

Chullora Materials Recycling Facility

Environmental Impact Statement (SSD-10401)

Appendix C CIV Report



COST PLAN 1

SUEZ Australia & New Zealand Stage 1 - Chullora Resource Recovery



Project No.:	71130.102562.000
Reviewed by:	Nick Connaire (prepared by Eric Man)
Issue Date:	28 May 2020

Research, Valuation & Advisory | Cost Consulting & Project Management | Realty Tax Consulting | Geomatics

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Ref.	Description	Quantity	Unit	Rate	Total
1	GENERAL NOTES				0
2	<u>STAGE 1 - MRF</u>				
3	MRF FACILITY	10,243	m2	1,385	14,191,825
4	SUBTOTAL 1 - MRF				14,191,825
5					
6	<u>STAGE 1 - EXTERNAL WORKS</u>				
7	WEIGH BRIDGES AND ASSOCIATED CIVIL WORKS	3	No.	221,200	663,600
8	GATE HOUSE	50	m2	4,328	216,399
9	REMOVABLE PEDESTRIAN BRIDGE AND PASSENGER LIFT	81	m2	5,544	449,100
10	EXTERNAL PAVING	12,120	m2	261	3,167,231
11	EXTERNAL SERVICES	12,120	m2	427	5,174,103
12	LANDSCAPING				275,000
13	EXTERNAL WORKS				278,900
14	SUBTOTAL 2 - EXTERNAL WORKS				10,224,332
15					
16	SUBTOTAL 1+2 (STAGE 1 INCL. MRF & EXTERNAL WORKS)				<u>24,416,157</u>
17					
18	<u>STAGE 1 - PRELIMINARIES & FEES</u>				
19	PRELIMINARIES, OVERHEADS & PROFIT (9%)				2,197,454
20	CONSULTANT FEES FOR D&C (2% -Excl'g EIS)				488,300
21	SUBTOTAL 3 (STAGE 1 - PRELIMINARIES & FEES)				<u>2,685,754</u>
22					
23	STAGE 1 - TOTAL FOR MRF BUILDING (EXCL. GST)				<u>27,101,911</u>
24					
25	<u>MRF PLANT & EQUIPMENT</u>				
26	SUPPLY & INSTALLATION OF SPECIALIST MRF PROCESSING EQUIPMENT	1	item	22,000,000.00	22,000,000
27					
28	STAGE 1 - TOTAL INCL. MRF EQUIPMENT (EXCL. GST)				<u>49,101,911</u>
29					
30	GST				4,910,191
31					
32	STAGE 1 - TOTAL INCL. MRF EQUIPMENT (INCL. GST)				<u>54,012,102</u>

Ref.	Description	Quantity	Unit	Rate	Total
1	GENERAL NOTES				
1.1	<u>Basis of Estimate</u>				
1.2	Draft DA (Architectural) drawings prepared by BDAA dated 08.05.2020				
1.3	MRF Framing plans (16232-LD-XX-ZZ-SK-S-0008.1 to 4) Rev. P03 prepared by Lindsay Dynan dated 14.05.2020				
1.4	MRF footing plan (16232-LD-XX-ZZ-SK-S-0009) Rev. P01 prepared by Lindsay Dynan dated 14.05.2020				
1.5	External paving plan (16232-LD-XX-ZZ-SK-S-0010) Rev. P01 prepared by Lindsay Dynan dated 14.05.2020				
1.6	Stormwater drawings (CO13058.03-DA10 to DA-70) Rev. A prepared by Costin Roe dated 22.04.2020				
1.7	Reference fire specification prepared by Cardno dated 23.05.2016				
1.8	Reference survey prepared by Agent Consulting dated 21.12.2016				
1.9	Reference lighting specification prepared by GHD dated 26.08.2019				
1.10	Reference weight bridge layout prepared by Cardno dated 23.05.2016				
1.11	"Item 6. Some typical details for pricing" received on 15.05.2020				
1.12	Budget proposal of a weighbridge provided by SSS dated 18.05.2020				
1.13	FUNCTIONAL SPECIFICATIONS Electrical and Hydraulic Services provided by Suez dated 04.05.2020				
1.14	20064_FSK-01 [2] (1) and 20064_FSK-06 [2] (1) prepared by Sparks received on 11.05.2017				
1.15	Interim pyrotechnical design advice prepared by PSM dated 01.05.2020				
1.16	Geo technical investigation report prepared by PSM dated 11.07.2018				
1.17	Annual Production Report produced by Frank Demarche dated 07.04.2020				
1.18	Email correspondence from Chandra Mohan (SUEZ Australia) in regard Power Requirement dated 18.05.2020				
1.19	<u>Assumptions</u>				
1.20	Gatehouse building design based on Cardno Building Services report, outlining typical details of existing weighbridge/ gate house building				
1.21	Assume that existing stormwater / internal drainage will be disconnect and cap off, not required to be removed. It will be replaced by a new drainage system				
1.22	Assume new stormwater facilities and treatment drains would be required to support this development				
1.23	Allow for precast concrete panel 7.0m height and 5.0m light weight cladding above for external, assumed this will be typical to the facades of all building / warehouse as advised by SUEZ				
1.24	Allow for perimeter mesh fences to the south and west boundaries. All the other boundaries should have existing fences				
1.25	Allow for CCTV cameras, security and swipe access as advised by Suez				
1.26	Allow mezzanine floor to workshop area				
1.27	Allow 2 new substation; 1No. in Stage 1 & 2				
1.28	Builder preliminaries, overheads and profits has been included at 9%				
1.29	<u>Exclusions</u>				
1.30	Photovoltaics				
1.31	Mechanical services to MRF				

