COST ESTIMATE REPORT

Upper Australia Habitat

SSDA CIV Cost Report | For TCSA

MBM1163-0027 -3rd July 2020













QUANTITY SURVEYING | BUILDING CONSULTANCY |
TAX & ASSET SERVICES | PPP ADVISORY | INFRASTRUCTURE |
FACILITIES MANAGEMENT ADVISORY | EXPERT WITNESS



Contents

1.	Execu	itive Summary	. 3
		Introduction	
	1.1	Exclusions	4
	1.2	Assumptions	4
2.	Detail	led Cost Plan	. 5
		vnovtino	G

1. Executive Summary

1.1 Introduction

MBM have been requested to prepare a concept design estimate for the proposed Upper Australia Habitat located in Taronga Zoo Mosman, NSW.

Our current estimate for the construction component of the works is approximately **\$14,978,103** including at 5% contingency.

The Report is based on information provided by TCSA and the supporting consultants. We have split the development into core cost centres with preliminaries and builders margin applied to each to assist with value management process.

MBM costs are presented in an elemental format with quantities measured where possible and costs applied at market rates. We have used benchmark rates applied on a \$per/m2 where no documentation exists and applied previous experience and knowledge for a "best guess" approach to provisional items.

Our general approach to pricing has been to adopt the data and methodology from our previous experience at Taronga Zoo. It is important to note that the rates and costs contained are developed from our internal project database.

Preliminaries and Builders Margin have been applied at benchmarked percentages taking into account the project specifics such as size, location and site access. A recommended contingency has been applied at 5%.

1.1 Exclusions

- Escalation
- Early works consisting of demolition, excavation and site preparation
- Koala 'Lookout' as discussed with TCSA scope removed
- Ropes course modifications or alterations
- Movement / Relocation of Animals
- Hot wires to exhibits
- Excavation of rock above and beyond PC sum allowances made
- Diversion of existing services above and beyond the allowances made
- White goods unless noted
- Removal of spoil off site above and beyond PC sum allowance for earthworks
- Bored piers or piling if required to buildings
- AV production costs
- Exhibit lighting
- Professional fees
- Site allowance & enterprise agreements
- Statutory & Authority fees
- Council contributions
- Legal costs
- Out of hours works
- Staging of works
- Project/ development contingencies
- Flood proofing works
- EPA requirements
- Works beyond extent shown on drawings
- Operation & Maintenance Costs
- Exclusions as noted in the cost plan
- HV Works

1.2 Assumptions

- The contract will be based on a competitive traditional lump sum tender
- Estimated cost includes preliminaries, margin and contingency
- Builder to be a tier two or three builder for main works
- Standard substructure design with strip/pad footings only buildings
- Interpretive theming, fitout and signage have been included as a PC sum



2. Detailed Cost Plan

Cost Plan 7 - SSDA Submission



SUMMARY		\$
Demolition/ Site Prep		1,205,940
Macropod Trail Walk		1,217,608
Koala Tree Walk		2,786,073
Eastern Plaza & Escarpment Walk		714,195
Southern Link & Access Road		720,488
BOH Holding		275,393
Western Pavilion		268,843
Suspended Ropes Bridge		845,691
Tree House		821,986
Nocturnals		2,976,241
External Services		1,960,297
	SUBTOTAL CONSTRUCTION COST	13,792,755
Visitor Interpretation (Sculptures, Signage & AV)		490,000
Contingency (5%)		695,348
	PROJECT TOTAL (Excl GST)	14,978,103
GST (10%)		1,497,810
	PROJECT TOTAL (Incl GST)	16,475,913

Notes:

Client: Taronga Conservation Society Australia

Project Code: 1162-0027



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat

Details:

Cost Plan 7 - SSDA Submission

MBM1162-0027 Date: 2/07/2020

Code	Description	Starting Page	Total
1	General Information		
1.1	Drawings & Documents	Page 7	0
			0
2	Demolition/ Site Prep		
2.1	SSDA Demolition	Page 7	117,702
2.2	Demolition of Nocturnals House	Page 7	387,420
2.3	Site Preparation/ Services Diversions	Page 7	139,094
2.4	Bulk Earthworks	Page 8	328,318
2.5	Subtotal Demolition & Site Preparation		972,533
2.6	Preliminaries (18%)		175,056
2.7	Costs Associated with Access & Delivery Restrictions (2%)		19,451
2.8	Builders Margin (4%)		38,901
			1,205,940
4	Macropod Trail Walk		
4.1	Hard Landscaping	Page 8	87,077
4.2	Retaining Walls	Page 8	112,650
4.3	Soft landscaping/ Exhibit Enrichment	Page 8	522,959
4.4	Waterbody	Page 9	119,506
4.5	Fencing & Fixtures	Page 9	139,750
4.6	Subtotal Australia Walk-through		981,942
4.7	Preliminaries (18%)		176,749
4.8	Costs Associated with Access & Delivery Restrictions (2%)		19,639
4.9	Builders Margin (4%)		39,278
			1,217,608
5	Koala Tree Walk		
5.1	Suspended Walkways	Page 9	1,198,432
5.2	Retaining Walls	Page 10	EXCL
5.3	Soft landscaping/ Exhibit Enrichment	Page 10	562,365
5.4	Fencing & Fixtures	Page 10	332,456
5.5	Shelters	Page 10	153,580
5.6	Subtotal Koala Encounters		2,246,833
5.7	Preliminaries (18%)		404,430
5.8	Costs Associated with Access & Delivery Restrictions (2%)		44,937
5.9	Builders Margin (4%)		89,873
			2,786,073
6	Eastern Plaza & Escarpment Walk		
6.1	Hard Landscaping	Page 10	138,180
		-	

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat

Details:

