange, supply	No.	2	7,500.00	15,000.00	
3.6.2.2.8	DN750 DICL puddle flange, fix	No.	2	2,171.35	4,342.71	
3.6.2.2.9	Supply, place & finish S40 concrete to walls	m3	186	554.83	103,198.03	400mm thick
3.6.2.2.10	Curing	m2	918	11.91	10,932.40	
3.6.2.2.11	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	453	87.76	39,754.96	
3.6.2.2.12	Allowance for resin injection to cracks	m2	453	11.91	5,394.74	
3.6.2.2.13	Hydostatic testing	Item	1	9,005.54	9,005.54	
6 3.6.2.3	Access stairs & platforms	Item	1	69,925.49	69,925.49	
3.6.2.3.1	Pad footings complete	m3	3	1,800.00	5,400.00	

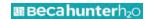


Level	Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
	3.6.2.3.2	Allowance for structural steel 15-40KG/M, shop	t	3	13,873.35	41,620.05	
		drafting, supply, fabricate, surface protection, install				1-,	Support structure to stairs
	3.6.2.3.3	Galvanized steel stair stingers & treads	MR	2	1,665.92	3,331.85	
	3.6.2.3.4	Webforge A325MPG mesh grating, HDG, fixed to steel trimmers	m2	20	450.00	9,000.00	Walkways and landings
	3.6.2.3.5	Handrails, comprising, toe board, midrail & handrail supply & install	m	29	364.61	10,573.59	
6	3.6.2.4	Roof structure & cladding	Item	1	92,817.92	92,817.92	
	3.6.2.4.1		t	3.53	13,873.35	48,972.92	
		Structural steel wall and roof framing comprising; - HD bolts, - steel trusses, - bracing, - stiffeners, cleats, end plates and connections					Allowance for 20kg/m2 for steel structure
	3.6.2.4.2	Roof purlins at 1200mm centres inc. tie rods, bridging, bolting etc.	m2	177	65.00	11,505.00	
	3.6.2.4.3	Metal roof cladding inc. safety mesh and ridge capping	m2	177	140.00	24,780.00	
	3.6.2.4.4	Permanent roof safety anchors	No.	4	390.00	1,560.00	
	3.6.2.4.5	Roof access hatch	No.	1	6,000.00	6,000.00	
5	3.6.3	Mechanical & Process	Item	1	2,553,563.29	2,553,563.29	
6	3.6.3.1	Equipment	Item	1	268,312.72	268,312.72	
	3.6.3.1.1	Backwash pump, e-XC450- 370/1600W/W45BCS4AG Lowarra-Xylem	No.	2	102,745.00	205,490.00	
	3.6.3.1.2	Pump install, medium	No.	2	16,873.25	33,746.50	
	3.0.3.1.2						
	3.6.3.1.3	Mixer Submerged Jet 4620 Flygt-Xylem	No.	1	19,416.00	19,416.00	
		Mixer Submerged Jet 4620 Flygt-Xylem  Mixer install	No.	1	19,416.00 6,327.47	19,416.00 6,327.47	
	3.6.3.1.3						
	3.6.3.1.3 3.6.3.1.4	Mixer install	No.	1	6,327.47	6,327.47	
	3.6.3.1.4 3.6.3.1.5	Mixer install  Davit supply (equipment & personnel)	No.	1	6,327.47 2,700.00	6,327.47 2,700.00	
6	3.6.3.1.3 3.6.3.1.4 3.6.3.1.5 3.6.3.1.6	Mixer install  Davit supply (equipment & personnel)  Davit install	No. No.	1 1 1	6,327.47 2,700.00 632.75	6,327.47 2,700.00 632.75	
6	3.6.3.1.3 3.6.3.1.4 3.6.3.1.5 3.6.3.1.6	Mixer install  Davit supply (equipment & personnel)  Davit install  Pipework	No. No. Item	1 1 1	6,327.47 2,700.00 632.75	6,327.47 2,700.00 632.75 <b>652,483.66</b>	
6 7	3.6.3.1.3 3.6.3.1.4 3.6.3.1.5 3.6.3.1.6 3.6.3.2	Mixer install Davit supply (equipment & personnel) Davit install  Pipework  DICL  DN300 DICL pipe & fittings above ground supply	No. No. Item	1 1 1	6,327.47 2,700.00 632.75 652,483.66	6,327.47 2,700.00 632.75 <b>652,483.66</b> 7,496.17	
6 7	3.6.3.1.3 3.6.3.1.4 3.6.3.1.5 3.6.3.1.6 3.6.3.2 3.6.3.2.1 3.6.3.2.1	Mixer install  Davit supply (equipment & personnel)  Davit install  Pipework  DICL  DN300 DICL pipe & fittings above ground supply & installation  DICL pipework DN300 below ground, supply &	No. No. Item	1 1 1	6,327.47 2,700.00 632.75 <b>652,483.66</b> 3,748.09	6,327.47 2,700.00 632.75 <b>652,483.66</b> 7,496.17 34,253.37	
6	3.6.3.1.3 3.6.3.1.4 3.6.3.1.5 3.6.3.1.6 3.6.3.2 3.6.3.2.1 3.6.3.2.1.1	Mixer install  Davit supply (equipment & personnel)  Davit install  Pipework  DICL  DN300 DICL pipe & fittings above ground supply & installation  DICL pipework DN300 below ground, supply & install	No. No. Item  m	1 1 1 2 33	6,327.47 2,700.00 632.75 652,483.66 3,748.09 1,037.98	6,327.47 2,700.00 632.75 <b>652,483.66</b> 7,496.17 34,253.37	
6 7	3.6.3.1.3 3.6.3.1.4 3.6.3.1.5 3.6.3.1.6 3.6.3.2 3.6.3.2.1 3.6.3.2.1.1 3.6.3.2.1.2	Mixer install  Davit supply (equipment & personnel)  Davit install  Pipework  DICL  DN300 DICL pipe & fittings above ground supply & installation  DICL pipework DN300 below ground, supply & install  Supply DICL DN750 PN35 bend 22.5 degress	No. No. Item  m  m No.	1 1 1 2 33 45	6,327.47 2,700.00 632.75 652,483.66 3,748.09 1,037.98 5,214.00	6,327.47 2,700.00 632.75 <b>652,483.66</b> 7,496.17 34,253.37 234,630.00 18,913.21	
6 7	3.6.3.1.3 3.6.3.1.4 3.6.3.1.5 3.6.3.1.6 3.6.3.2 3.6.3.2.1 3.6.3.2.1.1 3.6.3.2.1.2 3.6.3.2.1.3 3.6.3.2.1.4	Mixer install Davit supply (equipment & personnel) Davit install  Pipework  DICL  DN300 DICL pipe & fittings above ground supply & installation  DICL pipework DN300 below ground, supply & install  Supply DICL DN750 PN35 bend 22.5 degress  Pipework install below gnd DN750  DN750 SCH 10 SS Pipe & Fittings above-ground	No. No. Item  m  no. No. m  m	1 1 1 2 33 45 33	6,327.47 2,700.00 632.75 652,483.66 3,748.09 1,037.98 5,214.00 573.13	6,327.47 2,700.00 632.75 <b>652,483.66</b> 7,496.17 34,253.37 234,630.00 18,913.21	
6 7	3.6.3.1.3 3.6.3.1.4 3.6.3.1.5 3.6.3.1.6 3.6.3.2 3.6.3.2.1 3.6.3.2.1.1 3.6.3.2.1.2 3.6.3.2.1.2 3.6.3.2.1.3 3.6.3.2.1.4 3.6.3.2.1.5	Mixer install Davit supply (equipment & personnel) Davit install  Pipework  DICL  DN300 DICL pipe & fittings above ground supply & installation  DICL pipework DN300 below ground, supply & install  Supply DICL DN750 PN35 bend 22.5 degress  Pipework install below gnd DN750  DN750 SCH 10 SS Pipe & Fittings above-ground Instaliation  Supply DICL DN900 PN35 SO-SP standard lengths,	No. No. Item  m  no. No. m  m	1 1 1 2 33 45 33 12	6,327.47 2,700.00 632.75 652,483.66 3,748.09 1,037.98 5,214.00 573.13 1,762.43	6,327.47 2,700.00 632.75 652,483.66 7,496.17 34,253.37 234,630.00 18,913.21 21,149.21	
6 7	3.6.3.1.3 3.6.3.1.4 3.6.3.1.5 3.6.3.1.6 3.6.3.2 3.6.3.2.1 3.6.3.2.1.1 3.6.3.2.1.2 3.6.3.2.1.3 3.6.3.2.1.4 3.6.3.2.1.5 3.6.3.2.1.5	Mixer install Davit supply (equipment & personnel) Davit install  Pipework  DICL  DN300 DICL pipe & fittings above ground supply & installation  DICL pipework DN300 below ground, supply & install  Supply DICL DN750 PN35 bend 22.5 degress  Pipework install below gnd DN750  DN750 SCH 10 SS Pipe & Fittings above-ground Instaliation  Supply DICL DN900 PN35 SO-SP standard lengths, inc. pipe sleeve & freight	No. No. Item  m  m  No. m  m	1 1 1 2 33 45 33 12	6,327.47 2,700.00 632.75 652,483.66 3,748.09 1,037.98 5,214.00 573.13 1,762.43	6,327.47 2,700.00 632.75 652,483.66 7,496.17 34,253.37 234,630.00 18,913.21 21,149.21 4,000.00 8,800.00	



Remarks





.evel Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.6.3.3.3.1	CHECK VALVE, DN25, SS316, Sched. 10, GF Type	No.	6	103.29	619.74	Tionian to
	561 Seat Material, PVC / FKM					
3.6.3.3.3.2	CHECK VALVE, DN150, SS316, Sched. 10, Bray Bray/Rite Seat Material 316SS	No.	6	1,198.00	7,188.00	
3.6.3.3.3	CHECK VALVE, DN750, SS316, Sched. 10, Bray Bray/Rite Seat Material 316SS	No.	2	81,464.00	162,928.00	
8 3.6.3.3.4	CONTINUOUS VENTING VALVE					
3.6.3.3.4.1	CONTINUOUS VENTING VALVE, DN25, SS316, Sched. 10, Bermad C30-050 IP Seat Material, Threaded BSP Composite 16 Bar rated Air Out Only	No.	1	739.00	739.00	
8 3.6.3.3.5	DIAPHRAGM VALVE					
3.6.3.3.5.1	DIAPHRAGM VALVE, DN25, PVCS80, GF Type 514 Seat Material, PVC / PTFE	No.	12	307.77	3,693.24	
8 3.6.3.3.6	GATE VALVES					
3.6.3.3.6.1	GATE VALVE, DN25, SS316, Sched. 10, Reece Dura Eagle Seat Material 316SS	No.	1	94.08	94.08	
3.6.3.3.6.2	GATE VALVE, DN50, SS316, Sched. 10, Reece Dura Eagle Seat Material 316SS	No.	2	206.00	412.00	
3.6.3.3.6.3	GATE VALVE, DN100, SS316, Sched. 10, Reece Dura Seat Material 316SS	No.	1	325.00	325.00	
3.6.3.3.6.4	GATE VALVE, DN150, SS316, Sched. 10, Reece Dura Seat Material 316SS	No.	14	674.41	9,441.74	
3.6.3.3.6.5	GATE VALVE, DN200, SS316, Sched. 10, Reece Dura Seat Material 316SS	No.	3	736.00	2,208.00	
3.6.3.3.6.6	SLIDE GATE PNEUMATIC, DN300, SS316, Sched. 10, Seat Material 316SS	No.	4	44,765.00	179,060.00	
3.6.3.3.6.7	Gate valve DN500, manual, AVK Model S55/80	No.	1	15,000.00	15,000.00	
3.6.3.3.6.8	Gate valve DN750, manual, AVK Model S55/80	No.	7	55,930.17	391,511.19	
8 3.6.3.3.7	MOTORISED BALL VALVE					
3.6.3.3.7.1		No	2	850.00	1,700.00	
3.0.3.3.7.1	Ball Valve Motorised, DN25, SS316, Sched. 10, Seat Material 316SS	No.	2	850.00	1,700.00	
8 3.6.3.3.8	PRESSURE REGULATING VALVE					
3.6.3.3.8.1	PRESSURE REGULATING VALVE, DN25, PVCS80, GF Type 586 Seat Material, PVC / FKM	No.	18	536.00	9,648.00	
8 3.6.3.3.9	PRESSURE RELEIF VALVE					
		No.	6	275.00	1,650.00	
3.6.3.3.9.1	PRESSURE RELIEF VALVE, DN25, SS316, Sched. 10, SMC AR60K-10-D with GC3-10AS-D 1MPa gauge Seat Material 316SS					
3.6.3.3.9.1 8 3.6.3.3.10	SMC AR60K-10-D with GC3-10AS-D 1MPa gauge					
	SMC AR60K-10-D with GC3-10AS-D 1MPa gauge Seat Material 316SS	No.	6	536.00	3,216.00	
8 3.6.3.3.10	SMC AR60K-10-D with GC3-10AS-D 1MPa gauge Seat Material 316SS SOLENOID VALVE		6	536.00	3,216.00	



Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.6.3.3.11.2	DN50 Valve Installation	/ea	6	276.91	1,661.45	
3.6.3.3.11.3	DN100 Valve Installation	/ea	1	517.70	517.70	
3.6.3.3.11.4	DN150 Valve Installation	/ea	39	650.13	25,355.22	
3.6.3.3.11.5	DN200 Valve Installation	/ea	14	866.85	12,135.83	
3.6.3.3.11.6	DN300 Valve Installation	/ea	18	1,324.35	23,838.24	
3.6.3.3.11.7	DN400 Valve Installation	/ea	19	2,141.60	40,690.38	
3.6.3.3.11.8	DN500 Valve Installation	/ea	6	2,141.60	12,849.59	
3.6.3.3.11.9	DN750 Valve Installation	/ea	24	3,923.77	94,170.46	
6 3.6.3.4	Instrumentation	Item	1	29,458.52	29,458.52	
3.6.3.4.1	Flow meter, Promag W400, DN750, supply	No.	1	25,726.27	25,726.27	
3.6.3.4.2	Electro mag-flow meter install, DN750	No.	1	3,732.25	3,732.25	
4 3.8	Backwash Balance Tank (008)	Item	1	1,676,107.56	1,676,107.56	
5 3.8.1	Civil					
6 3.8.1.1	Foundations					
3.8.1.1.1	Allowance for foundations	m2	255	137.39		Allowance for bored piers 600mm dia. 2.0m long, 1 per 11m2
6 3.8.1.2	Detailed excavation	Item	1	21,033.69	21,033.69	
3.8.1.2.1	Detailed excavation	m3	218	67.19		ring beam 1.5x1.5, beams under baffle walls 800x800, slab 450mm thick
3.8.1.2.2	Cart & dispose spoil [ASSUME VENM]	Tonnes	458	5.81	2,663.08	
3.8.1.2.2 3.8.1.2.3	Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade	Tonnes m2	458 255	5.81 14.60	2,663.08 3,722.24	
3.8.1.2.3	Trim & compact subgrade	m2	255	14.60	3,722.24	
3.8.1.2.3 5 3.8.2	Trim & compact subgrade  Structural	m2	255 1	14.60 1,167,918.56	3,722.24 1,167,918.56	
3.8.1.2.3 5 3.8.2 6 3.8.2.1	Trim & compact subgrade  Structural  Ring beam and base slab	m2  Item  m3	255 1 136	14.60 1,167,918.56 2,570.04	3,722.24 1,167,918.56 349,525.99	
3.8.1.2.3  5 3.8.2  6 3.8.2.1  3.8.2.1.1	Trim & compact subgrade  Structural  Ring beam and base slab  Blinding	m2  Item  m3  m2	255 1 136 163	14.60 1,167,918.56 2,570.04 42.86	3,722.24  1,167,918.56  349,525.99  6,985.61	
3.8.1.2.3  5 3.8.2  6 3.8.2.1  3.8.2.1.1  3.8.2.1.2	Trim & compact subgrade  Structural  Ring beam and base slab  Blinding  Membrane	m2  Item  m3  m2  m2	255 1 136 163 290	14.60 1,167,918.56 2,570.04 42.86 5.64	3,722.24  1,167,918.56  349,525.99  6,985.61  1,636.93	220 kg/m3
3.8.1.2.3  5 3.8.2  6 3.8.2.1  3.8.2.1.1  3.8.2.1.2  3.8.2.1.3	Trim & compact subgrade  Structural  Ring beam and base slab  Blinding  Membrane  Edge form 1.50m high COP	m2  Item  m3  m2  m2  m2	255 1 136 163 290 127	14.60  1,167,918.56  2,570.04  42.86  5.64  300.79	3,722.24  1,167,918.56  349,525.99  6,985.61  1,636.93  38,200.68  134,418.04  87,691.68	220 kg/m3 ring beam 1.5x1.5, slab 450mm thick
3.8.1.2.3  5 3.8.2  6 3.8.2.1  3.8.2.1.1  3.8.2.1.2  3.8.2.1.3  3.8.2.1.4	Trim & compact subgrade  Structural  Ring beam and base slab  Blinding  Membrane  Edge form 1.50m high COP  Supply & fix Reinforcing	m2 m3 m2 m2 m2 m2 Tonnes	255 1 136 163 290 127 30.80	14.60 1,167,918.56 2,570.04 42.86 5.64 300.79 4,364.22	3,722.24  1,167,918.56  349,525.99  6,985.61  1,636.93  38,200.68  134,418.04  87,691.68	
3.8.1.2.3  5 3.8.2  6 3.8.2.1  3.8.2.1.1  3.8.2.1.2  3.8.2.1.3  3.8.2.1.4  3.8.2.1.5	Trim & compact subgrade  Structural  Ring beam and base slab  Blinding  Membrane  Edge form 1.50m high COP  Supply & fix Reinforcing  Supply & place \$40 concrete to slab on ground	m2 m3 m2 m2 m2 Tonnes m3	255 1 136 163 290 127 30.80 136	14.60  1,167,918.56  2,570.04  42.86  5.64  300.79  4,364.22  644.79	3,722.24  1,167,918.56  349,525.99  6,985.61  1,636.93  38,200.68  134,418.04  87,691.68	
3.8.1.2.3  5 3.8.2  6 3.8.2.1  3.8.2.1.1  3.8.2.1.2  3.8.2.1.3  3.8.2.1.4  3.8.2.1.5	Trim & compact subgrade  Structural  Ring beam and base slab  Blinding  Membrane  Edge form 1.50m high COP  Supply & fix Reinforcing  Supply & place \$40 concrete to slab on ground  Curing	m2  Item m3 m2 m2 m2 Tonnes m3	255  1  136  163  290  127  30.80  136	14.60  1,167,918.56  2,570.04  42.86  5.64  300.79  4,364.22  644.79  11.91	3,722.24  1,167,918.56  349,525.99  6,985.61  1,636.93  38,200.68  134,418.04  87,691.68  1,941.16	
3.8.1.2.3  5 3.8.2  6 3.8.2.1  3.8.2.1.1  3.8.2.1.2  3.8.2.1.3  3.8.2.1.4  3.8.2.1.5  3.8.2.1.6  3.8.2.1.7	Trim & compact subgrade  Structural  Ring beam and base slab  Blinding  Membrane  Edge form 1.50m high COP  Supply & fix Reinforcing  Supply & place S40 concrete to slab on ground  Curing  Formwork to kerb/upstand 200mm high COP	m2 m3 m2 m2 m2 Tonnes m3 m2	255  1 136 163 290 127 30.80 136 163 291	14.60  1,167,918.56  2,570.04  42.86  5.64  300.79  4,364.22  644.79  11.91  233.58	3,722.24  1,167,918.56  349,525.99  6,985.61  1,636.93  38,200.68  134,418.04  87,691.68  1,941.16  67,971.56	
3.8.1.2.3  5 3.8.2  6 3.8.2.1  3.8.2.1.2  3.8.2.1.3  3.8.2.1.4  3.8.2.1.5  3.8.2.1.6  3.8.2.1.7	Trim & compact subgrade  Structural  Ring beam and base slab  Blinding  Membrane  Edge form 1.50m high COP  Supply & fix Reinforcing  Supply & place S40 concrete to slab on ground  Curing  Formwork to kerb/upstand 200mm high COP  Supply & place S40 concrete to kerb 200 X 400	m2  Item  m3  m2  m2  Tonnes  m3  m2  m m3	255  1 136 163 290 127 30.80 136 163 291	14.60  1,167,918.56  2,570.04  42.86  5.64  300.79  4,364.22  644.79  11.91  233.58  644.79	3,722.24  1,167,918.56  349,525.99  6,985.61  1,636.93  38,200.68  134,418.04  87,691.68  1,941.16  67,971.56  2,579.17	
3.8.1.2.3  5 3.8.2  6 3.8.2.1  3.8.2.1.1  3.8.2.1.2  3.8.2.1.4  3.8.2.1.5  3.8.2.1.6  3.8.2.1.7  3.8.2.1.8  3.8.2.1.9	Structural  Ring beam and base slab  Blinding  Membrane  Edge form 1.50m high COP  Supply & fix Reinforcing  Supply & place S40 concrete to slab on ground  Curing  Formwork to kerb/upstand 200mm high COP  Supply & place S40 concrete to kerb 200 X 400  250mm wide Supercast Rearguard waterstop	m2  Item  m3  m2  m2  m2  Tonnes  m3  m2  m  m3	255  1 136 163 290 127 30.80 136 163 291 4	14.60  1,167,918.56  2,570.04  42.86  5.64  300.79  4,364.22  644.79  11.91  233.58  644.79  140.00	3,722.24  1,167,918.56  349,525.99  6,985.61  1,636.93  38,200.68  134,418.04  87,691.68  1,941.16  67,971.56  2,579.17  6,160.00	
3.8.1.2.3  5 3.8.2  6 3.8.2.1  3.8.2.1.1  3.8.2.1.2  3.8.2.1.3  3.8.2.1.4  3.8.2.1.5  3.8.2.1.6  3.8.2.1.7  3.8.2.1.8  3.8.2.1.9  3.8.2.1.10	Structural  Ring beam and base slab  Blinding  Membrane  Edge form 1.50m high COP  Supply & fix Reinforcing  Supply & place S40 concrete to slab on ground  Curing  Formwork to kerb/upstand 200mm high COP  Supply & place S40 concrete to kerb 200 X 400  250mm wide Supercast Rearguard waterstop  Allowance for resin injection to cracks	m2  Item  m3  m2  m2  m2  Tonnes  m3  m2  m  m3	255  1 136 163 290 127 30.80 136 163 291 4 44 163	14.60  1,167,918.56  2,570.04  42.86  5.64  300.79  4,364.22  644.79  11.91  233.58  644.79  140.00  11.91	3,722.24  1,167,918.56  349,525.99 6,985.61 1,636.93 38,200.68 134,418.04 87,691.68 1,941.16 67,971.56 2,579.17 6,160.00 1,941.16	
3.8.1.2.3  5 3.8.2  6 3.8.2.1  3.8.2.1.1  3.8.2.1.2  3.8.2.1.3  3.8.2.1.4  3.8.2.1.5  3.8.2.1.6  3.8.2.1.7  3.8.2.1.8  3.8.2.1.9  3.8.2.1.10  6 3.8.2.2	Structural  Ring beam and base slab  Blinding  Membrane  Edge form 1.50m high COP  Supply & fix Reinforcing  Supply & place S40 concrete to slab on ground  Curing  Formwork to kerb/upstand 200mm high COP  Supply & place S40 concrete to kerb 200 X 400  250mm wide Supercast Rearguard waterstop  Allowance for resin injection to cracks	m2  Item m3 m2 m2 Tonnes m3 m2 m m3 m2 m m3	255  1 136 163 290 127 30.80 136 163 291 4 44 163	14.60  1,167,918.56  2,570.04  42.86  5.64  300.79  4,364.22  644.79  11.91  233.58  644.79  140.00  11.91  1,649.03	3,722.24  1,167,918.56  349,525.99 6,985.61 1,636.93 38,200.68 134,418.04 87,691.68 1,941.16 67,971.56 2,579.17 6,160.00 1,941.16	



evel Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.8.2.2.4	Formwork to walls, C.O.P. class 3, >4.0m high	m2	417	371.95	155,104.85	
3.8.2.2.5	, , , ,	m2	393	421.97	165.832.99	Assumed external walls are suitable left as o
5.0.2.2.5	Formwork to walls, C.O.P. class 2, >4.0m high	2	535	.22.37	103,032.33	form concrete without paint finish due to the remote Icoation
20226	· · · · · · · · ·		26.74	4 264 22	160 241 52	
3.8.2.2.6	Supply & fix reinforcing to walls	t	36.74	4,364.22	160,341.52	ZZUNG/IIIS
3.8.2.2.7	DN750 DICL puddle flange, supply	No.	2	7,500.00	15,000.00	
3.8.2.2.8	DN750 DICL puddle flange, fix	No.	2	2,171.35	4,342.71	
3.8.2.2.9	Supply, place & finish S40 concrete to walls	m3	167	554.83	92,656.30	400mm thick
3.8.2.2.10	Curing	m2	810	11.91	9,646.23	
3.8.2.2.11	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	405	87.76	35,542.51	
3.8.2.2.12	Allowance for resin injection to cracks	m2	405	11.91	4,823.12	
3.8.2.2.13	Hydostatic testing	Item	1	9,005.54	9,005.54	
6 3.8.2.3	Access stairs & platforms	Item	1	69,925.49	69,925.49	
3.8.2.3.1	Pad footings complete	m3	3	1,800.00	5,400.00	
3.8.2.3.2	Allowance for structural steel 15-40KG/M, shop	t	3	13,873.35	41,620.05	
	drafting, supply, fabricate, surface protection, install					Support structure to stairs
3.8.2.3.3	Galvanized steel stair stingers & treads	MR	2	1,665.92	3,331.85	
3.8.2.3.4	Webforge A325MPG mesh grating, HDG, fixed to steel trimmers	m2	20	450.00	9,000.00	Walkways and landings
3.8.2.3.5	Handrails, comprising, toe board, midrail & handrail supply & install	m	29	364.61	10,573.59	
6 3.8.2.4	Roof structure & cladding	Item	1	80,611.31	80,611.31	
3.8.2.4.1		t	2.99	13,873.35	41,481.31	
	Structural steel wall and roof framing comprising; - HD bolts, - steel trusses, - bracing, - stiffeners, cleats, end plates and connections					Allowance for 20kg/m2 for steel structure
3.8.2.4.2	Roof purlins at 1200mm centres inc. tie rods, bridging, bolting etc.	m2	154	65.00	10,010.00	
	bridging, boiting etc.					
3.8.2.4.3	Metal roof cladding inc. safety mesh and ridge capping	m2	154	140.00	21,560.00	
3.8.2.4.3 3.8.2.4.4	Metal roof cladding inc. safety mesh and ridge	m2 No.	154	140.00 390.00	21,560.00 1,560.00	
	Metal roof cladding inc. safety mesh and ridge capping					
3.8.2.4.4	Metal roof cladding inc. safety mesh and ridge capping  Permanent roof safety anchors	No.	4	390.00	1,560.00	
3.8.2.4.4	Metal roof cladding inc. safety mesh and ridge capping  Permanent roof safety anchors	No.	4	390.00	1,560.00	
3.8.2.4.4 3.8.2.4.5	Metal roof cladding inc. safety mesh and ridge capping  Permanent roof safety anchors  Roof access hatch	No.	4	390.00 6,000.00	1,560.00 6,000.00	
3.8.2.4.4 3.8.2.4.5 5 3.8.3	Metal roof cladding inc. safety mesh and ridge capping  Permanent roof safety anchors  Roof access hatch  Mechanical & Process	No.	1	390.00 6,000.00 <b>452,120.07</b>	1,560.00 6,000.00 <b>452,120.07</b>	
3.8.2.4.4 3.8.2.4.5 5 3.8.3 6 3.8.3.1	Metal roof cladding inc. safety mesh and ridge capping  Permanent roof safety anchors  Roof access hatch  Mechanical & Process  Equipment  Backwash pump, e-XC450-	No. No. Item	4 1 1	390.00 6,000.00 <b>452,120.07</b> <b>268,312.72</b>	1,560.00 6,000.00 452,120.07 268,312.72	
3.8.2.4.4 3.8.2.4.5 5 3.8.3 6 3.8.3.1 3.8.3.1.1	Metal roof cladding inc. safety mesh and ridge capping  Permanent roof safety anchors  Roof access hatch  Mechanical & Process  Equipment  Backwash pump, e-XC450- 370/1600W/W45BCS4AG Lowarra-Xylem	No.  No.  Item  Item  No.	1 1 2	390.00 6,000.00 <b>452,120.07</b> <b>268,312.72</b> 102,745.00	1,560.00 6,000.00 452,120.07 268,312.72 205,490.00	
3.8.2.4.4 3.8.2.4.5 5 3.8.3 6 3.8.3.1 3.8.3.1.1	Metal roof cladding inc. safety mesh and ridge capping  Permanent roof safety anchors  Roof access hatch  Mechanical & Process  Equipment  Backwash pump, e-XC450- 370/1600W/W45BCS4AG Lowarra-Xylem  Pump install, medium	No.  No.  Item  Item  No.  No.	4 1 1 1 2	390.00 6,000.00 <b>452,120.07</b> <b>268,312.72</b> 102,745.00 16,873.25	1,560.00 6,000.00 452,120.07 268,312.72 205,490.00 33,746.50	
3.8.2.4.4 3.8.2.4.5 5 3.8.3 6 3.8.3.1 3.8.3.1.1 3.8.3.1.2 3.8.3.1.3	Metal roof cladding inc. safety mesh and ridge capping  Permanent roof safety anchors  Roof access hatch  Mechanical & Process  Equipment  Backwash pump, e-XC450- 370/1600W/W45BCS4AG Lowarra-Xylem  Pump install, medium  Mixer Submerged Jet 4620 Flygt-Xylem	No.  Item  Item  No.  No.	4 1 1 2 2	390.00 6,000.00 452,120.07 268,312.72 102,745.00 16,873.25 19,416.00	1,560.00 6,000.00 452,120.07 268,312.72 205,490.00 33,746.50 19,416.00	