Ref.	Description	Quantity	Unit	Rate	Total
1.32	Bored piers - assumes that Stage 0 can hand over certified compaction levels for fill and that no extra work to achieve compaction levels is required. (structural engineers to confirm that this is reasonable)				
1.33	Fire detection in Fire tank pits				
1.34	Cost escalation beyond construction commencement after May 2020				
1.35	FF & E (Loose Furniture)				
1.36	Audio visual cost to office				
1.37	Reduce noise and odour impacts				
1.38	Workshop machinery, either new supply, move existing or commission				
1.39	The greywater treatment equipment, wash bay pumps, filtration, overhead crane to workshop and other specialised equipment to waste facility services, has not been included in this costplan as these one categorized as special equipment costs				
1.40	Miscellaneous external fitment, fittings & equipment not documented in drawings				
1.41	Outdoor seating and furniture				
1.42	Contribution to associated infrastructure works outside site boundaries				
1.43	Major Upgrade or Diversions of Existing Services Mains				
1.44	Phasing/Staging of the works beyond the allowance in this estimate				
1.45	External works / road works outside of site boundary (beyond agreed scope)				
1.46	Finance costs				
1.47	Diversion of existing services				
1.48	Items noted " Excl. " in cost plan				
				GENERAL NOTES TOTAL	0

Ref.	Description	Quantity	Unit	Rate	Total
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Ref.	Description	Quantity	Unit	Rate	Total
3	MRF FACILITY				
3.1	SUBSTRUCTURE	10,244	m2	209	2,144,111
3.2	COLUMNS	10,244	m2	43	435,600
3.3	UPPER FLOORS	10,244	m2	7	73,426
3.4	STAIRS	10,244	m2	1	14,000
3.5	ROOF	10,244	m2	361	3,699,486
3.6	EXTERNAL WALLS	10,244	m2	84	865,076
3.7	WINDOWS	10,244	m2	2	17,034
3.8	EXTERNAL DOORS	10,244	m2	38	386,000
3.9	INTERNAL WALLS & SCREENS	10,244	m2	78	797,084
3.10	INTERNAL DOORS	10,244	m2	9	96,000
3.11	WALL FINISHES	10,244	m2	12	123,912
3.12	FLOOR FINISHES	10,244	m2	42	432,719
3.13	CEILING FINISHES	10,244	m2	7	68,638
3.14	FITMENTS	10,244	m2	15	156,230
3.15	SPECIAL EQUIPMENT	10,244	m2	0	excluded
3.16	HYDRAULIC SERVICES	10,244	m2	12	124,411
3.17	MECHANICAL SERVICES	10,244	m2	20	200,089
3.18	FIRE SERVICES	10,244	m2	367	3,754,667
3.19	ELECTRICAL SERVICES	10,244	m2	69	703,592
3.20	SOLAR POWER				Excluded
3.21	SECURITY SYSTEMS	10,244	m2	<u>10</u>	99,750
3.22				1,385	
				MRF FACILITY TOTAL	<u>14,191,825</u>

Ref.	Description	Quantity	Unit	Rate	Total
3.1	SUBSTRUCTURE				
A	SUBSTRUCTURE				
B	<u>Final geotechnical advice to be provided to confirm all footing details</u>		note		
C	Pad Footings				
D	<u>Pad footings to be centred under column and positioned 300mm below finished pavement level to allow slab to be poured over footing</u>		note		
E	3000 x 3000 x 500D reinforced concrete pad footing, reinforcement ratio 130kg/m3.	18	no.	4,250.00	76,500
F	2500 x 2500 x 500D reinforced concrete pad footing, reinforcement ratio 130kg/m3.	17	no.	3,000.00	51,000
G	2000 x 2000 x 400D reinforced concrete pad footing, reinforcement ratio 130kg/m3.	20	no.	1,950.00	39,000
H	Strip Footing				
I	<u>Strip footings to be at same height as connecting pad footings</u>		note		
J	600 x 600D reinforced concrete strip footing, reinforcement ratio 110kg/m3.	199	m	340.00	67,806
K	Sundries				
L	Allow provision for extra footings/plinths for machinery		Item		25,000
M	Excavation/Fill				
N	Allowance for detailed excavation removal/ filling; to footings and the like	9,882	m2	5.00	49,411
O	Ground slab				
P	225mm thick 32MPa concrete internal slab, with 150mm cement stabilised crushed rock subbase, SL92 mesh top.	4,614	m2	160.00	738,307
Q	210mm thick 32MPa concrete internal slab, with 200mm DGS20 subbase, SL92 mesh top.	4,933	m2	170.00	838,535
R	150mm thick 32MPa concrete internal slab, with 200mm DGS20 subbase, SL82 mesh top	334	m2	150.00	50,121
S	Column Pedestal				
T	C1 - 800L x 350W x 500H reinforced concrete column pedestal, reinforcement ratio 120kg/m3.	18	no.	210.00	3,780
U	C2/C3 - 700L x 350W x 500H reinforced concrete column pedestal, reinforcement ratio 120kg/m3.	37	no.	190.00	7,030
V	Design Joints				
W	Allowance for dowel joint spacing 10-12m in each direction	9,881	m2	20.00	197,620
			SUBSTRUCTURE TOTAL		2,144,111

Ref.	Description	Quantity	Unit	Rate	Total
3.2	COLUMNS				
A	COLUMNS				
B	MRF Facility				
C	C1 Columns - 610UB	39.60	t	6,000.00	237,600
D	C2 Columns - 530UB	26.16	t	6,000.00	156,960
E	Office & Amenities				
F	Allowance for columns; Office & amenities	342	m2	120.00	41,040
				COLUMNS TOTAL	435,600
3.3	UPPER FLOORS				
A	UPPER FLOORS				
B	Allowance for mezzanine floor; Office & plant platform			Note	
C	Allowance for suspended concrete floors; Offices	267	m2	275.00	73,426
				UPPER FLOORS TOTAL	73,426
3.4	STAIRS				
A	STAIRS				
B	<u>Staircases allowance to mezzanine floor</u>			Note	
C	Stairs to Mezzanine including handrails	4	mrise	4,000.00	14,000
				STAIRS TOTAL	14,000