Cost Plan 7 - SSDA Submission

MBM1162-0027 Date: 2/07/2020

Code	Description	Starting Page	Total
6.2	Shelters	Page 11	87,260
6.3	Fixtures & Fittings	Page 11	78,410
6.4	Retaining Walls	Page 11	92,500
6.5	Soft landscaping/ Exhibit Enrichment	Page 11	179,614
6.6	Subtotal Escarpment Walk		575,964
6.7	Preliminaries (18%)		103,673
6.8	Costs Associated with Access & Delivery Restrictions (2%)		11,519
6.9	Builders Margin (4%)		23,039
			714,195
7	Southern Link & Access Road		
7.1	New Access Road	Page 11	110,740
7.2	Southern Link	Page 11	470,299
7.3	Subtotal		581,039
7.4	Preliminaries (18%)		104,587
7.5	Costs Associated with Access & Delivery Restrictions (2%)		11,621
7.6	Builders Margin (4%)		23,242
			720,488
8	BOH Holding		
8.1	Back Of House	Page 12	222,091
8.2	Subtotal BOH		222,091
8.3	Preliminaries (18%)		39,976
8.4	Costs Associated with Access & Delivery Restrictions (2%)		4,442
8.5	Builders Margin (4%)		8,884
			275,393
10	Western Pavilion		
10.1	Western Pavilion	Page 12	141,000
10.2	Hard Landscaping	Page 12	39,459
10.3	Retaining Walls	Page 13	36,350
10.4	Subtotal Pavilion		216,809
10.5	Preliminaries (18%)		39,026
10.6	Costs Associated with Access & Delivery Restrictions (2%)		4,336
10.7	Builders Margin (4%)		8,672
			268,843
11	Suspended Ropes Bridge		
11.1	Suspended Walkway to Ropes	Page 13	682,009
11.2	Subtotal Ropes		682,009
11.3	Preliminaries (18%)		122,762

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat

Cost Plan 7 - SSDA Submission Details:

MBM1162-0027 Date: 2/07/2020

Code	Description	Starting Page	Total
11.4	Costs Associated with Access & Delivery Restrictions (2%)		13,640
11.5	Builders Margin (4%)		27,280

845,691

12	Tree House		
12.1	Tree House	Page 13	662,892
12.2	Subtotal Tree House		662,892
12.3	Preliminaries (18%)		119,321
12.4	Costs Associated with Access & Delivery Restrictions (2%)		13,258
12.5	Builders Margin (4%)		26,516

821,986

13	Nocturnals		
13.1	Demolition	Page 15	INCL
13.2	Substructure	Page 15	146,415
13.3	Columns	Page 15	12,600
13.4	Roof	Page 15	23,364
13.5	Windows & glazing	Page 16	227,200
13.6	Doors	Page 16	33,000
13.7	Internal walls	Page 16	105,200
13.8	Joinery	Page 16	43,134
13.9	Wall finishes	Page 16	467,704
13.10	Habitat enrichment	Page 16	154,700
13.11	Floor finishes	Page 16	30,563
13.12	Ceiling finishes	Page 17	311,344
13.13	Loose furniture	Page 17	50,000
13.14	Fitments	Page 17	735
13.15	Signage	Page 17	40,000
13.16	Hydraulics	Page 17	170,900
13.17	Mechanical	Page 18	282,534
13.18	Electrical	Page 18	257,922
13.19	Audio visual	Page 18	96,100
13.20	Fire services	Page 18	9,610
13.21	External works	Page 18	63,495
13.22	Target saving of 5% (TBC)		-126,326
13.23	Subtotal Nocturnal House		2,400,194
13.24	Preliminaries (18%)		432,035
13.25	Costs Associated with Access & Delivery Restrictions (2%)		48,004
13.26	Builders Margin (4%)		96,008

2,976,241

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat

Details:

Cost Plan 7 - SSDA Submission

MBM1162-0027 Date: 2/07/2020

Code	Description	Starting Page	Total
15	External Services		
15.1	Electrical/ Comms/ PA/ Security Services	Page 18	703,525
15.2	Mechanical Services	Page 19	INCL
15.3	Hydraulic Services	Page 19	255,000
15.4	Stormwater Services	Page 19	325,000
15.5	Fire Services	Page 20	55,000
15.6	Audio Visual Services	Page 20	125,000
15.7	Irrigation/ Water Treatment	Page 20	117,360
15.8	Subtotal Servi	ces	1,580,885
15.9	Preliminaries (18%)		284,559
15.10	Costs Associated with Access & Delivery Restrictions (2%)		31,618
15.11	Builders Margin (4%)		63,235
			1,960,297
17	Visitor Interpretation (Sculptures, Signage & AV)		
17.1	Subtotal Theming & Sign	age Page 20	400,000
17.2	Preliminaries (15%)		60,000
17.3	Costs Associated with Access & Delivery Restrictions (2%)		8,000
17.4	Builders Margin (4%)		16,000
			490,000
18	Contingency (5%)		
18.1	Contingency (5%)		695,348
			695,348