Level Item 6 3.8.3.2	Description Valves	Unit Item	Qty 1	Rate 154,348.83	Value (Excluding GST) 154,348.83	Remarks
7 3.8.3.2.1	BALL VALVES					
3.8.3.2.1.1	BALL VALVE, DN25, SS316, Sched. 10, Asmuss 3 piece ball valve Seat Material 316SS	No.	8	52.98	423.84	
3.8.3.2.1.2	BALL VALVE, DN50, SS316, Sched. 10, Asmuss 3 piece ball valve Seat Material 316SS	No.	1	159.00	159.00	
7 3.8.3.2.2	BUTTERFLY VALVES					
3.8.3.2.2.1	BUTTERFLY VALVE PNEUMATIC, DN200, PVCS80, Seat Material, Ductile iron body, 316SST disc, 431SST shaft, Vulcanised EPDM seat.	No.	4	3,002.56	12,010.24	
3.8.3.2.2.2	Butterfly Valve, DN600, SS316, Sched. 10, Bray Series 3L Seat Material, Ductile iron body, 316SST disc, 431SST shaft, Vulcanised EPDM seat.	No.	2	7,930.00	15,860.00	
7 3.8.3.2.3	CHECK VALVES					
3.8.3.2.3.1	CHECK VALVE, DN200, SS316, Sched. 10, Bray Bray/Rite Seat Material 316SS	No.	2	1,796.00	3,592.00	
7 3.8.3.2.4	CONTINUOUS VENTING VALVE					
3.8.3.2.4.1	CONTINUOUS VENTING VALVE, DN25, SS316, Sched. 10, Bermad C30-050 IP Seat Material, Threaded BSP Composite 16 Bar rated Air Out Only	No.	1	739.00	739.00	
7 3.8.3.2.5	DIAPHRAGM VALVE					
3.8.3.2.5.1	DIAPHRAGM VALVE, DN25, PVCS80, GF Type 514 Seat Material, PVC / PTFE	No.	2	307.77	615.54	
7 3.8.3.2.6	GATE VALVES					
3.8.3.2.6.1	GATE VALVE, DN250, SS316, Sched. 10, Reece Dimax Seat Material 316SS	No.	2	2,445.00	4,890.00	
3.8.3.2.6.2	GATE VALVE, DN600, DICL, AVK S55/80 Seat Material 316SS	No.	2	48,000.00	96,000.00	
7 3.8.3.2.7	MOTORISED BALL VALVE					
3.8.3.2.7.1	MOTORISED BALL VALVE DN50	No.	1	1,500.00	1,500.00	
7 3.8.3.2.8	VALVE INSTALL					
3.8.3.2.8.1	DN25 Valve Installation	/ea	11	192.63	2,118.96	
3.8.3.2.8.2	DN50 Valve Installation	/ea	2	276.91	553.82	
3.8.3.2.8.3	DN200 Valve Installation	/ea	6	866.85	5,201.07	
3.8.3.2.8.4	DN250 Valve Installation	/ea	2	1,059.48	2,118.96	
3.8.3.2.8.5	DN500 Valve Installation	/ea	4	2,141.60	8,566.40	
6 3.8.3.3	Instrumentation	Item	1	29,458.52	29,458.52	
3.8.3.3.1	Flow meter, Promag W400, DN750, supply	No.	1	25,726.27	25,726.27	
3.8.3.3.2	Electro mag-flow meter install, DN750	No.	1	3,732.25	3,732.25	
4 3.9	Sludge Thickener (009)	Item	1	1,973,457.65	1,973,457.65	



evel Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
6 3.9.1	Civils	Item	1	37,347.75	37,347.75	
7 3.9.1.1	Foundations					
3.9.1.1.1	Allowance for foundations	m2	194	137.39	26,654.26	Allowance for bored piers 600mm dia. 2.0m lor 1 per 11m2
7 3.9.1.2	Detailed excavation	Item	1	10,693.49	10,693.49	
3.9.1.2.1	Detailed excavation	m3	99	67.19	6,652.24	ring beam 800x800, beam under central wall 800x800
3.9.1.2.2	Cart & dispose spoil [ASSUME VENM]	Tonnes	208	5.81	1,209.43	
3.9.1.2.3	Trim & compact subgrade	m2	194	14.60	2,831.82	
6 3.9.2	Structural	Item	1	1,110,483.97	1,110,483.97	
7 3.9.2.1	Ring beam and base slab	m3	55	4,121.07	226,658.96	
3.9.2.1.1	Blinding	m2	194	42.86	8,314.16	
3.9.2.1.2	Membrane	m2	253	5.64	1,428.08	
3.9.2.1.3	Edge form 800mm high COP	m	97	402.04	38,997.54	
3.9.2.1.4	Supply & fix Reinforcing	Tonnes	23.10	4,364.22	100,813.53	220 kg/m3
3.9.2.1.5	DN750 DICL puddle flange, supply	No.	1	7,500.00	7,500.00	
3.9.2.1.6	DN750 DICL puddle flange, fix	No.	1	2,171.35	2,171.35	
3.9.2.1.7	Supply & place S40 concrete to slab on ground	m3	101	644.79	65,123.97	ring beam 800x800, beam under central wall 800x800, slab 300mm thick
3.9.2.1.8	Curing	m2	194	11.91	2,310.33	
7 3.9.2.2	External Walls	m2	274	1,614.44	442,357.52	
3.9.2.2.1	Scaffold stretcher stairs 7.0m rise erection	No.	2	3,355.00	6,710.00	
3.9.2.2.2	Scaffold stretcher stairs 7.0m rise hire	Week	24	40.00	960.00	
3.9.2.2.3	Scaffold stretcher stairs 7.0m rise removal	No.	2	1,600.00	3,200.00	
3.9.2.2.4	Formwork to walls, C.O.P. class 3, >4.0m high	m2	257.45	371.95	95,759.58	
3.9.2.2.5	Formwork to walls, C.O.P. class 2, >4.0m high	m2	271.28	421.97		Assumed external walls are suitable left as of form concrete without paint finish due to the remote location
3.9.2.2.6	Supply & fix reinforcing to walls	t	23.98	4,364.22	104,654.05	
3.9.2.2.7	,	m	98.65	140.00		J
	250mm wide Supercast Rearguard waterstop					Launder interface. Scraper floor/wall interface
3.9.2.2.8	Supply, place & finish S40 concrete to walls	m3	109	554.83		400mm thick
3.9.2.2.9	Curing	m2	529	11.91		
3.9.2.2.10	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	271	87.76	23,782.77	
3.9.2.2.11	Allowance for resin injection to cracks	m2	271	11.91	3,227.32	
3.9.2.2.12	Hydostatic testing	Item	1	9,005.54	9,005.54	
7 3.9.2.3	Sump & scraper floor	m3	37	6,783.28	250,981.43	
3.9.2.3.1	Formwork to walls COP in conical profile	m2	15	1,200.00	18,000.00	



# **園Becahunter**h₂O

Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.9.2.3.3	Supply & fix reinforcing to suspended slab/walls	t	8.14	6,546.33		220kg/m3
3.9.2.3.4	Supply, place & finish S40 concrete to walls/suspended slab	m3	37	748.49	27,694.28	400mm thick
7 3.9.2.4	Launder	m3	31	3,721.90	115,378.76	
3.9.2.4.1	Formwork to suspended slab 750mm wide, C.O.P	m2	49	482.37	23,636.07	
3.9.2.4.2	Formwork to walls, C.O.P. class 2, <2.0m high	m2	52	333.20	17,326.50	
3.9.2.4.3	Formwork to walls, C.O.P. class 3, <2.0m high	m2	54	300.79	16,242.81	
3.9.2.4.4	Supply & fix reinforcing to walls [ASSUME 220KG PER M3]	t	6.82	4,364.22	29,764.00	
3.9.2.4.5	Supply, place & finish S40 concrete to floor & walls [250mm thick assumed]	m3	31	497.98	15,437.32	
3.9.2.4.6	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	85.00	87.76	7,459.54	
3.9.2.4.7	Acid etch to slab finish	m2	49	9.08	445.08	
3.9.2.4.8	Grout Sika Monotop [ASSUMED] average 50mm deep	m2	49	19.21	941.25	
3.9.2.4.9	Cast-in DICL spool to bellmouth	No.	1	3,113.93	3,113.93	
3.9.2.4.10	Allowance for resin injection to cracks	m2	85	11.91	1,012.26	
7 3.9.2.5	Access stairs & platforms	Item	1	75,107.30	75,107.30	
8 3.9.2.5.1	Stairs	MR	6	7,125.10	42,750.61	
3.9.2.5.1.1	Pad footings complete	m3	3	1,800.00	5,400.00	
3.9.2.5.1.2	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install	t	1.10	13,873.35	15,260.68	Support structure to stairs
3.9.2.5.1.3	Galvanized steel stair stingers & treads	MR	6	1,665.92	9,995.55	
3.9.2.5.1.4	Webforge A325MPG mesh grating, HDG, fixed to steel trimmers	m2	5	450.00	2,250.00	Walkways and landings
3.9.2.5.1.5	Handrails, comprising, toe board, midrail & handrail supply & install	m	27	364.61	9,844.38	
8 3.9.2.5.2	Platforms	M2	14	2,311.19	32,356.69	
8 3.9.2.5.2 3.9.2.5.2.1	Platforms  Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install	M2 t	1.30	<b>2,311.19</b> 13,873.35		Support structure to stairs
	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection,	t			18,035.35	Support structure to stairs  Walkways and landings
3.9.2.5.2.1	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install Webforge A325MPG mesh grating, HDG, fixed to	t	1.30	13,873.35	18,035.35 6,300.00	
3.9.2.5.2.1 3.9.2.5.2.2	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Webforge A325MPG mesh grating, HDG, fixed to steel trimmers  Handrails, comprising, toe board, midrail &	t m2	1.30	13,873.35 450.00	18,035.35 6,300.00	
3.9.2.5.2.1 3.9.2.5.2.2 3.9.2.5.2.3	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Webforge A325MPG mesh grating, HDG, fixed to steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install	t m2	1.30	13,873.35 450.00	18,035.35 6,300.00	
3.9.2.5.2.2 3.9.2.5.2.3 <b>6 3.9.3</b>	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Webforge A325MPG mesh grating, HDG, fixed to steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install	t m2	1.30	13,873.35 450.00	18,035.35 6,300.00 8,021.34	
3.9.2.5.2.2 3.9.2.5.2.3 6 3.9.3 7 3.9.3.1 3.9.3.1.1	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Webforge A325MPG mesh grating, HDG, fixed to steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical  Equipment	t m2 m	1.30 14 22	13,873.35 450.00 364.61	18,035.35 6,300.00 8,021.34	
3.9.2.5.2.2 3.9.2.5.2.3 6 3.9.3 7 3.9.3.1	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Webforge A325MPG mesh grating, HDG, fixed to steel trimmers  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical  Equipment  Gravity thickener mixer 1.5kW TD, Mixtec	t m2 m	1.30 14 22	13,873.35 450.00 364.61	18,035.35 6,300.00 8,021.34 10,000.00 2,109.16	



Level Item	Description	Unit	Qty		Value (Excluding GST)	Remarks
3.9.3.1.4	Gravity thickener supernatant analyser panel	No.	1	12,000.00	12,000.00	
3.9.3.1.5	Analyser panel - install	No.	1	1,687.32	1,687.32	
3.9.3.1.6	Tank Mixer 1.5kW Sub Mixer - AMD.07.18 Grundfos	No.	1	3,100.00	3,100.00	
3.9.3.1.7	Mixer install	No.	1	2,109.16	2,109.16	
3.9.3.1.8	Supernatant Return Pump 1 IXPC150-125- 250B110P45BDN4S1G Lowara-Xylem	No.	2	11,625.00	23,250.00	
3.9.3.1.9	Pump install, small	No.	2	6,749.30	13,498.60	
3.9.3.1.10	Supernatant return analyser panel	No.	1	12,000.00	12,000.00	
3.9.3.1.11	Analyser panel - install	No.	1	1,687.32	1,687.32	
3.9.3.1.12	Thickened Sludge Tank Mixer 1 Flygt 4620 - 1.5kW Flygt-Xylem	No.	2	19,416.00	38,832.00	
3.9.3.1.13	Mixer install	No.	2	6,327.47	12,654.94	
3.9.3.1.14	Centrifuge Feed Pump 1 Netzsch	No.	3	6,210.00	18,630.00	
3.9.3.1.15	Pump install - small	No.	3	6,749.30	20,247.90	
3.9.3.1.16	Centrate return pump Grundfos	No.	2	6,458.00	12,916.00	
3.9.3.1.17	Pump install - small	No.	2	6,749.30	13,498.60	
3.9.3.1.18	Centrate return tank mixer 1.5kW Sub Mixer - AMD.07.18 Grundfos	No.	1	3,100.00	3,100.00	
3.9.3.1.19	Mixer install	No.	1	2,109.16	2,109.16	
3.9.3.1.20	Davit supply (rescue)	No.	1	2,500.00	2,500.00	
3.9.3.1.21	Davit install	No.	1	632.75	632.75	
3.9.3.1.21 7 3.9.3.2	Davit install  Pipework	No.	1	632.75 <b>166,505.31</b>	632.75 <b>166,505.31</b>	
7 3.9.3.2	Pipework					
7 3.9.3.2 8 3.9.3.2.1	Pipework Stainless Steel Sched. 10	Item	1	166,505.31	166,505.31	
7 3.9.3.2 8 3.9.3.2.1 3.9.3.2.1.1	Pipework  Stainless Steel Sched. 10  Pipework supply DN100 SS136 S10  DN100 SCH 10 SS Pipe & Fittings above-ground	<b>Item</b> m	<b>1</b> 40	<b>166,505.31</b> 446.18	<b>166,505.31</b> 17,847.12	
7 3.9.3.2 8 3.9.3.2.1 3.9.3.2.1.1 3.9.3.2.1.2	Pipework  Stainless Steel Sched. 10  Pipework supply DN100 SS136 S10  DN100 SCH 10 SS Pipe & Fittings above-ground Installation	item m m	1 40 8	166,505.31 446.18 269.75	166,505.31 17,847.12 2,157.98	
7 3.9.3.2 8 3.9.3.2.1 3.9.3.2.1.1 3.9.3.2.1.2	Pipework  Stainless Steel Sched. 10  Pipework supply DN100 SS136 S10  DN100 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework install below gnd DN100	m m	1 40 8 32	166,505.31 446.18 269.75 217.17	166,505.31 17,847.12 2,157.98 6,949.55	
7 3.9.3.2 8 3.9.3.2.1 3.9.3.2.1.1 3.9.3.2.1.2 3.9.3.2.1.3 3.9.3.2.1.4	Pipework  Stainless Steel Sched. 10  Pipework supply DN100 SS136 S10  DN100 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework install below gnd DN100  Pipework supply DN150 SS136 S10  DN150 SCH 10 SS Pipe & Fittings above-ground	m m m	1 40 8 32 45	166,505.31 446.18 269.75 217.17 513.29	166,505.31 17,847.12 2,157.98 6,949.55 23,098.02	
7 3.9.3.2 8 3.9.3.2.1.1 3.9.3.2.1.2 3.9.3.2.1.3 3.9.3.2.1.4 3.9.3.2.1.5	Pipework  Stainless Steel Sched. 10  Pipework supply DN100 SS136 S10  DN100 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework install below gnd DN100  Pipework supply DN150 SS136 S10  DN150 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework supply DN200 SS136 S10 supply &	m m m	40 8 32 45 45	166,505.31 446.18 269.75 217.17 513.29 322.97	17,847.12 2,157.98 6,949.55 23,098.02 14,533.74	
7 3.9.3.2  8 3.9.3.2.1.1  3.9.3.2.1.2  3.9.3.2.1.3  3.9.3.2.1.4  3.9.3.2.1.5	Pipework  Stainless Steel Sched. 10  Pipework supply DN100 SS136 S10  DN100 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework install below gnd DN100  Pipework supply DN150 SS136 S10  DN150 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework supply DN200 SS136 S10 supply & fabricate  DN200 SCH 10 SS pipe & fittings above ground	m m m m	40 8 32 45 45	166,505.31 446.18 269.75 217.17 513.29 322.97 998.42	17,847.12 2,157.98 6,949.55 23,098.02 14,533.74 30,951.16	
7 3.9.3.2  8 3.9.3.2.1.1  3.9.3.2.1.2  3.9.3.2.1.3  3.9.3.2.1.4  3.9.3.2.1.5  3.9.3.2.1.6	Pipework  Stainless Steel Sched. 10  Pipework supply DN100 SS136 S10  DN100 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework install below gnd DN100  Pipework supply DN150 SS136 S10  DN150 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework supply DN200 SS136 S10 supply & fabricate  DN200 SCH 10 SS pipe & fittings above ground installation	m m m m	1 40 8 32 45 45 9	166,505.31 446.18 269.75 217.17 513.29 322.97 998.42 468.89	17,847.12 2,157.98 6,949.55 23,098.02 14,533.74 30,951.16 4,220.05	
7 3.9.3.2  8 3.9.3.2.1.1  3.9.3.2.1.2  3.9.3.2.1.3  3.9.3.2.1.4  3.9.3.2.1.5  3.9.3.2.1.6  3.9.3.2.1.7	Pipework  Stainless Steel Sched. 10  Pipework supply DN100 SS136 S10  DN100 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework install below gnd DN100  Pipework supply DN150 SS136 S10  DN150 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework supply DN200 SS136 S10 supply & fabricate  DN200 SCH 10 SS pipe & fittings above ground installation  Pipework install below gnd DN200	m m m m m m	1 40 8 32 45 45 45 22	166,505.31 446.18 269.75 217.17 513.29 322.97 998.42 468.89 263.12	17,847.12 2,157.98 6,949.55 23,098.02 14,533.74 30,951.16 4,220.05 5,788.56	
7 3.9.3.2  8 3.9.3.2.1.1 3.9.3.2.1.2 3.9.3.2.1.3 3.9.3.2.1.4 3.9.3.2.1.5 3.9.3.2.1.6 3.9.3.2.1.7 3.9.3.2.1.8 3.9.3.2.1.9	Pipework  Stainless Steel Sched. 10  Pipework supply DN100 SS136 S10  DN100 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework install below gnd DN100  Pipework supply DN150 SS136 S10  DN150 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework supply DN200 SS136 S10 supply & fabricate  DN200 SCH 10 SS pipe & fittings above ground installation  Pipework install below gnd DN200  Pipework supply DN250 SS136 S10  DN250 SCH 10 SS Pipe & Fittings above-ground	m m m m m m	1 40 8 32 45 45 45 22 10	166,505.31 446.18 269.75 217.17 513.29 322.97 998.42 468.89 263.12 1,340.28	17,847.12 2,157.98 6,949.55 23,098.02 14,533.74 30,951.16 4,220.05 5,788.56 13,402.80	
7 3.9.3.2  8 3.9.3.2.1.1 3.9.3.2.1.2 3.9.3.2.1.3 3.9.3.2.1.4 3.9.3.2.1.5 3.9.3.2.1.6 3.9.3.2.1.7 3.9.3.2.1.8 3.9.3.2.1.9 3.9.3.2.1.10	Pipework  Stainless Steel Sched. 10  Pipework supply DN100 SS136 S10  DN100 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework install below gnd DN100  Pipework supply DN150 SS136 S10  DN150 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework supply DN200 SS136 S10 supply & fabricate  DN200 SCH 10 SS pipe & fittings above ground installation  Pipework install below gnd DN200  Pipework supply DN250 SS136 S10  DN250 SCH 10 SS Pipe & Fittings above-ground Installation	Item  m m m m m m m m m	1 40 8 32 45 45 45 21 10 1	166,505.31  446.18 269.75 217.17 513.29 322.97 998.42 468.89 263.12 1,340.28 596.22	17,847.12 2,157.98 6,949.55 23,098.02 14,533.74 30,951.16 4,220.05 5,788.56 13,402.80 596.22	
7 3.9.3.2  8 3.9.3.2.1.1  3.9.3.2.1.2  3.9.3.2.1.3  3.9.3.2.1.4  3.9.3.2.1.5  3.9.3.2.1.6  3.9.3.2.1.7  3.9.3.2.1.8  3.9.3.2.1.10  3.9.3.2.1.10	Pipework  Stainless Steel Sched. 10  Pipework supply DN100 SS136 S10  DN100 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework install below gnd DN100  Pipework supply DN150 SS136 S10  DN150 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework supply DN200 SS136 S10 supply & fabricate  DN200 SCH 10 SS pipe & fittings above ground installation  Pipework install below gnd DN200  Pipework supply DN250 SS136 S10  DN250 SCH 10 SS Pipe & Fittings above-ground Installation  Pipework install below gnd DN250	m m m m m m m m m m	1 40 8 32 45 45 45 21 10 1	166,505.31  446.18 269.75 217.17 513.29 322.97 998.42 468.89 263.12 1,340.28 596.22 305.17	17,847.12 2,157.98 6,949.55 23,098.02 14,533.74 30,951.16 4,220.05 5,788.56 13,402.80 596.22 2,746.55	



Level Item 7 3.9.3.3	<b>Description</b> Valves	Unit Item	Qty 1	Rate 60,602.30	Value (Excluding GST) 60,602.30	Remarks
9 3.9.3.3.1	BALL VALVES					
3.9.3.3.1.1	Ball valve, DN25, SS316, sched. 10 supply	No.	30	110.00	3,300.00	
9 3.9.3.3.2	BUTTERFLY VALVES					
3.9.3.3.2.1	Butterfly Valve, DN80, SS316, Sched. 10, Bray Series 3L Seat Material, Ductile iron body, 316SST disc, 431SST shaft, Vulcanised EPDM seat.	No.	2	359.00	718.00	
3.9.3.3.2.2	Butterfly Valve, DN150, SS316, Sched. 10, Seat Material, Ductile iron body, 316SST disc, 431SST shaft, Vulcanised EPDM seat.	No.	2	1,321.77	2,643.54	
3.9.3.3.2.3	BUTTERFLY VALVE PNEUMATIC, DN200, PVCS80, Seat Material, Ductile iron body, 316SST disc, 431SST shaft, Vulcanised EPDM seat.	No.	2	3,002.56	6,005.12	
9 3.9.3.3.3	CHECK VALVES					
3.9.3.3.1	CHECK VALVE, DN80, PVCS80, GF Type 561 Seat Material, PVC / FKM	No.	5	220.16	1,100.80	
3.9.3.3.3.2	CHECK VALVE, DN150, SS316, Sched. 10, Seat Material 316SS	No.	2	1,549.57	3,099.14	
9 3.9.3.3.4	CONTINUOUS VENTING VALVE					
3.9.3.3.4.1	CONTINUOUS VENTING VALVE, DN25, SS316, Sched. 10, Bermad C30-050 IP Seat Material, Threaded BSP Composite 16 Bar rated Air Out Only	No.	1	739.00	739.00	
9 3.9.3.3.5	DIAPHRAGM VALVE					
3.9.3.3.5.1	DIAPHRAGM VALVE, DN25, PVCS80, GF Type 514 Seat Material, PVC / PTFE	No.	2	307.77	615.54	
9 3.9.3.3.6	GATE VALVES					
3.9.3.3.6.1	GATE VALVE, DN80, SS316, Sched. 10, Reece Dura Seat Material 316SS	No.	11	317.00	3,487.00	
3.9.3.3.6.2	GATE VALVE, DN100, SS316, Sched. 10, Reece Dura Seat Material 316SS	No.	3	325.00	975.00	
3.9.3.3.6.3	GATE VALVE, DN150, SS316, Sched. 10, Seat Material 316SS	No.	5	674.41	3,372.05	
3.9.3.3.6.4	GATE VALVE, DN200, SS316, Sched. 10, Seat Material 316SS	No.	1	841.50	841.50	
3.9.3.3.6.5	GATE VALVE, DN250, SS316, Sched. 10, Seat Material 316SS	No.	3	1,347.50	4,042.50	
9 3.9.3.3.7	PRESSURE RELEIF VALVES					
3.9.3.3.7.1	PRESSURE RELIEF VALVE, DN80	No.	3	1,398.02	4,194.06	
9 3.9.3.3.8	VALVE INSTALL					
3.9.3.3.8.1	DN25 Valve Installation	/ea	33	192.63	6,356.87	
3.9.3.3.8.2	DN80 Valve Installation	/ea	21	385.26	8,090.56	
3.9.3.3.8.3	DN100 Valve Installation	/ea	3	517.70	1,553.10	
3.9.3.3.8.4	DN150 Valve Installation	/ea	9	650.13	5,851.21	
3.9.3.3.8.5	DN200 Valve Installation	/ea	3	866.85	2,600.54	





Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
9 3.9.3.3.9	ACTUATOR INSTALL					
3.9.3.3.9.1	DN25 Actuator Installation	/ea	1	78.26	78.26	
3.9.3.3.9.2	DN80 Actuator Installation	/ea	2	469.25	938.51	
7 3.9.3.4	Instrumentation	Item	1	41,955.41	41,955.41	
8 3.9.3.4.1	67 THICKENER & SUPERNATANT RETURN					
3.9.3.4.1.1	Flow meter, Promag W400, DN300, supply	No.	1	9,968.59	9,968.59	
3.9.3.4.1.2	Electro mag-flow meter install, DN250	No.	1	2,528.30	2,528.30	
3.9.3.4.1.3	Flow meter, Promag W400, DN750, supply	No.	1	25,726.27	25,726.27	
3.9.3.4.1.4	Electro mag-flow meter install, DN750	No.	1	3,732.25	3,732.25	
4 3.10	Thickened Sludge Balance Tank (010)	Item	1	316,618.48	316,618.48	
6 3.10.1	Civils	Item	1	5,911.33	5,911.33	
7 3.10.1.1	Foundations					
3.10.1.1.1	Allowance for foundations	m2	30	137.39	4,121.79	Allowance for bored piers 600mm dia. 2.0m long, 1 per 11m2
7 3.10.1.2	Detailed excavation	Item	1	1,789.54	1,789.54	
3.10.1.2.1	Detailed excavation	m3	17	67.19	1,142.30	ring beam 800x800
3.10.1.2.2	Cart & dispose spoil [ASSUME VENM]	Tonnes	36	5.81	209.33	
3.10.1.2.3	Trim & compact subgrade	m2	30	14.60	437.91	
6 3.10.2	Structural	Item	1	304,041.66	304,041.66	
6 3.10.2 7 3.10.2.1	Structural Ring beam and base slab	Item m3	1 23	304,041.66 3,594.19		
					82,666.31	
7 3.10.2.1	Ring beam and base slab	m3	23	3,594.19	<b>82,666.31</b> 1,285.70	
<b>7 3.10.2.1</b> 3.10.2.1.1	Ring beam and base slab Blinding	<b>m3</b> m2	<b>23</b> 30	<b>3,594.19</b> 42.86	<b>82,666.31</b> 1,285.70 220.14	
<b>7 3.10.2.1</b> 3.10.2.1.1 3.10.2.1.2	Ring beam and base slab  Blinding  Membrane	m3 m2 m2	23 30 39	<b>3,594.19</b> 42.86 5.64	82,666.31 1,285.70 220.14 17,689.61	220 kg/m3
7 3.10.2.1.1 3.10.2.1.2 3.10.2.1.2	Ring beam and base slab  Blinding  Membrane  Edge form 800mm high COP	m3 m2 m2 m	23 30 39 44	<b>3,594.19</b> 42.86 5.64 402.04	82,666.31 1,285.70 220.14 17,689.61 24,003.22	220 kg/m3
7 3.10.2.1.1 3.10.2.1.2 3.10.2.1.3 3.10.2.1.4	Ring beam and base slab  Blinding  Membrane  Edge form 800mm high COP  Supply & fix Reinforcing	m3 m2 m2 m Tonnes	23 30 39 44 5.50	3,594.19 42.86 5.64 402.04 4,364.22	82,666.31 1,285.70 220.14 17,689.61 24,003.22 1,800.00	220 kg/m3
7 3.10.2.1.1 3.10.2.1.2 3.10.2.1.3 3.10.2.1.4 3.10.2.1.5	Ring beam and base slab  Blinding  Membrane  Edge form 800mm high COP  Supply & fix Reinforcing  DN200 DICL puddle flange, supply	m3 m2 m2 m Tonnes	23 30 39 44 5.50	3,594.19 42.86 5.64 402.04 4,364.22 1,800.00	82,666.31 1,285.70 220.14 17,689.61 24,003.22 1,800.00 1,085.68	220 kg/m3 ring beam 800x800, slab 300mm thick
7 3.10.2.1.1 3.10.2.1.2 3.10.2.1.3 3.10.2.1.4 3.10.2.1.5 3.10.2.1.6	Ring beam and base slab  Blinding  Membrane  Edge form 800mm high COP  Supply & fix Reinforcing  DN200 DICL puddle flange, supply  DN200 DICL puddle flange, fix	m3 m2 m2 m Tonnes No.	23 30 39 44 5.50 1	3,594.19 42.86 5.64 402.04 4,364.22 1,800.00 1,085.68	82,666.31 1,285.70 220.14 17,689.61 24,003.22 1,800.00 1,085.68 14,830.21	
7 3.10.2.1.1 3.10.2.1.2 3.10.2.1.3 3.10.2.1.4 3.10.2.1.5 3.10.2.1.6 3.10.2.1.7	Ring beam and base slab  Blinding  Membrane  Edge form 800mm high COP  Supply & fix Reinforcing  DN200 DICL puddle flange, supply  DN200 DICL puddle flange, fix  Supply & place S40 concrete to slab on ground	m3 m2 m Tonnes No. No. m3	23 30 39 44 5.50 1 1	3,594.19  42.86  5.64  402.04  4,364.22  1,800.00  1,085.68  644.79	82,666.31 1,285.70 220.14 17,689.61 24,003.22 1,800.00 1,085.68 14,830.21 1,017.82	
7 3.10.2.1.1 3.10.2.1.2 3.10.2.1.3 3.10.2.1.4 3.10.2.1.5 3.10.2.1.6 3.10.2.1.7	Ring beam and base slab  Blinding  Membrane  Edge form 800mm high COP  Supply & fix Reinforcing  DN200 DICL puddle flange, supply  DN200 DICL puddle flange, fix  Supply & place S40 concrete to slab on ground  Extra over - finishing to falls	m3 m2 m2 m Tonnes No. No. m3	23 30 39 44 5.50 1 1 23	3,594.19  42.86  5.64  402.04  4,364.22  1,800.00  1,085.68  644.79  33.93	82,666.31 1,285.70 220.14 17,689.61 24,003.22 1,800.00 1,085.68 14,830.21 1,017.82 15,649.81	
7 3.10.2.1.1 3.10.2.1.2 3.10.2.1.3 3.10.2.1.4 3.10.2.1.5 3.10.2.1.6 3.10.2.1.7 3.10.2.1.8 3.10.2.1.9	Ring beam and base slab  Blinding  Membrane  Edge form 800mm high COP  Supply & fix Reinforcing  DN200 DICL puddle flange, supply  DN200 DICL puddle flange, fix  Supply & place S40 concrete to slab on ground  Extra over - finishing to falls  Formwork to kerb/upstand 200mm high COP	m3 m2 m Tonnes No. No. m3 m2 m	23 30 39 44 5.50 1 1 23 30 67	3,594.19  42.86  5.64  402.04  4,364.22  1,800.00  1,085.68  644.79  33.93  233.58	82,666.31 1,285.70 220.14 17,689.61 24,003.22 1,800.00 1,085.68 14,830.21 1,017.82 15,649.81 1,289.58	
7 3.10.2.1.1 3.10.2.1.2 3.10.2.1.3 3.10.2.1.4 3.10.2.1.5 3.10.2.1.6 3.10.2.1.7 3.10.2.1.8 3.10.2.1.9 3.10.2.1.10	Ring beam and base slab  Blinding  Membrane  Edge form 800mm high COP  Supply & fix Reinforcing  DN200 DICL puddle flange, supply  DN200 DICL puddle flange, fix  Supply & place S40 concrete to slab on ground  Extra over - finishing to falls  Formwork to kerb/upstand 200mm high COP  Supply & place S40 concrete to kerb 200 X 300	m3 m2 m Tonnes No. No. m3 m2 m	23 30 39 44 5.50 1 1 23 30 67	3,594.19  42.86  5.64  402.04  4,364.22  1,800.00  1,085.68  644.79  33.93  233.58	82,666.31 1,285.70 220.14 17,689.61 24,003.22 1,800.00 1,085.68 14,830.21 1,017.82 15,649.81 1,289.58 3,080.00	
7 3.10.2.1. 3.10.2.1.2 3.10.2.1.3 3.10.2.1.4 3.10.2.1.5 3.10.2.1.6 3.10.2.1.7 3.10.2.1.8 3.10.2.1.9 3.10.2.1.10 3.10.2.1.10	Ring beam and base slab  Blinding  Membrane  Edge form 800mm high COP  Supply & fix Reinforcing  DN200 DICL puddle flange, supply  DN200 DICL puddle flange, fix  Supply & place S40 concrete to slab on ground  Extra over - finishing to falls  Formwork to kerb/upstand 200mm high COP  Supply & place S40 concrete to kerb 200 X 300  250mm wide Supercast Rearguard waterstop	m3 m2 m Tonnes No. No. m3 m2 m m	23 30 39 44 5.50 1 1 23 30 67	3,594.19  42.86  5.64  402.04  4,364.22  1,800.00  1,085.68  644.79  33.93  233.58  644.79	82,666.31  1,285.70  220.14  17,689.61  24,003.22  1,800.00  1,085.68  14,830.21  1,017.82  15,649.81  1,289.58  3,080.00  357.27	
7 3.10.2.1.1 3.10.2.1.2 3.10.2.1.3 3.10.2.1.4 3.10.2.1.5 3.10.2.1.6 3.10.2.1.7 3.10.2.1.8 3.10.2.1.9 3.10.2.1.10 3.10.2.1.11	Ring beam and base slab  Blinding  Membrane  Edge form 800mm high COP  Supply & fix Reinforcing  DN200 DICL puddle flange, supply  DN200 DICL puddle flange, fix  Supply & place S40 concrete to slab on ground  Extra over - finishing to falls  Formwork to kerb/upstand 200mm high COP  Supply & place S40 concrete to kerb 200 X 300  250mm wide Supercast Rearguard waterstop  Allowance for resin injection to cracks	m3 m2 m Tonnes No. No. m3 m2 m m3	23 30 39 44 5.50 1 1 23 30 67 2 22 30	3,594.19  42.86  5.64  402.04  4,364.22  1,800.00  1,085.68  644.79  33.93  233.58  644.79  140.00  11.91	82,666.31  1,285.70  220.14  17,689.61  24,003.22  1,800.00  1,085.68  14,830.21  1,017.82  15,649.81  1,289.58  3,080.00  357.27	
7 3.10.2.1.1 3.10.2.1.2 3.10.2.1.3 3.10.2.1.4 3.10.2.1.5 3.10.2.1.6 3.10.2.1.7 3.10.2.1.8 3.10.2.1.9 3.10.2.1.10 3.10.2.1.11 3.10.2.1.12 3.10.2.1.12	Ring beam and base slab  Blinding  Membrane  Edge form 800mm high COP  Supply & fix Reinforcing  DN200 DICL puddle flange, supply  DN200 DICL puddle flange, fix  Supply & place S40 concrete to slab on ground  Extra over - finishing to falls  Formwork to kerb/upstand 200mm high COP  Supply & place S40 concrete to kerb 200 X 300  250mm wide Supercast Rearguard waterstop  Allowance for resin injection to cracks  Curing	m3 m2 m Tonnes No. No. m3 m2 m m3 m2 m	23 30 39 44 5.50 1 1 23 30 67 2 22 30 30	3,594.19  42.86  5.64  402.04  4,364.22  1,800.00  1,085.68  644.79  33.93  233.58  644.79  140.00  11.91	82,666.31  1,285.70  220.14  17,689.61  24,003.22  1,800.00  1,085.68  14,830.21  1,017.82  15,649.81  1,289.58  3,080.00  357.27  357.27	



Level	ltem	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
Level	3.10.2.2.3	Scaffold stretcher stairs 5.0m rise removal	No.	2	1,600.00	3,200.00	Remarks
	3.10.2.2.4	Scanola stretcher stans 5.011 lise removal	m2	92	371.95	34,219.78	
	3.10.2.2.4	Formwork to walls, C.O.P. class 3, >4.0m high	IIIZ	32	371.55	34,213.76	
	3.10.2.2.5		m2	105	421.97		Assumed external walls are suitable left as off- form concrete without paint finish due to the
		Formwork to walls, C.O.P. class 2, >4.0m high					remote lcoation
	3.10.2.2.6	Supply & fix reinforcing to walls	t	9.24	4,364.22	40,325.41	220kg/m3
	3.10.2.2.7	250mm wide Supercast Rearguard waterstop	m	22	140.00	3,080.00	Launder interface. Scraper floor/wall interface
	3.10.2.2.8	Supply, place & finish S40 concrete to walls	m3	42	554.83	23,302.78	400mm thick
	3.10.2.2.9	Curing	m2	197	11.91	2,346.06	
	3.10.2.2.10	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	92	87.76	8,073.85	
	3.10.2.2.11	Allowance for resin injection to cracks	m2	197	11.91	2,346.06	
	3.10.2.2.12	Hydostatic testing	Item	1	9,005.54	9,005.54	
	7 3.10.2.3	Access stairs & platforms	Item	1	43,499.35	43,499.35	
	8 3.10.2.3.1	Stairs Stairs	MR	5	8,699.87	43,499.35	
	3.10.2.3.1.1	Pad footings complete	m3	2.30	1,800.00	4,140.00	
	3.10.2.3.1.2	Allowance for structural steel 15-40KG/M, shop	t	1.30	13,873.35	18,035.35	
	3.10.2.3.1.2	drafting, supply, fabricate, surface protection, install		1.50	13,073.33		Support structure to stairs
	3.10.2.3.1.3	Galvanized steel stair stingers & treads	MR	5	1,665.92	8,329.62	
	3.10.2.3.1.4	Webforge A325MPG mesh grating, HDG, fixed to steel trimmers	m2	7	450.00	3,150.00	Walkways and landings
	3.10.2.3.1.5	Handrails, comprising, toe board, midrail & handrail supply & install	m	27	364.61	9,844.38	
	6 3.10.3	Mechanical & Process	Item	1	6,665.49	6,665.49	
	7 3.10.3.1	Equipment	Item	1	6,665.49	6,665.49	
	3.10.3.1.1	Davit supply (equipment & personnel)	No.	2	2,700.00	5,400.00	
	3.10.3.1.2	Davit install	No.	2	632.75	1,265.49	
	4 3.11	Sludge Dewatering (011)	Item	1	1,879,262.76	1,879,262.76	
	5 3.11.1	Civils	Item	1	33,326.41	33,326.41	
	6 3.11.1.1	Foundations				30,020112	
	3.11.1.1.1	Allowance for foundations	m2	213	137.39	29,264.73	Allowance for bored piers 600mm dia. 1 per 11m2
	6 3.11.1.2	Detailed excavation	Item	1	4,061.68	4,061.68	
	3.11.1.2.1	Detailed excavation	m3	12	67.19	806.33	
	3.11.1.2.2	Cart & dispose spoil [ASSUME VENM]	Tonnes	25.14	5.81	146.18	
	3.11.1.2.3	Trim & compact subgrade	m2	213	14.60	3,109.17	
	5 3.11.2	Structural	Item	1	693,219.30	693,219.30	
	6 3.11.2.1	Slab on Ground	m3	35	4,664.72	163,265.37	
	3.11.2.1.1	Blinding	m2	213	42.86	9,128.43	
	3.11.2.1.2	Edge form - 450mm	m	59	183.09	10,802.38	



Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.11.2.1.3	Membrane	m2	277	5.64	1,563.55	
3.11.2.1.4	Supply & fix Reinforcing	Tonnes	10.22	4,364.22	44,602.35	140 kg/m3
3.11.2.1.5	Supply & place N40 concrete to slab on ground 450mm thick	m3	73	556.96	40,658.26	500x500 edge beams, 300 slab
3.11.2.1.6	Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod	m	22	27.09	595.92	Inc. sikflex seal to joint
3.11.2.1.7	Allowance for casting in spirotainer rails. Note allowance for supply of cast-ins included in spirotainer supply price	No.	2	8,142.58	16,285.15	
3.11.2.1.8	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	213	87.76	18,692.73	
3.11.2.1.9	Curing	m2	213	11.91	2,536.60	
3.11.2.1.10	Driveway	m3	10	1,840.00	18,400.00	
6 3.11.2.2	External Walls	m2	339	820.94	278,300.00	
3.11.2.2.1	Core-filled and reinforced blockwork, 300 series including door openings	m2	550	350.00	192,500.00	
3.11.2.2.2	Paint finish to blockwork	m2	1,100	28.00	30,800.00	
3.11.2.2.3	Single door - solid core door including sheet metail to external face, paint, closer and hardware	No.	3	4,500.00	13,500.00	
3.11.2.2.4	Roller shutter 3.5 x 3.5 w/ electric motor opening	No.	2	6,000.00	12,000.00	
3.11.2.2.5	Roller shutter 2.5 x 4.0 w/ electric motor opening	No.	1	5,500.00	5,500.00	
3.11.2.2.6	Double door 2.0m wide x 3.70m high, solid core, metal clad inc. frame & hardware	No.	2	12,000.00	24,000.00	
6 3.11.2.3	Suspended slabs	М3	34	2,729.76	92,811.72	
3.11.2.3.1	Formwork to suspended slab	m2	134	258.43	34,630.21	
3.11.2.3.2	Supply & fix Reinforcing	Tonnes	6.01	4,364.22	26,228.98	180 kg/m3
3.11.2.3.3	Supply, place & finish N40 concrete	m3	33.39	556.96	18,596.98	250mm thick
3.11.2.3.4	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	134	87.76	11,759.75	
3.11.2.3.5	Curing	m2	134	11.91	1,595.80	
6 3.11.2.4	Plinths					
3.11.2.4.1	Concrete plinth 4.0 x 2.5 x 200mm high	No.	2	6,000.00	12,000.00	
6 3.11.2.5	Roof structure	Item	1	119,960.00	119,960.00	
3.11.2.5.1	Colourbond roof sheeting fixed to steel trussed framing structure incl. safety mesh, sarking & insulation	m2	282	350.00	98,700.00	
		NI-	3	2,500.00	7,500.00	
3.11.2.5.2	Awning, colourbond inc. HDG frame over single doors	No.				
3.11.2.5.2 3.11.2.5.3		m	38	160.00	6,080.00	
	doors		38 46	160.00 120.00	6,080.00 5,520.00	
3.11.2.5.3	doors  Colourbond gutter 150mm dia.	m				



ESTIMATES						
Level Item 6 3.11.2.6	Description Access stairs & platforms	Unit Item	Qty	Rate 1 26,882	Value (Excluding GST) 2.21 26,882.21	
7 3.11.2.6.1	Combined access for dewatering tanks	Item		1 26,882		
3.11.2.6.1.1	Structural Steel 15-40KG/M, Shop Detail/Supply/Fab/Deliver	t	0.			
3.11.2.6.1.2	Galvanized steel stair stingers & treads	MR	4.	10 1,669	5.92 7,330.07	
3.11.2.6.1.3	Webforge A325MPG mesh grating, HDG, fixed to	m2			0.00 2,700.00	
	steel trimmers					Walkways and landings
3.11.2.6.1.4	Handrails, comprising, toe board, midrail & handrail supply & install	m	:	364	1.61 11,302.80	)
5 3.11.3	Mechanical & Process	Item		1 1,152,717	7.05 1,152,717.05	;
6 3.11.3.1	Equipment	Item		1 939,127	7.91 939,127.91	l
7 3.11.3.1.1	18 POLYMER SLUDGE THICKENING/DEWATERING					
3.11.3.1.1.1	Thickening & dewatering polymer unloading control panel	No.		1 15,000	0.00 15,000.00	0
3.11.3.1.1.2	Analyser panel - install	No.		1 4,218	3.31 4,218.31	ı
3.11.3.1.1.3	Centrifuge polymer dosing injection cabinet	No.		2 10,000	20,000.00	
3.11.3.1.1.4	Dosing cabinet install	No.		2 4,218	3.31 8,436.62	2
3.11.3.1.1.5	Dewatering polymer batching, Polyrex, Prominent	Item		1 75,000	75,000.00	
3.11.3.1.1.6	Dewatering polymer package, install	Item		1 16,873	3.25 16,873.25	5 2 men 1 week. Unsure on scope included in this package
3.11.3.1.1.7	Dewatering polymer dosing cabinet	Item		1 25,000	25,000.00	)
3.11.3.1.1.8	Dosing cabinet install	No.		2 4,218	8,436.62	2
3.11.3.1.1.9	Dewatering polymer dosing pump	No.		3 10,471	1.00 31,413.00	)
3.11.3.1.1.10	Pump install - small	No.		3 6,749	9.30 20,247.90	)
3.11.3.1.1.11	Thickening polymer dosing cabinet	No.		1 25,000	25,000.00	)
3.11.3.1.1.12	Dosing cabinet install	No.		1 4,218	3.31 4,218.31	ı
3.11.3.1.1.13	Flocculation polymer dosing pump	No.		3 10,471	1.00 31,413.00	)
3.11.3.1.1.14	Pump install - small	No.		3 6,749	9.30 20,247.90	)
3.11.3.1.1.15	Diaphragm seal DN25 - PVCS80 PVDF	No.		6 350	0.00 2,100.00	
3.11.3.1.1.16	Y-type strainer DN25 - PVCS80 1" SS BSP	No.		2 40	0.00 80.00	)
3.11.3.1.1.17	Calibration Tube DN25 - PVCS80 5L PVC Grundfos	No.		2 373	1.00 742.00	
3.11.3.1.1.18	Install lances, seals, strainers, calibration tube/s	Item		1 5,272	2.89 5,272.89	
7 3.11.3.1.2	71 DEWATERING UNIT & CENTRATE HANDLING					
3.11.3.1.2.1	Dewatering unit supply	No.		2 189,107	7.00 378,214.00	Based ON Centrifuge GEA Pro 3200
3.11.3.1.2.2	Dewatering unit install	No.		2 16,873		Based ON Centrifuge GEA Pro 3200
3.11.3.1.2.3	Cooling Fan	No.		2 2,000		
3.11.3.1.2.4	Sump Pump 3kW semi-vortex	No.		1 5,000		
3.11.3.1.2.5	Pump install - small	No.		1 6,749		
3.11.3.1.2.6	Spirotainer STU-20 Painted MS Spirac	No.		1 103,500		
3.11.3.1.2.0	Sp. Otomici 310 20 ramiteu ivis spilat	.10.		_ 103,300	103,300.00	,



ESTIMATES						Eli Decarrante in 120
Level Item	n Description	Ш	nit Qty	Rate	Value (Excluding GST)	Remarks
3.11.3.1.2.7	•	No.	1	4,218.31	4,218.31	Remarks
2442426	Manage il angue in a 40m torrolling because and the	NI-	2	45 000 00	00 000 00	
3.11.3.1.2.8	Monorail crane inc. 10m travelling beam, capacity assumed 5t, fixed to roof structure	NO.	2	45,000.00	90,000.00	assumed 5t capacity
6 3.11.3.2	Pipework	Item	1	64,562.03	64,562.03	
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
7 3.11.3.2.1	Stainless Steel Sched. 10					
3.11.3.2.1.1		m	44	998.42	43,930.68	
	fabricate					
3.11.3.2.1.2		m	44	468.89	20,631.35	
	installation					
6 3.11.3.3	Valves	Item	1	141,336.70	141,336.70	
8 3.11.3.3.1	BACK PRESSURE CONTROL VALVE					
3.11.3.3.1.1	BACK PRESSURE CONTROL VALVE, DN25, PVCS80,	No	4	645.00	2,580.00	
5,11,5,5,1,1	Seat Material 316SS		•	0.15.00	2,500.00	
8 3.11.3.3.2	BALL VALVES					
3.11.3.3.2.1		No.	107	52.98	5,668.86	
3.11.3.3.2.1	BALL VALVE, DN25, SS316, Sched. 10, Asmuss 3	NO.	107	32.30	3,008.80	
	piece ball valve Seat Material 316SS					
3.11.3.3.2.2	BALL VALVE, DN32, PVCS80, GF 546 Pro Seat	No.	1	225.13	225.13	
	Material, PVC / FKM					
3.11.3.3.2.3	Ball valve, DN50, SS316, sched. 10 supply	No.	1	313.00	313.00	
244 2 2 2 4	DALL MALVE DAVOG DVCCCOO CE FAC Des Cont	NI-	4	652.00	CE2.00	
3.11.3.3.2.4	BALL VALVE, DN80, PVCS80, GF 546 Pro Seat Material, PVC/ FKM	No.	1	653.00	653.00	
8 3.11.3.3.3	CHECK VALVES					
			_			
3.11.3.3.3.1	CHECK VALVE, DN25, SS316, Sched. 10, GF Type 561 Seat Material, PVC / FKM	No.	8	103.29	826.32	
3.11.3.3.3.2	Check valve, DN32, SS316, sched. 10 supply	No.	1	759.00	759.00	
3.11.3.3.3.3	Check valve, DN50, SS316, sched. 10 supply	No.	3	759.00	2,277.00	
3.11.3.3.3.4	CHECK VALVE, DN80, PVCS80, Bray Bray/Rite Seat	No.	1	601.00	601.00	
	Material 316SS					
8 3.11.3.3.4	GATE VALVE					
3.11.3.3.4.1	L GATE VALVE, DN50, SS316, Sched. 10, Reece Dura	No.	4	206.00	824.00	
	Eagle Seat Material 316SS					
8 3.11.3.3.5	SLIDE GATE VALVE					
3.11.3.3.5.1	l	No.	1	5,760.00	5,760.00	
2.22.0.0.0.1	SLIDE GATE VALVE, DN100, , Seat Material 316SS		•	2,. 20.00	-,. 50.00	
3.11.3.3.5.2	SLIDE GATE PNEUMATIC, DN200, SS316, Sched.	No.	2	44,765.00	89,530.00	
3.11.3.3.3.2	10, Seat Material 316SS		2	,, 05.00	03,330.00	
8 3.11.3.3.6	THREE WAY VALVE					
3.11.3.3.6.1	L THREE WAY VALVE, DN50, PVCS80, Seat Material	Nο	2	520.00	1,040.00	
3.11.3.3.0.1	316SS	140.	2	320.00	1,040.00	
8 3.11.3.3.7	VALVE INSTALL					
3.11.3.3.7.1	L DN25 Valve Installation	/ea	125	192.63	24,079.04	
3.11.3.3.7.1	2 SIVES VALVE INSTANDATION	, ca		132.03	27,073.04	
3.11.3.3.7.2	2 DN32 Valve Installation	/ea	2	204.67	409.34	
3.11.3.3.7.3	B DN50 Valve Installation	/ea	10	276.91	2,769.09	



Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.11.3.3.7.4	DN80 Valve Installation	/ea	2	385.26	770.53	
3.11.3.3.7.5	DN100 Valve Installation	/ea	1	517.70	517.70	
3.11.3.3.7.6	DN200 Valve Installation	/ea	2	866.85	1,733.69	
0.244.220	ACTILATOR INICTALL					
8 3.11.3.3.8 6 3.11.3.4	ACTUATOR INSTALL  Instrumentation	Item	1	7,690.41	7,690.41	
7 3.11.3.4.1	instrumentation	iteiii	1	7,050.41	7,050.41	
, 5,12151,112	71 DEWATERING UNIT & CENTRATE HANDLING					
3.11.3.4.1.1	Flow meter, Promag W400, DN100 and below, supply	No.	1	5,764.09	5,764.09	
3.11.3.4.1.2	Electro mag-flow meter install, DN100 & below	No.	1	1,926.32	1,926.32	
4 3.12	Amenities building (012)	m2	398	2,006.38	798,539.82	
8 3.12.1	Earthworks	m2	199	156.66	31,175.70	
3.12.1.1	Allowance for foundations	m2	199	137.39	27,341.22	Allowance for bored piers 600mm dia. 1 per 11m2
3.12.1.2	Detailed excavation	m3	11.66	67.19	783.49	
3.12.1.3	Cart & dispose spoil [ASSUME VENM]	Tonnes	25.14	5.81	146.18	
3.12.1.4	Trim & compact subgrade	m2	199	14.60	2,904.81	
8 3.12.2	Slab on Ground	m3	35	1,871.00	65,484.83	
3.12.2.1	Blinding	m2	199	42.86	8,528.44	
3.12.2.2	Membrane	m2	224	5.64	1,264.39	
3.12.2.3	Edge form - 450mm	m	57	183.09	10,436.20	
3.12.2.4	Supply & fix Reinforcing	Tonnes	5.36	4,364.22	23,392.23	140 kg/m3
3.12.2.5	Supply & place N40 concrete to slab on ground 450mm thick	m3	35	556.96	19,493.69	450x500 edge beams, 500 slab
3.12.2.6	Curing	m2	199	11.91	2,369.88	
8 3.12.3	External Walls	m2	339	629.62	213,441.00	
3.12.3.1	Brick veneer construction comprising, 100mm face brick, sarking, insulation, 90mm stud frame, plasterboard lining	m2	339	550.00	186,450.00	
3.12.3.2	Single door - solid core door including sheet metail to external face, paint, closer and hardware	No.	1	4,500.00	4,500.00	
3.12.3.3	Window 1.4 x 1.8 complete	No.	9	2,142.00	19,278.00	
3.12.3.4	Glazed sliding door 1.8 x 2.1 complete	No.	1	3,213.00	3,213.00	
8 3.12.4	First Floor structure					
3.12.4.1	Allowance for first floor structure	m2	199	350.00	69,650.00	
8 3.12.5	Roof Structure					
3.12.5.1	Colourbond roof sheeting fixed to steel trussed framing structure incl. safety mesh, sarking & insulation	m2	382	350.00	133,700.00	includings carpark and awning to Northern facade
3.12.5.2	Awning, colourbond inc. HDG frame over single doors	No.	1	2,500.00	2,500.00	



					Value	
Level Item	Description	Unit	Qty 59	Rate 160.00	(Excluding GST) 9,440.00	Remarks
3.12.5.3 3.12.5.4	Colourbond gutter 150mm dia.  150mm dia. uPVC downpipe	m	36	120.00	4,320.00	
3.12.5.5	Permanent roof safety anchors	m No.	6	390.00	2,340.00	
3.12.5.6	Ladder bracket	No.	1	600.00	600.00	
3.12.3.0	Eddder Stacket	140.	1	000.00	000.00	
8 3.12.6	Fitout					
3.12.6.1	Fitout	m2	398	500.00	199,000.00	
8 3.12.7	Electrical	m2	398	168.06	66,888.29	
3.12.7.1	Supply & Install Fire system	PCsum	1	5,000.00	5,000.00	
3.12.7.2	Supply & Install Security	PCsum	1	10,000.00	10,000.00	
3.12.7.3	Earthing	Lot	1	2,661.88	2,661.88	
3.12.7.4	Fitout Electrical Light & Power	Lot	1	19,890.72	19,890.72	
3.12.7.5	Supply & Install Air conditioning	PCSum	1	15,000.00	15,000.00	
3.12.7.6	Supply & Install EV charging station	Ea	2	4,379.58	8,759.16	
3.12.7.7	Supply Trench	Mtr	10	120.00	1,200.00	
3.12.7.8	Supply & Install Conduit	Mtr	10	98.41	984.15	
3.12.7.9	Supply & Install sweeps	Ea	8	125.31	1,002.46	
3.12.7.10	Supply & Install local isolator outlet	Ea	2	433.51	867.02	
3.12.7.11	Supply & Install 4c+e 6mm2 PVC/PVC	mtr	20	14.20	284.03	
3.12.7.12	Terminate 4c+e 6mm2 PVC/PVC	Ea	4	168.41	673.64	
3.12.7.13	Supply & Install Cat 5 cable	Mtr	20	6.74	134.72	
3.12.7.13 3.12.7.14	Supply & Install Cat 5 cable Pre commission EV Charger	Mtr Ea	20	6.74 215.26	134.72 430.51	
3.12.7.14	Pre commission EV Charger	Ea	2	215.26	430.51	
3.12.7.14 4 3.13	Pre commission EV Charger  Chemical Delivery Bund (013)	Ea Item	2	215.26 <b>127,897.51</b>	430.51 127,897.51	
3.12.7.14 4 3.13 5 3.13.1	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS	Ea Item	1	215.26 127,897.51 18,034.20	430.51 127,897.51 18,034.20	
3.12.7.14 4 3.13 5 3.13.1 6 3.13.1.1	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations	Item Item	1 1 1	215.26 127,897.51 18,034.20 15,937.60	430.51 127,897.51 18,034.20 15,937.60	
3.12.7.14  4 3.13  5 3.13.1  6 3.13.1.1  3.13.1.1.1	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations  Allowance for foundations	Item Item Item m2	1 1 1 1 116	215.26 127,897.51 18,034.20 15,937.60 137.39	430.51  127,897.51  18,034.20  15,937.60  15,937.60	
3.12.7.14  4 3.13  5 3.13.1  6 3.13.1.1  3.13.1.1.1	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations  Allowance for foundations  Detailed excavation	Item Item m2 Item	1 1 1 1 116	215.26 127,897.51 18,034.20 15,937.60 137.39 2,096.60	430.51  127,897.51  18,034.20  15,937.60  15,937.60  2,096.60	
3.12.7.14  4 3.13  5 3.13.1  6 3.13.1.1  3.13.1.1.1  6 3.13.1.2	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations  Allowance for foundations  Detailed excavation  Detailed excavation	Item Item Item m2 Item m3	1 1 1 116 1 5.12	215.26  127,897.51  18,034.20  15,937.60  137.39  2,096.60  67.19	430.51  127,897.51  18,034.20  15,937.60  15,937.60  2,096.60  344.04	
3.12.7.14  4 3.13  5 3.13.1  6 3.13.1.1  3.13.1.1.1  6 3.13.1.2  3.13.1.2.1  3.13.1.2.2	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations  Allowance for foundations  Detailed excavation  Detailed excavation  Cart & dispose spoil [ASSUME VENM]	Item Item m2 Item m3 Tonnes	1 1 1 1 116 1 5.12	215.26  127,897.51  18,034.20  15,937.60  137.39  2,096.60  67.19  5.81	430.51  127,897.51  18,034.20  15,937.60  15,937.60  2,096.60  344.04  59.31	
3.12.7.14  4 3.13  5 3.13.1  6 3.13.1.1  3.13.1.2.1  3.13.1.2.1  3.13.1.2.2  3.13.1.2.3	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations  Allowance for foundations  Detailed excavation  Detailed excavation  Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade	Item Item Item m2 Item m3 Tonnes m2	2 1 1 1 1 116 1 5.12 10.20 116	215.26  127,897.51  18,034.20  15,937.60  137.39  2,096.60  67.19  5.81  14.60	430.51  127,897.51  18,034.20  15,937.60  15,937.60  2,096.60  344.04  59.31  1,693.25	
3.12.7.14  4 3.13  5 3.13.1  6 3.13.1.1  3.13.1.2.1  3.13.1.2.2  3.13.1.2.3  5 3.13.2	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations  Allowance for foundations  Detailed excavation  Detailed excavation  Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade	Item Item Item m2 Item m3 Tonnes m2	2 1 1 1 1 116 1 5.12 10.20 116	215.26  127,897.51  18,034.20  15,937.60  137.39  2,096.60  67.19  5.81  14.60	430.51  127,897.51  18,034.20  15,937.60  15,937.60  2,096.60  344.04  59.31  1,693.25	
3.12.7.14  4 3.13  5 3.13.1  6 3.13.1.1  3.13.1.2.1  3.13.1.2.2  3.13.1.2.3  5 3.13.2  6 3.13.2.1	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations  Allowance for foundations  Detailed excavation  Detailed excavation  Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade  STRUCTURE  Slab on ground	Item Item Item m2 Item m3 Tonnes m2 Item	2 1 1 1 1 116 1 5.12 10.20 116	215.26  127,897.51  18,034.20  15,937.60  137.39  2,096.60  67.19  5.81  14.60  106,111.49	430.51  127,897.51  18,034.20  15,937.60  15,937.60  2,096.60  344.04  59.31  1,693.25  106,111.49	
3.12.7.14  4 3.13  5 3.13.1  6 3.13.1.1  3.13.1.2.1  3.13.1.2.2  3.13.1.2.3  5 3.13.2  6 3.13.2.1  3.13.2.1	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations  Allowance for foundations  Detailed excavation  Detailed excavation  Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade  STRUCTURE  Slab on ground  Blinding	Item Item  Item m2 Item m3 Tonnes m2 Item	2  1  1  1  116  1  5.12  10.20  116  1  116	215.26  127,897.51  18,034.20  15,937.60  137.39  2,096.60  67.19  5.81  14.60  106,111.49	430.51  127,897.51  18,034.20  15,937.60  15,937.60  2,096.60  344.04  59.31  1,693.25  106,111.49	
3.12.7.14  4 3.13  5 3.13.1  6 3.13.1.1  3.13.1.2.1  3.13.1.2.2  3.13.1.2.3  5 3.13.2  6 3.13.2.1  3.13.2.1.1  3.13.2.1.2	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations  Allowance for foundations  Detailed excavation  Detailed excavation  Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade  STRUCTURE  Slab on ground  Blinding  Edge form - 500mm	Item Item Item m2 Item m3 Tonnes m2 Item	2 1 1 1 1 116 1 5.12 10.20 116 1 116 74.00	215.26  127,897.51  18,034.20  15,937.60  137.39  2,096.60  67.19  5.81  14.60  106,111.49  42.86  183.09	430.51  127,897.51  18,034.20  15,937.60  15,937.60  2,096.60  344.04  59.31  1,693.25  106,111.49  4,971.35  13,548.75	40 kg/m3
3.12.7.14  4 3.13  5 3.13.1  6 3.13.1.1  3.13.1.2.1  3.13.1.2.2  3.13.1.2.3  5 3.13.2  6 3.13.2.1  3.13.2.1.1  3.13.2.1.2  3.13.2.1.2  3.13.2.1.3	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations  Allowance for foundations  Detailed excavation  Detailed excavation  Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade  STRUCTURE  Slab on ground  Blinding  Edge form - 500mm  Membrane	Ea  Item  Item  m2  Item  m3  Tonnes  m2  Item  m2	1 1 1 1 1 1 1 5.12 10.20 116 1 116 74.00 140	215.26  127,897.51  18,034.20  15,937.60  137.39  2,096.60  67.19  5.81  14.60  106,111.49  42.86  183.09  5.64	430.51  127,897.51  18,034.20  15,937.60  15,937.60  2,096.60  344.04  59.31  1,693.25  106,111.49  4,971.35  13,548.75  790.24  25,661.63 10  23,392.42	40 kg/m3 00x500 edge beams, 300 slab
3.12.7.14  4 3.13  5 3.13.1  6 3.13.1.1  3.13.1.2.1  3.13.1.2.2  3.13.1.2.3  5 3.13.2  6 3.13.2.1  3.13.2.1.1  3.13.2.1.1  3.13.2.1.2  3.13.2.1.3  3.13.2.1.4	Pre commission EV Charger  Chemical Delivery Bund (013)  CIVILS  Foundations  Allowance for foundations  Detailed excavation  Detailed excavation  Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade  STRUCTURE  Slab on ground  Blinding  Edge form - 500mm  Membrane  Supply & fix Reinforcing	Item Item Item m2 Item m3 Tonnes m2 Item m2 Tonnes	1 1 1 1 1 1 1 5.12 10.20 116 1 116 74.00 140 5.88	215.26  127,897.51  18,034.20  15,937.60  137.39  2,096.60  67.19  5.81  14.60  106,111.49  42.86  183.09  5.64  4,364.22	430.51  127,897.51  18,034.20  15,937.60  15,937.60  2,096.60  344.04  59.31  1,693.25  106,111.49  4,971.35  13,548.75  790.24  25,661.63 10  23,392.42	