Ref.	Description	Quantity	Unit	Rate	Total
3.5	ROOF				
A	ROOF AND AWNINGS				
B	Roof Structure				
C	<u>Rafters</u>				
D	R1 - 250UC89.5 Rafter	48.05	t	4,800.00	230,640
E	R2 - 310UC158 Rafter	34.19	t	4,800.00	164,112
F	R3 - 310UC158 Rafter	46.05	t	4,800.00	221,040
G	R2b/R3b - 250UB37.3	5.69	t	4,800.00	27,312
H	R4 - 460UB82.1	5.74	t	4,800.00	27,552
I	<u>Trusses</u>				
J	T1 - (Top Chord) 310UC158	70.83	t	5,800.00	410,814
K	T1 - (Bottom Chord) 310UC158	70.83	t	5,800.00	410,814
L	T1 - (Web) 250UB37.3	2.60	t	5,800.00	15,080
M	T1/T2/T3 Struts 150UB18.0	0.24	t	5,800.00	1,392
N	T2 - (Top Chord) 310UC96.8	7.72	t	5,800.00	44,776
O	T2 - (Bottom Chord) 250UC72.9	7.72	t	5,800.00	44,776
P	T2 - (Web) 200UB29.8	0.76	t	5,800.00	4,408
Q	T3 - (Top Chord) 310UC96.8	11.53	t	5,800.00	66,874
R	T3 - (Bottom Chord) 310UC96.8	11.53	t	5,800.00	66,874
S	T3 - (Web) 200UB29.8	0.60	t	5,800.00	3,480
T	<u>Bracing</u>				
U	BR1 - 273.1 x 9.3 CHS	19.71	t	4,800.00	94,608
V	BR2 - 323.9 x 12.7 CHS	32.51	t	4,800.00	156,048
W	BR3 - 150 x 150 x 10 EA	0.51	t	4,800.00	2,448
X	WB - 273.1 x 9.3 CHS (Included in other elements)		t	4,800.00	EXCL
Y	<u>Other</u>				
Z	S1 - 219.1 x 6.4 CHS	17.63	t	4,800.00	84,624
AA	S2 - 250UB31.4	3.47	t	4,800.00	16,656
AB	WS - 250UB37.3	4.74	t	4,800.00	22,752
AC	Allowance for connections and fittings (10% allowance)	40	t	4,800.00	193,440
AD	Metal Deck Roof				
AE	Allowance for colorbond zincalume metal deck roof including including awnings(assume 3% for pitch)	10,361	m2	45.00	466,245
AF	Extra Over the above for translucent sheeting (assumed 20% of roof cover)	2,072	m2	15.00	31,083
AG	Extra over for insulation complete with wire mesh	10,361	m2	20.00	207,220
AH	Ride vent (pending details)	133	m	1,500.00	198,960
AI	Access Ladders including roof hatch (Allowed for 6)	6	no.	10,000.00	60,000

Ref.	Description	Quantity	Unit	Rate	Total
AJ	Walkway including balustrades both sides to facilitate Photovoltaic maintenance	1	item	95,000.00	95,000
AK	Equipment Platforms (Provisional allowance)	1	item	75,000.00	75,000
AL	Sound Attenuators (Provisional allowance)	1	item	50,000.00	50,000
AM	Metal Deck Roof				
AN	Hydraulic services to roof; including gutters and downpipes	10,361	m2	15.00	155,458
AO	Roof Safety System				
AP	Provision for roof access and safety system including balustrades	1	item	50,000.00	50,000
				ROOF TOTAL	3,699,486
3.6	EXTERNAL WALLS				
A	Precast Concrete Panel/Tilt-up Walls				
B	180mm thick precast concrete/toilt-up panels; complete with proprietary finish to Recycle Facility	1,119	m2	280.00	313,454
C	Fire Rated Precast Concrete Panel/Tilt-up Walls				
D	Allowance for fire rated walls (approx. 9.0m height)	262	m2	290.00	75,980
E	Metal Wall Cladding				
F	Unit rate for colorbond wall cladding including framing	2,351	m2	115.00	270,365
G	Extra over for louvre to wall cladding (allow 5% area)	118	m2	250.00	29,388
H	Unit rate for colorbond fascia cladding	402	m	100.00	40,200
I	Extra over for insulation complete with wire mesh, sarking, foil and insulation	2,233	m2	20.00	44,669
J	Structural Steel Wall Bracing				
K	WB - 273.1 x 9.3 CHS	13.77	t	6,000.00	82,620
L	Allowance for connections and fittings (10% allowance)	1	t	6,000.00	8,400
				EXTERNAL WALLS TOTAL	865,076
3.7	WINDOWS				
A	WINDOWS				
B	<u>External (West Elevation)</u>				
C	Allowance for windows to external facade	11	m2	600.00	6,834
D	<u>Internal</u>				
E	Allowance for windows to office area	17	m2	600.00	10,200
				WINDOWS TOTAL	17,034

Ref.	Description	Quantity	Unit	Rate	Total
3.8	EXTERNAL DOORS				
A	EXTERNAL DOORS				
B	<u>Roller Shutter Doors</u>				
C	8000 wide x 6000 high galvanised steel roller shutters; including motorised electric opening mechanism to Workshop	8	no.	30,000.00	240,000
D	5000 wide x 8000 high galvanised steel roller shutters; including motorised electric opening mechanism to Workshop	4	no.	26,500.00	106,000
E	<u>Fire Doors</u>				
F	Fire rated single solid core door including all frames and hardware complete	16	no	2,500.00	40,000
				EXTERNAL DOORS TOTAL	386,000
3.9	INTERNAL WALLS & SCREENS				
A	Warehouse				
B	Allowance for 140mm fire rated blockwork (approx. 12.0m height)	1,832	m2	195	357,295
C	Allow for expansion joints	1,832	m2	15	27,484
D	Allow for additional stiffeners	1,832	m2	30	54,968
E	Allow for fire sealant	305	m	60	18,323
F	Allowance for 140mm blockwork to Electrical Room (FRL90/90/90) (approx. 3.0m height)	49	m2	195	9,477
G	Concrete push walls 5m high with 6mm mild steel plate 2.4m high including footings				
H	Concrete strip footing	131	m	340	44,530
I	Tilt-up walls	655	m2	250	163,713
J	6mm steel plate	<u>314</u>	m2	<u>300</u>	<u>excluded</u>
K	Total Push walls	131	m	1,590	208,242
L	Office				
M	Allowance for 190mm blockwork to store / facility / office (approx. 7.0m height)	118	m2	220	26,011
N	Allow for metal stud wall with plasterboard	744	m2	120	89,284
O	Allowance for shower screens	5	no.	1,200	6,000
				INTERNAL WALLS & SCREENS TOTAL	797,084