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
1	General Information				
1.1	Drawings & Documents				
1.1.1	Schematic Design				
1.1.2	Upper Australia Early Works Development Application Drawings - dated 21/5/2020		note		
1.1.3	Upper Australia Schematic Design - dated 15/6/2020		note		
1.1.4	Treehouse & Koala Walkway Sketches SK1-SK3		note		
1.1.5	Ropes bridge Sketches SK4-SK5		note		
1.1.6	Taronga Nocturnal House existing structural drawing dated 31.01.70		note		
					0.00
2	Demolition/ Site Prep				
2.1	SSDA Demolition				
2.1.1	Demolish and remove wetland ponds concrete walls and bases	753	m2	90.00	67,802
2.1.2	Demolish and remove wetland ponds walls (assume 50%)	284	m2	100.00	28,400
2.1.3	Demolish and remove masonry retaining wall to noctural house entry	30	m2	150.00	4,500
2.1.4	Ropes course poles to be removed including poles, footings, platforms and ropes	2	no	3,500.00	7,000
2.1.5	Miscellaneous (cages, mock rock, poles, bollards, signs, gates, shelters, sculptures, bins, handrails etc)	1	Psum	5,000.00	5,000
2.1.6	Tree Removal	1	Psum	5,000.00	5,000
					117,702
2.2	Demolition of Nocturnals House				
2.2.1	<u>External</u>				
2.2.2	Bulk excavation to front of Nocturnal's house (assumed average 2.5m depth, density 2.2t/m3 and soil classification GSW)	371	t	280.00	103,928
2.2.3	Allow to demolish existing wall to form egress, assumed concrete wall	44	m2	100.00	4,400
2.2.4	Carefullly demolish and remove concrete roof including saw cuts	44	m2	200.00	8,842
2.2.5	Allowance for interface works including make good	1	Psum	5,000.00	5,000
2.2.6	<u>Internal</u>				
2.2.7	Allowance to strip out existing nocturnal building, including floor, wall, ceiling finishes, partitions, walls, doors etc.	961	m2	250.00	240,250
2.2.8	Allowance for temporary propping	1	item	25,000.00	25,000
					387,420
2.3	Site Preparation/ Services Diversions				
2.3.1	Site Preparation				
2.3.2	Allow to prepare site for construction including clear vegetation and removal of rubbish	7,819	m2	5.00	39,094
2.3.3	Establish tree protection throughout site	1	Psum	50,000.00	50,000
2.3.4	Services Diversions				
2.3.5	Allowance for relocation of stormwater services including pits and pipes	1	Psum	50,000.00	50,000
2.3.6	Allowance for relocation of high voltage power and associated substation		note		EXCL
2.3.7	Relocation of of fibre optic, gas, low voltage, sewer, cold water, telecom		note		EXCL

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
2.3	Site Preparation/ Services Diversions				
2.4	Bulk Earthworks				139,094
2.4.1	Provisional allowance for bulk excavation, filling, compacting and				
2.4.2	removal of excess soil off site Excavation				
2.4.2	Bulk excavation to reduce levels across site and removal of soil	860	•	100.00	86,007
2.4.3	(Allowance for 50% of site stripped and remove assumed 100mm depth, density 2.2t/m3 and soil classification GSW)	000	L	100.00	80,007
2.4.4	Bulk excavation to pavement thicknesses and removal of soil (Allowance for 50% of site stripped and remove assumed 100mm depth, density 2.2t/m3 and soil classification GSW)	273	t	100.00	27,294
2.4.5	Cut/Fill				
2.4.6	Cut to fill across site (shallow cut/fill 250mm average depth, density 2.2t/m3 and soil classification ENM)	4,300	t	50.00	215,017
2.4.7	Existing ground levels and trees retained throughout Koala and upper macropod zone		note		EXCL
2.4.8	NOTE				
2.4.9	Detailed excavation for footings and services (included in provisional sums and/ or substructure rates)		note		EXCL
					328,318
4	Macropod Trail Walk				
4.1	Hard Landscaping				
4.1.1	Exposed Aggregate concrete pathways throughout including subbase, base and grading as required	260	m2	300.00	78,045
4.1.2	Decomposed compacted granite including subbase, base and grading as required	45	m2	200.00	9,032
					87,077
4.2	Retaining Walls				
4.2.1	Heights of walls TBC - MBM have made various assumptions around wall heights and footing details that will need to be reviewed as design develops				
4.2.2	Retaining wall to edge of footpath (assumed average height 1m)	105	m2	850.00	89,250
4.2.3	Concrete footing to retaining wall	78	m	300.00	23,400
4.2.4	Retaining wall to Northern boundary (assumed existing)		note		EXCL
					112,650
4.3	Soft landscaping/ Exhibit Enrichment				
4.3.1	Exhibit Enrichment/ Landscaping				
4.3.2	Landscaping including sand, rockwork, mass planting, trees, transplanting etc. (Provisional rate)	933	m2	300.00	279,969
4.3.3	Rockwork (mixture of natural and artificial)	443	m2	200.00	88,516
4.3.4	Minor landscape upgrades to existing macropod walk-through rockwork	526	m2	75.00	39,474
4.3.5	Deadfall		Psum	35,000.00	35,000
4.3.6	Feature Enrichment Devices	1	Psum	45,000.00	45,000
4.3.7	Misting system	1	Psum	35,000.00	35,000
4.3.8	Exhibit heat pads		note		EXCL
4.3.9	Exhibit heat lamps		note		EXCL

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
4.3	Soft landscaping/ Exhibit Enrichment				
4.3.10	CCTV allowance		note		EXCL
					522,959
4.4 4.4.1	Waterbody Waterbody				
4.4.1	Excavation and disposal of spoil	96	+	280.00	26,970
4.4.2	Concrete base, finish, mock rock and rockwork (mixture of natural and		m2	1,200.00	52,536
4.4.3	artificial)	44	1112	1,200.00	52,530
4.4.4	Filtration, pumps and drainage lines, equipment room	1	Psum	40,000.00	40,000
					119,506
4.5	Fencing & Fixtures				
4.5.1	Restraint Fencing				
4.5.2	Applied timber fencing including structure and footings		m2	700.00	60,200
4.5.3	Steel mesh containtment to underside of boardwalk above	133		350.00	46,550
4.5.4	Treatment to Northern heritage wall		note		EXCL
4.5.5	Hot wire rails to fencing		note		EXCL
4.5.6	Extra over for electrical supply		note		EXCL
4.5.7	Owner exit double doors	6	no	3,000.00	18,000
4.5.8	Seating	1	Psum	15,000.00	15,000
					139,750
5	Koala Tree Walk				
5.1	Suspended Walkways				
5.1.1	Substructure				
5.1.2	Mass concrete footings including detailed excavation, concrete and formwork	295	m2	1,000.00	295,000
5.1.3	Structural Steel (based on a 25m length with average height of 3m)				
5.1.4	168.3 x 7.1 Circular hollow section - C1	0.79	t	12,500.00	9,875
5.1.5	150mm Universal Column - B1	0.34	t	10,500.00	3,570
5.1.6	150mm Parrallel flange channel - B2	0.89	t	10,500.00	9,345
5.1.7	Allowance for attached and loose connections	0.51	t	10,500.00	5,303
5.1.8	Allowance for painting/ finish to steelwork	2.02	t	1,500.00	3,030
5.1.9	Extra over for curved members	2.02	t	10,000.00	20,200
5.1.10	<u>Timber</u>				
5.1.11	1500mm x 45 Hyspan LVL's @450mm centres - J1	113	m	85.00	9,615
5.1.12	Subtotal structural steel (25m length)	50	m2	1,218.75	60,938
5.1.13	Extra over for decking with no structural steel design	245	m2	1,218.75	298,595
5.1.14	Decking				
5.1.15	Timber boardwalk decking including sealer	295	m2	500.00	147,500
5.1.16	<u>Balustrade</u>				
5.1.17	Steel balustrade with timber handrail	307	m	1,200.00	368,400
5.1.18	Other				