ESTIMATES	lte un	Description	llais.	Otto	Data	Value	Damadia
Level	Item 3.13.2.1.8	<b>Description</b> Rollover kerb/bund	<b>Unit</b>	Qty 32	<b>Rate</b> 250.00	(Excluding GST) 8,000.00	Remarks
	3.13.2.1.9	Pit cast-instu inc. Class D grate	No.	1	9,000.00	9,000.00	
	3.13.2.1.10	Allowance for setdowns, cast-ins, penetrations	m2	116	87.76	10,180.08	
		not yet detailed					
3	3.13.2.1.11	Curing	m2	116	11.91	1,381.44	
5 3	3.13.3	MECHANICAL	Item	1	3,751.82	3,751.82	
6 3	3.13.3.1	Equipment					
3	3.13.3.1.1	Hose reel supply	No.	1	550.00	550.00	
3	3.13.3.1.2	Hose reel install	No.	1	843.66	843.66	
6 3	3.13.3.2	Valves					
8 3	3.13.3.2.1	BUTTERFLY VALVES					
3	3.13.3.2.1.1		No.	2	359.00	718.00	
		Butterfly Valve, DN80, SS316, Sched. 10, Bray Series 3L Seat Material, Ductile iron body, 316SST disc, 431SST shaft, Vulcanised EPDM seat.					
	3.13.3.2.2	TEMPERATURE RELEIF VALVE					
3	3.13.3.2.2.1	TEMPERATURE RELIEF VALVE, DN25, PVCS80, Pratt SEASV Seat Material, Relieves at 35degC, closes at 29degC	No.	1	677.00	677.00	
8 3	3.13.3.2.3	VALVE INSTALL					
3	3.13.3.2.3.1	DN25 Valve Installation	/ea	1	192.63	192.63	
	3.13.3.2.3.1 3.13.3.2.3.2	DN25 Valve Installation DN80 Valve Installation	/ea /ea	1 2	192.63 385.26	192.63 770.53	
ŝ							
4 3	3.13.3.2.3.2	DN80 Valve Installation	/ea	2	385.26	770.53	
4 3	3.13.3.2.3.2 3.14	DN80 Valve Installation PAC Dosing (014)	/ea	2	385.26 <b>1,186,525.21</b>	770.53 <b>1,186,525.21</b>	
4 3 5 3 6 3	3.13.3.2.3.2 3.14 3.14.1	DN80 Valve Installation  PAC Dosing (014)  Civils	/ea Item	2 1 1	385.26 1,186,525.21 43,385.18	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08	Assumed 4 No. @ 3.0m long each to PAC hopper
4 3 5 3 6 3 3	3.13.3.2.3.2 3.14 3.14.1	PAC Dosing (014)  Civils  Foundations	/ea Item Item	1 1 1	385.26 1,186,525.21 43,385.18 36,872.15	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08	Assumed 4 No. @ 3.0m long each to PAC hopper
4 3 5 3 6 3 5 3 5 5 3 5 5 5 5 5 5 5 5 5 5	3.13.3.2.3.2 3.14 3.14.1 3.14.1.1	DN80 Valve Installation  PAC Dosing (014)  Civils  Foundations  Bored piers 600mm dia.	/ea  Item  Item  m	1 1 1 1	385.26  1,186,525.21  43,385.18  36,872.15  789.76	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08	
4 3 5 3 6 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3.13.3.2.3.2 3.14 3.14.1 3.14.1.1 3.14.1.1.1	PAC Dosing (014)  Civils  Foundations  Bored piers 600mm dia.  Pile caps	/ea Item Item m m3	2 1 1 1 1 2 2	385.26  1,186,525.21  43,385.18  36,872.15  789.76  2,500.00	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08  5,000.00	
4 3 5 3 6 3 3 6 3 6 3	3.13.3.2.3.2 3.14 3.14.1 3.14.1.1 3.14.1.1.1 3.14.1.1.2	PAC Dosing (014)  Civils  Foundations  Bored piers 600mm dia.  Pile caps  Allowance for foundations	/ea Item Item m m3	2 1 1 1 1 12 2 163	385.26  1,186,525.21  43,385.18  36,872.15  789.76  2,500.00  137.39	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08  5,000.00  22,395.07  6,513.03  3,494.11	Building building edge & internal beams 600x600, slab
4 3 5 3 6 3 3 6 3 6 3	3.14.1.1 3.14.1.1 3.14.1.1.1 3.14.1.1.2 3.14.1.1.3	PAC Dosing (014)  Civils  Foundations  Bored piers 600mm dia.  Pile caps  Allowance for foundations	/ea Item Item m m3 m2 Item	2 1 1 1 1 2 163	385.26  1,186,525.21  43,385.18  36,872.15  789.76  2,500.00  137.39  6,513.03	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08  5,000.00  22,395.07  6,513.03  3,494.11	Building
6 3 6 3	3.14.1.1 3.14.1.1 3.14.1.1.1 3.14.1.1.2 3.14.1.1.3	DN80 Valve Installation  PAC Dosing (014)  Civils  Foundations  Bored piers 600mm dia.  Pile caps  Allowance for foundations  Detailed excavation	/ea Item Item m m3 m2 Item	2 1 1 1 1 2 163	385.26  1,186,525.21  43,385.18  36,872.15  789.76  2,500.00  137.39  6,513.03	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08  5,000.00  22,395.07  6,513.03  3,494.11	Building  building edge & internal beams 600x600, slab 300, bund edge & internal beams 500 x 500 slab
4 3 5 3 6 3 3 5 6 3 3 5 6 3 3 5 6 3 5 6 3 5 6 3 5 6 3 5 6 3 5 6 5 6	3.13.3.2.3.2 3.14 3.14.1 3.14.1.1 3.14.1.1.2 3.14.1.1.3 3.14.1.2 3.14.1.2	PAC Dosing (014)  Civils  Foundations  Bored piers 600mm dia.  Pile caps  Allowance for foundations  Detailed excavation  Detailed excavation	/ea  Item  Item  m  m3  m2  Item  m3	2 1 1 1 1 2 2 163 1 52	385.26  1,186,525.21  43,385.18  36,872.15  789.76  2,500.00  137.39  6,513.03  67.19	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08  5,000.00  22,395.07  6,513.03  3,494.11	Building  building edge & internal beams 600x600, slab 300, bund edge & internal beams 500 x 500 slab
4 3 5 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3 6	3.13.3.2.3.2 3.14 3.14.1 3.14.1.1 3.14.1.1.2 3.14.1.1.3 3.14.1.2.1 3.14.1.2.1	DN80 Valve Installation  PAC Dosing (014)  Civils  Foundations  Bored piers 600mm dia.  Pile caps  Allowance for foundations  Detailed excavation  Detailed excavation  Cart & dispose spoil [ASSUME VENM]	/ea  Item  Item  m  m3  m2  Item  m3	2 1 1 1 1 1 2 163 1 52	385.26  1,186,525.21  43,385.18  36,872.15  789.76  2,500.00  137.39  6,513.03  67.19  5.81	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08  5,000.00  22,395.07  6,513.03  3,494.11	Building  building edge & internal beams 600x600, slab 300, bund edge & internal beams 500 x 500 slab
4 3 5 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3 6	3.13.3.2.3.2 3.14 3.14.1 3.14.1.1 3.14.1.1.2 3.14.1.2.1 3.14.1.2.1 3.14.1.2.2 3.14.1.2.3	DN80 Valve Installation  PAC Dosing (014)  Civils  Foundations  Bored piers 600mm dia.  Pile caps  Allowance for foundations  Detailed excavation  Detailed excavation  Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade	/ea  Item  Item  Item  m  m3  m2  Item  m3  Tonnes  m2	2 1 1 1 1 1 2 163 1 52 110 163	385.26  1,186,525.21  43,385.18  36,872.15  789.76  2,500.00  137.39  6,513.03  67.19  5.81  14.60	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08  5,000.00  22,395.07  6,513.03  3,494.11  639.60  2,379.32	Building  building edge & internal beams 600x600, slab 300, bund edge & internal beams 500 x 500 slab
4 3 5 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3 6	3.13.3.2.3.2 3.14 3.14.1 3.14.1.1 3.14.1.1.2 3.14.1.1.3 3.14.1.2.1 3.14.1.2.1 3.14.1.2.1	PAC Dosing (014)  Civils  Foundations  Bored piers 600mm dia.  Pile caps  Allowance for foundations  Detailed excavation  Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade  Structural	/ea  Item  Item  Item  m  m3  m2  Item  m3  Tonnes  m2	2 1 1 1 1 1 2 163 1 10 163	385.26  1,186,525.21  43,385.18  36,872.15  789.76  2,500.00  137.39  6,513.03  67.19  5.81  14.60	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08  5,000.00  22,395.07  6,513.03  3,494.11  639.60  2,379.32	Building  building edge & internal beams 600x600, slab 300, bund edge & internal beams 500 x 500 slab
4 3 5 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3 6	3.13.3.2.3.2 3.14 3.14.1 3.14.1.1 3.14.1.1.2 3.14.1.2.3 3.14.1.2.1 3.14.1.2.2 3.14.1.2.3 3.14.1.2.3	DN80 Valve Installation  PAC Dosing (014)  Civils  Foundations  Bored piers 600mm dia.  Pile caps  Allowance for foundations  Detailed excavation  Detailed excavation  Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade  Structural  Slab on ground	/ea item item item m m3 m2 item m3 Tonnes m2 item m3	1 1 1 1 1 2 163 1 52 110 163 1 53	385.26  1,186,525.21  43,385.18  36,872.15  789.76  2,500.00  137.39  6,513.03  67.19  5.81  14.60  414,297.54  2,413.44	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08  5,000.00  22,395.07  6,513.03  3,494.11  639.60  2,379.32  414,297.54  127,912.12	Building  building edge & internal beams 600x600, slab 300, bund edge & internal beams 500 x 500 slab
6 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3	3.13.3.2.3.2 3.14 3.14.1 3.14.1.1 3.14.1.1.2 3.14.1.1.3 3.14.1.2.1 3.14.1.2.1 3.14.1.2.1 3.14.1.2.1 3.14.1.2.1	DN80 Valve Installation  PAC Dosing (014)  Civils  Foundations  Bored piers 600mm dia.  Pile caps  Allowance for foundations  Detailed excavation  Cart & dispose spoil [ASSUME VENM]  Trim & compact subgrade  Structural  Slab on ground  Blinding	/ea  Item  Item  Item  m  m3  m2  Item  m3  Tonnes  m2  Item  m3  m1	2 1 1 1 1 1 1 2 163 1 10 163 1 53 163	385.26  1,186,525.21  43,385.18  36,872.15  789.76  2,500.00  137.39  6,513.03  67.19  5.81  14.60  414,297.54  2,413.44  42.86	770.53  1,186,525.21  43,385.18  36,872.15  9,477.08  5,000.00  22,395.07  6,513.03  3,494.11  639.60  2,379.32  414,297.54  127,912.12  6,985.61	Building  building edge & internal beams 600x600, slab 300, bund edge & internal beams 500 x 500 slab



	em Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.14.2.1.	5 Supply & place N40 concrete to slab on groui	m3 nd	51	556.96	28,405.09	600x600 edge beams, 300 slab
3.14.2.1.	Extra over for finishing to falls	m2	163	33.93	5,530.17	
3.14.2.1.	7 Pit cast-instu	No.	1	9,000.00	9,000.00	
3.14.2.1.	Saw cut joints in pavement slab 30 x 6mm sa cut, sealant & backing rod	w m	34	27.09	920.97	Inc. sikflex seal to joint
3.14.2.1.	Allowance for setdowns, cast-ins, penetratio not yet detailed	ns m2	333	87.76	29,223.84	
3.14.2.1.		m3	2	1,840.00	3,680.00	
6 3.14.2.2	Bund walls	m2	14	1,114.34	15,600.76	
3.14.2.2.	1 Wall form - CL3	m2	28	302.50		900mm high
3.14.2.2.		Tonnes	0.70	4,364.22		140 kg/m3
3.14.2.2.	-	m3	5	748.49		300mm thick
3.14.2.2.		m2	28	11.91	333.45	Soonini tilick
3.14.2.2.	+ Curing	IIIZ	20	11.51	333.43	
6 3.14.2.3	Walls & Roof Structure	Item	1	111,521.82	111,521.82	
3.14.2.3.	1	t	5.71	13,873.35	79,216.82	
	Structural steel wall and roof framing compr - HD bolts, - steel columns & rafters, - bracing, - stiffeners, cleats, base plates and connection				,	Allowance for 35kg/m2 for steel structure
3.14.2.3.	Roof purlins at 1200mm centres inc. tie rods, bridging, bolting etc.	m2	175	65.00	11,375.00	
3.14.2.3.	Wall girts at 1200mm centres inc. tie rods, bridging, bolting etc.	m2	322	65.00	20,930.00	
6 3.14.2.4	Wall & Roof Cladding					
3.14.2.4.	1 Metal roof cladding inc. safety mesh, sarking insulation, ridge capping, barge capping	m2 &	175	140.00	24,500.00	
3.14.2.4.	2 Metal wall cladding including corner flashing, trims to openings	, m2	322	106.00	34,132.00	
3.14.2.4.	Awning, colourbond inc. HDG frame over sing doors	gle No.	2	2,500.00	5,000.00	
3.14.2.4.	4 Roof ventilators	No.	4	2,500.00	10,000.00	
3.14.2.4.	5 Colourbond gutter 150mm dia.	m	24	160.00	3,840.00	
3.14.2.4.	6 Sump outlet	No.	6	650.00	3,900.00	
3.14.2.4.	7 150mm dia. uPVC downpipe	m	48	120.00	5,760.00	
3.14.2.4.	Permanent roof safety anchors	No.	2	390.00	780.00	
3.14.2.4.		No.	1	600.00	600.00	
6 3.14.2.5	Doors					
3.14.2.5.	Single door - solid core door including sheet r cladding, frame & hardware	metal No.	2	4,500.00	9,000.00	
3.14.2.5.	2 Roller shutter 3.0 x 4.5 w/ electric motor ope	No. ning	1	8,000.00	8,000.00	
6 3.14.2.6	Access stairs & platforms	Item	1	43,750.84	43,750.84	



ESTN	MATES					Value	
Leve		Description	Unit	Qty		(Excluding GST)	Remarks
	3.14.2.6.1	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install	t	1.36	13,873.35	18,867.75	Support structure to stairs
	3.14.2.6.2	Galvanised steel stair stingers & treads	MR	4.10	1,665.92	6,830.29	
	3.14.2.6.3	Walkway mesh, GRP	m2	15	450.00	6,750.00	Landings & top platform
	3.14.2.6.4	Handrails, comprising, toe board, midrail & handrail supply & install	m	31	364.61	11,302.80	
	6 3.14.2.7	Fitout					
	3.14.2.7.1	Allowance for racking/shelving	Item	1	10,000.00	10,000.00	
	5 3.14.3	Mechanical & Process	Item	1	728,842.49	728,842.49	
	6 3.14.3.1	Equipment	Item	1	672,185.30	672,185.30	
	3.14.3.1.1	PAC dosing injection cabinet	No.	1	10,000.00	10,000.00	
	3.14.3.1.2	Cabinet/panel - install, large	No.	1	4,218.31	4,218.31	
	3.14.3.1.3	System process vacuum blower	No.	1	3,000.00	3,000.00	
	3.14.3.1.4	Hopper dust filter blower	No.	2	3,000.00	6,000.00	
	3.14.3.1.5	Hopper dust filter	NO.	1	6,087.00	6,087.00	
	3.14.3.1.6	PAC storage and batching package (Prominent)	No.	1	517,250.00	517,250.00	
	3.14.3.1.7	PAC package install	Item	1	67,493.00	67,493.00	Plug. Unsure on scope within this package
	3.14.3.1.8	Mixing tank agitator/mixer, Series 1000 (Mixtec)	No.	1	4,277.00	4,277.00	
	3.14.3.1.9	Tank install	No.	1	8,436.62	8,436.62	
	3.14.3.1.10	Mixer install	No.	1	2,109.16	2,109.16	
	3.14.3.1.11	Dosing pump, peristalitic, Watson Marlow	No.	2	13,177.00	26,354.00	
	3.14.3.1.12	Pump install - peristaltic	No.	1	5,272.89	5,272.89	
	3.14.3.1.13	Dosing panel	No.	1	10,000.00	10,000.00	
	3.14.3.1.14	Dosing panel - install	No.	1	1,687.32	1,687.32	
	6 3.14.3.2	Pipework	Item	1	16,936.19	16,936.19	
	7 3.14.3.2.1	PVC					
	3.14.3.2.1.1	PVC pipework DN25 Sched. 80 ABOVE ground, supply & install	m	24	155.00	3,719.93	
	3.14.3.2.1.2	PVC pipework DN25 Sched. 80 BELOW ground, supply & install	m	96	137.67	13,216.26	
	6 3.14.3.3	Valves	Item	1	39,721.00	39,721.00	
	8 3.14.3.3.1	BACK PRESSURE CONTROL VALVE					
	3.14.3.3.1.1	BACK PRESSURE CONTROL VALVE, DN25, PVCS80, Seat Material 316SS	No.	2	645.00	1,290.00	
	8 3.14.3.3.2	BALL VALVES					
	3.14.3.3.2.1	BALL VALVE, DN25, SS316, Sched. 10, Asmuss 3 piece ball valve Seat Material 316SS	No.	9	52.98	476.82	
	3.14.3.3.2.2	Ball valve, DN50, SS316, sched. 10 supply	No.	4	313.00	1,252.00	
	8 3.14.3.3.3	CHECK VALVES					



Level	Item	Description	Unit	t Qty	Rate	Value (Excluding GST)	Remarks
3.14.3.	3.3.3.1	CHECK VALVE, DN25, SS316, Sched. 10, GF Type 561 Seat Material, PVC / FKM		2	103.29	206.58	
8 3.14.3.	3.3.4	COMBINED PRESSURE RELEIF VALVES					
3.14.3.	3.3.4.1	COMBINED PRESSURE VACUUM RELEIF VALVE, DN50, SS316, Sched. 10, Allowance Seat Material 316SS	No.	1	800.00	800.00	
8 3.14.3.	3.3.5	DIAPHRAGM VALVES					
3.14.3.		DIAPHRAGM VALVE, DN25, PVCS80, GF Type 514 Seat Material, PVC / PTFE	No.	13	307.77	4,001.01	
3.14.3.		DIAPHRAGM VALVE, DN50, SS316, Sched. 10, GF Type 514 Seat Material, PVC / PTFE	No.	1	608.00	608.00	
8 3.14.3.	3.3.6	GATE VALVES					
3.14.3.		GATE VALVE, DN25, SS316, Sched. 10, Reece Dura Eagle Seat Material 316SS	No.	1	94.08	94.08	
8 3.14.3.	3.3.7	NEEDLE VALVE					
3.14.3.		NEEDLE VALVE, DN50, SS316, Sched. 10, Allowance Seat Material 316SS	No.	2	300.00	600.00	
8 3.14.3.	3.3.8	PRESSURE RELEIF VALVE					
3.14.3.	3.3.8.1	PRESSURE RELIEF VALVE, DN25	No.	2	385.00	770.00	
8 3.14.3.	3.3.9	SLIDE GATE VALVES					
21/2			No.	3	5,760.00	17,280.00	
3.14.3.	3.3.9.1	SLIDE GATE VALVE, DN100, , Seat Material 316SS	NO.	J	3,700.00		
8 3.14.3.		SLIDE GATE VALVE, DN100, , Seat Material 316SS  SOLENOID VALVE	NO.	, and the second	3,700.00		
8 3.14.3.	<b>3.3.10</b> 3.3.10.1		No.	2	1,524.00	3,048.00	
8 3.14.3.	<b>3.3.10</b> 3.3.10.1	SOLENOID VALVE					
8 3.14.3. 3.14.3. 8 3.14.3.	3.3.10 3.3.10.1 3.3.11	SOLENOID VALVE  Solenoid Valve, DN50, PVCS80, Burkert 228402					
8 3.14.3. 3.14.3. 3.14.3.	3.3.10 3.3.10.1 3.3.11 3.3.11.1	SOLENOID VALVE  Solenoid Valve, DN50, PVCS80, Burkert 228402  VALVE INSTALL	No.	2	1,524.00	3,048.00	
8 3.14.3. 8 3.14.3. 3.14.3.	3.3.10 3.3.10.1 3.3.11 3.3.11.1	SOLENOID VALVE  Solenoid Valve, DN50, PVCS80, Burkert 228402  VALVE INSTALL  DN25 Valve Installation	No.	2	1,524.00	3,048.00 5,586.34	
8 3.14.3. 8 3.14.3. 3.14.3.	3.3.10 3.3.11 3.3.11.1 3.3.11.2 3.3.11.3	SOLENOID VALVE  Solenoid Valve, DN50, PVCS80, Burkert 228402  VALVE INSTALL  DN25 Valve Installation  DN50 Valve Installation	No. /ea /ea	29	1,524.00 192.63 276.91	3,048.00 5,586.34 3,322.91	
8 3.14.3. 8 3.14.3. 3.14.3. 3.14.3.	3.3.10 3.3.10.1 3.3.11 3.3.11.1 3.3.11.2 3.3.11.3	SOLENOID VALVE  Solenoid Valve, DN50, PVCS80, Burkert 228402  VALVE INSTALL  DN25 Valve Installation  DN50 Valve Installation  DN80 Valve Installation	No. /ea /ea /ea	29 12 1	1,524.00 192.63 276.91 385.26	3,048.00 5,586.34 3,322.91	
8 3.14.3. 8 3.14.3. 3.14.3. 3.14.3. 6 3.14.3.	3.3.10 3.3.11 3.3.11.1 3.3.11.2 3.3.11.3	SOLENOID VALVE  Solenoid Valve, DN50, PVCS80, Burkert 228402  VALVE INSTALL  DN25 Valve Installation  DN50 Valve Installation  DN80 Valve Installation	No. /ea /ea /ea	29 12 1	1,524.00 192.63 276.91 385.26	3,048.00 5,586.34 3,322.91 385.26	
8 3.14.3.  8 3.14.3.  3.14.3.  3.14.3.  3.14.3.	3.3.10 3.3.11 3.3.11.1 3.3.11.2 3.3.11.3 3.4	SOLENOID VALVE  Solenoid Valve, DN50, PVCS80, Burkert 228402  VALVE INSTALL  DN25 Valve Installation  DN50 Valve Installation  DN80 Valve Installation  Instrumentation  Polymer, caustic and coagulant dosing facility	No.  /ea  /ea  /ea	29 12 1 1	1,524.00 192.63 276.91 385.26	3,048.00 5,586.34 3,322.91 385.26 Not priced	
8 3.14.3.  8 3.14.3. 3.14.3. 3.14.3. 3.14.3. 4 3.17	3.3.10 3.3.10.1 3.3.11 3.3.11.1 3.3.11.2 3.3.11.3	SOLENOID VALVE  Solenoid Valve, DN50, PVCS80, Burkert 228402  VALVE INSTALL  DN25 Valve Installation  DN50 Valve Installation  DN80 Valve Installation  Instrumentation  Polymer, caustic and coagulant dosing facility (017)	/ea /ea /ea Item	29 12 1 1	1,524.00 192.63 276.91 385.26 0.00	3,048.00 5,586.34 3,322.91 385.26 Not priced 2,018,819.01	
8 3.14.3.  8 3.14.3.  3.14.3.  3.14.3.  3.14.3.  4 3.17  5 3.17.1	3.3.10 3.3.11 3.3.11.1 3.3.11.2 3.3.11.3 3.4 3.4.1	SOLENOID VALVE  Solenoid Valve, DN50, PVCS80, Burkert 228402  VALVE INSTALL  DN25 Valve Installation  DN50 Valve Installation  DN80 Valve Installation  Instrumentation  Polymer, caustic and coagulant dosing facility (017)  Civils	/ea /ea /tem	29 12 1 1 1 1	1,524.00 192.63 276.91 385.26 0.00 2,018,819.01	3,048.00 5,586.34 3,322.91 385.26 Not priced 2,018,819.01	
8 3.14.3.  8 3.14.3.  3 .14.3.  3 .14.3.  4 3.17  5 3.17.1  6 3.17.1.	3.3.10 3.3.11 3.3.11 3.3.11.2 3.3.11.3 3.4 3.4.1	SOLENOID VALVE  Solenoid Valve, DN50, PVCS80, Burkert 228402  VALVE INSTALL  DN25 Valve Installation  DN50 Valve Installation  DN80 Valve Installation  Instrumentation  Polymer, caustic and coagulant dosing facility (017)  Civils  Chemical Dilution Pit	/ea /ea /tem	29 12 1 1 1 1	1,524.00 192.63 276.91 385.26 0.00 2,018,819.01	3,048.00 5,586.34 3,322.91 385.26 Not priced 2,018,819.01	
8 3.14.3.  8 3.14.3.  3 .14.3.  3 .14.3.  6 3.14.3.  4 3.17  5 3.17.1.  6 3.17.1.	3.3.10 3.3.11 3.3.11.1 3.3.11.2 3.3.11.3 3.4 3.4.1	SOLENOID VALVE  Solenoid Valve, DN50, PVCS80, Burkert 228402  VALVE INSTALL  DN25 Valve Installation  DN50 Valve Installation  DN80 Valve Installation  Instrumentation  Polymer, caustic and coagulant dosing facility (017)  Civils  Chemical Dilution Pit  Cast in-situ pit 2.80m dia. x 2.6m deep (internal)	/ea /ea /ea Item Item Item	2 29 12 1 1 1 1 1	1,524.00  192.63 276.91 385.26  0.00  2,018,819.01  140,676.60 48,121.28	3,048.00  5,586.34 3,322.91 385.26  Not priced  2,018,819.01  140,676.60 48,121.28	