Ref.	Description	Quantity	Unit	Rate	Total
3.10	INTERNAL DOORS				
A	INTERNAL DOORS				
B	<u>Roller Shutter Doors</u>				
C	5000 wide x 5000 high galvanised steel roller shutters; including motorised electric opening mechanism	2	no.	16,000.00	32,000
D	4000 wide x 2400 high galvanised steel roller shutters; including motorised electric opening mechanism	1	no.	9,000.00	9,000
E	3000 wide x 5000 high galvanised steel roller shutters; including motorised electric opening mechanism	1	no.	12,000.00	12,000
F	<u>Fire Doors</u>				
G	Fire rated 920 wide single solid core door including all frames and hardware	4	no	2,500.00	10,000
H	<u>Office Doors</u>				
I	Allowance for aluminium framed single doors	14	no	1,250.00	17,500
J	Allowance for aluminium framed double doors	2	no	1,750.00	3,500
K	Allowance for toilet cubicles	8	no.	1,500.00	12,000
				INTERNAL DOORS TOTAL	96,000
3.11	WALL FINISHES				
A	<u>Warehouse / Workshop</u>				
B	Wall finishes included in internal / external walls		Note		
C	<u>Office / Amenities</u>				
D	Internal wall lining to external wall; Office (Included in Internal walls)		m2	45.00	EXCL
E	Paint finish to wall linings; Office	1,118	m2	15.00	16,767
F	E/O Tiling to toilets / showers (PC Supply \$20)	202	m2	105.00	21,222
G	Tiling to kitchens (PC supply \$20)	57	m2	120.00	6,854
H	Waterproofing to wet areas	259	m2	50.00	12,962
I	Paint to block walls	4,407	m2	15.00	66,108
				WALL FINISHES TOTAL	123,912
3.12	FLOOR FINISHES				
A	<u>Warehouse / Workshop</u>				
B	Epoxy sealer to concrete slab	9,882	m2	25.00	247,053
C	Line marking	9,882	m2	15.00	148,232
D	<u>Office / Amenities</u>				
E	Carpet to office areas	285	m2	60.00	17,102
F	Tiling to toilets / showers (PC Supply \$20)	79	m2	120.00	9,461
G	Tiling to kitchens (PC supply \$20)	58	m2	120.00	6,929
H	Waterproofing to wet areas	79	m2	50.00	3,942
				FLOOR FINISHES TOTAL	432,719

Ref.	Description	Quantity	Unit	Rate	Total
3.13	CEILING FINISHES				
A	<u>Warehouse / Workshop</u>				
B	No allowance for ceiling finishes to warehouse / workshop area		Note		
C	<u>Electrical Room</u>				
D	200mm reinforced concrete roof to electrical room (FRL 90/90/90)	48	m2	400.00	19,368
E	<u>Office / Amenities</u>				
F	Unit rate for office ceiling	422	m2	105.00	44,270
G	Allowance for bulkheads etc	1	item	5,000.00	5,000
				CEILING FINISHES TOTAL	68,638
3.14	FITMENTS				
A	<u>Warehouse Metalwork</u>				
B	Allowance for pipework protection (Provisional only)	1	item	25,000.00	25,000
C	Steel bollards (internal & external)	75	no.	1,000.00	75,000
D	450mm height Steel guardrail to perimeter of new waste drop off area (Assumed required)	166	m	115.00	0.00
E	<u>Amenities / Office</u>				
F	Locker Bench	4	m	500.00	1,830
G	Half Height Lockers	14	no.	600.00	8,400
H	<u>Toilets / Showers</u>				
I	Vanity bench to toilets / showers	4	no	750.00	3,000
J	Shower fitments	5	no	500.00	2,500
K	Allowance for bathroom fittings	9	no	1,300.00	11,700
L	Allow for bathroom accessories	9	no.	300.00	2,700
M	<u>Kitchen / Tea Room</u>				
N	Allowance for kitchen & tea room fittings	1	item	10,000.00	10,000
O	<u>Sundry Fitout</u>				
P	Allowance for manual roller blinds to offices	17	m2	300.00	5,100
Q	General signage	1	item	7,500.00	7,500
R	Statutory signage	1	item	3,500.00	3,500
				FITMENTS TOTAL	156,230
3.15	SPECIAL EQUIPMENT				
A	Budget allowance for supply and installation of equipment. Not included in this cost estimate.	1	item		EXCL
				SPECIAL EQUIPMENT TOTAL	excluded

Ref.	Description	Quantity	Unit	Rate	Total
3.16	HYDRAULIC SERVICES				
A	<u>Hydraulic Installation Works as below :</u>				
B	Allowance for hydraulic services; to Warehouse / Workshop	9,882	m2	5.00	49,411
C	Allowance for hydraulic services; to Office / Amenities	25	no	3,000.00	75,000
					HYDRAULIC SERVICES TOTAL
					124,411
3.17	MECHANICAL SERVICES				
A	<u>Mechanical Installation Works as below :</u>				
B	Allowance for mechanical services; to Warehouse / Workshop	9,882	m2		Excluded
C	Allowance for AC to Office	422	m2	275.00	116,050
D	Allowance for AC to Electrical Room	48	m2	275.00	13,316
E	Allowance for mechanical exhaust to toilets	79	m2	150.00	11,826
F	Dust suppression system to processing area - Misters	4,114	m2	12.00	49,369
G	Builders Work In Connection with Services (5%)	1	item	9,528	9,528
					MECHANICAL SERVICES TOTAL
					200,089