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
5.1	Suspended Walkways				
5.1.19	Folded Corten shelters (4m2) Includes roofing, walls, gates, fixtures and cladding in coreten	4	no	5,000.00	20,000
5.1.20	Extra over allowance for lockers	4	no	2,000.00	8,000
					1,198,432
5.2	Retaining Walls				
5.2.1	MBM have made assumptions there is no retaining wall sin this zone that will need to be reviewed as design develops		note		EXCL
					EXCL
5.3	Soft landscaping/ Exhibit Enrichment				
5.3.1	Exhibit Enrichment/ Landscaping				
5.3.2	Landscaping including turfing, mass planting, trees, transplanting etc. (Provisional rate)	749	m2	250.00	187,365
5.3.3	Deadfall	1	Psum	25,000.00	25,000
5.3.4	Feature Enrichment Devices	1	Psum	35,000.00	35,000
5.3.5	Misting system	1	Psum	35,000.00	35,000
5.3.6	Koala bay and structrual timber poles to exhibits including mass concrete footings	8	Psum	35,000.00	280,000
5.3.7	Exhibit heat pads		note		EXCL
5.3.8	Exhibit heat lamps		note		EXCL
5.3.9	CCTV allowance		note		EXCL
					562,365
5.4	Fencing & Fixtures				
5.4.1	Restraint Fencing				
5.4.2	Corten non climbable barriers (1200mm high) embedded into 100mm concrete apron	182	m	800.00	145,256
5.4.3	Hot wire rails to fencing		note		EXCL
5.4.4	Extra over for electrical supply		note		EXCL
5.4.5	Owner exit double doors	10	no	3,000.00	30,000
5.4.6	Perimeter Fencing				
5.4.7	5000mm High perimeter fencing including charred timber finish and structural steel framing and footings	196	m2	700.00	137,200
5.4.8	<u>Fixtures</u>				
5.4.9	Seating	1	Psum	20,000.00	20,000
					332,456
5.5	Shelters				
5.5.1	Profiled Metal sheet roofing shelter including downpipe	27	m2	2,000.00	53,580
5.5.2	Extra over for central circular hollow section including mass concrete footing	10	no	10,000.00	100,000
					153,580
6	Eastern Plaza & Escarpment Walk				
6.1	Hard Landscaping				
6.1.1	Escarpment Walk				
6.1.2	Coloured concrete pathways throughout including subbase, base and grading as required	342	m2	350.00	119,550

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
6.1	Hard Landscaping				
6.1.3	Decomposed compacted granite including subbase, base and grading as required	88	m2	200.00	17,630
6.1.4	Concrete steps/ seats to koala talks	1	Psum	1,000.00	1,000
					138,180
6.2	Shelters				
6.2.1	Profiled Metal sheet roofing shelter including downpipe	24	m2	2,000.00	47,260
6.2.2	Extra over for central circular hollow section including mass concrete footing	4	no	10,000.00	40,000
					87,260
6.3	Fixtures & Fittings				
6.3.1	Fencing			4 000 00	10.110
6.3.2	Corten steel exhibit fencing (assumed 1200mm high)	43	m	1,000.00	43,410
6.3.3	<u>Fixtures</u>				
6.3.4	Allowance for fixed timber bench seating		Psum	25,000.00	25,000
6.3.5	Allowance for bubbler's	1	Psum	10,000.00	10,000
6.3.6	Balustrade		note		EXCL
6.3.7	Tactiles		note		EXCL
					78,410
6.4	Retaining Walls				
6.4.1	Heights of walls TBC - MBM have made various assumptions around wall heights and footing details that will need to be reviewed as design develops				
6.4.2	Retaining wall to edge of footpath (assumed average height 2m)	74	m2	1,000.00	74,000
6.4.3	Concrete footing to retaining wall	74	m	250.00	18,500
					92,500
6.5	Soft landscaping/ Exhibit Enrichment				
6.5.1	Exhibit Enrichment/ Landscaping				
6.5.2	Landscaping Koala Talks including turfing, mass planting, trees, transplanting etc. (Provisional rate)	122	m2	300.00	36,630
6.5.3	Landscaping general including turfing, mass planting, trees, transplanting etc. (Provisional rate)		m2	200.00	82,984
6.5.4	Deadfall	1	Psum	25,000.00	25,000
6.5.5	Feature Enrichment Devices	1	Psum	35,000.00	35,000
6.5.6	Exhibit heat pads		note		EXCL
6.5.7	Exhibit heat lamps		note		EXCL
6.5.8	CCTV allowance		note		EXCL
					179,614
7	Southern Link & Access Road				
7.1	New Access Road				
7.1.1	Concrete access road including subbase, base and grading as required	245	m2	350.00	85,740