ESTIMATES					Value	
Level Item	Description	Unit	Qty 1	Rate 536.31	(Excluding GST) 536.31	Remarks
3.17.1.1.1.4	Blinding slab 3.40 x 3.4	No.				
3.17.1.1.1.5	Base slab 3.20 x 3.20 x 250mm inc. 2 layers SL81	No.	1	4,370.34	4,370.34	
3.17.1.1.1.6	Drainage sump 400 x 400 x 400	No.	1	950.29	950.29	
3.17.1.1.7	Formwork pit walls 2.70m high	No.	1	12,012.88	12,012.88	
3.17.1.1.1.8	Reinforicng bar to pit walls	No.	1	7,087.50	7,087.50	ASSUMED 140KG/M3, 1.57 T/PIT
3.17.1.1.1.9	Concrete 32MPa to pit walls	No.	1	4,918.06	4,918.06	
3.17.1.1.1.10	Metal grated lid inc. support beams 2.80m dia.	No.	1	9,000.00	9,000.00	
3.17.1.1.11	Signage, aluminium engraved	No.	1	90.00	90.00	
3.17.11.11.11	Signage, adminiant englated		-	30.00	30.00	
6 3.17.1.2	Foundations	Item	1	84,541.63	84,541.63	Polymer, Acid & Flouride store
3.17.1.2.1	Allowance for foundations	m2	429	137.39	58,941.63	
3.17.1.2.2	Strip footing to awming columns	m3	8	3,200.00	25,600.00	
6 3.17.1.3	Detailed excavation	Item	1	8,013.69	8,013.69	Polymer, Acid & Flouride store
3.17.1.3.1	Detailed excavation	m3	22	67.19	1,478.28	
3.17.1.3.2	Cart & dispose spoil [ASSUME VENM]	Tonnes	47	5.81	273.29	
3.17.1.3.3	Trim & compact subgrade	m2	429	14.60	6,262.12	
5 3.17.2	Structural	Item	1	857,775.68	857,775.68	
6 3.17.2.1	Slab on ground	m3	89	2,113.66	188.116.03	Polymer, Acid & Flouride store
				,		
3.17.2.1.1	Blinding	m2	333	42.86	14,271.21	
3.17.2.1.1 3.17.2.1.2	Blinding Edge form - 450mm					
	_	m2	333	42.86	14,271.21	
3.17.2.1.2	Edge form - 450mm	m2 m	333 89	42.86 183.09	14,271.21 16,295.12	140 kg/m3
3.17.2.1.2 3.17.2.1.3	Edge form - 450mm  Membrane	m2 m m2	333 89 433	42.86 183.09 5.64	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66	140 kg/m3 500x500 edge beams, 300 slab
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground	m2 m m2 Tonnes	333 89 433 13	42.86 183.09 5.64 4,364.22	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66	
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick	m2 m m2 Tonnes m3	333 89 433 13 89	42.86 183.09 5.64 4,364.22 556.96	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97	
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick  Extra over for finishing to falls  Saw cut joints in pavement slab 30 x 6mm saw	m2 m m2 Tonnes m3	333 89 433 13 89	42.86 183.09 5.64 4,364.22 556.96	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97	500x500 edge beams, 300 slab
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5 3.17.2.1.6 3.17.2.1.7	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick  Extra over for finishing to falls  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Allowance for setdowns, cast-ins, penetrations	m2 m m2 Tonnes m3 m2 m	333 89 433 13 89 433 34	42.86 183.09 5.64 4,364.22 556.96 33.93 27.09	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97	500x500 edge beams, 300 slab
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5 3.17.2.1.6 3.17.2.1.7	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick  Extra over for finishing to falls  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Allowance for setdowns, cast-ins, penetrations not yet detailed	m2 m m2 Tonnes m3 m2 m	333 89 433 13 89 433 34	42.86 183.09 5.64 4,364.22 556.96 33.93 27.09	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97 29,223.84 3,965.67	500x500 edge beams, 300 slab
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5 3.17.2.1.6 3.17.2.1.7 3.17.2.1.8	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick  Extra over for finishing to falls  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Allowance for setdowns, cast-ins, penetrations not yet detailed  Curing	m2 m m2 Tonnes m3 m2 m m2	333 89 433 13 89 433 34 333	42.86 183.09 5.64 4,364.22 556.96 33.93 27.09 87.76	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97 29,223.84 3,965.67	500x500 edge beams, 300 slab  Inc. sikflex seal to joint  Polymer, Acid & Flouride store
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5 3.17.2.1.6 3.17.2.1.7 3.17.2.1.8 3.17.2.1.9	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick  Extra over for finishing to falls  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Allowance for setdowns, cast-ins, penetrations not yet detailed  Curing  Bund walls	m2 m m2 Tonnes m3 m2 m m2 m	333 89 433 13 89 433 34 333 333	42.86 183.09 5.64 4,364.22 556.96 33.93 27.09 87.76 11.91	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97 29,223.84 3,965.67	500x500 edge beams, 300 slab  Inc. sikflex seal to joint  Polymer, Acid & Flouride store  1.4m high
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5 3.17.2.1.6 3.17.2.1.7 3.17.2.1.8 3.17.2.1.9 6 3.17.2.2	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick  Extra over for finishing to falls  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Allowance for setdowns, cast-ins, penetrations not yet detailed  Curing  Bund walls  Wall form - CL3	m2 m m2 Tonnes m3 m2 m m2 m m2 m2 m2	333 89 433 13 89 433 34 333 333 102	42.86 183.09 5.64 4,364.22 556.96 33.93 27.09 87.76 11.91 1,015.46 302.50	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97 29,223.84 3,965.67 103,576.78 61,709.14 16,234.91	500x500 edge beams, 300 slab  Inc. sikflex seal to joint  Polymer, Acid & Flouride store  1.4m high
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5 3.17.2.1.6 3.17.2.1.7 3.17.2.1.8 3.17.2.1.9 6 3.17.2.2 3.17.2.2.1	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick  Extra over for finishing to falls  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Allowance for setdowns, cast-ins, penetrations not yet detailed  Curing  Bund walls  Wall form - CL3  Supply & fix Reinforcing	m2 m m2 Tonnes m3 m2 m m2 m m2 Tonnes	333 89 433 13 89 433 34 333 333 102 204 3.72	42.86 183.09 5.64 4,364.22 556.96 33.93 27.09 87.76 11.91 1,015.46 302.50 4,364.22	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97 29,223.84 3,965.67 103,576.78 61,709.14 16,234.91	500x500 edge beams, 300 slab  Inc. sikflex seal to joint  Polymer, Acid & Flouride store  1.4m high  120 kg/m3
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5 3.17.2.1.6 3.17.2.1.7 3.17.2.1.8 3.17.2.1.9 6 3.17.2.2 3.17.2.2.1 3.17.2.2.2 3.17.2.2.3	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick  Extra over for finishing to falls  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Allowance for setdowns, cast-ins, penetrations not yet detailed  Curing  Bund walls  Wall form - CL3  Supply & fix Reinforcing  Supply, place & finish s40 concrete to walls	m2 m m2 Tonnes m3 m2 m m2 m m2 Tonnes m3 m2 m2 m2 m3	333 89 433 13 89 433 34 333 333 102 204 3.72	42.86 183.09 5.64 4,364.22 556.96 33.93 27.09 87.76 11.91 1,015.46 302.50 4,364.22 748.49	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97 29,223.84 3,965.67 103,576.78 61,709.14 16,234.91 23,203.31 2,429.42	500x500 edge beams, 300 slab  Inc. sikflex seal to joint  Polymer, Acid & Flouride store  1.4m high  120 kg/m3
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5 3.17.2.1.6 3.17.2.1.7 3.17.2.1.8 3.17.2.1.9 6 3.17.2.2 3.17.2.2.1 3.17.2.2.2 3.17.2.2.3 3.17.2.2.4	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick  Extra over for finishing to falls  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Allowance for setdowns, cast-ins, penetrations not yet detailed  Curing  Bund walls  Wall form - CL3  Supply & fix Reinforcing  Supply, place & finish s40 concrete to walls  Curing	m2 m m2 Tonnes m3 m2 m m2 m m2 Tonnes m3 m2 m2 m2 m2 m2 m2 m2 Tonnes m3 m2	333 89 433 13 89 433 34 333 333 102 204 3.72 31	42.86 183.09 5.64 4,364.22 556.96 33.93 27.09 87.76 11.91 1,015.46 302.50 4,364.22 748.49 11.91	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97 29,223.84 3,965.67 103,576.78 61,709.14 16,234.91 23,203.31 2,429.42	500x500 edge beams, 300 slab  Inc. sikflex seal to joint  Polymer, Acid & Flouride store  1.4m high  120 kg/m3  300mm thick
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5 3.17.2.1.6 3.17.2.1.7 3.17.2.1.8 3.17.2.1.9 6 3.17.2.2 3.17.2.2.1 3.17.2.2.2 3.17.2.2.3 3.17.2.2.4 6 3.17.2.3	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick  Extra over for finishing to falls  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Allowance for setdowns, cast-ins, penetrations not yet detailed  Curing  Bund walls  Wall form - CL3  Supply & fix Reinforcing  Supply, place & finish s40 concrete to walls  Curing  Bunded Unloading Area	m2 m m2 Tonnes m3 m2 m m2 m2 m2 Tonnes m3 tm2 tm2 tm2 tm2 tonnes tm3 tm2 ttem	333 89 433 13 89 433 34 333 333 102 204 3.72 31 204	42.86 183.09 5.64 4,364.22 556.96 33.93 27.09 87.76 11.91 1,015.46 302.50 4,364.22 748.49 11.91	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97 29,223.84 3,965.67 103,576.78 61,709.14 16,234.91 23,203.31 2,429.42	500x500 edge beams, 300 slab  Inc. sikflex seal to joint  Polymer, Acid & Flouride store  1.4m high  120 kg/m3  300mm thick
3.17.2.1.2 3.17.2.1.3 3.17.2.1.4 3.17.2.1.5 3.17.2.1.6 3.17.2.1.7 3.17.2.1.8 3.17.2.1.9 6 3.17.2.2 3.17.2.2.1 3.17.2.2.2 3.17.2.2.3 3.17.2.2.4 6 3.17.2.3 3.17.2.3.1	Edge form - 450mm  Membrane  Supply & fix Reinforcing  Supply & place N40 concrete to slab on ground 450mm thick  Extra over for finishing to falls  Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod  Allowance for setdowns, cast-ins, penetrations not yet detailed  Curing  Bund walls  Wall form - CL3  Supply & fix Reinforcing  Supply, place & finish s40 concrete to walls  Curing  Bunded Unloading Area  Blinding	m2 m m2 Tonnes m3 m2 m m2 m2 m2 m2 m2 tonnes m3 m2 tonnes m3 m2 ttem m2	333 89 433 13 89 433 34 333 34 333 302 204 3.72 31 204 1	42.86 183.09 5.64 4,364.22 556.96 33.93 27.09 87.76 11.91 1,015.46 302.50 4,364.22 748.49 11.91 104,784.35	14,271.21 16,295.12 2,444.11 56,734.89 49,569.66 14,690.56 920.97 29,223.84 3,965.67 103,576.78 61,709.14 16,234.91 23,203.31 2,429.42 104,784.35 4,114.22	500x500 edge beams, 300 slab  Inc. sikflex seal to joint  Polymer, Acid & Flouride store  1.4m high  120 kg/m3  300mm thick



Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.17.2.3.5	·	m3	26	556.96	14,481.02	
	Supply & place N40 concrete to slab on ground					500x500 edge beams, 300 slab
3.17.2.3.6	Extra over - finishing to falls	m2	96	33.93	3,257.03	
3.17.2.3.7	Kerb 150 x 150	m	16	250.00	4,000.00	
3.17.2.3.8	Rollover kerb/bund	m	28	250.00	7,000.00	
3.17.2.3.9	Pit cast-instu inc. Class D grate	No.	1	9,000.00	9,000.00	
3.17.2.3.10	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	96	87.76	8,424.89	
3.17.2.3.11	Curing	m2	96	11.91	1,143.26	
6 3.17.2.4	Walls & Doors	Item	1	100,200.00	100,200.00	Polymer, Acid & Flouride store
3.17.2.4.1	Chainwire mesh in DN50mm gal. tube framing	m2	745	120.00	89,400.00	
3.17.2.4.2	Single leaf chainwire access gate	No.	6	600.00	3,600.00	
3.17.2.4.3	Double leaf pedestrian access gate in chainlink w/ 3 rows barbed wire, padbolt & lock	No.	6	1,200.00	7,200.00	
6 3.17.2.5	Columns					Polymer, Acid & Flouride store
3.17.2.5.1	Structural Steel 15-40KG/M, Shop Detail/Supply/Fab/Deliver	t	3.17	13,873.35	43,978.52	
6 3.17.2.6	Roof structure	Item	1	194,490.00	194,490.00	Polymer, Acid & Flouride store
3.17.2.6.1	Colourbond roof sheeting fixed to steel trussed framing structure incl. safety mesh, sarking & insulation	m2	505	350.00	176,750.00	
3.17.2.6.2	Awning, colourbond inc. HDG frame over single doors	No.	2	2,500.00	5,000.00	
3.17.2.6.3	Colourbond gutter 150mm dia.	m	35	160.00	5,600.00	
3.17.2.6.4	150mm dia. uPVC downpipe	m	30	120.00	3,600.00	
3.17.2.6.5	Permanent roof safety anchors	No.	6	390.00	2,340.00	
3.17.2.6.6	Ladder bracket	No.	2	600.00		
				000.00	1,200.00	
6 3.17.2.7	Access stairs & platforms	Item	1	122,630.00		Polymer, Acid & Flouride store
<b>6 3.17.2.7</b> 3.17.2.7.1	Access stairs & platforms  Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install	<b>Item</b>			<b>122,630.00</b> 62,430.07	Polymer, Acid & Flouride store Support structure to stairs & platforms
	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection,		1	122,630.00	<b>122,630.00</b> 62,430.07	
3.17.2.7.1	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install	t	<b>1</b> 4.50	<b>122,630.00</b> 13,873.35	<b>122,630.00</b> 62,430.07 13,993.77	
3.17.2.7.1 3.17.2.7.2	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Galvanized steel stair stingers & treads	t MR	<b>1</b> 4.50	<b>122,630.00</b> 13,873.35 1,665.92	<b>122,630.00</b> 62,430.07 13,993.77	Support structure to stairs & platforms
3.17.2.7.1 3.17.2.7.2 3.17.2.7.3	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Galvanized steel stair stingers & treads  Walkway mesh, GRP  Handrails, comprising, toe board, midrail &	t MR m2	4.50 8.40 33	122,630.00 13,873.35 1,665.92 450.00	122,630.00 62,430.07 13,993.77 14,850.00	Support structure to stairs & platforms
3.17.2.7.1 3.17.2.7.2 3.17.2.7.3 3.17.2.7.4	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Galvanized steel stair stingers & treads  Walkway mesh, GRP  Handrails, comprising, toe board, midrail & handrail supply & install	t MR m2	4.50 8.40 33	122,630.00 13,873.35 1,665.92 450.00	122,630.00 62,430.07 13,993.77 14,850.00	Support structure to stairs & platforms
3.17.2.7.1 3.17.2.7.2 3.17.2.7.3 3.17.2.7.4	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Galvanized steel stair stingers & treads  Walkway mesh, GRP  Handrails, comprising, toe board, midrail & handrail supply & install	t MR m2 m	4.50 8.40 33 86	122,630.00 13,873.35 1,665.92 450.00 364.61	122,630.00 62,430.07 13,993.77 14,850.00 31,356.16	Support structure to stairs & platforms
3.17.2.7.1 3.17.2.7.2 3.17.2.7.3 3.17.2.7.4 5 3.17.3 6 3.17.3.1	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Galvanized steel stair stingers & treads  Walkway mesh, GRP  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical  Equipment	t MR m2 m	4.50 8.40 33 86	122,630.00 13,873.35 1,665.92 450.00 364.61	122,630.00 62,430.07 13,993.77 14,850.00 31,356.16	Support structure to stairs & platforms
3.17.2.7.1  3.17.2.7.2  3.17.2.7.3  3.17.2.7.4  5 3.17.3  6 3.17.3.1	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Galvanized steel stair stingers & treads  Walkway mesh, GRP  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical  Equipment  COAGULANT	t MR m2 m	1 4.50 8.40 33 86	122,630.00 13,873.35 1,665.92 450.00 364.61	122,630.00 62,430.07 13,993.77 14,850.00 31,356.16	Support structure to stairs & platforms
3.17.2.7.1  3.17.2.7.2  3.17.2.7.3  3.17.2.7.4  5 3.17.3  6 3.17.3.1  7 3.17.3.1.1	Allowance for structural steel 15-40KG/M, shop drafting, supply, fabricate, surface protection, install  Galvanized steel stair stingers & treads  Walkway mesh, GRP  Handrails, comprising, toe board, midrail & handrail supply & install  Mechanical  Equipment  COAGULANT  Coagulant injection cabinet	t  MR  m2  m	1 4.50 8.40 33 86	122,630.00 13,873.35 1,665.92 450.00 364.61 695,460.39	122,630.00 62,430.07 13,993.77 14,850.00 31,356.16 695,460.39	Support structure to stairs & platforms





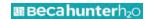
Level	ltem	Description	Unit	Qty		Rate	Value (Excluding GST)	Remarks
3.17	7.3.1.1.5	Dosing pumps cabinet	No.		1	25,000.00	25,000.00	
3.17	7.3.1.1.6	Dosing pumps cabinet install	No.		1	4,218.31	4,218.31	
3.17	7.3.1.1.7	Delivery control panel	No.		1	15,000.00	15,000.00	
3.17	7.3.1.1.8	Control panel - install	No.		1	4,218.31	4,218.31	
3.17	7.3.1.1.9	Coagulant dosing pump Grundfos DME375	No.		2	12,500.00	25,000.00	
3.17	7.3.1.1.10	Pump install, small	No.		6	6,749.30	40,495.80	
3.17		Bulk coagulant tank GRP 2000-17 3m dia. x 2.60m high	No.		2	16,700.00	33,400.00	
3.17	7.3.1.1.12	Tank 3m dia. x 2.60m high - install	No.		2	30,000.00		assumed underground w/ sand backfill, tie downs, dispose spoil, access hatch
3.17	7.3.1.1.13	Dosing lance - 1/2" PVDF Grundfos	No.		2	400.00	800.00	
3.17	7.3.1.1.14	Diaphragm seal DN25 - PVCS80 PVDF	No.		4	350.00	1,400.00	
3.17	7.3.1.1.15	Y-type strainer DN25 - PVCS80 1" SS BSP	No.		2	40.00	80.00	
3.17	7.3.1.1.16	Calibration Tube DN25 - PVCS80 5L PVC Grundfos	No.		1	371.00	371.00	
3.17	7.3.1.1.17	Install lances, seals, strainers, calibration tube/s	Item		1	5,272.89	5,272.89	
7 3.17	7.3.1.2	POLYMER FLOCULANT						
3.17	7.3.1.2.1	Delivery control panel	No.		1	15,000.00	15,000.00	
3.17	7.3.1.2.2	Analyser panel - install	No.		1	4,218.31	4,218.31	
3.17	7.3.1.2.3	Polymer package, Polyrex 0.6 Prominent	Item		1	59,500.00	59,500.00	
3.17	7.3.1.2.4	Polymer package, install	Item		1	16,873.25		2 men 1 week. Unsure on scope included in this package
3.17	7.3.1.2.5	Floculation polymer dosing cabinet	No.		3	25,000.00	75,000.00	
3.17	7.3.1.2.6	Floculation polymer dosing cabinet install	No.		3	4,218.31	12,654.94	
3.17	7.3.1.2.7	Polymer dosing pump, Smart digital XL DDA 120	No.		9	10,471.00	94,239.00	
3.17	7.3.1.2.8	Pump install - small	No.		6	6,749.30	40,495.80	
3.17	7.3.1.2.9	Diaphragm seal DN25 - PVCS80 PVDF	No.		9	350.00	3,150.00	
3.17	7.3.1.2.10	Y-type strainer DN25 - PVCS80 1" SS BSP	No.		2	40.00	80.00	
3.17	7.3.1.2.11	Calibration Tube DN25 - PVCS80 5L PVC Grundfos	No.		3	371.00	1,113.00	
3.17	7.3.1.2.12	Install lances, seals, strainers, calibration tube/s	Item		1	5,272.89	5,272.89	
7 3.17	7.3.1.3	CAUSTIC						
3.17	7.3.1.3.1	Post caustic dosing injection cabinet	No.		1	10,000.00	10,000.00	
3.17	7.3.1.3.2	Cabinet - install	No.		1	4,218.31	4,218.31	
3.17	7.3.1.3.3	Dosing injection cabinet	No.		1	23,000.00	23,000.00	
3.17	7.3.1.3.4	Cabinet install, large	No.		1	4,218.31	4,218.31	
3.17	7.3.1.3.5	Tanker delivery drip tray	No.		1	1,000.00	1,000.00	
3.17	7.3.1.3.6	Delivery control panel	No.		1	15,000.00	15,000.00	
3.17	7.3.1.3.7	Delivery panel - install	No.		1	4,218.31	4,218.31	
3.17	7.3.1.3.8	Bulk caustic tank GRP 4000-30 (Chemstore)	No.		1	30,000.00	30,000.00	



# **器Becahunter**h20

					Value	
Level Item 3.17.3.1.3.9	Description Caustic dosing pump	Unit No.	Qty 2	Rate 10,471.00	(Excluding GST) 20,942.00	Remarks
3.17.3.1.3.10	Pump install - small	No.	2	6,749.30	13,498.60	
3.17.3.1.3.11	Diaphragm seal DN25 - PVCS80 PVDF	No.	3	350.00	1,050.00	
3.17.3.1.3.12	Y-type strainer DN25 - PVCS80 1" SS BSP	No.	1	40.00	40.00	
3.17.3.1.3.13	Calibration Tube DN25 - PVCS80 5L PVC Grundfos	No.	1	371.00	371.00	
3.17.3.1.3.14	Dosing lance - 1/2" PVDF Grundfos	No.	1	400.00	400.00	
3.17.3.1.3.15	Install lances, seals, strainers, calibration tube/s	Item	1	5,272.89	5,272.89	
3.17.3.1.3.16	Safety Shower Enware ECE270	No.	1	2,050.00	2,050.00	
3.17.3.1.3.17	Safety Shower install	No.	1	1,476.41	1,476.41	
6 3.17.3.2	Pipework					
3.17.3.2.1	PVC pipework DN25 Sched. 80 ABOVE ground, supply & install	m	262	155.00	40,609.28	
3.17.3.2.2	PVC pipework DN25 Sched. 80 BELOW ground, supply & install	m	1,268	137.67	174,564.75	
6 3.17.3.3	Valves	Item	1	109,732.31	109,732.31	
7 3.17.3.3.1	COAGULANT					
8 3.17.3.3.1.1	BACK PRESSURE CONTROL VALVE					
3.17.3.3.1.1.1	BACK PRESSURE CONTROL VALVE, DN25, PVCS80, Seat Material 316SS	No.	2	645.00	1,290.00	
8 3.17.3.3.1.2	BALL VALVES					
3.17.3.3.1.2.1	Ball valve, DN25, SS316, sched. 10 supply	No.	37	110.00	4,070.00	
3.17.3.3.1.2.2	Ball Valve, DN25, SS316, Sched. 10, GF Type 514 Seat Material, PVC / PTFE	No.	2	225.00	450.00	
3.17.3.3.1.2.3	BALL VALVE, DN40, SS316, Sched. 10, Seat Material 316SS	No.	4	225.00	900.00	
3.17.3.3.1.2.4	BALL VALVE, DN50, SS316, Sched. 10, Asmuss 3 piece ball valve Seat Material 316SS	No.	2	159.00	318.00	
3.17.3.3.1.2.5	BALL VALVE, DN65, SS316, Sched. 10, Asmuss 3 piece ball valve Seat Material 316SS	No.	6	661.00	3,966.00	
8 3.17.3.3.1.3	CHECK VALVES					
					206.58	
3.17.3.3.1.3.1	CHECK VALVE, DN25, SS316, Sched. 10, GF Type 561 Seat Material, PVC / FKM	No.	2	103.29	200.50	
		No.	2	103.29	200.30	
3.17.3.3.1.3.1	561 Seat Material, PVC / FKM	No.	2	103.29 385.00	770.00	
3.17.3.3.1.3.1 8 3.17.3.3.1.4	561 Seat Material, PVC / FKM  PRESSURE RELEIF VALVES					
3.17.3.3.1.3.1 8 3.17.3.3.1.4 3.17.3.3.1.4.1	PRESSURE RELIEF VALVES  PRESSURE RELIEF VALVE, DN25	No.				
3.17.3.3.1.4 8 3.17.3.3.1.4 3.17.3.3.1.4.1 8 3.17.3.3.1.5	561 Seat Material, PVC / FKM  PRESSURE RELIEF VALVES  PRESSURE RELIEF VALVE, DN25  THREE WAY VALVE  THREE WAY VALVE, DN50, PVCS80, Seat Material	No.	2	385.00	770.00	
3.17.3.3.1.4 8 3.17.3.3.1.4 3.17.3.3.1.4.1 8 3.17.3.3.1.5 3.17.3.3.1.5.1	PRESSURE RELEIF VALVES  PRESSURE RELIEF VALVE, DN25  THREE WAY VALVE  THREE WAY VALVE, DN50, PVCS80, Seat Material 316SS	No.	2	385.00	770.00	





Level It	tem	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.17.3.3	.1.6.3	DN80 Valve Installation	/ea	6	385.26	2,311.59	
8 3.17.3.3	.1.7	ACTUATOR INSTALL					
3.17.3.3	.1.7.1	DN25 Actuator Installation	/ea	2	78.26	156.51	
7 3.17.3.3	J.2	POLYMER FLOCULANT					
8 3.17.3.3	.2.1	BACK PRESSURE CONTROL VALVE					
3.17.3.3.		BACK PRESSURE CONTROL VALVE, DN25, PVCS80, Seat Material 316SS	No.	6	645.00	3,870.00	
8 3.17.3.3	.2.2	BALL VALVES					
3.17.3.3.		BALL VALVE, DN25, SS316, Sched. 10, Asmuss 3 piece ball valve Seat Material 316SS	No.	2	52.98	105.96	
3.17.3.3	.2.2.2	Ball valve, DN25, SS316, sched. 10 supply	No.	109	110.00	11,990.00	
3.17.3.3		Ball Valve, DN25, SS316, Sched. 10, GF Type 514 Seat Material, PVC / PTFE	No.	6	225.00	1,350.00	
8 3.17.3.3	.2.3	CHECK VALVES					
3.17.3.3.		CHECK VALVE, DN25, SS316, Sched. 10, GF Type 561 Seat Material, PVC / FKM	No.	9	103.29	929.61	
8 3.17.3.3	3.2.4	PRESSURE RELEIF VALVES					
3.17.3.3.	.2.4.1	PRESSURE RELIEF VALVE, DN25	No.	9	385.00	3,465.00	
8 3.17.3.3	.2.5	THREE WAY VALVE					
3.17.3.3.		THREE WAY VALVE, DN50, PVCS80, Seat Material 316SS	No.	3	520.00	1,560.00	
8 3.17.3.3	.2.6	VALVE INSTALL					
3.17.3.3	.2.6.1	DN25 Valve Installation	/ea	159	192.63	30,628.53	
3.17.3.3	.2.6.2	DN32 Valve Installation	/ea	2	204.67	409.34	
3.17.3.3.	.2.6.3	DN50 Valve Installation	/ea	3	276.91	830.73	
3.17.3.3	.2.6.4	DN100 Valve Installation	/ea	1	517.70	517.70	
8 3.17.3.3	.2.7	ACTUATOR INSTALL					
3.17.3.3	.2.7.1	DN25 Actuator Installation	/ea	6	78.26	469.54	
7 3.17.3.3	3.3	CAUSTIC					
8 3.17.3.3	.3.1	BACK PRESSURE CONTROL VALVE					
3.17.3.3		BACK PRESSURE CONTROL VALVE, DN25, PVCS80, Seat Material 316SS	No.	2	645.00	1,290.00	
8 3.17.3.3	.3.2	BALL VALVES					
3.17.3.3	.3.2.1	Ball valve, DN25, SS316, sched. 10 supply	No.	31	110.00	3,410.00	
3.17.3.3		Ball Valve, DN25, SS316, Sched. 10, GF Type 514 Seat Material, PVC / PTFE	No.	1	225.00	225.00	
3.17.3.3		BALL VALVE, DN40, SS316, Sched. 10, Seat Material 316SS	No.	5	225.00	1,125.00	



Level	ltem	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
Level	3.17.3.3.3.2.4	Description	No.	1	159.00	159.00	Reliidiks
		BALL VALVE, DN50, SS316, Sched. 10, Asmuss 3 piece ball valve Seat Material 316SS					
	3.17.3.3.3.2.5	BALL VALVE, DN80, PVCS80, GF 546 Pro Seat Material, PVC/ FKM	No.	4	653.00	2,612.00	
	8 3.17.3.3.3.3	CHECK VALVES					
	3.17.3.3.3.3.1	CHECK VALVE, DN25, SS316, Sched. 10, GF Type 561 Seat Material, PVC / FKM	No.	2	103.29	206.58	
	8 3.17.3.3.3.4	NEEDLE VALVE					
	3.17.3.3.3.4.1	NEEDLE VALVE, DN50, SS316, Sched. 10, Allowance Seat Material 316SS	No.	1	300.00	300.00	
	8 3.17.3.3.3.5	PRESSURE REGULATING VALVES					
	3.17.3.3.3.5.1	PRESSURE REGULATING VALVE, DN50, PVCS80, GF Type 586 Seat Material, PVC / FKM	No.	1	1,391.50	1,391.50	
	8 3.17.3.3.3.6	PRESSURE RELEIF VALVES					
	3.17.3.3.3.6.1	PRESSURE RELIEF VALVE, DN25	No.	3	385.00	1,155.00	
	8 3.17.3.3.3.7	SOLENOID VALVES					
	3.17.3.3.3.7.1	Solenoid Valve, DN50	No.	1	2,337.50	2,337.50	
	8 3.17.3.3.3.8	THREE WAY VALVE					
	3.17.3.3.3.8.1	THREE WAY VALVE, DN50, PVCS80, Seat Material 316SS	No.	1	520.00	520.00	
	8 3.17.3.3.3.9	VALVE INSTALL					
	3.17.3.3.3.9.1	DN25 Valve Installation	/ea	39	192.63	7,512.66	
	3.17.3.3.3.9.2	DN50 Valve Installation	/ea	10	276.91	2,769.09	
	3.17.3.3.3.9.3	DN80 Valve Installation	/ea	4	385.26	1,541.06	
	8 3.17.3.3.3.10	ACTUATOR INSTALL					
	3.17.3.3.3.10.1	DN25 Actuator Installation	/ea	1	78.26	78.26	
	3.17.3.3.3.10.2	DN80 Actuator Installation	/ea	3	469.25	1,407.76	
	4 3.18	Backwash Pump Station (018)	Item	1	468,335.25	468,335.25	
	5 3.18.1	Civils					
			m2	100.00	17.63	1 004 04	
	3.18.1.1	Earthworks inc. detailed excavation, spoil disposal, trim & compact subgrade	m2	108.00	17.63	1,904.04	
	3.18.1.2	Allowance for foundations	m2	108	137.39		Allowance for bored piers 600mm dia. 2.0m long, 1 per 11m2
	3.18.1.3	Slab on ground	m3	25	1,840.00	46,000.00	
	3.18.1.4	Driveway	m3	5	1,840.00	9,200.00	
	5 3.18.2	Structural					
	6 3.18.2.1	Structural Steel					