Ref.	Description	Quantity	Unit	Rate	Total
3.18	FIRE SERVICES				
A	<u>Fire Protection Installation Works as below :</u>				
B	Allowance for fire services; to Warehouse / Workshop	9,882	m2	125.00	1,235,265
C	Allowance for fire services; to Office	422	m2	125.00	52,750
D	High hazard early response fast response (ESFR) fire sprinkler system to all ceilings, under conveyors and at openings through fire walls	10,138	m2	65.00	658,978
E	Fire detection surveillance system aimed at the stockpiles (thermal imaging system with 8 cameras)	1	item	270,000.00	270,000
F	Visual warnings both sides of automatic fire shutters and at Hydrant Booster Assembly externally (Provisional allowance)	1	item	25,000.00	25,000
G	Automatic shut down of machinery and automatic close of shutters at door and conveyor openings (Provisional allowance)	1	item	25,000.00	25,000
H	VESDA system over the processing area	1	item	125,000.00	125,000
I	VESDA system over the product storage	1	item	90,000.00	90,000
J	Gas supression system to Main Switch Room / Electrical Room	1	item	60,000.00	60,000
K	Automatic smoke exhaust system	1	item	250,000.00	250,000
L	Builders Work In Connection with Services (5%)	1	item	139,600	139,600
M	Two Fire Tanks (20m x 5m x 3m) + Associated - INTERNALLY				
N	Bulk excavation for 2 x Fire Tanks	650	m3	40.00	26,000
O	Allowance for detailed excavation / filling; to footings and the like	50	m3	125.00	6,250
P	Allow to dispose engineered fill off site (provisional allowance)	700	m3	50.00	35,000
Q	Allow for 600mm dia concrete piles @ 3.0m cts to strip footings, allow for an average depth of 6m	200	m	320.00	64,000
R	Allowance for pad foundations to Fire Tanks	200	m2	15.00	3,000
S	Allow for 600 x 600mm deep strip footings	100	m	340.00	34,000
T	225mm thick 32MPa concrete internal slab, with 150mm cement stabilised crushed rock subbase, SL92 mesh top.	200	m2	165.00	33,000
U	200mm thick 32Mpa concrete wall slab with SL92 mesh	300	m2	350.00	105,000
V	Extra over for 300mm thick 32Mpa reinforced concrete roof slab with SL92 mesh	200	m2	210.00	42,000
W	Access covers and access ladders		Item		10,000
X	Internal hydraulic reticulation included in hydraulic services	1	item		EXCL
Y	Additional pit included in external works	1	item		EXCL
Z	Sub-total for FireTanks	2	No.	179,125	358,250
AA	<u>Fire Water reticulation Works as below :</u>				
AB	Stormwater reticulation for two below ground fire tanks; including manholes and pits	1	item	310,000.00	310,000
AC	Fire water treatment and filtration	1	item	40,000.00	excluded
AD	UV treatment for external rainater tanks	1	item	20,000.00	20,000
AE	Allowance for rainwater harvesting for WC first flush irrigation and to provide 83% of waste usage to warehouse	1	item	25,000.00	25,000
AF	Hydraulic pumps (Provisional allowance)	1	item	35,000.00	35,000
AG	Builders Work In Connection with Services (10%)	1	item	74,825	<u>74,825</u>
AH	Sub-total	2	No.	232,413	464,825
	FIRE SERVICES TOTAL				<u>3,754,667</u>

Ref.	Description	Quantity	Unit	Rate	Total
3.19	ELECTRICAL SERVICES				
A	<u>Electrical Installation Works as below :</u>				
B	Allowance for electrical & comms services; to Warehouse / Workshop	9,882	m2	50.00	494,106
C	Extra allowance for mainswitch board being sized to accommodate stage 2		Item		50,000
D	Allowance for electrical & comms services; to Office	422	m2	185.00	78,070
E	Allowance for power & lighting; to Awning	479	m2	100.00	47,912
F	Builders Work In Connection with Services (5%)	1	item	33,504	33,504
				ELECTRICAL SERVICES TOTAL	703,592
3.21	SECURITY SYSTEMS				
A	<u>Security System Installation Works as below :</u>				
B	The following scope of works measured have been assumed from the information provided by Suez as there is no detail documentation at the moment.		Note		
C	Allow for associated works with security systems; approx. 10 no. CCTV - supply and install	1	item	40,000.00	40,000
D	Allow for associated works with security systems; approx. 14 no. doors with swipe access and 1 No. electric gate & control - supply and install	1	item	55,000.00	55,000
E	Builders Work In Connection with Services (5%)	1	item	4,750.00	4,750
				SECURITY SYSTEMS TOTAL	99,750

Ref.	Description	Quantity	Unit	Rate	Total
7	WEIGH BRIDGES AND ASSOCIATED CIVIL WORKS				
7.1	Ultrahawke In-Ground Digital Quad Deck Weighbridge				
7.2	Supply delivery of Ultrahawke In- GroundFull Load Cell Motor Truck Quad Deck Weighbridge Model 9630/ 4 xGedge GS600	3	no	85,900.00	257,700
7.3	Civil Works, Including Weighbridge Foundations, Deck,	3	no	115,000.00	345,000
7.4	Installation, Testing and Verification	3	no	9,200.00	27,600
7.5	Optional Extras				
7.6	Supply & install 5 x Gedge GS120R Remote displays including galvanised mounting stand	3	no	11,100.00	33,300
	WEIGH BRIDGES AND ASSOCIATED CIVIL WORKS TOTAL				663,600