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
7.2	Southern Link				
7.2.1	Structure				
7.2.2	Suspended boardwalks including structure, footings and excavation (average height 1m)	137	m2	1,200.00	164,136
7.2.3	<u>Finish</u>				
7.2.4	Timber boardwalk decking including sealer	137	m2	500.00	68,390
7.2.5	Concrete paving	11	m2	350.00	3,983
7.2.6	Tactiles	1	Psum	5,000.00	5,000
7.2.7	Balustrading				
7.2.8	Steel balustrade with timber handrail	92	m	1,000.00	92,000
7.2.9	Retaining Walls				
7.2.10	Retaining walls including finish	98	m2	800.00	78,400
7.2.11	Footings including detailed excavation and concrete	82	m	300.00	24,600
7.2.12	Landscaping				
7.2.13	Landscaping general including turfing, mass planting, trees, transplanting etc. (Provisional rate)	169	m2	200.00	33,790
					470,299
8	BOH Holding				
8.1	Back Of House				
8.1.1	Back Of House				
8.1.2	Concrete slab on ground including concrete footings	50	m2	500.00	24,885
8.1.3	Profiled metal sheet roofing including plumbing		m2	500.00	24,885
8.1.4	Structural steel framing	50	m2	300.00	14,931
8.1.5	Allowance for water supply, auto animal drinkers	3	no	5,000.00	15,000
8.1.6	Allowance for power supply	1	Psum	15,000.00	15,000
8.1.7	Restraint Fencing				
8.1.8	2000mm High applied timber fence including concrete footings	102		850.00	86,275
8.1.9	2000mm High steel mesh containment fence dividing BOH	28	m	500.00	14,115
8.1.10	Hot wire rails to fencing		note		EXCL
8.1.11	Extra over for electrical supply		note		EXCL
8.1.12	Owner exit double doors	9	no	3,000.00	27,000
					222,091
10	Western Pavilion				
10.1	Western Pavilion				
10.1.1	Sculptural element				
10.1.2	High entrace blade including structural steel, anodised aluminium cladding to both sides. structural supports and mass concrete footings	47	m2	3,000.00	141,000
10.1.3	Charred hardwood cladding to elevated walkway		note		INCL
					141,000
10.2	Hard Landscaping				
10.2.1	Exposed Aggregate concrete pathways throughout including subbase, base and grading as required	132	m2	300.00	39,459

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020 Details:

Code	Description	Quantity	Unit	Rate	Amount
10.2	Hard Landscaping				
					39,459
10.3	Retaining Walls				
10.3.1	Heights of walls TBC - MBM have made various assumptions around wall heights and footing details that will need to be reviewed as design develops				
10.3.2	Retaining wall to edge of footpath (assumed average height 1m)	29	m2	850.00	24,650
10.3.3	Concrete footing to retaining wall	78	m	150.00	11,700
					36,350
11	Suspended Ropes Bridge				
11.1	Suspended Walkway to Ropes				
11.1.1	<u>Target rates for suspended boardwalks. To be reviewed upon structural input</u>		note		
11.1.2	Substructure				
11.1.3	Mass concrete footings including detailed excavation, concrete and formwork	98	m2	1,000.00	98,000
11.1.4	Structural Steel				
11.1.5	200 x 100 x 9 Rectangular hollow section - SC1	1.89		10,500.00	19,845
11.1.6	150 x 100 x 5 Rectangular hollow section - SC2	1.07		10,500.00	11,235
11.1.7	200 x 100 x 9 Rectangular hollow section - WB1	4.55		10,500.00	47,775
11.1.8	380mm Parrallel flange channel - SB1	3.33		10,500.00	34,965
11.1.9	89 x 5 Square hollow section - S1	0.34		10,500.00	3,570
11.1.10	16mm Round rod bracing - HB1	81		55.00	4,448
11.1.11	20mm Round rod bracing - VB1	25		60.00	1,500
11.1.12	Allowance for attached and loose connections	1.68		10,500.00	17,609
11.1.13	Allowance for painting/ finish to steelwork	11.18		1,500.00	16,770
11.1.14	Subtotal structural steel		m2	2,360.68	157,717
11.1.15	Extra over for decking with no structural steel design	32	m2	2,360.68	75,542
11.1.10	Decking Timber boardwalk decking including sealer	100	m2	500.00	61,500
11.1.17	Balustrade	123	IIIZ	300.00	61,500
11.1.19	Steel balustrade with timber handrail	97	m	1,100.00	106,700
11.1.20	Cladding	31	***	1,100.00	100,700
11.1.21	Charred hardwood and anodised cladding to walkway including fixings	241	m2	550.00	132,550
11.1.22	Other		··· -	000.00	.02,000
11.1.23	Abutment / connections into adjoining footpaths	2	no	25,000.00	50,000
	, ,			,	682,009
12	Tree House				
12.1	Tree House				
12.1.1	<u>Footings</u>				
12.1.2	Allowance for concrete strip footings including reinforcement and detailed excavation and spoil removal	188	m2	200.00	37,608
12.1.3	Slab on ground				