ESTIMATES							Value	
Level Item	Description		Unit	Qty			(Excluding GST)	Remarks
3.18.2.1.1	Structural steel wall and roof framimg comprising.  - HD bolts,  - steel columns & rafters,  - bracing,  - stiffeners, cleats, base plates and connections	t ;			3.78	13,873.35	52,441.26	Allowance for 35kg/m2 for steel structure
3.18.2.1.2	Roof purlins at 1200mm centres inc. tie rods, bridging, bolting etc.	m2			108	65.00	7,020.00	
3.18.2.1.3	Wall girts at 1200mm centres inc. tie rods, bridging, bolting etc.	m2			185	65.00	12,025.00	
6 3.18.2.2	Roofing and Cladding							
3.18.2.2.1	Metal roof cladding inc. safety mesh, sarking & insulation, ridge capping, barge capping	m2			108	140.00	15,120.00	
3.18.2.2.2	Awning, colourbond inc. HDG frame over single doors	No.			2	2,500.00	5,000.00	
3.18.2.2.3	Awning, colourbond inc. HDG frame over single doors	No.			2	2,500.00	5,000.00	
3.18.2.2.4	Roof ventilators	No.			2	2,500.00	5,000.00	
3.18.2.2.5	Metal wall cladding including corner flashing, trims to openings	m2			185	106.00	19,610.00	
3.18.2.2.6	Colourbond gutter 150mm dia.	m			18	160.00	2,880.00	
3.18.2.2.7	150mm dia. uPVC downpipe	m			25	120.00	3,000.00	
3.18.2.2.8	Permanent roof safety anchors	No.			4	390.00	1,560.00	
3.18.2.2.9	Ladder bracket	No.			1	600.00	600.00	
6 3.18.2.3	Doors							
3.18.2.3.1	Roller shutter 3.45 x 4.50 w/ electric motor opening	No.			1	8,000.00	8,000.00	
3.18.2.3.2	Single door - solid core door including sheet metail to external face, paint, closer and hardware	No.			1	4,500.00	4,500.00	
6 3.18.2.4	Internal Fitout							
3.18.2.4.1	Concrete plinth 3.0 x 1.50 x 200mm high	No.			2	2,700.00	5,400.00	
3.18.2.4.2	Allowance for racking/shelving	Item	1		1	10,000.00	10,000.00	
5 3.18.3	Mechanical							
6 3.18.3.1	Equipment	Item	1		1	239,236.50	239,236.50	
3.18.3.1.1	Backwash pump, e-XC450- 370/1600W/W45BCS4AG Lowarra-Xylem	No.			2	102,745.00	205,490.00	
3.18.3.1.2	Pump install, medium	No.			2	16,873.25	33,746.50	
4 3.19	Electrical Switchroom 2 (019)	Item	1		1	2,361,838.00	2,361,838.00	
6 3.19.1	Civil	Item	1		1	388,750.38	388,750.38	
7 3.19.1.1	Foundations	Item	1		1	15,937.60	15,937.60	
3.19.1.1.1	Allowance for foundations	m2			116	137.39		Allowance for bored piers 600mm dia. 2.0m long, 1 per 11m2
7 3.19.1.2	Detailed excavation	Item	ı		1	5,673.40	5,673.40	
3.19.1.2.1	Excavation to setdown	m3			106	14.05	1,489.51	



Level	ltem	Description	Unit	Qty	Rate	Value (Excluding GST) Remarks
	3.19.1.2.2	Detailed excavation	m3	15	67.19	1,007.92 800 x 800 edge & internal beam
	3.19.1.2.3	Cart & dispose spoil [ASSUME VENM]	Tonnes	255	5.81	1,482.72
	3.19.1.2.4	Trim & compact subgrade	m2	116	14.60	1,693.25
7	7 3.19.1.3	Slab on ground	m3	44	1,934.43	85,114.72
	3.19.1.3.1	Blinding	m2	116	42.86	4,971.35
	3.19.1.3.2	Edge form - 700mm	m	51	183.09	9,337.65
	3.19.1.3.3	Membrane	m2	163	5.64	920.07
	3.19.1.3.4	Supply & fix Reinforcing	Tonnes	6.16	4,364.22	26,883.61 140 kg/m3
	3.19.1.3.5	Earthing connection and welding of reinforcing	No.	4	642.65	2,570.59
	3.19.1.3.6	Supply & place N40 concrete to slab on ground 450mm thick	m3	44	556.96	24,506.35 700x300 edge & internal beams, 250 slab
	3.19.1.3.7	Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod	m	32.80	27.09	888.46 Inc. sikflex seal to joint
	3.19.1.3.8	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	116	87.76	10,180.08
	3.19.1.3.9	Curing	m2	116	11.91	1,381.44
	3.19.1.3.10	Footpath 1.20m wide, 75mm thick, 1 layer SL72 mesh on 50mm sand basecourse	m2	27	128.71	3,475.12
7	7 3.19.1.4	Upstand walls	m2	30	1,410.56	42,316.66
	3.19.1.4.1	Wall form - CL3	m2	60	302.50	18,149.75 600mm high
	3.19.1.4.2	Formwork to blockout circumference <2.0m	No.	4	1,774.61	7,098.43
	3.19.1.4.3	Formwork rebate to top of wall 150 x 90	m	50	82.37	4,118.57
	3.19.1.4.4	Supply & fix Reinforcing	Tonnes	1.26	4,364.22	5,498.92 140 kg/m3
	3.19.1.4.5	Supply, place & finish s40 concrete to walls	m3	9	748.49	6,736.45 300mm thick
	3.19.1.4.6	Curing	m2	60	11.91	714.54
7	7 3.19.1.5	Walls & Doors				
	3.19.1.5.1	Corefilled and reinforced blockwork, 200 series including door openings	m2	174	300.00	52,200.00
	3.19.1.5.2	Paint finish to blockwork	m2	348	28.00	9,744.00
	3.19.1.5.3	Single door - 3hr fire rated, frame & hardware, paint finish	No.	1	5,000.00	5,000.00
	3.19.1.5.4	Double door - 3hr fire rated, frame & hardware, paint finish	No.	1	7,000.00	7,000.00
7	7 3.19.1.6	Roof Structure & cladding				
	3.19.1.6.1	Colourbond roof sheeting fixed to and including steel trussed framing structure incl. 1 layer insulation	m2	200	350.00	70,000.00
	3.19.1.6.2	Eaves lining, FC sheeting + paint	m2	70	160.00	11,200.00
	3.19.1.6.3	Awning, colourbond inc. HDG frame over single doors	No.	1	2,500.00	2,500.00
	3.19.1.6.4	Awning, colourbond inc. HDG frame over double doors	No.	1	3,224.00	3,224.00
	3.19.1.6.5	150mm dia. uPVC downpipe	m	23	120.00	2,760.00



ESTIMA						Value	
Level	Item 3.19.1.6.6	<b>Description</b> Colourbond gutter 150mm dia.	<b>Unit</b> m	Qty 40	Rate 160.00	(Excluding GST) 6,400.00	Remarks
						2,	
	7 3.19.1.7	Fitout	m2	132	527.88	69,680.00	
	3.19.1.7.1	Allowance for 2hr rated ceiling complete	m2	104	320.00	33,280.00	
	3.19.1.7.2	Raised access floor	m2	104	350.00	36,400.00	
	6 3.19.2	Electrical	Item	1	1,943,087.62	1,943,087.62	
	3.19.3	Supply & Install MCC 02001	Ea	1	569,919.05	569,919.05	Reduced price on MCC due to reduced size of MCC.
	3.19.4	Supply & Install PLC Panel 2001	Ea	1	250,000.00	250,000.00	
	3.19.5	Supply & Install Active Harmonic Filter	Ea	1	63,679.50	63,679.50	
	3.19.6	Supply & Install MCC 04001	Ea	1	449,919.05	449,919.05	Reduced price on MCC due to reduced size of MCC.
	3.19.7	Supply & Install PLC Panel 3001	Ea	1	150,000.00	150,000.00	
	3.19.8	Supply & Install DB's - 4 off	Lot	1	40,220.16	40,220.16	
	3.19.9	Supply & Install VSD's- 7 off	Lot	1	34,931.48	34,931.48	
	3.19.10	Supply & Install DB's - 5 off	Ea	1	50,275.20	50,275.20	
	3.19.11	Supply & Install Remote switching Panel	Ea	1	11,070.65	11,070.65	
	3.19.12	Supply & Install VSD's- 50 off	Lot	1	175,502.66	175,502.66	
	3.19.13	Supply & Install UPS-2000 5KVA	Lot	1	30,059.50	30,059.50	
	3.19.14	Supply & Install VESDA	PCsum	1	25,000.00	25,000.00	
	3.19.16	Supply & Install Fire system	PCsum	1	10,000.00	10,000.00	
	3.19.17	Supply & Install Security	PCsum	1	8,000.00	8,000.00	
	3.19.18	Supply & Install Cable support systems	Lot	1	57,289.89	57,289.89	
	3.19.19	Pre commissioning of Switchroom	Lot	1	17,220.48	17,220.48	
	6 3.19.3	Mechanical					
	3.19.3.1	Split system air-conditioner, 8kW	No.	3	10,000.00	30,000.00	
	4 3.20	Incoming Transformer (020)	Item	1	452,232.89	452,232.89	
	5 3.20.1	Civils					
	6 3.20.1.1	Foundations	Item	1	3,293.41	3,293.41	
	3.20.1.1.1	Allowance for foundations	m2	18	137.39	2,473.08	Allowance for bored piers 600mm dia. 1 per 11n
	3.20.1.1.2	Detailed excavation	m3	7	67.19	470.36	
	3.20.1.1.3	Cart & dispose spoil [ASSUME VENM]	Tonnes	15	5.81	87.22	
	3.20.1.1.4	Trim & compact subgrade	m2	18	14.60	262.75	
	6 3.20.1.2	Slab on ground	m3	7	8,563.57	59,944.98	
	3.20.1.2.1	Blinding	m2	18	42.86	771.42	
	3.20.1.2.2	Edge form - 300mm	m	18	183.09	3,295.64	
	3.20.1.2.3	Membrane	m2	26	5.64	146.76	
	3.20.1.2.4	Supply & fix Reinforcing	Tonnes	10.36	4,364.22	45,213.34	140 kg/m3
	3.20.1.2.5		m3	7	556.96	3,898.74	
		Supply & place N40 concrete to slab on ground					300x300 edge beams, 150 slab



Level	ltem	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
	3.20.1.2.6	Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod	m	12	27.09	325.05	Inc. sikflex seal to joint
	3.20.1.2.7	Kerb 150 x 150	m	18	250.00	4,500.00	
	3.20.1.2.8	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	18	87.76	1,579.67	
	3.20.1.2.9	Curing	m2	18	11.91	214.36	
!	5 3.20.2	Electrical					
	3.20.2.1	Earthing of TXF foundation	Ea	1	4,729.61	4,729.61	
	3.20.2.2	Pre commission TXF	Ea	1	9,264.89	9,264.89	
	3.20.2.3	Allowance for transformer	Item	1	375,000.00	375,000.00	
	4 3.21	Storage Shed (021)	m2	91	1,967.52	179,044.08	
	3.21.1	Earthworks inc. detailed excavation, spoil disposal, trim & compact subgrade	m2	91	17.63	1,604.33	
	3.21.2	Allowance for foundations	m2	91	137.39		Allowance for bored piers 600mm dia. 2.0m long, 1 per 11m2
	3.21.3	Slab on ground	m3	20	1,840.00	36,800.00	
	3.21.4		t	3.19	13,873.35	44,255.98	
		Structural steel wall and roof framing comprising - HD bolts, - steel columns & rafters, - bracing, - stiffeners, cleats, base plates and connections	;				Allowance for 35kg/m2 for steel structure
	3.21.5	Roof purlins at 1200mm centres inc. tie rods, bridging, bolting etc.	m2	91	65.00	5,915.00	
	3.21.6	Wall girts at 1200mm centres inc. tie rods, bridging, bolting etc.	m2	142	65.00	9,230.00	
	3.21.7	Metal roof cladding inc. safety mesh, sarking & insulation, ridge capping, barge capping	m2	105	140.00	14,700.00	
	3.21.8	Awning, colourbond inc. HDG frame over single doors	No.	2	2,500.00	5,000.00	
	3.21.9	Metal wall cladding including corner flashing, trims to openings	m2	136	106.00	14,416.00	
	3.21.10	Colourbond gutter 150mm dia.	m	26	160.00	4,160.00	
	3.21.11	150mm dia. uPVC downpipe	m	21	120.00	2,520.00	
	3.21.12	Permanent roof safety anchors	No.	6	390.00	2,340.00	
	3.21.13	Ladder bracket	No.	1	600.00	600.00	
	3.21.14	Roller shutter 3.0 x 3.0 w/ electric motor opening	No.	3	5,000.00	15,000.00	
	3.21.15	Allowance for racking/shelving	Item	1	10,000.00	10,000.00	
	4 3.22	Septic System (22)	Item	1	30,000.00	30,000.00	
	3.22.1	Supply & installation of an AWTS including disposal area	Item	1	30,000.00	30,000.00	Estimate provided by CVC
	4 3.23	Supernatant Return Tank and Pump Station (023)	Item	1	434,265.23	434,265.23	
	6 3.23.1	Civils	Item	1	5,522.87	5,522.87	
	7 3.23.1.1	Foundations					



Level Item 3.23.1.1.1	<b>Description</b> Allowance for foundations	<b>Unit</b> m2	Qty 29	<b>Rate</b> 137.39	Value (Excluding GST) 3,984.40	Remarks Allowance for bored piers 600mm dia. 2.0m long, 1 per 11m2
7 3.23.1.2	Detailed excavation	Item	1	1,538.47	1,538.47	
3.23.1.2.1	Detailed excavation	m3	14	67.19	940.72	ring beam 800x800
3.23.1.2.2	Cart & dispose spoil [ASSUME VENM]	Tonnes	30	5.81	174.44	
3.23.1.2.3	Trim & compact subgrade	m2	29	14.60	423.31	
6 3.23.2	Structural	Item	1	179,150.32	179,150.32	
7 3.23.2.1	Ring beam and base slab	m3	11	3,741.03	·	
3.23.2.1.1	Blinding	m2	29	42.86		
3.23.2.1.2	Membrane	m2	38	5.64		
3.23.2.1.3	Edge form 600mm high COP	m	19	402.04		
3.23.2.1.4	Supply & fix Reinforcing	Tonnes	2.64	4,364.22		220 kg/m3
3.23.2.1.5	Supply & In Itelliorenig	m3	10	644.79	•	
3.23.2.1.3	Supply & place S40 concrete to slab on ground	1113	10	044.73	0,447.32	ring beam 600x600, slab 300mm thick
3.23.2.1.6	Formwork to kerb/upstand 200mm high COP	m	42	233.58	9,810.33	
3.23.2.1.7	rommon concess, apatana abomining.	m3	1	644.79	644.79	
5.25.2.17	Supply & place S40 concrete to kerb 200 X 300	5	-	0175	01.1175	
3.23.2.1.8	250mm wide Supercast Rearguard waterstop	m	21	140.00	2,940.00	
3.23.2.1.9	Allowance for resin injection to cracks	m2	29	11.91	345.36	
3.23.2.1.10	Curing	m2	29	11.91	345.36	
7 3.23.2.2	Pump & LCS Slab	m3	4	2,930.29	11,721.16	
3.23.2.2.1	Blinding	m2	24	42.86		
3.23.2.2.2	Edge form - 300mm	m	20	183.09	3,661.82	
3.23.2.2.3	Membrane	m2	32	5.64	180.63	
3.23.2.2.4	Supply & fix Reinforcing	Tonnes	0.48	4,364.22	2,094.83	120 kg/m3
3.23.2.2.5	Supply & place N40 concrete to slab on ground	m3	4	556.96	2,227.85	300x300 edge beams, 150 slab
3.23.2.2.6	Saw cut joints in pavement slab 30 x 6mm saw cut, sealant & backing rod	m	5	27.09	135.44	
3.23.2.2.7	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	24	87.76	2,106.22	
3.23.2.2.8	Curing	m2	24	11.91	285.81	
7 3.23.2.3	External Walls	m2	48	1,862.72	89,410.70	
3.23.2.3.1	Scaffold stretcher stairs 5.0m rise erection	No.	2	3,355.00		
3.23.2.3.2	Scaffold stretcher stairs 5.0m rise hire	Week	24	40.00		
3.23.2.3.3	Scaffold stretcher stairs 5.0m rise removal	No.	2	1,600.00		
3.23.2.3.4		m2	44	371.95		
3.23.2.3.	Formwork to walls, C.O.P. class 3, >4.0m high		-	3.1.33	_0,505.50	
3.23.2.3.5	Formwork to walls, C.O.P. class 2, >4.0m high	m2	48	421.97	20,254.41	Assumed external walls are suitable left as off- form concrete without paint finish due to the remote location
3.23.2.3.6	DN200 DICL puddle flange, supply	No.	1	1,800.00	1,800.00	



					Value	
Level Item 3.23.2.3.7	Description DN200 DICL puddle flange, fix	Unit No.	Qty 1	Rate 1,085.68	(Excluding GST) 1,085.68	Remarks
						2201-7-2
3.23.2.3.8	Supply & fix reinforcing to walls	t	3.08	4,364.22	13,441.80	ZZUKg/m3
3.23.2.3.9	250mm wide Supercast Rearguard waterstop	m	21	140.00	2,940.00	Launder interface. Scraper floor/wall interface
3.23.2.3.10	Supply, place & finish S40 concrete to walls	m3	14	554.83	7,767.59	400mm thick
3.23.2.3.11	Curing	m2	92	11.91	1,095.62	
3.23.2.3.12	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	48	87.76	4,212.45	
3.23.2.3.13	Allowance for resin injection to cracks	m2	48	11.91	571.63	
3.23.2.3.14	Hydostatic testing	Item	1	9,005.54	9,005.54	
7 3.23.2.4	Access stairs & platforms	Item	1	36,867.13	36,867.13	
3.23.2.4.1	Pad footings complete	m3	3	1,800.00	5,400.00	
3.23.2.4.2	Allowance for structural steel 15-40KG/M, shop	t	1.20	13,873.35	16,648.02	
	drafting, supply, fabricate, surface protection, install					Support structure to stairs
3.23.2.4.3	Galvanized steel stair stingers & treads	MR	3	1,665.92	4,997.77	
3.23.2.4.4	Webforge A325MPG mesh grating, HDG, fixed to steel trimmers	m2	4	450.00	1,800.00	Walkways and landings
3.23.2.4.5	Handrails, comprising, toe board, midrail & handrail supply & install	m	22	364.61	8,021.34	
6 3.23.3	Mechanical & Process	Item	1	249,592.04	249,592.04	
7 3.23.3.1	Equipment	Item	1	48,390.51	48,390.51	
3.23.3.1.1	Tank Mixer 1.5kW Sub Mixer - AMD.07.18 Grundfos	No.	2	3,100.00	6,200.00	
3.23.3.1.2	Mixer install	No.	1	2,109.16	2,109.16	
3.23.3.1.3	Supernatant Return Pump 1 IXPC150-125- 250B110P45BDN4S1G Lowara-Xylem	No.	2	11,625.00	23,250.00	
3.23.3.1.4	Pump install, small	No.	2	6,749.30	13,498.60	
3.23.3.1.5	Davit supply (equipment & personnel)	No				
	barre suppry (equipment a personner)	No.	1	2,700.00	2,700.00	
3.23.3.1.6	Davit install	No.	1	2,700.00 632.75	2,700.00 632.75	
3.23.3.1.6 <b>7 3.23.3.2</b>						
7 3.23.3.2	Davit install  Pipework	No.	1	632.75 <b>7,611.53</b>	632.75 <b>7,611.53</b>	
	Davit install	No.	1	632.75	632.75	
7 3.23.3.2	Davit install  Pipework  HDPE DN200 pipework BELOW ground, supply &	No.	1	632.75 <b>7,611.53</b>	632.75 <b>7,611.53</b>	
<b>7 3.23.3.2</b> 3.23.3.2.1	Davit install  Pipework  HDPE DN200 pipework BELOW ground, supply & install	No.	1 1 23	632.75 <b>7,611.53</b> 265.54	632.75 <b>7,611.53</b> 6,107.52	
7 3.23.3.2 3.23.3.2.1 3.23.3.2.2	Davit install  Pipework  HDPE DN200 pipework BELOW ground, supply & install  DN200 HDPE Pipe & Fittings AG Installation	No.	1 1 23	632.75 <b>7,611.53</b> 265.54	632.75 <b>7,611.53</b> 6,107.52	
7 3.23.3.2 3.23.3.2.1 3.23.3.2.2 7 3.23.3.3	Davit install  Pipework  HDPE DN200 pipework BELOW ground, supply & install  DN200 HDPE Pipe & Fittings AG Installation  Valves	No.	1 1 23	632.75 <b>7,611.53</b> 265.54	632.75 <b>7,611.53</b> 6,107.52	
7 3.23.3.2 3.23.3.2.1 3.23.3.2.2 7 3.23.3.3 8 3.23.3.3.1 3.23.3.3.1.1	Davit install  Pipework  HDPE DN200 pipework BELOW ground, supply & install  DN200 HDPE Pipe & Fittings AG Installation  Valves  BALL VALVES	No.  Item  m  M	1 23 2	632.75 <b>7,611.53</b> 265.54 752.00	632.75 <b>7,611.53</b> 6,107.52 1,504.01	
7 3.23.3.2 3.23.3.2.1 3.23.3.2.2 7 3.23.3.3 8 3.23.3.3.1	Davit install  Pipework  HDPE DN200 pipework BELOW ground, supply & install  DN200 HDPE Pipe & Fittings AG Installation  Valves  BALL VALVES	No.  Item  m	1 23 2	632.75 7,611.53 265.54 752.00	<b>7,611.53</b> 6,107.52 1,504.01	
7 3.23.3.2 3.23.3.2.1 3.23.3.2.2 7 3.23.3.3 8 3.23.3.3.1 3.23.3.3.1.1 3.23.3.3.1.2	Davit install  Pipework  HDPE DN200 pipework BELOW ground, supply & install  DN200 HDPE Pipe & Fittings AG Installation  Valves  BALL VALVES  Ball valve, DN25, SS316, sched. 10 supply  BALL VALVE, DN50, SS316, Sched. 10, Asmuss 3 piece ball valve Seat Material 316SS	No.  Item  m  M	1 23 2	632.75 <b>7,611.53</b> 265.54 752.00	632.75 <b>7,611.53</b> 6,107.52 1,504.01	
7 3.23.3.2 3.23.3.2.1 3.23.3.2.2 7 3.23.3.3 8 3.23.3.3.1 3.23.3.3.1.1	Davit install  Pipework  HDPE DN200 pipework BELOW ground, supply & install  DN200 HDPE Pipe & Fittings AG Installation  Valves  BALL VALVES  Ball valve, DN25, SS316, sched. 10 supply  BALL VALVE, DN50, SS316, Sched. 10, Asmuss 3	No.  Item  m  No.  No.	1 23 2	632.75 <b>7,611.53</b> 265.54 752.00	632.75 <b>7,611.53</b> 6,107.52 1,504.01	



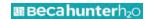
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evel Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
8 3.23.3.3.3	PINCH VALVE					
3.23.3.3.1	PINCH VALVE, DN25, SS316, Sched. 10	No.	3	418.00	1,254.00	
8 3.23.3.3.4	PRESSURE REGULATING VALVE					
3.23.3.3.4.1	PRESSURE REGULATING VALVE, DN25, PVCS80, GF Type 586 Seat Material, PVC / FKM	No.	1	536.00	536.00	
3.23.3.3.4.2	DN25 Valve Installation	/ea	11	192.63	2,118.96	
3.23.3.3.4.3	DN50 Valve Installation	/ea	3	276.91	830.73	
3.23.3.3.4.4	DN750 Valve Installation	/ea	3	3,923.77	11,771.31	
7 3.23.3.4	Instrumentation	Item	1	0.00		
4 3.24	Centrate Return tank and Pump Station (024)	Item	1	60,924.56	60,924.56	
5 3.24.1	Civil					
6 3.24.1.1	Return Tank/pit					
3.24.1.1.1	Cast in-situ pit 2.80m dia. x 2.30m deep (internal)					
3.24.1.1.1.1	Detailed excavation	m3	37	67.19	2,486.19	
3.24.1.1.1.2	Benching of excavation	m3	100	67.19	6,719.43	
3.24.1.1.1.3	Edge protection & access ladder hire, 2 weeks/pit	No.	1	891.00	891.00	
3.24.1.1.1.4	Blinding slab 3.40 x 3.4	No.	1	536.31	536.31	
3.24.1.1.1.5	Base slab 3.20 x 3.20 x 250mm inc. 2 layers SL81	No.	1	4,370.34	4,370.34	
3.24.1.1.1.6	Formwork pit walls 2.80m high	No.	1	12,012.88	12,012.88	
3.24.1.1.1.7	Reinforicng bar to pit walls	No.	1	7,087.50	7,087.50 ASSUM	MED 140KG/M3, 1.57 T/PIT
3.24.1.1.1.8	Concrete 32MPa to pit walls	No.	1	4,918.06	4,918.06	
3.24.1.1.1.9	Metal grated lid inc. support beams 2.80m dia.	No.	1	9,000.00	9,000.00	
3.24.1.1.1.10	Signage, aluminium engraved	No.	1	90.00	90.00	
6 3.24.1.2	Valve & LCS slab	m3	3	4,270.95	12,812.85 North	of Blower Room
3.24.1.2.1	Blinding	m2	14	42.86	599.99	
3.24.1.2.2	Edge form - 300mm	m	16	183.09	2,929.46	
3.24.1.2.3	Membrane	m2	19	5.64	107.25	
3.24.1.2.4	Supply & fix Reinforcing	Tonnes	1.40	4,364.22	6,109.91 140 kg	g/m3
3.24.1.2.5	Supply & place N40 concrete to slab on ground	m3	3	556.96	1,670.89 300x3	00 edge beams, 150 slab
3.24.1.2.6	Allowance for setdowns, cast-ins, penetrations not yet detailed	m2	14	87.76	1,228.63	
3.24.1.2.7	Curing	m2	14	11.91	166.72	
4 3.25	Site Wide Electrical	Item	1	5,864,792.16	5,864,792.16	



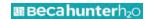
Level	Item 3.25.2	Description  Refer Direct Costs ==> Electrical Switchroom 2	Unit	Qty	Rate	Value (Excluding GST)	Remarks
	2.25.2	(019)					
	3.25.3	Refer; Directs Costs ==> Amenities building (012)					
5	3.25.1	Field installation of LCS's	Sum	1	64,250.71	64,250.71	
	3.25.1.1	Supply & Installation of LCS - 0045	Ea	106		Not priced	
	3.25.1.2	Supply & Installation of LCS - 0110	Ea	6	5,418.25	32,509.48	
	3.25.1.3	Supply & Installation of LCS - 0200	Ea	5	6,348.25	31,741.23	
5	5 3.25.2	Pits	Sum	1	97,615.65	97,615.65	
	3.25.2.1	Pit 900 X 900 X 1200 w/ concrete lid, sand bedding & backfill, cast-in bellmouth conduits, agg. drain surround + 3m tail	No.	25	3,904.63	97,615.65	dimensions of 900 x 900 x 1200 assumed based on an average pit size typical for WTP's and qty conduits in conduit schedule
5	3.25.3	Conduits	Sum	1	364,468.64	364,468.64	
	3.25.3.1	Conduit lengths and pit configurations are based on Cowarra WTP					
	3.25.3.1.1	LV/ Comms trench 700 wide x 1400 deep including; - conduits, orange HD 150mm dia. x 6 No., - conduits, orange HD 63mm dia. x 2 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m	30	419.56	12,586.82	Route CO1
	3.25.3.1.2	LV/ Comms trench 1000 wide x 1600 deep including; - conduits, orange HD 150mm dia. x 4 No., - conduits, orange HD 100mm dia. x 10 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m	8	584.36	4,674.91	Route CO2
	3.25.3.1.3	LV/ Comms trench 1000 wide x 1600 deep including; - conduits, orange HD 150mm dia. x 6 No., - conduits, orange HD 100mm dia. x 10 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill,	m	17	653.73	11,113.38	
		- 600mm total cover.					Route C03
	3.25.3.1.4	LV/ Comms trench 600 wide x 1200 deep including; - conduits, orange HD 100mm dia. x 6 No., - conduits, orange HD 63mm dia. x 2 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m	10	299.24	2,992.35	Route CO5
	3.25.3.1.5	LV/ Comms trench 600 wide x 1200 deep including; - conduits, orange HD 100mm dia. x 6 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m	28	251.08	7,030.32	Route CO6