Ref.	Description	Quantity	Unit	Rate	Total
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Ref.	Description	Quantity	Unit	Rate	Total
8	GATE HOUSE				
8.1	<u>Basis of Estimate</u>				
8.2	Aecom Architectural dwgs; (6 sheets)		Note		
8.3	Structural dwgs; Cardno; (4 sheets)		Note		
8.4	<u>Assumptions</u>				
8.5	Mechanical - split AC system		Note		
8.6	External services works; only allowed services 5m outside of external wall face of building		Note		
8.7	Bored piers; P1-1000mm deep and including reinforcement		Note		
8.8	Bored piers; P2-1100mm deep and including reinforcement		Note		
8.9	Stormwater / Sewer; assume connection to existing pit		Note		
8.10	<u>Exclusions</u>				
8.11	All associated weigh station electrical equipment		Note		
8.12	Loose furniture		Note		
8.13	AV equipment		Note		
8.14	Contaminated materials		Note		
8.15	Fire services		Note		
8.16	Computers and communication live gear		Note		
8.17	Consultants Fees		Note		
8.18	GST		Note		
8.19	Demolition		Note		
8.20	GATE HOUSE				
8.21	<u>SUBSTRUCTURE</u>				
8.22	<u>BORED PIERS</u>				
8.23	Allow for rig establishment	1	Item		excluded
8.24	P1; 750mm Dia bored RC piles assumed 1000mm deep	2	m	1,066	excluded
8.25	P2; 450mm Dia bored RC piles assumed 1100mm deep	9	m	390	excluded
8.26	<u>EDGE BEAMS</u>				excluded
8.27	ET - 300mm W x 800mm D	32	m	330	10,560
8.28	<u>SLAB ON GROUND</u>				
8.29	200mm thick concrete slab on ground; 32MPa concrete reinforced at 80kg/m3;sand; SL82 T&B	50	m2	125	6,250
8.30	Extra over allowance for compacted engineering backfill. Assume an average thickness of 600mm as per St-1017	30	m3	90	2,700
8.31	<u>CONCRETE STAIR & LANDING</u>				
8.32	Concrete entry steps	1	m	2,200	2,200
8.33	Landing slab; 100mm thick	4	m2	120	480
8.34	Subtotal	50	m2	444	22,190
8.35	<u>COLUMNS</u>				
8.36	<u>STRUCTURAL STEEL</u>				
8.37	SC1 - 250 UC 73	1.4	t	7,500	10,500
8.38	SC2 - 89x89x4 SHS	0.20	t	7,500	1,500
8.39	OR1 - SHS 89x89x4	0.10	t	7,500	750

Ref.	Description	Quantity	Unit	Rate	Total
8.40	Allow for all connections etc @ 5%	1	item	640	640
8.41					<u>13,390</u>
8.42	<u>ROOF</u>				
8.43	<u>STRUCTURAL STEEL</u>				
8.44	EB1 - 250 PFC	2.20	t	7,500	16,500
8.45	R1 - 250 UB 31	1.86	t	7,500	13,950
8.46	Allow for all connections etc @ 5%	1	item	1,530	1,530
8.47	<u>BRACING</u>				
8.48	RT1 - CHS tie	0.3	t	7,500	2,250
8.49	RT2 - CHS tie	0.2	t	7,500	1,500
8.50	FB - Fly Bracing	6	no	110	660
8.51	Allow for all connections etc @ 5%	1	item	230	230
8.52	<u>PURLINS</u>				
8.53	P1 - Z15019	105	m	25	2,625
8.54	EP1 - Purlin - C15019	24	m	25	600
8.55	FP1 - Purlin - FP230	9	m	75	675
8.56	GP1 - Purlin - C15019	12	m	25	300
8.57	BP1 - Purlin - C15019	29	m	25	725
8.58	EB2 - C200019	12	m	35	<u>420</u>
8.59					
	Sub-total	154	m2	273	41,965
8.60	<u>ROOFING / ROOF PLUMBING</u>				
8.61	Colorbond metal roofing; trimdek; incl battens; exposed underside	154	m2	65	10,010
8.62	Gutter; box gutter; 300x150x125mm	16	m	90	1,440
8.63	Downpipes	2	no	190	380
8.64					
	Subtotal				<u>53,795</u>
8.65	<u>EXTERNAL WALLS AND WINDOWS</u>				
8.66	<u>BLOCKWORK</u>				
8.67	CB1 - concrete block wall; paint; 190mm thick; corefilled; insul; furring; 13mm pb	83	m2	200	16,600
8.68	<u>LIGHTWEIGHT WALLS</u>				
8.69	CD1 - Metal cladding; colorbond; insul; 13mm PB	41	m2	145	5,953
8.70	<u>STRUCTURAL STEEL</u>				
8.71	HB1 - 200x100x5 RHS	0.69	t	7,750	5,348
8.72	G1 - Girts; C15019	80	m	35	2,800
8.73	<u>WINDOWS</u>				
8.74	<u>Awning</u>				
8.75	W1 - awning window	1	m2	550	300
8.76	<u>Fixed</u>				
8.77	W3 - fixed window	3	m2	450	1,544
8.78	W5 - fixed	3	m2	450	1,134
8.79	<u>Fixed / part sliding</u>				
8.80	W2 - fixed / sliding window	7	m2	700	5,194

Ref.	Description	Quantity	Unit	Rate	Total
8.81	W4 - fixed / sliding	2	m2	700	1,666
8.82	<u>GENERAL</u>				
8.83	Impact protective device	16	m	45	720
8.84	Handrail to entry steps	5	m	350	1,750
8.85	<u>Subtotal</u>				<u>43,009</u>
8.86	<u>EXTERNAL DOORS</u>				
8.87	<u>GLAZED DOORS</u>				
8.88	Glazed door; 820mm W x 2040mm H; incl hardware	1	no	1,800	1,800
8.89	<u>SOLID CORE DOOR</u>				
8.90	Solid Core Door, Single Leaf, 820mm x 2040mm	1	no	1,200	1,200
8.91	<u>Subtotal</u>				<u>3,000</u>
8.92	<u>INTERNAL WALLS</u>				
8.93	<u>STUD WALL</u>				
8.94	92mm steel stud; insul; 13mm moisture pb x1 side; 13mm pb x1 side	6	m2	160	960
8.95	<u>Subtotal</u>				<u>960</u>
8.96	<u>INTERNAL DOORS</u>				
8.97	<u>TIMBER DOOR</u>				
8.98	Solid core dore; cavity slider 820x2010mm H; incl hardware	1	no	1,400	1,400
8.99	<u>Subtotal</u>				<u>1,400</u>
8.100	<u>WALL FINISHES</u>				
8.101	<u>TILING</u>				
8.102	Splashback wall tiles; 100mm H	3	m	135	405
8.103	<u>PAINT</u>				
8.104	Allow to paint all exposed plasterboard and Moisture plasterboard linings	79	m2	15	1,185
8.105	<u>Subtotal</u>				<u>1,590</u>
8.106	<u>FLOOR FINISHES</u>				0
8.107	<u>VINYL FLOORING</u>				
8.108	FL-1 - vinyl flooring	32	m2	80	2,560
8.109	Vinyl skirting	35	m	25	875
8.110	<u>ENTRY STEPS</u>				
8.111	Tactiles	1	m2	1,200	1,200
8.112	Anti-slip nosing to steps	3	no	130	390
8.113	<u>Subtotal</u>				<u>5,025</u>
8.114	<u>CEILING FINISHES</u>				
8.115	<u>SUSPENDED CEILINGS</u>				
8.116	Plasterboard ceiling set flush and painted	16	m2	110	1,760
8.117	Moisture resistant plasterboard ceiling set flush and painted	2	m2	120	240
8.118	<u>Subtotal</u>				<u>2,000</u>
8.119	<u>FITMENTS / JOINERY</u>				
8.120	<u>JOINERY</u>				
8.121	J01 -Kitchen benchtop; laminate; incl cabinets under	3	m	600	1,800