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
12.1	Tree House				
12.1.4	Concrete slab on ground including reinforcement and formwork	188	m2	350.00	65,814
12.1.5	Structural Steel				
12.1.6	150 x 37.2 Universal column - SC2	0.93	t	10,500.00	9,765
12.1.7	139.7 x 3.2 Circular hollow section - SC1	0.42	t	12,500.00	5,250
12.1.8	150mm Parrallel flange channel - WB1	0.48	t	10,500.00	5,040
12.1.9	150mm Parrallel flange channel - WB2	0.71	t	10,500.00	7,455
12.1.10	1500mm Universal beam 30.0 - WB3	0.27	t	10,500.00	2,835
12.1.11	310mm Universal Beam 46.2 - RB1	0.87	t	10,500.00	9,135
12.1.12	310mm Universal Beam 40.3 - RB2	1.83	t	10,500.00	19,215
12.1.13	200mm Universal Beam 22.3 - RB3	0.21	t	10,500.00	2,205
12.1.14	89 x 5 Square hollow section - VB1	0.14	t	10,500.00	1,470
12.1.15	Allowance for attached and loose connections	0.88	t	10,500.00	9,230
12.1.16	Allowance for painting/ finish to steelwork	5.86	t	1,500.00	8,790
12.1.17	Roofing & Roof Plumbing				
12.1.18	Clear polycarbonate roof sheeting	188	m2	250.00	47,010
12.1.19	Roof plumbing	188	m2	25.00	4,701
12.1.20	<u>Walls</u>				
12.1.21	Wall including metal stud frame, insulation and lining	154	m2	300.00	46,200
12.1.22	Doors, Gates & Hardware				
12.1.23	Solid timber sing swing doors	5	no	1,500.00	7,500
12.1.24	Double swing exhibit doors	2	no	3,000.00	6,000
12.1.25	Large sliding doors	1	no	10,000.00	10,000
12.1.26	Eextra over for push bottom to Accessible toilet	1	no	2,500.00	2,500
12.1.27	Floor Finishes				
12.1.28	Hardwood timber decking over slab	188	m2	350.00	65,814
12.1.29	Tiling to floors	19	m2	180.00	3,339
12.1.30	Wall Finishes				
12.1.31	Tiling to amenities	68	m2	180.00	12,240
12.1.32	Timber Cladding	107	m2	450.00	48,150
12.1.33	Ceiling Finishes				
12.1.34	Structrual timber framing at high level	188	m2	300.00	56,412
12.1.35	Finish to amenities, store and ticketing	49	m2	100.00	4,926
12.1.36	<u>FF&E</u>				
12.1.37	Ticketing joinery	1	Psum	15,000.00	15,000
12.1.38	Display	1	Psum	10,000.00	10,000
12.1.39	Vanity		Psum	5,000.00	5,000
12.1.40	Store Room shelving/ cupboards		Psum	5,000.00	5,000
12.1.41	Seating		Psum	25,000.00	25,000
12.1.42	Balustrade to deck		m	1,500.00	16,065
12.1.43	Electrical Services			,	-,

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
12.1	Tree House				
12.1.44	Allowance for power & lighting	188	m2	100.00	18,804
12.1.45	Distribution board	1	item	4,500.00	4,500
12.1.46	Hydraulic Services				
12.1.47	Basin	3	no	500.00	1,500
12.1.48	Tapware to basin	3	no	250.00	750.00
12.1.49	WC	2	no	1,600.00	3,200
12.1.50	Accessible WC	1	no	2,900.00	2,900
12.1.51	Reticulation to the above	6	no	2,000.00	12,000
12.1.52	Toilet partitions	1	no	2,000.00	2,000
12.1.53	Sanitary fixtures	1	Psum	15,000.00	15,000
12.1.54	Water tank including concrete slab externally and cladding	1	Psum	20,000.00	20,000
12.1.55	Fire Services				
12.1.56	Allowance for fire hose reel		note		EXCL
12.1.57	Mechanical Services				
12.1.58	Allowance for toilet exhausts	1	Psum	5,000.00	5,000
12.1.59	<u>BWIC</u>				
12.1.60	Builders Work In Connection (3%)	1	item	2,569.62	2,570
					662,892
13	Nocturnals				
13.1	Demolition				
13.1.1	Strip out and remove existing nocturnal fitout including partitions, exhibits, finishes and all services - INCLUDED IN EARLY WORKS		note		INCL
					INCL
13.2	Substructure				
13.2.1	Viewing decks				
13.2.2	Allowance for viewing decks, including structural supports and containment	60	m2	550.00	33,154
13.2.3	Structural slab on ground			40.00	
13.2.4	Allow to prepare substructure throughout		m2	10.00	5,520
13.2.5	Allow to dowel new slab into existing slab	8	m	120.00	1,009
13.2.6	<u>Concrete pavement</u>				
13.2.7	Decorative concrete pavement to circulation area	263	m2	325.00	85,452
13.2.8	Screed				
13.2.9	Allowance for leveling screed in preparation for vinyl to keeper area and care quarters	266	m2	80.00	21,280
13.3	Columns				146,415
13.3.1	Allowance to strengthen new exit point and building extension	63	m2	200.00	12,600
	· · · · · · · · · · · · · · · · · · ·				12,600
13.4	Roof				
13.4.1	Assumed concrete roof to match existing, including waterproofing, drainage etc.	47	m2	380.00	17,955

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
13.4	Roof				
13.4.2	Allowance to dowel new concrete roof into existing structure	8	m	120.00	1,009
13.4.3	Assumed a parapet wall of some sort will be required above new opening for egress	8	m	550.00	4,400
40 =					23,364
13.5 13.5.1	Windows & glazing	26	m2	800.00	20, 200
13.5.1	Allowance for low height glazing to immersive and encounter habitats Allowance for full height glazing to contained habitats, i.e. bats and		m2	800.00	20,800 206,400
13.3.2	gliders etc.	230	1112	800.00	
13.6	Doors				227,200
13.6.1	Roller door				
13.6.2	Assumed roller door required for egress, similar to ingress roller door	1	item	12,000.00	12,000
13.6.3	Solid core doors			,	,
13.6.4	Single leaf, including frame and hardware	5	no.	1,200.00	6,000
13.6.5	Double leaf, including frame and hardware	5	no.	1,500.00	7,500
13.6.6	Aviary				
13.6.7	Allowance for aviary and care space doors	5	no.	1,500.00	7,500
					33,000
13.7	Internal walls				
13.7.1	Plasterboard				
13.7.2	Allowance for plasterboard walls including paint	468	m2	150.00	70,200
13.7.3	Aviary				
13.7.4	Allowance for aviary mesh walls	140	m2	250.00	35,000
					105,200
13.8	Joinery	40		4 000 00	04.040
13.8.1	Allowance for kitchen joinery		m	1,800.00	31,842
13.8.2	Allowance for storage shelves	9	m	1,200.00	11,292 43,134
13.9	Wall finishes				43,134
13.9.1	Tiling				
13.9.2	Allowance for tiling to new bathroom	29	m2	200.00	5,800
13.9.3	Theming				
13.9.4	Mock rock finish throughout	743	m2	600.00	445,800
13.9.5	Extra over for tunnel	27	m2	600.00	16,104
					467,704
13.10	Habitat enrichment				
13.10.1	Allowance for landscaping, including mulching, rockwork, mass planting, trees etc.	698	m2	150.00	104,700
13.10.2	Mock rock included in wall finishes		note		
13.10.3	Allowance to install artificial trees around existing columns, no. of columns assumed	10	no.	5,000.00	50,000
					154,700
13.11	Floor finishes				