Level	ltem	Description	Unit	Qty		Rate	Value (Excluding GST)	Remarks
	3.25.3.1.6	LV/ Comms trench 600 wide x 1100 deep including; - conduits, orange HD 100mm dia. x 4 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		26	189.94	4,938.47	
	3.25.3.1.7	LV/ Comms trench 600 wide x 1100 deep including; - conduits, orange HD 100mm dia. x 2 No., - conduits, orange HD 63mm dia. x 2 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		132	184.20	24,313.77	Route C08, C09, C16, C17
	3.25.3.1.8	LV/ Comms trench 700 wide x 1100 deep including; - conduits, orange HD 100mm dia. x 2 No., - conduits, orange HD 63mm dia. x 4 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		236	246.04	58,065.06	Route C10, C11, C12, C13, C21, C22, C23, C24, C25, C26, C68, C69
	3.25.3.1.9	LV/ Comms trench 1100 wide x 900 deep including; - conduits, orange HD 150mm dia. x 4 No., - conduits, orange HD 100mm dia. x 12 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		29	643.43	18,659.37	Route C14
	3.25.3.1.10	LV/ Comms trench 1000 wide x 1400 deep including; - conduits, orange HD 150mm dia. x 2 No., - conduits, orange HD 100mm dia. x 12 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		56	574.06	32,147.48	Route C15, C66
	3.25.3.1.11	LV/ Comms trench 800 wide x 1200 deep including; - conduits, orange HD 150mm dia. x 2 No., - conduits, orange HD 100mm dia. x 4 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		22	292.72	6,439.92	Route C18
	3.25.3.1.12	LV/ Comms trench 800 wide x 1100 deep including; - conduits, orange HD 100mm dia. x 6 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		75	271.22	20,341.58	Route C27, C28, C35, C58





							Value	
Level	Item	Description	Unit	Qty			(Excluding GST)	Remarks
	3.25.3.1.13	LV/ Comms trench 800 wide x 1400 deep including; - conduits, orange HD 100mm dia. x 12 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		89	180.89	16,099.46	Route C32, C33, C36, C37, C49, C57
	3.25.3.1.14	LV/ Comms trench 1500 wide x 1700 deep including; - conduits, orange HD 150mm dia. x 6 No., - conduits, orange HD 100mm dia. x 24 No., - conduits, orange HD 63mm dia. x 2 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		43	1,031.87	44,370.33	Route C43, C44
	3.25.3.1.15	LV/ Comms trench 1500 wide x 1700 deep including; - conduits, orange HD 100mm dia. x 12 No., - conduits, orange HD 63mm dia. x 2 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		21	516.49	10,846.28	Route C45
	3.25.3.1.16	LV/ Comms trench 700 wide x 1400 deep including; - conduits, orange HD 100mm dia. x 8 No., - conduits, orange HD 63mm dia. x 2 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		47	433.94	20,395.24	Route C46, C47
	3.25.3.1.17	LV/ Comms trench 1100 wide x 1700 deep including; - conduits, orange HD 150mm dia. x 4 No., - conduits, orange HD 100mm dia. x 20 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		10	924.53	9,245.29	Route C48
	3.25.3.1.18	LV/ Comms trench 1100 wide x 1700 deep including; - conduits, orange HD 150mm dia. x 4 No., - conduits, orange HD 100mm dia. x 20 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		10	884.75	8,847.49	Route C48
	3.25.3.1.19	LV/ Comms trench 1000 wide x 1600 deep including; - conduits, orange HD 150mm dia. x 2 No., - conduits, orange HD 100mm dia. x 18 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m		24	735.12	17,642.87	Route C55



ESTA	MATES						
Leve	l Item	Description	Unit	Qty	Rate (	Value Excluding GST)	Remarks
	3.25.3.1.20	LV/ Comms trench 1000 wide x 1600 deep including;  - conduits, orange HD 100mm dia. x 18 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 6enerator00mm total cover.	m	32	665.76	21,304.16 Route C56	
	3.25.3.1.21	LV/ Comms trench 800 wide x 1400 deep including; - conduits, orange HD 100mm dia. x 12 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m	16	452.23	7,235.71 Route C59	
	3.25.3.1.22	LV/ Comms trench 700 wide x 1600 deep including; - conduits, orange HD 150mm dia. x 6 No., - conduits, orange HD 100mm dia. x 2 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill, - 600mm total cover.	m	10	385.29	3,852.92 Route C67	
	3.25.3.1.23	LV/ Comms trench 500 wide x 1100 deep including; - conduits, orange HD 100mm dia. x 2 No., - 150mm bedding sand, - bedding sand overlay to 100mm over top conduits, - polymeric cable cover, - backfill with select fill,	m	10	132.55	1,325.46	
		- 600mm total cover.				Route C70	
	5 3.25.4		Sum	1	12,157.66	Route C70	
	5 3.25.4 3.25.4.1	- 600mm total cover.	<b>Sum</b> Ea	<b>1</b> 0	<b>12,157.66</b> 2,981.87 R	12,157.66	
c		- 600mm total cover.  Area lighting				12,157.66	
c	3.25.4.1	- 600mm total cover.  Area lighting  Installation of Street lighting - EXCLUDED				12,157.66	
c	3.25.4.1 3.25.4.1	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED  Area	Ea	0	2,981.87 F	<b>12,157.66</b> ate only	
c	3.25.4.1 3.25.4.1 3.25.4.1.1	- 600mm total cover.  Area lighting  Installation of Street lighting - EXCLUDED  Area  General Lighting for WTP area	Ea Ea	0	2,981.87 R	<b>12,157.66</b> ate only 12,157.66	
c	3.25.4.1 3.25.4.1 3.25.4.1.1 5 3.25.5	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED  Area General Lighting for WTP area  Earth Bonding	Ea Ea Sum	0	2,981.87 F 12,157.66 159,978.74	12,157.66 ate only 12,157.66 159,978.74	
c	3.25.4.1 3.25.4.1 3.25.4.1.1 5 3.25.5 3.25.5.1	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED  Area General Lighting for WTP area  Earth Bonding Earthing of switchroom No 1	Ea Ea <b>Sum</b> Ea	1 1 1	2,981.87 R 12,157.66 159,978.74 10,515.17	12,157.66 ate only 12,157.66 159,978.74 10,515.17	
c	3.25.4.1 3.25.4.1 3.25.4.1.1 5 3.25.5 3.25.5.1 3.25.5.2	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED  Area General Lighting for WTP area  Earth Bonding Earthing of switchroom No 1 Earthing of switchroom No 2	Ea Ea Sum Ea Ea	1 1 1	2,981.87 R 12,157.66 159,978.74 10,515.17 10,515.17	12,157.66 ate only  12,157.66  159,978.74  10,515.17  10,515.17	
c	3.25.4.1 3.25.4.1 3.25.4.1.1 5 3.25.5 3.25.5.1 3.25.5.2 3.25.5.3	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED  Area General Lighting for WTP area  Earth Bonding Earthing of switchroom No 1 Earthing of switchroom No 2 Lightening protection	Ea  Sum  Ea  Ea  Ea	1 1 1 1	2,981.87 R 12,157.66 159,978.74 10,515.17 10,515.17 100,000.00	12,157.66 ate only  12,157.66  159,978.74  10,515.17  100,000.00	
c .	3.25.4.1 3.25.4.1.1 5 3.25.5 3.25.5.1 3.25.5.2 3.25.5.3 3.25.5.3	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED  Area General Lighting for WTP area  Earth Bonding Earthing of switchroom No 1 Earthing of switchroom No 2 Lightening protection Earth bonding of site	Ea  Sum  Ea  Ea  Ea  Lot	1 1 1 1 1	2,981.87 F 12,157.66 159,978.74 10,515.17 10,515.17 100,000.00 38,948.40	12,157.66 ate only  12,157.66  159,978.74  10,515.17  10,515.17  100,000.00  38,948.40	
c	3.25.4.1 3.25.4.1.1 5 3.25.5 3.25.5.1 3.25.5.2 3.25.5.3 3.25.5.4 5 3.25.6	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED  Area General Lighting for WTP area  Earth Bonding Earthing of switchroom No 1 Earthing of switchroom No 2 Lightening protection Earth bonding of site  Comms	Ea  Sum  Ea  Ea  Ea  Lot	1 1 1 1 1	2,981.87 F 12,157.66 159,978.74 10,515.17 10,515.17 100,000.00 38,948.40	12,157.66 ate only  12,157.66  159,978.74  10,515.17  10,515.17  100,000.00  38,948.40	
c	3.25.4.1 3.25.4.1.1 5 3.25.5 3.25.5.1 3.25.5.2 3.25.5.3 3.25.5.4 5 3.25.6 3.25.6.1	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED  Area General Lighting for WTP area  Earth Bonding Earthing of switchroom No 1 Earthing of switchroom No 2 Lightening protection Earth bonding of site  Comms  SCADA system - modifications by CVC only	Ea  Sum  Ea  Ea  Lot  Sum	1 1 1 1 1 1 1	2,981.87 F  12,157.66  159,978.74  10,515.17  10,515.17  100,000.00  38,948.40  71,533.53	12,157.66 ate only  12,157.66  159,978.74  10,515.17  10,515.17  100,000.00  38,948.40  71,533.53	
c	3.25.4.1 3.25.4.1.1 5 3.25.5 3.25.5.1 3.25.5.2 3.25.5.3 3.25.5.4 5 3.25.6 3.25.6.1 3.25.6.2	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED  Area General Lighting for WTP area  Earth Bonding Earthing of switchroom No 1 Earthing of switchroom No 2 Lightening protection Earth bonding of site  Comms  SCADA system - modifications by CVC only Switchroom 1 Communications	Ea  Ea  Sum  Ea  Ea  Lot  Sum	1 1 1 1 1 1 1 1	2,981.87 F 12,157.66 159,978.74 10,515.17 10,515.17 100,000.00 38,948.40 71,533.53	12,157.66 ate only  12,157.66  159,978.74  10,515.17  100,000.00  38,948.40  71,533.53	
c	3.25.4.1 3.25.4.1.1 5 3.25.5 3.25.5.1 3.25.5.2 3.25.5.3 3.25.5.4 5 3.25.6 3.25.6.1 3.25.6.2 3.25.6.3	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED  Area General Lighting for WTP area  Earth Bonding Earthing of switchroom No 1 Earthing of switchroom No 2 Lightening protection Earth bonding of site  Comms  SCADA system - modifications by CVC only Switchroom 1 Communications Switchroom 2 Communications	Ea  Ea  Sum  Ea  Ea  Lot  Sum  Lot  Lot	1 1 1 1 1 1 1 1 1 1	2,981.87 R  12,157.66  159,978.74  10,515.17  10,515.17  100,000.00  38,948.40  71,533.53  7,700.00  7,700.00	12,157.66 ate only  12,157.66  159,978.74  10,515.17  10,515.17  100,000.00  38,948.40  71,533.53  7,700.00  7,700.00	
c	3.25.4.1 3.25.4.1.1 5 3.25.5 3.25.5.1 3.25.5.2 3.25.5.3 3.25.5.4 5 3.25.6 3.25.6.1 3.25.6.2 3.25.6.3 3.25.6.4	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED  Area General Lighting for WTP area  Earth Bonding Earthing of switchroom No 1 Earthing of switchroom No 2 Lightening protection Earth bonding of site  Comms  SCADA system - modifications by CVC only Switchroom 1 Communications Switchroom 2 Communications Amenities Communications	Ea  Ea  Ea  Ea  Lot  Sum  Lot  Lot  Lot	1 1 1 1 1 1 1 1 1 1 1 1 1	2,981.87 R  12,157.66  159,978.74  10,515.17  10,515.17  100,000.00  38,948.40  71,533.53  7,700.00  7,700.00  12,870.79	12,157.66 ate only  12,157.66  159,978.74  10,515.17  100,515.17  100,000.00  38,948.40  71,533.53  7,700.00  7,700.00  12,870.79	
c	3.25.4.1 3.25.4.1 3.25.4.1.1  5 3.25.5 3.25.5.1 3.25.5.2 3.25.5.3 3.25.5.4  5 3.25.6 3.25.6.1 3.25.6.2 3.25.6.3 3.25.6.4  6 3.25.6.1	- 600mm total cover.  Area lighting Installation of Street lighting - EXCLUDED Area General Lighting for WTP area  Earth Bonding Earthing of switchroom No 1 Earthing of switchroom No 2 Lightening protection Earth bonding of site  Comms  SCADA system - modifications by CVC only Switchroom 1 Communications Switchroom 2 Communications Amenities Communications  CCTV Site main access gate	Ea Ea Sum Ea Ea Lot Sum Lot Lot Lot	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2,981.87 F  12,157.66  159,978.74  10,515.17  10,515.17  100,000.00  38,948.40  71,533.53  7,700.00  7,700.00  12,870.79  8,457.33	12,157.66 ate only  12,157.66  159,978.74  10,515.17  10,515.17  100,000.00  38,948.40  71,533.53  7,700.00  7,700.00  12,870.79  8,457.33	



# **調Becahunter**h20

ESTIMATES	s						Eli De Carrante i 1120
Level	ltem	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
Level	3.25.6.2.1	S + I CCTV	Ea	5	3,888.06	19,440.29	Remarks
	3.25.6.2.2	S + I Cat 6 cable	Ea	5	951.26	4,756.30	
						,	
6	3.25.6.3	Camera Recording & Display	Lot	1	10,608.82	10,608.82	
	3.25.6.3.1	Camera recording	Ea	1	10,608.82	10,608.82	
5	3.25.7	Overhead Wiring	Sum	1	0.00		
	3.25.7.4	Allowance to relocate/upgrade 11kV overhead wiring inc. design	km	0.00	125,000.00	Rate only	Separate application
5	3.25.8	Site wide cabling	Sum	1	2,746,435.30	2,746,435.30	
6	3.25.8.1	Power cables	Lot	1	1,194,606.28	1,194,606.28	
	3.25.8.1.1	S + I 1c 400mm2 XLPE/PVC - X-90	Mtr	2,869	100.14		*Added an additional 20% on cable length only*Original meters = 2391*20%=2869
	3.25.8.1.2	Term 1c 400mm2 XLPE/PVC - X-90	Ea	102	267.42	27,276.61	
	3.25.8.1.3	Test 1c 400mm2 XLPE/PVC - X-90	Ea	51	91.48	4,665.67	
	3.25.8.1.4	S + I 1c 185mm2 XLPE/PVC - X-90	Mtr	2,533	50.39	127,630.51	
	3.25.8.1.5	Term 1c 185mm2 XLPE/PVC - X-90	Ea	66	107.38	7,087.06	
	3.25.8.1.6	Test 1c 185mm2 XLPE/PVC - X-90	Ea	33	69.96	2,308.62	
	3.25.8.1.7	S + I 1c 120mm2 XLPE/PVC - X-90	Mtr	1,062	42.17	44,785.55	
	3.25.8.1.8	Term 1c 120mm2 XLPE/PVC - X-90	Ea	18	79.40	1,429.21	
	3.25.8.1.9	Test 1c 120mm2 XLPE/PVC - X-90	Ea	9	69.96	629.62	
	3.25.8.1.10	S + I 1c 120mm2 XLPE/PVC - X-90 Earth	Mtr	120	38.35	4,601.99	
	3.25.8.1.11	Term 1c 120mm2 XLPE/PVC - X-90 Earth	Ea	2	79.39	158.78	
	3.25.8.1.12	Test 1c 120mm2 XLPE/PVC - X-90 Earth	Ea	1	61.35	61.35	
	3.25.8.1.13	S + I 1c 70mm2 XLPE/PVC - X-90Earth	Mtr	30	28.57	857.23	
	3.25.8.1.14	Term 1c 70mm2 XLPE/PVC - X-90Earth	Ea	6	34.85	209.12	
	3.25.8.1.15	Test 1c 70mm2 XLPE/PVC - X-90Earth	Ea	3	61.35	184.04	
	3.25.8.1.16	S + I 3c+e 150mm2 XLPE/PVC V-90	Mtr	20	156.40	3,128.02	
	3.25.8.1.17	Term 3c+e 150mm2 XLPE/PVC V-90	Ea	4	392.17	1,568.68	
	3.25.8.1.18	Test 3c+e 150mm2 XLPE/PVC V-90	Ea	2	158.66	317.32	
	3.25.8.1.19	S + I 3c+3e+SCN 150mm2 XLPE/PVC V-90	Mtr	240	98.22	23,573.02	
	3.25.8.1.20	Term 3c+3e+SCN 150mm2 XLPE/PVC V-90	Ea	32	304.33	9,738.59	
	3.25.8.1.21	Test 3c+3e+SCN 150mm2 XLPE/PVC V-90	Ea	16	266.29	4,260.62	
	3.25.8.1.22	S + I 3c+3e+SCN 120mm2 XLPE/PVC V-90	Mtr	115	93.69	10,774.59	
	3.25.8.1.23	Term 3c+3e+SCN 120mm2 XLPE/PVC V-90	Ea	8	265.67	2,125.37	
	3.25.8.1.24	Test 3c+3e+SCN 120mm2 XLPE/PVC V-90	Ea	4	266.29	1,065.15	
	3.25.8.1.25	S + I 3c+3e+SCN 35mm2 XLPE/PVC V-90	Mtr	45	53.66	2,414.85	
	3.25.8.1.26	Term 3c+3e+SCN 35mm2 XLPE/PVC V-90	Ea	4	142.50	570.00	
	3.25.8.1.27	Test 3c+3e+SCN 35mm2 XLPE/PVC V-90	Ea	2	231.05	462.10	
	3.25.8.1.28	S + I 3c+3e+SCN 25mm2 XLPE/PVC V-90	Mtr	244	45.49	11,098.81	
	3.25.8.1.29	Term 3c+3e+SCN 25mm2 XLPE/PVC V-90	Ea	8	130.54	1,044.29	
	3.25.8.1.30	Test 3c+3e+SCN 25mm2 XLPE/PVC V-90	Ea	4	231.05	924.19	



Level	ltem	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
	3.25.8.1.31	S + I 3c+3e+SCN 16mm2 XLPE/PVC V-90	Mtr	708	37.63	26,644.99	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 6%
	3.25.8.1.32	Term 3c+3e+SCN 16mm2 XLPE/PVC V-90	Ea	30	118.98	3,569.29	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 6%
	3.25.8.1.33	Test 3c+3e+SCN 16mm2 XLPE/PVC V-90	Ea	15	204.62	3,069.25	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 6%
	3.25.8.1.34	S + I 3c+3e+SCN 6mm2 XLPE/PVC V-90	Mtr	60	26.76	1,605.47	
	3.25.8.1.35	Term 3c+3e+SCN 6mm2 XLPE/PVC V-90	Ea	12	109.01	1,308.11	
	3.25.8.1.36	Test 3c+3e+SCN 6mm2 XLPE/PVC V-90	Ea	6	204.62	1,227.70	
	3.25.8.1.37	S + I 3c+3e+SCN 4mm2 XLPE/PVC V-90	Mtr	4,145	16.83	69,751.62	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 21%
	3.25.8.1.38	Term 3c+3e+SCN 4mm2 XLPE/PVC V-90	Ea	160	108.20	17,311.81	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 21%
	3.25.8.1.39	Test 3c+3e+SCN 4mm2 XLPE/PVC V-90	Ea	80	204.62	16,369.35	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 21%
	3.25.8.1.40	S + I 3c+e 120mm2 XLPE/PVC V-90	Mtr	20	126.07	2,521.36	
	3.25.8.1.41	Term 3c+e 120mm2 XLPE/PVC V-90	Ea	4	306.68	1,226.73	
	3.25.8.1.42	Test 3c+e 120mm2 XLPE/PVC V-90	Ea	2	158.66	317.32	
	3.25.8.1.43	S + I 3c+e 35mm2 XLPE/PVC V-90	Mtr	10	53.66	536.63	
	3.25.8.1.44	Term 3c+e 35mm2 XLPE/PVC V-90	Ea	2	132.58	265.15	
	3.25.8.1.45	Test 3c+e 35mm2 XLPE/PVC V-90	Ea	1	123.42	123.42	
	3.25.8.1.46	S + I 3c+e 25mm2 XLPE/PVC V-90	Mtr	20	33.06	661.21	
	3.25.8.1.47	Term 3c+e 25mm2 XLPE/PVC V-90	Ea	4	128.50	513.99	
	3.25.8.1.48	Test 3c+e 25mm2 XLPE/PVC V-90	Ea	2	123.42	246.84	
	3.25.8.1.49	S + I 3c+e 16mm2 XLPE/PVC V-90	Mtr	70	22.28	1,559.59	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 13%
	3.25.8.1.50	Term 3c+e 16mm2 XLPE/PVC V-90	Ea	14	111.70	1,563.75	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 13%
	3.25.8.1.51	Test 3c+e 16mm2 XLPE/PVC V-90	Ea	7	96.99	678.92	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 13%
	3.25.8.1.52	S + I 3c+e 4mm2 PVC/PVC V-90	Mtr	3,326	11.99	39,880.06	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 33%
	3.25.8.1.53	Term 3c+e 4mm2 PVC/PVC V-90	Ea	224	101.09	22,643.06	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 33%
	3.25.8.1.54	Test 3c+e 4mm2 PVC/PVC V-90	Ea	112	96.99	10,862.76	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 33%
	3.25.8.1.55	S + I 4c+e 120mm2 XLPE/PVC V-90	Mtr	307	152.25	46,741.95	
	3.25.8.1.56	Term 4c+e 120mm2 XLPE/PVC V-90	Ea	4	402.67	1,610.67	
	3.25.8.1.57	Test 4c+e 120mm2 XLPE/PVC V-90	Ea	2	192.10	384.20	
	3.25.8.1.58	S + I 4c+e 70mm2 XLPE/PVC V-90	Mtr	227	93.18	21,151.81	
	3.25.8.1.59	Term 4c+e 70mm2 XLPE/PVC V-90	Ea	20	199.55	3,991.06	
	3.25.8.1.60	Test 4c+e 70mm2 XLPE/PVC V-90	Ea	10	170.07	1,700.73	
	3.25.8.1.61	S + I 4c+e 25mm2 XLPE/PVC V-90	Mtr	105	42.33	4,444.59	
	3.25.8.1.62	Term 4c+e 25mm2 XLPE/PVC V-90	Ea	6	148.74	892.47	
	3.25.8.1.63	Test 4c+e 25mm2 XLPE/PVC V-90	Ea	3	148.05	444.14	
	3.25.8.1.64	S + I 4c+e 6mm2 XLPE/PVC V-90	Mtr	76	14.20	1,079.31	



Level Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
3.25.8.1.65	Term 4c+e 6mm2 XLPE/PVC V-90	Ea	2	115.43 115.01	461.71 230.02	
3.25.8.1.66 3.25.8.1.67	Test 4c+e 6mm2 XLPE/PVC V-90 S+I 2c+e 4mm2 XLPE/PVC V-90	Ea Mtr	10,656	12.83	136,678.07	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 12%
3.25.8.1.68	Term 2c+e 4mm2 XLPE/PVC V-90	Ea	274	58.88	16,131.79	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 12%
3.25.8.1.69	Test 2c+e 4mm2 XLPE/PVC V-90	Ea	137	115.01		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 12%
3.25.8.1.70	S + I 2c+e 2.5mm2 PVC/PVC	Mtr	9,195	8.95		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 14%
3.25.8.1.71	Term 2c+e 2.5mm2 PVC/PVC	Ea	200	229.80		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 14%
3.25.8.1.72	Test 2c+e 1.5mm2 PVC/PVC	Ea	100	79.77		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 14%
6 3.25.8.2	Control cables	Lot	1	1,551,829.02	1,551,829.02	
3.25.8.2.1	S + I 10c+e 1.5mm2 PVC/PVC	Mtr	7,483	17.70	132,458.93	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 24%
3.25.8.2.2	Term 10c+e 1.5mm2 PVC/PVC	Ea	184	532.44		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 24%
3.25.8.2.3	Test 10c+e 1.5mm2 PVC/PVC	Ea	91	170.07		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 24%
3.25.8.2.4	S + I 20c+e 1.5mm2 PVC/PVC	Mtr	590	26.25		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 13%
3.25.8.2.5	Term 20c+e 1.5mm2 PVC/PVC	Ea	120	684.17		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 13%
3.25.8.2.6	Test 20c+e 1.5mm2 PVC/PVC	Ea	60	258.18		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 13%
3.25.8.2.7	S + I 2Pr +SCR 1.5mm2	Mtr	19,293	8.98		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 18%
3.25.8.2.8	Term 2Pr +SCR 1.5mm2	Ea	456	389.79		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 18%
3.25.8.2.9	Test 2Pr +SCR 1.5mm2	Ea	228	81.97		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 18%
3.25.8.2.10	S + I 4Pr +SCR 1.5mm2	Mtr	1,718	10.65		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 2%
3.25.8.2.11	Term 4Pr +SCR 1.5mm2	Ea	44	459.24		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 2%
3.25.8.2.12	Test 4Pr +SCR 1.5mm2	Ea	22	126.02		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 2%
3.25.8.2.13	S + I 6Pr +SCR 1.5mm2	Mtr	14,243	12.49		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 19%
3.25.8.2.14	Term 6Pr +SCR 1.5mm2	Ea	314	528.75		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 19%
3.25.8.2.15	Test 6Pr +SCR 1.5mm2	Ea	157	170.07		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 19%
3.25.8.2.16	S + I 12C MM FO cable	Mtr	5,929	19.31	114,492.94	
3.25.8.2.17	Term 12C MM FO cable	Ea	16	1,222.11	19,553.83	
3.25.8.2.18	S + I Cat 6	Mtr	2,432	6.61		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 5%
3.25.8.2.19	Term Cat 6	Ea	164	389.79		As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 5%



Level		Description	Unit	Qty	Rate	Value (Excluding GST)	
	3.25.8.2.20	Test Cat 6	Ea	82	81.97	6,721.62	As advised by Beca 19/9/24 re 9026 cable-conduit schedule_B reduced by 5%
	3.25.8.2.21	Vendor cable	Mtr	2,080	6.76	14,052.72	Based on a 4c+e 1.5mm2 cable
	3.25.8.2.22	Vendor cable	Ea	548	264.59	144,993.50	
	3.25.8.2.23	Vendor cable	Ea	274	115.01	31,512.58	
		Flooristics Tools 004			242.446.06	242.446.05	
	5 3.25.9	Flocculation Tanks 001	Sum	1	210,416.96	210,416.96	
	6 3.25.9.1	Site Power & Light Area 001	Lot	1	52,812.24	52,812.24	
	3.25.9.1.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot	1	3,549.79	3,549.79	
	3.25.9.1.2	Supply & Install Cable support systems	Lot	1	20,957.80	20,957.80	
	3.25.9.1.3	General Lighting for WTP area	Ea	1	28,304.65	28,304.65	
	6 3.25.9.2	Site Power Area 17	Lot	1	3,549.79	3,549.79	
	3.25.9.2.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot	1	3,549.79	3,549.79	
	6 3.25.9.3	General site Electrical Light & power	Lot	1	30,134.55	30,134.55	
	3.25.9.3.1	General Lighting for WTP area	Ea	1	30,134.55	30,134.55	
	6 3.25.9.4	Site electrical Cable support systems	Lot	1	51,392.96	51,392.96	
	3.25.9.4.1	Supply & Install Cable support systems	Lot	1	51,392.96	51,392.96	
с	3.25.9.4.1	Area 03,04 & 17					
	6 3.25.9.5	Installation of Instruments	Sum	1	72,527.42	72,527.42	
	3.25.9.5.1	Flow Indicating Transmitter+ Element	Ea	6	1,289.65	7,737.89	
	3.25.9.5.2	Level Indicating Transmitter	Ea	4	1,403.41	5,613.64	
	3.25.9.5.3	Pressure Indicating Transmitter	Ea	3	3,826.80	11,480.41	
	3.25.9.5.4	Pressure Gauge	Ea	16	864.82	13,837.06	
	3.25.9.5.5	Position switch - open	Ea	9	571.45	5,143.01	
	3.25.9.5.6	Position switch - Closed	Ea	7	571.45	4,000.12	
	3.25.9.5.7	Level switches High	Ea	5	1,741.89	8,709.45	
	3.25.9.5.8	Level switches High	Ea	5	242.16	1,210.82	
	3.25.9.5.9	Analyser Element	Ea	6	403.61	2,421.63	
	3.25.9.5.10	Analyser Indicator Transmitter	Ea	6	403.61	2,421.63	
	3.25.9.5.11	Flow Indicating Transmitter+ Element	Ea	6	215.26	1,291.54	
	3.25.9.5.12	Level Indicating Transmitter	Ea	4	269.07	1,076.28	
	3.25.9.5.13	Pressure Indicating Transmitter	Ea	3	242.16	726.49	
	3.25.9.5.14	Pressure Gauge	Ea	16	62.42	998.79	
	3.25.9.5.15	Position switch - open	Ea	9	242.16	2,179.47	
	3.25.9.5.16	Position switch - Closed	Ea	7	242.16	1,695.14	
	3.25.9.5.17	Level switches Low	Ea	1	1,741.89	1,741.89	
	3.25.9.5.18	Level switches Low	Ea	1	242.16	242.16	
	6 3.25.9.6	Pre commissioning of Instrument	Sum	1	0.00		
	5 3.25.10	DAFF Tanks 002	Sum	1	897,027.17	897,027.17	