Ref.	Description	Quantity	Unit	Rate	Total
8.122	J03 - Benchtop; 600mm W	2	m	275	550
8.123	J02 - Benchtop; 800mm W	2	m	345	690
8.124	JF2 - Overhead cabinet; 450mm W	1	no	250	250
8.125	<u>FITMENTS</u>				
8.126	<u>Toilet Area</u>				
8.127	Soap dispenser	1	no	150	150
8.128	Roll holder	1	no	75	75
8.129	Paper towel dispenser & waste	1	no	780	780
8.130	Mirror	1	no	350	350
8.131	<u>SIGNAGE</u>				
8.132	Bathroom signage	1	no	200	200
8.133					<u>Subtotal</u>
					<u>4,845</u>
8.134	<u>SECURITY SYSTEM</u>	50	m2		EXCLUDED
8.135	<u>HYDRAULIC SERVICES</u>				
8.136	<u>HYDRAULIC FITTINGS</u>				
8.137	Toilet suite	1	no	1,129	1,129
8.138	Basin incl tap	1	no	1,238	1,238
8.139	Kitchen sink; single bowl; incl mixer tap	1	no	1,355	1,355
8.140	Wall mounted water boiling unit	1	no	1,219	1,219
8.141	Floor waste	1	no	1,100	1,100
8.142	BWICS	1	Item		604
8.143					<u>Subtotal</u>
					<u>6,645</u>
8.144	<u>MECHANICAL SERVICES</u>				
8.145	Split system AC	1	no	3,500	3,500
8.146	BWICS		Item		320
8.147					<u>Subtotal</u>
					<u>3,820</u>
8.148	<u>ELECTRICAL</u>				
8.149	<u>Electrical & power</u>				
8.150	MSB	1	no	1,800	1,800
8.151	Lighting / switches	3	no	210	630
8.152	Outlets	5	no	180	900
8.153	Wiring	1	item	720	720
8.154	Smoke detector; battery operated	1	item	250	250
8.155	BWICS		Item		430
8.156	All associated weighting electrical equipment is excluded				
8.157					<u>Subtotal</u>
					<u>4,730</u>
8.158	Sundries		item		50,000
8.159	<u>FIRE SERVICES</u>	50	m2		EXCLUDED
8.160	<u>EXTERNAL SERVICES</u>	50	m2		EXCLUDED
8.161	TOTAL	50	m2	4,328	216,399
8.162	FECA	50	m2		

Ref.	Description	Quantity	Unit	Rate	Total
8.163	UCA	50	m2		
8.164	GFA	153	m2		
				GATE HOUSE TOTAL	216,399

Ref.	Description	Quantity	Unit	Rate	Total
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Ref.	Description	Quantity	Unit	Rate	Total
9	REMOVABLE PEDESTRIAN BRIDGE AND PASSENGER LIFT				
9.1	The following scope of works measured have been assumed from the information provided by Suez as there is no detail documentation at the moment.		Note		
9.2	<u>Pedestrian Bridge</u>				
9.3	Pedestrian bridge connecting to admin carpark; approx. 37m length x 1.50m wide allow for steel frame; 4.60m high clearance	81	m2	4,600.00	372,600
9.4	Allow for steel framed stairs toAS1428.1-2009; 4600mm high	5	m/rise	3,880.00	19,400
9.5	Allow for tactile	2	m2	1,000.00	2,000
9.6	Allow for passenger lift	1	item	55,100.00	55,100
9.7	Allowance for approach works, abutment and pilingif required		item		Incl.
9.8	Allowance for balustrade / guard rails to bridge		item		Incl.
	REMOVABLE PEDESTRIAN BRIDGE AND PASSENGER LIFT TOTAL				449,100

Ref.	Description	Quantity	Unit	Rate	Total
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Ref.	Description	Quantity	Unit	Rate	Total
10	EXTERNAL PAVING				
10.1	The following scope of works measured have been assumed from the similiar type of project as there is no detail documentation at the moment.		Note		
10.2	<u>General Hardstand</u>				
10.3	Concrete paving	9,960	m2	175.00	1,743,018
10.4	Ditto; for the areas to the fire services water tanks and entry gate	1,460	m2	175.00	255,500
10.5	Demolish existing road and rebuild ay higher level	700	m2	250.00	175,000
10.6	Extra over allowance for drainage	12,120	m2	60.00	727,206
10.7	Concrete kerb	1,747	m	140.00	244,548
10.8	Allowance for line marking	1	Item	21,959.65	21,960
				EXTERNAL PAVING TOTAL	3,167,231