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
13.11	Floor finishes				
13.11.1	Resilient finishes				
13.11.2	Allowance for vinyl floor finish to keeper areas and corridors	266	m2	110.00	29,219
13.11.3	Allowance for tiling to new WC, including waterproofing	4	m2	300.00	1,344
					30,563
13.12	Ceiling finishes				
13.12.1	Theming				
13.12.2	Allowance for feature ceiling throughout habitat areas	695	m2	350.00	243,292
13.12.3	Plasterboard				
13.12.4	Allowance for plasterboard ceiling to care quarters and keeper areas		m2	120.00	31,876
13.12.5	Allowance for perforated or mesh transit corridors	123	m2	180.00	22,142
13.12.6	<u>Paint</u>				
13.12.7	Allowance to paint the above	266	m2	15.00	3,984
13.12.8	<u>Aviary</u>				
13.12.9	Aviary mesh ceiling	40	m2	250.00	10,050
					311,344
13.13	Loose furniture				
13.13.1	Allowance for furniture	1	psum	50,000.00	50,000
					50,000
13.14	Fitments				
13.14.1	Bathroom fitments				
13.14.2	Soap dispenser		no.	85.00	85.00
13.14.3	Toilet roll holder		no.	150.00	150.00
13.14.4	Mirror	1	no.	500.00	500.00
					735.00
13.15	Signage				
13.15.1	Allowance for wayfinding signage and indicators		psum	20,000.00	20,000
13.15.2	Allowance for theming and interpretive signage	1	psum	20,000.00	20,000
					40,000
13.16	Hydraulics				
13.16.1	Kitchen and WC				
13.16.2	Kitchen sink		no.	1,000.00	1,000
13.16.3	WC		no.	1,500.00	1,500
13.16.4	Sink		no.	500.00	500.00
13.16.5	Mixer		no.	250.00	250.00
13.16.6	Floor waste		no.	300.00	600.00
13.16.7	Labour to install the above		no.	180.00	1,800
13.16.8	Reticulation to the above	4	no.	3,500.00	14,000
13.16.9	Platypus pool			10=	
	Allowance for pool, including filters, pumps, pool structure, theming etc.	1	psum	125,000.00	125,000
13.16.11	Water points				

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
13.16	Hydraulics				
13.16.12	Allowance for new water points to suit new layout	1	psum	25,000.00	25,000
13.16.13					
13.16.14	Bwic (5%)	1		1,250.00	1,250
					170,900
13.17	Mechanical				
13.17.1	Allowance for air conditioning to suit the new layout and flow requirements	961	m2	280.00	269,080
13.17.2	Bwic (5%)	1		13,454.00	13,454
					282,534
13.18	Electrical				
13.18.1	Allowance for new lighting and power as required	961		240.00	230,640
13.18.2	Allowance for CCTV	1	psum	15,000.00	15,000
13.18.3	Bwic 5%	1		12,282.00	12,282
					257,922
13.19	Audio visual				
13.19.1	Allowance for audio visual services including PA	961	m2	100.00	96,100
					96,100
13.20	Fire services				
13.20.1	Allowance for dry fire services to suit new layout	961	m2	10.00	9,610
					9,610
13.21	External works				
13.21.1	Substructure				
13.21.2	Allowance for concrete pavements, including sub base to form egress route	29	m2	180.00	5,220
13.21.3	Walls				
13.21.4	Allowance for concrete retaining wall, assumed 2000h	20	m2	650.00	13,000
13.21.5	Allowance for blockwork including painting	69	m2	300.00	20,700
13.21.6	Allowance for footings to the above, including excavation and FRP	33	m	185.00	6,105
13.21.7	Landscaping and habitat enrichment				
13.21.8	Provisional allowance for landscaping including turfing, mass planting, trees, transplanting etc.	123	m2	150.00	18,470
					63,495
15	External Services				
15.1	Electrical/ Comms/ PA/ Security Services				
15.1.1	Provisional allowance for the following items				
15.1.2	POWER				
15.1.3	New HV including trenching, laying pipe, HV cable and backfilling		note		EXCL
15.1.4	Kiosk/ substation		note		EXCL
15.1.5	Allowance for low voltage conduit cabling system including trenching	1	Psum	150,000.00	150,000
15.1.6	Allowance for Main switchboards	1	Psum	50,000.00	50,000
15.1.7	Allowance for connection to light & power	1	Psum	25,000.00	25,000

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat Details:

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020

Code	Description	Quantity	Unit	Rate	Amount
15.1	Electrical/ Comms/ PA/ Security Services				
15.1.8	Power lighting and comms to BOH buildings		note		INCL
15.1.9	LIGHTING				
15.1.10	Bollard lighting to circulation paths including reticulation @ 10m centres	37	no	2,500.00	92,500
15.1.11	COMMS & DATA				
15.1.12	Comms & Data infastructure including trenching		Psum	75,000.00	75,000
15.1.13	Allowance for connection to comms & data	1	Psum	10,000.00	10,000
15.1.14	WIFI				
15.1.15	Wifi throughout	1	Psum	50,000.00	50,000
15.1.16	PUBLIC ADDRESS				
15.1.17	Public Address reticulation/ cabling and equipment	1	Psum	50,000.00	50,000
15.1.18	IT EQUIPMENT				
15.1.19	Taronga IT Equipment including phones, PC, printers, screens etc	1	Psum	75,000.00	75,000
15.1.20	SECURITY				
15.1.21	Buildings				
15.1.22	CCTV system with digital recording and cameras to buildings	1	Psum	50,000.00	50,000
15.1.23	External paths/ exhibits				
15.1.24	CCTV cameras to visitor areas		note		EXCL
15.1.25	CCTV system with digital recording		note		EXCL
15.1.26	OTHER				
15.1.27	O&Ms, As-builts & Commissioning	1	Psum	30,000.00	30,000
15.1.28	BWIC (7%)	1	item	46,025.00	46,025
15.1.29	EXCLUSIONS				
15.1.30	Penetrations and coring		Note		EXCL
15.1.31	Active Communications Equipment		Note		EXCL
15.1.32	Hotwire Fence Structure & Supports		Note		EXCL
15.1.33	Fire rating of penetrations through fire rated elements		Note		EXCL
15.1.34	All permits, applications and fees		Note		EXCL
4= 0					703,525
15.2 15.2.1	Mechanical Services				
15.2.1	Mechanical Services (included in building \$/m2)		nata		INCL
15.2.2	Nocturnal House		note		INCL
15.3	Hydraulic Services				
15.3.1	<u>Provisional allowance for the following including connections and trenching</u>				
15.3.2	Cold Water Service		item	75,000.00	75,000
15.3.3	Hot Water Service	1	item	30,000.00	30,000
15.3.4	Non-Potable re-use system	1	item	75,000.00	75,000
15.3.5	Sewer drainage	1	item	75,000.00	75,000
15.3.6	Fixtures and Fittings (included in building \$/m2)		note		INCL

255,000

MBM



Client: Taronga Conservation Society Australia

Project: Upper Australia Habitat

Cost Plan 7 - SSDA Submission MBM1162-0027 Date: 2/07/2020 Details:

Code	Description	Quantity	Unit	Rate	Amount
15.4	Stormwater Services				
15.4.1	Provisional allowance for the following				
15.4.2	Allowance for stormwater services throughout site including surface inlet pits, AG drains, headwalls, rock mattress etc	1	Psum	300,000.00	300,000
15.4.3	Allowance for connection to sewer & drainage	1	Psum	25,000.00	25,000
15.4.4	On- Site Detention				
15.4.5	Underground precast concrete storage tank for stormwater runoff treatment and pump unit		note		EXCL
					325,000
15.5	Fire Services				
15.5.1	Provisional Allowance for the following items				
15.5.2	Fire Hydrant service	1	Psum	50,000.00	50,000
15.5.3	Fire hose Reels	1	Psum	5,000.00	5,000
15.5.4	Fire hydrant pillars		note		INCL
15.5.5	Fire hose reels to BOH buildings		note		INCL
15.5.6	Fire drencher/ sprinkler services		note		EXCL
					55,000
15.6	Audio Visual Services				
15.6.1	Allowance for Audio and Visual services	1	Psum	125,000.00	125,000
15.6.2	AV Production/ Multimedia Costs		note		EXCL
15.6.3	Interpretative AV screens (included in interps budget)		note		INCL
					125,000
15.7	Irrigation/ Water Treatment				
15.7.1	Allowance for large throw out sprinkler heads				
15.7.2	Exhibit Areas	2,496	m2	35.00	87,360
15.7.3	Extra over allowance for water meter, including back-flow prevention device	1	item	30,000.00	30,000
15.7.4	Water Treatment		note		EXCL
					117,360
17	Visitor Interpretation (Sculptures, Signage & AV)				
17.1	Subtotal Theming & Signage				
17.1.1	Allowance for theming/ interpretation to visitor areas	1	Psum	400,000.00	400,000
17.1.2	Provisional allowance for the following types of signage				
17.1.3	Directional and way-finding		note		INCL
17.1.4	Exhibits & enclosures identification		note		INCL
17.1.5	BOH buildings		note		INCL
17.1.6	Statutory		note		INCL

MBM

Cost Plan 7 - SSDA Submission



DISCLAIMER

This report, the documents attached hereto, and any associated communications, are intended only for the Addressee and may contain privileged or confidential information. Any unauthorised disclosure is strictly prohibited. If you have received this report in error, please notify MBMpl Pty Ltd (MBM) immediately so that we may correct our internal records.

This report is qualified in its entirety by and should be considered in the light of the agreed terms of engagement and the following:

This report has been prepared for the exclusive use of the Addressee and shall not be relied upon by any other third party for any other purposes unless expressly permitted or required by law and then only in connection with the purpose in respect of which this report is provided.

In no event, regardless of whether MBM's consent has been provided, shall MBM assume any liability or responsibility to any third party to whom this report is disclosed or otherwise made available.

Without the prior written consent of MBM, this report is not to be used in conjunction with any public or private offering of securities or other similar purpose where it might be relied upon to any degree by any person other than the Addressee.

MBM has used its reasonable endeavour so that the data contained in this report reflects the most accurate and timely information available and is based on information that was current as of the date of this report.

The preparation of this report has relied on information provided by the Addressee and by third parties. MBM has not verified this information and we assume no responsibility and make no representations with respect to adequacy, accuracy or completeness of such information.

This report is based on estimates, assumptions and other information developed by MBM from our independent research, intelligence, general knowledge of the industry and consultations with the addressee, addressee employee and representatives.

No guarantee or warranty is made by MBM in relation to the projected values or findings contained in this report. In addition, this report is based upon information that was obtained on or before the date in which this report was prepared. Circumstances and events may occur following the date on which such information was obtained that are beyond our control and which may impact on the findings and projections contained in this report. MBM specifically disclaims any responsibility where such circumstances or events do occur and impact the findings of this report.

The findings in this report must be viewed in the context of the entire report including, without limitation, any assumptions made and disclaimers provided. Under no circumstances shall the findings in this report be excised from the body of this report.

All intellectual property rights (including, but not limited to copyright, database rights and trade marks rights) in this report including any forecasts, spreadsheets or other materials provided are the property of MBM. The addressee may use and copy such materials for internal use.