Level	Item	Description	Unit	t Qty	Rate	Value (Excluding GST)	Remarks
6 3.25.10	0.1	Site Power & Light Area 002	Lot	1	52,812.24	52,812.24	
3.25.10	0.1.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot	1	3,549.79	3,549.79	
3.25.10	0.1.2	Supply & Install Cable support systems	Lot	1	20,957.80	20,957.80	
3.25.10	0.1.3	General Lighting for WTP area	Ea	1	28,304.65	28,304.65	
6 3.25.10	0.2	Site Power Area 37	Lot	1	3,549.79	3,549.79	
3.25.10	0.2.1	S+I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot	1	3,549.79	3,549.79	
6 3.25.10	0.3	Site Power Area 41	Lot	1	7,099.57	7,099.57	
3.25.10	0.3.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot	2	3,549.79	7,099.57	
6 3.25.10	0.4	Site Power Area 66	Lot	1	3,549.79	3,549.79	
3.25.10	0.4.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot	1	3,549.79	3,549.79	
6 3.25.10	0.5	General site Electrical Light & power	Lot	1	29,206.43	29,206.43	
3.25.10	0.5.1	General Lighting for WTP area	Ea	1	29,206.43	29,206.43	
6 3.25.10	0.6	Site electrical Cable support systems	Lot	1	183,387.51	183,387.51	
3.25.10	0.6.1	Supply & Install Cable support systems	Lot	1	183,387.51	183,387.51	
c 3.25.10	0.6.1	Area 37, 41 & 66					
6 3.25.10	0.7	Installation of Instruments	Sum	1	551,063.80	551,063.80	
3.25.10	0.7.1	Analyser Element	Ea	16	6,003.76	96,060.14	
3.25.10	0.7.2	Analyser Indicator Transmitter	Ea	16	6,003.76	96,060.14	
3.25.10	0.7.3	Flow Indicating Transmitter+ Element	Ea	14	1,289.65	18,055.08	
3.25.10	0.7.4	Level Indicating Transmitter	Ea	22	1,403.41	30,875.00	
3.25.10	0.7.5	Pressure Indicating Transmitter	Ea	9	3,826.80	34,441.22	
3.25.10	0.7.6	Pressure Gauge	Ea	10	864.82	8,648.16	
3.25.10	0.7.7	Position switch - open	Ea	57	571.45	32,572.43	
3.25.10	0.7.8	Position switch - Closed	Ea	57	571.45	32,572.43	
3.25.10	0.7.9	Flow Transmitter	Ea	20	6,602.65	132,052.98	
3.25.10	0.7.10	Pressure Differential switch	Ea	5	1,153.32	5,766.58	
3.25.10	0.7.11	Pressure Differential Transmitter	Ea	7	3,452.48	24,167.36	
3.25.10	0.7.12	S + I Instro Tubing for DP Pressure transmitter	Ea	7	2,254.49	15,781.41	
3.25.10	0.7.13	Position Indicating Transmitter	Ea	22	776.86	17,090.97	
3.25.10	0.7.14	Pressure Switch High	Ea	6	1,153.32	6,919.90	
6 3.25.10	0.8	Pre commissioning of Instrument	Sum	1	66,358.04	66,358.04	
3.25.10	0.8.1	Analyser Element	Ea	16	403.61	6,457.68	
3.25.10	0.8.2	Analyser Indicator Transmitter	Ea	16	403.61	6,457.68	
3.25.10	0.8.3	Flow Indicating Transmitter+ Element	Ea	14	215.26	3,013.58	
3.25.10	0.8.4	Level Indicating Transmitter	Ea	22	269.07	5,919.54	



Leve	l Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
	3.25.10.8.5	Pressure Indicating Transmitter	Ea	9	242.16	2,179.47	
	3.25.10.8.6	Pressure Gauge	Ea	10	62.42	624.24	
	3.25.10.8.7	Position switch - open	Ea	57	242.16	13,803.29	
	3.25.10.8.8	Position switch - Closed	Ea	57	242.16	13,803.29	
	3.25.10.8.9	Flow Transmitter	Ea	20	215.26	4,305.12	
	3.25.10.8.10	Pressure Differential Transmitter	Ea	7	188.35	1,318.44	
	3.25.10.8.11	Pressure Differential switch	Ea	5	134.54	672.68	
	3.25.10.8.12	Position Indicating Transmitter	Ea	22	295.98	6,511.49	
	3.25.10.8.13	Pressure Switch High	Ea	6	215.26	1,291.54	
	5 3.25.12	Backwash Balance Tank 008	Sum	1	47,819.31	47,819.31	
	6 3.25.12.1	Site Power & Light Area 008	Lot	1	0.00		
	6 3.25.12.2	Site Power Area 65	Lot	1	3,549.79	3,549.79	
	3.25.12.2.1	S+I power outlets (1 * 240vac 10a + 1 * 415vac 32A))	Lot	1	3,549.79	3,549.79	
	6 3.25.12.3	General site Electrical Light & power	Lot	1	20,593.67	20,593.67	
	3.25.12.3.1	General Lighting for WTP area	Ea	1	20,593.67		
	6 3.25.12.4	Site electrical Cable support systems	Lot	1	16,393.84	16,393.84	
	3.25.12.4.1	Supply & Install Cable support systems	Lot	1	16,393.84	16,393.84	
	3.25.12.4.1	Area 65					
	6 3.25.12.5	Installation of Instruments	Sum	1	6,250.94	6,250.94	
	3.25.12.5.1	Flow Indicating Transmitter+ Element	Ea	2	1,289.65	2,579.30	
	3.25.12.5.2	Pressure Gauge	Ea	1	864.82	864.82	
	3.25.12.5.3	Level Indicating Transmitter	Ea	2	1,403.41	2,806.82	
	6 3.25.12.6	Pre commissioning of Instrument	Sum	1	1,031.07	1,031.07	
	3.25.12.6.1	Level Indicating Transmitter	Ea	2	269.07	538.14	
	3.25.12.6.2	Flow Indicating Transmitter+ Element	Ea	2	215.26	430.51	
	3.25.12.6.3	Pressure Gauge	Ea	1	62.42	62.42	
	5 3.25.13	Sludge Thickener 009	Sum	1	23,168.36	23,168.36	
	6 3.25.13.1	Site Power & Light Area 009	Lot	1		·	
	3.25.13.1.1	Area 61 & 67					
	6 3.25.13.2	Installation of Instruments	Sum	1	20,819.90	20,819.90	
	3.25.13.2.1	Analyser Element	Ea	1	6,003.76	6,003.76	
	3.25.13.2.2	Analyser Indicator Transmitter	Ea	1	6,003.76	6,003.76	
	3.25.13.2.3	Position switch - Closed	Ea	2	571.45	1,142.89	
	3.25.13.2.4	Level Indicating Transmitter	Ea	3	1,403.41	4,210.23	
	3.25.13.2.5	Pressure Gauge	Ea	4	864.82	3,459.26	
	6 3.25.13.3	Pre commissioning of Instrument	Sum	1	2,348.46	2,348.46	
	3.25.13.3.1	Level Indicating Transmitter	Ea	3	269.07	807.21	



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Level	ltem	Description	Unit	Qty		Rate	Value (Excluding GST)	Remarks
	3.25.13.3.2	Analyser Element	Ea		1	403.61	403.61	
	3.25.13.3.3	Analyser Indicator Transmitter	Ea		1	403.61	403.61	
	3.25.13.3.4	Position switch - Closed	Ea		2	242.16	484.33	
	3.25.13.3.5	Pressure Gauge	Ea		4	62.42	249.70	
5	3.25.14	Thickened Sludge Balance Tank 010	Sum		1	21,148.82	21,148.82	
6	3.25.14.1	Site Power & Light Area 010	Lot		1	3,549.79	3,549.79	
	3.25.14.1.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot		1	3,549.79	3,549.79	
6	3.25.14.2	General site Electrical Light	Lot		1	10,442.66	10,442.66	
	3.25.14.2.1	General Lighting for WTP area	Ea		1	10,442.66	10,442.66	
6	3.25.14.3	Site electrical Cable support systems	Lot		1	7,156.37	7,156.37	
	3.25.14.3.1	Supply & Install Cable support systems	Lot		1	7,156.37	7,156.37	
5	3.25.15	Chemical Delivery Bund 013	Sum		1	70,469.23	70,469.23	
6	3.25.15.1	Site Power Area 13	Lot		1	3,549.79	3,549.79	
	3.25.15.1.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot		1	3,549.79	3,549.79	
6	3.25.15.2	Site electrical Cable support systems	Lot		1	59,758.38	59,758.38	
	3.25.15.2.1	Supply & Install Cable support systems	Lot		1	59,758.38	59,758.38	
6	3.25.15.3	Site Power Area 92	Lot		1	3,549.79	3,549.79	
	3.25.15.3.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot		1	3,549.79	3,549.79	
	3.25.15.3.1	Area 04 & 92						
	3.25.15.4	Installation of Instruments	Sum		1	2,884.79		
	3.25.15.4.1	Level switches High	Ea		1	1,741.89		
	3.25.15.4.2	Position switch - open	Ea		1	571.45		
•	3.25.15.4.3	Position switch - Closed	Ea		1	571.45	571.45	
6	3.25.15.5	Pre commissioning of Instrument	Sum		1	726.48	726.48	
	3.25.15.5.1	Level switches High	Ea		1	242.16	242.16	
	3.25.15.5.2	Position switch - open	Ea		1	242.16	242.16	
	3.25.15.5.3	Position switch - Closed	Ea		1	242.16	242.16	
5	3.25.16	PAC Dosing Facility 014	Sum		1	139,404.37	139,404.37	
6	3.25.16.1	Site Power & Light Area 014	Lot		1	0.00		
6	3.25.16.2	Site Power Area 16	Lot		1	3,549.79	3,549.79	
	3.25.16.2.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot		1	3,549.79	3,549.79	
6	3.25.16.3	General site Electrical Light	Lot		1	15,695.81	15,695.81	
	3.25.16.3.1	General Lighting for WTP area	Ea		1	15,695.81	15,695.81	



MATES						
					Value	
el Item 6 3.25.16.4	Description Site electrical Cable support systems	Unit Lot	Qty 1	Rate 13,713.25	(Excluding GST) 13,713.25	Remarks
3.25.16.4.1	Supply & Install Cable support systems	Lot	1	13,713.25	13,713.25	
3.25.16.4.1	Area 03, 04, 11, 13, 14 & 82					
6 3.25.16.5	Installation of Instruments	Sum	1	94,114.57	94,114.57	
3.25.16.5.1	Weight element	Ea	1	134.63	134.63	
3.25.16.5.2	Weight Indicating Transmitter	Ea	1	8,338.91	8,338.91	
3.25.16.5.3	Level switches High	Ea	10	1,741.89	17,418.91	
3.25.16.5.4	Level switches Low	Ea	1	1,741.89	1,741.89	
3.25.16.5.5	Pressure Gauge	Ea	1	864.82	864.82	
3.25.16.5.6	Position switch - open	Ea	2	571.45	1,142.89	
3.25.16.5.7	Position switch - Closed	Ea	1	571.45	571.45	
3.25.16.5.8	Position switch	Ea	4	571.45	2,285.78	
3.25.16.5.9	Analyser Element	Ea	3	6,003.76	18,011.28	
3.25.16.5.10	Analyser Indicator Transmitter	Ea	3	6,003.76	18,011.28	
3.25.16.5.11	Position switch - open	Ea	2	571.45	1,142.89	
3.25.16.5.12	Position switch - Closed	Ea	3	571.45	1,714.34	
3.25.16.5.13	Flow Indicating Transmitter+ Element	Ea	8	1,289.65	10,317.19	
3.25.16.5.14	Level Indicating Transmitter	Ea	7	1,403.41	9,823.86	
3.25.16.5.15	Pressure Gauge	Ea	3	864.82	2,594.45	
6 3.25.16.6	Pre commissioning of Instrument	Sum	1	12,330.95	12,330.95	
3.25.16.6.1	Weight element	Ea	1	134.54	134.54	
3.25.16.6.2	Weight Indicating Transmitter	Ea	1	349.79	349.79	
3.25.16.6.3	Level switches High	Ea	10	242.16	2,421.63	
3.25.16.6.4	Level switches Low	Ea	1	242.16	242.16	
3.25.16.6.5	Position switch	Ea	4	242.16	968.65	
3.25.16.6.6	Pressure Gauge	Ea	1	62.42	62.42	
3.25.16.6.7	Position switch - open	Ea	2	242.16	484.33	
3.25.16.6.8	Position switch - Closed	Ea	1	242.16	242.16	
3.25.16.6.9	Analyser Element	Ea	3	403.61	1,210.82	
3.25.16.6.10	Analyser Indicator Transmitter	Ea	3	403.61	1,210.82	
3.25.16.6.11	Position switch - open	Ea	2	242.16	484.33	
3.25.16.6.12	Position switch - Closed	Ea	3	242.16	726.49	
3.25.16.6.13	Flow Indicating Transmitter+ Element	Ea	8	215.26	1,722.05	
3.25.16.6.14	Level Indicating Transmitter	Ea	7	269.07	1,883.49	
3.25.16.6.15	Pressure Gauge	Ea	3	62.42	187.27	
5 3.25.19		Sum	1	388,137.16	388,137.16	
	Polymer, Caustic & Coagulant Dosing Facility 017					
		Lot	1	0.00		
6 3.25.19.1	Site Power & Light Area 017					
6 3.25.19.1 6 3.25.19.2	Site Power & Light Area 017 Site Power Area 10	Lot	1	3,549.79	3,549.79	



Level	ltem	Description	U	Jnit	Qty		Rate	Value (Excluding GST)	Remarks
6 3.2	25.19.3	Site Power Area 03	Lot			1	3,549.79	3,549.79	
3.2	25.19.3.1	S+I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot			1	3,549.79	3,549.79	
6 3.2	25.19.4	Site Power Area 04	Lot			1	3,549.79	3,549.79	
3.2	25.19.4.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot			1	3,549.79	3,549.79	
6 3.2	25.19.5	General site Electrical Light & power	Lot			1	20,593.67	20,593.67	
3.2	25.19.5.1	General Lighting for WTP area	Ea			1	20,593.67	20,593.67	
6 3.2	25.19.6	Site electrical Cable support systems	Lot			1	80,889.56	80,889.56	
3.2	25.19.6.1	Supply & Install Cable support systems	Lot			1	80,889.56	80,889.56	
c 3.2	25.19.6.1	Area 03,04,10,14,18 & 30							
6 3.2	25.19.7	Installation of Instruments	Sum			1	255,770.49	255,770.49	
3.2	25.19.7.1	Pressure Gauge	Ea			4	864.82	3,459.26	
3.2	25.19.7.2	Pressure Indicating Transmitter	Ea			7	3,826.80	26,787.62	
3.2	25.19.7.3	Level switches High	Ea			3	1,741.89	5,225.67	
3.2	25.19.7.4	Flow Indicating Transmitter+ Element	Ea			9	1,289.65	11,606.84	
3.2	25.19.7.5	Position switch - open	Ea			3	571.45	1,714.34	
3.2	25.19.7.6	Position switch - Closed	Ea			3	571.45	1,714.34	
3.2	25.19.7.7	Level switches Low	Ea			2	1,741.89	3,483.78	
3.2	25.19.7.8	Level switches High	Ea			8	1,741.89	13,935.13	
3.2	25.19.7.9	Level Indicating Transmitter	Ea			10	1,403.41	14,034.09	
3.2	25.19.7.10	Pressure Gauge	Ea			15	864.82	12,972.24	
3.2	25.19.7.11	Level switches Low Low	Ea			2	1,741.89	3,483.78	
3.2	25.19.7.12	Pressure Gauge	Ea			6	864.82	5,188.90	
3.2	25.19.7.13	Position switch - open	Ea			7	571.45	4,000.12	
3.2	25.19.7.14	Position switch - Closed	Ea			5	571.45	2,857.23	
3.2	25.19.7.15	Flow Transmitter	Ea			20	6,602.65	132,052.98	
3.2	25.19.7.16	Flow Switch Low	Ea			7	1,609.82	11,268.71	
3.2	25.19.7.17	Flow Switch Low	Ea			7	134.54	941.75	
3.2	25.19.7.18	RO-Rotometer	Ea			2	521.85	1,043.71	
6 3.2	25.19.8	Pre commissioning of Instrument	Sum			1	20,234.07	20,234.07	
3.2	25.19.8.1	Pressure Gauge	Ea			6	62.42	374.55	
3.2	25.19.8.2	Pressure Indicating Transmitter	Ea			7	242.16	1,695.14	
3.2	25.19.8.3	Level switches High	Ea			3	242.16	726.49	
3.2	25.19.8.4	Flow Indicating Transmitter+ Element	Ea			9	215.26	1,937.30	
3.2	25.19.8.5	Position switch - open	Ea			3	242.16	726.49	
3.2	25.19.8.6	Position switch - Closed	Ea			3	242.16	726.49	
3.2	25.19.8.7	Level switches Low	Ea			2	242.16	484.33	
3.2	25.19.8.8	Level Indicating Transmitter	Ea			10	269.07	2,690.70	



Leve	el Item	Description	Unit	Qty	Rate	Value (Excluding GST)	Remarks
	3.25.19.8.9	Level switches High	Ea	8	242.16	1,937.30	
	3.25.19.8.10	Pressure Gauge	Ea	15	62.42	936.36	
	3.25.19.8.11	Level switches Low Low	Ea	2	242.16	484.33	
	3.25.19.8.12	Pressure Gauge	Ea	4	62.42	249.70	
	3.25.19.8.13	Position switch - open	Ea	7	242.16	1,695.14	
	3.25.19.8.14	Position switch - Closed	Ea	5	242.16	1,210.82	
	3.25.19.8.15	Flow Transmitter	Ea	20	215.26	4,305.12	
	3.25.19.8.16	RO-Rotometer	Ea	2	26.91	53.81	
	5 3.25.20	Backwash Pump station 018	Sum	1	68,283.37	68,283.37	
	6 3.25.20.1	Site Power & Light Area 018	Lot	1	0.00		
	6 3.25.20.2	Site Power Area 60	Lot	1	3,549.79	3,549.79	
	3.25.20.2.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot	1	3,549.79	3,549.79	
	6 3.25.20.3	Site Power Area 68	Lot	1	3,549.79	3,549.79	
	3.25.20.3.1	S+I power outlets (1 * 240vac 10a + 1 * 415vac 32A))	Lot	1	3,549.79	3,549.79	
	6 3.25.20.4	General site Electrical Light & power	Lot	1	20,593.67	20,593.67	
	3.25.20.4.1	General Lighting for WTP area	Ea	1	20,593.67	20,593.67	
	6 3.25.20.5	Site electrical Cable support systems	Lot	1	16,393.84	16,393.84	
	3.25.20.5.1	Supply & Install Cable support systems	Lot	1	16,393.84	16,393.84	
с	3.25.20.5.1	Area 60					
	6 3.25.20.6	Installation of Instruments	Sum	1	22,483.92	22,483.92	
	3.25.20.6.1	Flow Indicating Transmitter+ Element	Ea	2	1,289.65	2,579.30	
	3.25.20.6.2	Flow Transmitter	Ea	2	6,602.65	13,205.30	
	3.25.20.6.3	Position switch - Closed	Ea	2	571.45	1,142.89	
	3.25.20.6.4	Pressure Indicating Transmitter	Ea	1	3,826.80	3,826.80	
	3.25.20.6.5	Pressure Gauge	Ea	2	864.82	1,729.63	
	6 3.25.20.7	Pre commissioning of Instrument	Sum	1	1,712.36	1,712.36	
	3.25.20.7.1	Flow Indicating Transmitter+ Element	Ea	2	215.26	430.51	
	3.25.20.7.2	Flow Transmitter	Ea	2	215.26	430.51	
	3.25.20.7.3	Position switch - Closed	Ea	2	242.16	484.33	
	3.25.20.7.4	Pressure Indicating Transmitter	Ea	1	242.16	242.16	
	3.25.20.7.5	Pressure Gauge	Ea	2	62.42	124.85	
	5 3.25.21	Storage shed 021	Sum	1	33,203.68	33,203.68	
	6 3.25.21.1	Site Power & Light Area 021	Lot	1	33,203.68	33,203.68	
	3.25.21.1.1	Earthing of Building	Lot	1	2,227.42	2,227.42	
	3.25.21.1.2	Fitout Electrical Light & Power	Lot	1	17,976.26	17,976.26	
	3.25.21.1.3	Supply & Install Fire system	PCSum	1	3,000.00	3,000.00	



# **調Becahunter**h20

Level	Item	Description	Unit	Qty		Rate	Value (Excluding GST)	Remarks
	3.25.21.1.4	Supply & Install Security	PCSum		1	10,000.00	10,000.00	
	5 3.25.22	Supernatant Return Tank & Pump station 023	Sum		1	48,552.78	48,552.78	
	6 3.25.22.1	Site Power & Light Area 023	Lot		1	0.00		
	6 3.25.22.2	Site Power Area 67	Lot		1	3,549.79	3,549.79	
	3.25.22.2.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))			1	3,549.79	3,549.79	
	6 3.25.22.3	General site Electrical Light	Lot		1	8,612.76	8,612.76	
	3.25.22.3.1	General Lighting for WTP area	Ea		1	8,612.76	8,612.76	
	6 3.25.22.4	Site electrical Cable support systems	Lot		1	7,156.37	7,156.37	
	3.25.22.4.1	Supply & Install Cable support systems	Lot		1	7,156.37	7,156.37	
	3.25.22.4.1	Area 67						
	6 3.25.22.5	Installation of Instruments	Sum		1	26,830.52	26,830.52	
	3.25.22.5.1	Analyser Indicator Transmitter	Ea		1	6,003.76	6,003.76	
	3.25.22.5.2	Analyser Element	Ea		1	6,003.76	6,003.76	
	3.25.22.5.3	Level Indicating Transmitter	Ea		4	1,403.41	5,613.64	
	3.25.22.5.4	Level switches High	Ea		1	1,741.89	1,741.89	
	3.25.22.5.5	Pressure Gauge	Ea		1	864.82	864.82	
	3.25.22.5.6	Flow Transmitter	Ea		1	6,602.65	6,602.65	
	6 3.25.22.6	Pre commissioning of Instrument	Sum		1	2,403.34	2,403.34	
	3.25.22.6.1	Analyser Indicator Transmitter	Ea		1	403.61	403.61	
	3.25.22.6.2	Analyser Element	Ea		1	403.61	403.61	
	3.25.22.6.3	Level Indicating Transmitter	Ea		4	269.07	1,076.28	
	3.25.22.6.4	Level switches High	Ea		1	242.16	242.16	
	3.25.22.6.5	Pressure Gauge	Ea		1	62.42	62.42	
	3.25.22.6.6	Flow Transmitter	Ea		1	215.26	215.26	
	5 3.25.23	Centrate return tank & pump station 024	Sum		1	400,720.72	400,720.72	
	6 3.25.23.1	Site Power & Light Area 024	Lot		1	7,820.76	7,820.76	
	3.25.23.1.1	Supply & Install Cable support systems	Lot		1	7,820.76	7,820.76	
	6 3.25.23.2	Installation of Instruments	Sum		1	13,205.30	13,205.30	
	3.25.23.2.1	Flow Transmitter	Ea		2	6,602.65	13,205.30	
	6 3.25.23.3	Pre commissioning of Instrument	Sum		1	430.51	430.51	
	3.25.23.3.1	Flow Transmitter	Ea		2	215.26	430.51	
	3.25.23.3.1	Area 25 & 26						
	6 3.25.23.4	Installation of Instruments	Sum		1	40,649.02	40,649.02	
	3.25.23.4.1	Analyser Element	Ea		2	6,003.76	12,007.52	
	3.25.23.4.2	Analyser Indicator Transmitter	Ea		2	6,003.76	12,007.52	



EST	IMATES					Value	
Lev		Description	Unit	Qty	Rate	(Excluding GST)	Remarks
	3.25.23.4.4	Position switch - Closed	Ea	3	571.45	1,714.34	
	3.25.23.4.5	Flow Transmitter	Ea	2	6,602.65	13,205.30	
	6 3.25.23.5	Pre commissioning of Instrument	Sum	1	3,497.91	3,497.91	
	3.25.23.5.1	Analyser Element	Ea	2	403.61	807.21	
	3.25.23.5.2	Analyser Indicator Transmitter	Ea	2	403.61	807.21	
	3.25.23.5.3	Position switch - open	Ea	3	242.16	726.49	
	3.25.23.5.4	Position switch - Closed	Ea	3	242.16	726.49	
	3.25.23.5.5	Flow Transmitter	Ea	2	215.26	430.51	
с	3.25.23.5.1	Area 04,10,12,16 & 27					
	6 3.25.23.6	Installation of Instruments	Sum	1	75,038.55	75,038.55	
	3.25.23.6.1	Analyser Element	Ea	2	6,003.76	12,007.52	
	3.25.23.6.2	Analyser Indicator Transmitter	Ea	2	6,003.76	12,007.52	
	3.25.23.6.3	Level switches High	Ea	6	1,741.89	10,451.34	
	3.25.23.6.4	Flow Transmitter	Ea	2	6,602.65	13,205.30	
	3.25.23.6.5	Flow Switch	Ea	17	1,609.82	27,366.87	
	6 3.25.23.7	Due commissioning of Instrument	Cum	1	5,785.01	F 70F 04	
		Pre commissioning of Instrument	Sum			5,785.01	
	3.25.23.7.1 3.25.23.7.2	Analyser Element	Ea Ea	2	403.61 403.61	807.21 807.21	
	3.25.23.7.2	Analyser Indicator Transmitter  Level switches High	Ea	6	242.16		
	3.25.23.7.4	Flow Transmitter	Ea	2	215.26		
	3.25.23.7.5	Flow Switch	Ea	17	134.54		
с	3.25.23.7.1	Area 82 & 83	La	17	154.54	2,207.10	
·	6 3.25.23.8	Site Power Area 82	Lot	1	12 002 45	12 002 45	
					13,992.45	13,992.45	
	3.25.23.8.1	S + I power outlets (1 * 240vac 10a + 1 * 415vac 32A))	Lot	1	3,549.79	3,549.79	
	3.25.23.8.2	General Lighting for WTP area	Ea	1	10,442.66	10,442.66	
	6 3.25.23.9	Site electrical Cable support systems	Lot	1	10,532.18	10,532.18	
	3.25.23.9.1	Supply & Install Cable support systems	Lot	1	10,532.18	10,532.18	
	6 3.25.23.10	Site Power Area 83	Lot	1	3,549.79	3,549.79	
	3.25.23.10.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot	1	3,549.79	3,549.79	
	6 3.25.23.11	Installation of Instruments	Sum	1	139,828.08	139,828.08	
	3.25.23.11.1	Analyser Element	Ea	8	6,003.76	48,030.07	
	3.25.23.11.2	Analyser Indicator Transmitter	Ea	8	6,003.76	48,030.07	
	3.25.23.11.3	Flow Indicating Transmitter+ Element	Ea	2	1,289.65	2,579.30	
	3.25.23.11.4	Level switches High	Ea	2	1,741.89	3,483.78	
	3.25.23.11.5	Pressure Gauge	Ea	1	864.82	864.82	
	3.25.23.11.6	Pressure Indicating Transmitter	Ea	1	3,826.80	3,826.80	
	3.25.23.11.7	Flow Transmitter	Ea	5	6,602.65	33,013.24	



Level Item	Description	Unit	Qty		Rate	Value (Excluding GST)	Remarks
6 3.25.23.12	Pre commissioning of Instrument	Sum		1	8,753.38	8,753.38	
3.25.23.12.1	Analyser Element	Ea	;	8	403.61	3,228.84	
3.25.23.12.2	Analyser Indicator Transmitter	Ea	;	8	403.61	3,228.84	
3.25.23.12.3	Flow Indicating Transmitter+ Element	Ea	:	2	215.26	430.51	
3.25.23.12.4	Level switches High	Ea	:	2	242.16	484.33	
3.25.23.12.5	Pressure Gauge	Ea		1	62.42	62.42	
3.25.23.12.6	Pressure Indicating Transmitter	Ea		1	242.16	242.16	
3.25.23.12.7	Flow Transmitter	Ea	!	5	215.26	1,076.28	
6 3.25.23.13	Site Power Area 71	Lot		1	3,549.79	3,549.79	
3.25.23.13.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot		1	3,549.79	3,549.79	
6 3.25.23.14	Site Power Area 78	Lot		1	3,549.79	3,549.79	
3.25.23.14.1	S+I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot		1	3,549.79	3,549.79	
6 3.25.23.15	General site Electrical Light	Lot		1	17,992.45	17,992.45	
3.25.23.15.1	Fitout Electrical Light	Lot		1	17,992.45	17,992.45	
6 3.25.23.16	Site electrical Cable support systems	Lot		1	22,602.43	22,602.43	
3.25.23.16.1	Supply & Install Cable support systems	Lot		1	22,602.43	22,602.43	
3.25.23.16.1	Area 71						
6 3.25.23.17	Installation of Instruments	Sum		1	12,741.69	12,741.69	
3.25.23.17.1	Flow Indicating Transmitter+ Element	Ea	;	2	1,289.65	2,579.30	
3.25.23.17.2	Level Indicating Transmitter	Ea	:	3	1,403.41	4,210.23	
3.25.23.17.3	Level switches High	Ea	:	3	1,741.89	5,225.67	
3.25.23.17.4	Level switches High	Ea	:	3	242.16	726.49	
6 3.25.23.18	Pre commissioning of Instrument	Sum		1	1,237.72	1,237.72	
3.25.23.18.1	Flow Indicating Transmitter+ Element	Ea	;	2	215.26	430.51	
3.25.23.18.2	Level Indicating Transmitter	Ea	:	3	269.07	807.21	
6 3.25.23.19	Site Power Area 02	Lot		1	3,549.79	3,549.79	
3.25.23.19.1	S + I power outlets ( 1 * 240vac 10a + 1 * 415vac 32A))	Lot		1	3,549.79	3,549.79	
3.25.23.19.1	Area 02						
6 3.25.23.20	Installation of Instruments	Sum		1	11,610.14	11,610.14	
3.25.23.20.1	Pressure Gauge	Ea	,	9	864.82	7,783.34	
3.25.23.20.2	Pressure Indicating Transmitter	Ea		1	3,826.80	3,826.80	
6 3.25.23.21	Pre commissioning of Instrument	Sum		1	803.98	803.98	
3.25.23.21.1	Pressure Gauge	Ea	,	9	62.42	561.82	
3.25.23.21.2	Pressure Indicating Transmitter	Ea		1	242.16	242.16	
3 4	Contractor's Contingency & Fee	Item		1	5,729,885.00	5,729,885.00	



# **調Becahunter**h20

Level	Item	Description	Unit	Qty		Rate (I	Value Excluding GST)	Remarks
4 4.1	Contra	actor's Risk	Item	1	1	1,123,507.00	1,123,507.00	
4.1.1	Contra	actor's contingency	Item	1	1	1,123,507.00	1,123,507.00	Benchmark 2.5%
4 4.2	Contra	actor's Fee	Item	1	1	4,606,378.00	4,606,378.00	
4.2.1	Contra	actor's corporate overheads & margin	Item	1	1	4,606,378.00	4,606,378.00	~9% total cost forecast
3 5	Escala	tion	Item	1	1	7,859,130.00	7,859,130.00	
5.1	Escala	tion allowance	Item	1	1	7,859,130.00		Forecast Design commences May 2025, Contract Award August 2026, completion August 2027, escalation 2025 4%, 2026 and 2027 3.80% based on National Wage Index Forecast
3 6	Contin	gency	Item	1	1	6,597,688.00	6,597,688.00	
6.1		sk assessment òf cost certainty using carlo analysis with @RISK	Item	1	1	6,597,688.00	6,597,688.00	