Ref.	Description	Quantity	Unit	Rate	Total
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Ref.	Description	Quantity	Unit	Rate	Total
11	EXTERNAL SERVICES				
11.1	The following scope of works measured have been assumed from the information provided by Suez as there is no detail documentation at the moment.		Note		
11.2	<u>Treatment Drains</u>				
11.3	Allow for a stormwater facilities and treatment drains system and associated builders works as required	1	item	65,000.00	65,000
11.4	Allow for 300mm RCP grade 4 storm pipe including excavation ave. 1.6m deep, removal of soil and backfill with approved fill	94	m	353.60	33,238
11.5	Ditto; 375mm	194	m	390.00	75,660
11.6	Ditto; 450mm	225	m	450.00	101,250
11.7	Ditto; 525mm	128	m	490.00	62,720
11.8	Ditto; 600mm	293	m	530.00	155,290
11.9	Ditto; 675mm	65	m	610.00	39,650
11.10	Ditto; 750mm	182	m	690.00	125,580
11.11	Ditto; 900mm	206	m	850.00	175,100
11.12	Allow for 900 x 900mm stormwater pit with heavy duty grate / cover Class 'D'	26	no	4,000.00	104,000
11.13	Allow for 1200 x 1200mm stormwater pit with heavy duty grate / cover Class 'D'	8	no	5,000.00	40,000
11.14	Allow for 1500 x 1500mm stormwater pit with heavy duty grate / cover Class 'D'	2	no	6,000.00	12,000
11.15	Allow for proprietary gross pollutant trap	1	no	35,000.00	<u>35,000</u>
11.16			Sub-total		1,024,488
11.17	<u>Hydrant Booster</u>				
11.18	Electric motor driven fire sprinkler system jacking pump including all ancillary pipe work and valves to serve the fire sprinkler control valves	1	set	40,000.00	40,000
11.19	Diesel Combined Sprinkler and Hydrant Booster Pump. Automatic Jockey Pump Fire Pump; Combined Sprinkler Hydrant Diesel Booster Pump 4650l/m @ 850 KPa & 6970.5l/m @ 555kPa.	4	set	40,000.00	160,000
11.20	Allow for pipework from the pumps to the facilities	1	item	250,000.00	250,000
11.21	Plant room and sundries	1	item	240,000.00	240,000
11.22	Allowance for fire sprinkler tank; 1 no. capacity 1,104,000 litres including pumping systems (FWP)	1	item	215,010.00	215,010
11.23	Allowance for fire hydrant tank; 2 no. capacity 216,000 litres each including pumping systems	1	item	150,000.00	<u>150,000</u>
11.24			Sub-total		1,055,010
11.25	<u>Fire Mains reticulation</u>				
11.26	150mm dia fire hydrant ring mains and trench	772.00		220.00	169,840
11.27	200mm sprinkler mains in trench	220.78		310.00	68,442
11.28	50mm conduit for dry fire control	220.78		75.00	16,559
11.29	Dual fire hydrants	14	No.	3,750.00	52,500
11.30	Valves		Item		15,000
11.31	Trust blocks		Item		5,000
11.32	Sundries		Item		<u>32,734</u>
11.33			Sub-total		360,074

Ref.	Description	Quantity	Unit	Rate	Total
11.34	<u>Allow for miscellaneous items</u>				
11.35	Allow for services connections to water and sewer	1	item	200,000.00	200,000
11.36	Allow for services connections to power reticulation	1	item	50,000.00	50,000
11.37	Allow for services connections to communication reticulation	1	item	50,000.00	50,000
11.38	Allow for security cameras & conduits for stage 2	1	item	100,000.00	100,000
11.39	Allow for cold water services / potable water supply around site; 32mm diameter	279	m	230.00	64,170
11.40	Allow for communications / electrical mains around site	1,318	m	520.00	<u>685,360</u>
11.41	Sub-total				1,149,530
11.42	<u>External Lighting</u>				
11.43	Allow for external lighting generally including all associated reticulation (scope to be defined) - say \$7.5k/pole; P1; 39W LED pole mounted luminance, 4000k; neutral white, 4600LM	30	no	7,500.00	225,000
11.44	Allow for reticulation of electrical lighting	1	item		Incl.
11.45	<u>Substation</u>				
11.46	Ausgrid Kiosk Substation (1no in Stage 1)	1	item	350,000.00	350,000
11.47	Temporary substation before the completion of the new one	1	item	100,000.00	100,000
11.48	Allow for high volage cables	100	m	700.00	70,000
11.49	Allow for LV cables	450	m	500.00	<u>225,000</u>
11.50	Sub-total				745,000
11.51	<u>Rainwater tank</u>				
11.52	Allow for 2 x 50,000 litre rainwater storage above ground tanks	1	item	40,000.00	40,000
11.53	Allow for reticulation from roof totanks to site to MRF		item		30,000
11.54	Filtration system allowed in MRF				<u>note</u>
11.55	Sub-total				70,000
11.56	<u>1 No. Fire Tank Pit Externally</u>				
11.57	Allow for 1 No. Fire Tank Pit Externally as per MRF building		item		180,000
11.58	Reticulation for two below ground fire tanks; including manholes and pits		item		25,000
11.59	Fire water treatment and filtration		item		<u>excluded</u>
11.60	Sub-total				205,000
11.61	<u>CCTV and Security</u>				
11.62	Allow for cameras, boom gates, intercoms and monitoring		item		200,000
11.63	<u>Sundries</u>		item		140,000
				EXTERNAL SERVICES TOTAL	<u>5,174,103</u>

Ref.	Description	Quantity	Unit	Rate	Total
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Ref.	Description	Quantity	Unit	Rate	Total
12	LANDSCAPING				
12.1	Soft Landscape				
12.2	Allow for landscaping works including irrigation system		Item		275,000
			LANDSCAPING TOTAL		275,000

Ref.	Description	Quantity	Unit	Rate	Total
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Ref.	Description	Quantity	Unit	Rate	Total
13	EXTERNAL WORKS				
13.1	The following scope of works measured have been assumed from the similar type of project as there is no detail documentation at the moment.		Note		
13.2	<u>Fencing & Gates</u>				
13.3	All the other boundaries measured in stage 2		Note		
13.4	Allow for security fence to the north entry	14	m	150.00	2,100
13.5	Allow for slit fence and security fence	1,088	m	100.00	108,800
13.6	Allow for a boom gates to truck entry	4	no	20,000.00	80,000
13.7	Allow for pedestrian entry gates	2	no	1,500.00	3,000
13.8	Allow for 6m wide gate for fire brigade access	1	no	10,000.00	10,000
13.9	<u>Existing Road</u>				
13.10	No allowance for general works associated with the modification to existing road leading to new facility / car park		item		Excl.
13.11	<u>Others</u>				
13.12	Allow for general non measurable items etc associated with the external works	1	item	75,000.00	75,000
		EXTERNAL WORKS TOTAL			278,900

Ref.	Description	Quantity	Unit	Rate	Total
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