
Quantity Surveyor's Report – Capital Investment Value

Shepherds Bay Urban Renewal Meadowbank

for

Holdmark Property Group

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Shepherds Bay Urban Renewal, Meadowbank
Estimate of Capital Investment Value

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Shepherds Bay Urban Renewal, Meadowbank

Estimate of Capital Investment Value

1 Introduction

Altus Page Kirkland was requested by Holdmark Property Group to prepare a Quantity Surveyor's Report on the Capital Investment Value for the proposed re-development of the precinct at Shepherds Bay, Meadowbank, bound by Constitution Road, Belmore Street, Rothesay Avenue and Bowden Street to the west, as well as a signature building bound by Church Street, Well Street Parsonage Street to the west and a Loop Road to the south.

2 Executive Summary

The estimated Capital Investment Value as at 2nd July 2012 is **\$713,472,640 excluding GST**.

3 Project Scope

This Capital Investment Value Estimate is prepared for the proposed residential re-development at the Shepherds Bay, Meadowbank site and comprises the following:

1. Residential Apartment blocks varying from low rise to high rise buildings with a total Gross Floor Area of 245,778m².
2. The residential apartment blocks produce a total of between 2,005 units based on the following apartment mix:
 - 1 bed – 10%
 - 2 bed – 75%
 - 3 bed – 15%
3. Commercial spaces with a total Gross Floor Area of 10,003m².
4. A total of 2,957 undercover car spaces including 400 visitor carparking and 250 commercial carparking.

4 Basis of the Estimate

The Cost Estimate for the Capital Investment Value of the proposed development has been based on the following information:

- Shepherds Bay Preferred Project Concept Plan and Staging Plan prepared by Robertson + Marks Architects dated June 2012.
- Development Statistics : Summary prepared by Robertson + Marks Architects received on 26 June 2012.
- Landscape Concept Master Plan dated January 2011 prepared by Place Design Group, together with a Landscape Plan (Figure 28) Revision L dated January 2012.

Shepherds Bay Urban Renewal, Meadowbank

Estimate of Capital Investment Value

- Civil scope of works in accordance with the Preferred Master Plan dated June 2012 with typical civil details interpreted from the Civil Layout General Arrangement Plan dated September 2010 prepared by BG&E.
- Trunk drainage concept design dated 5 March 2012 prepared by Cardno.

The cost estimate is priced at market rates as at today's date on the basis of competitive lump sum tenders.

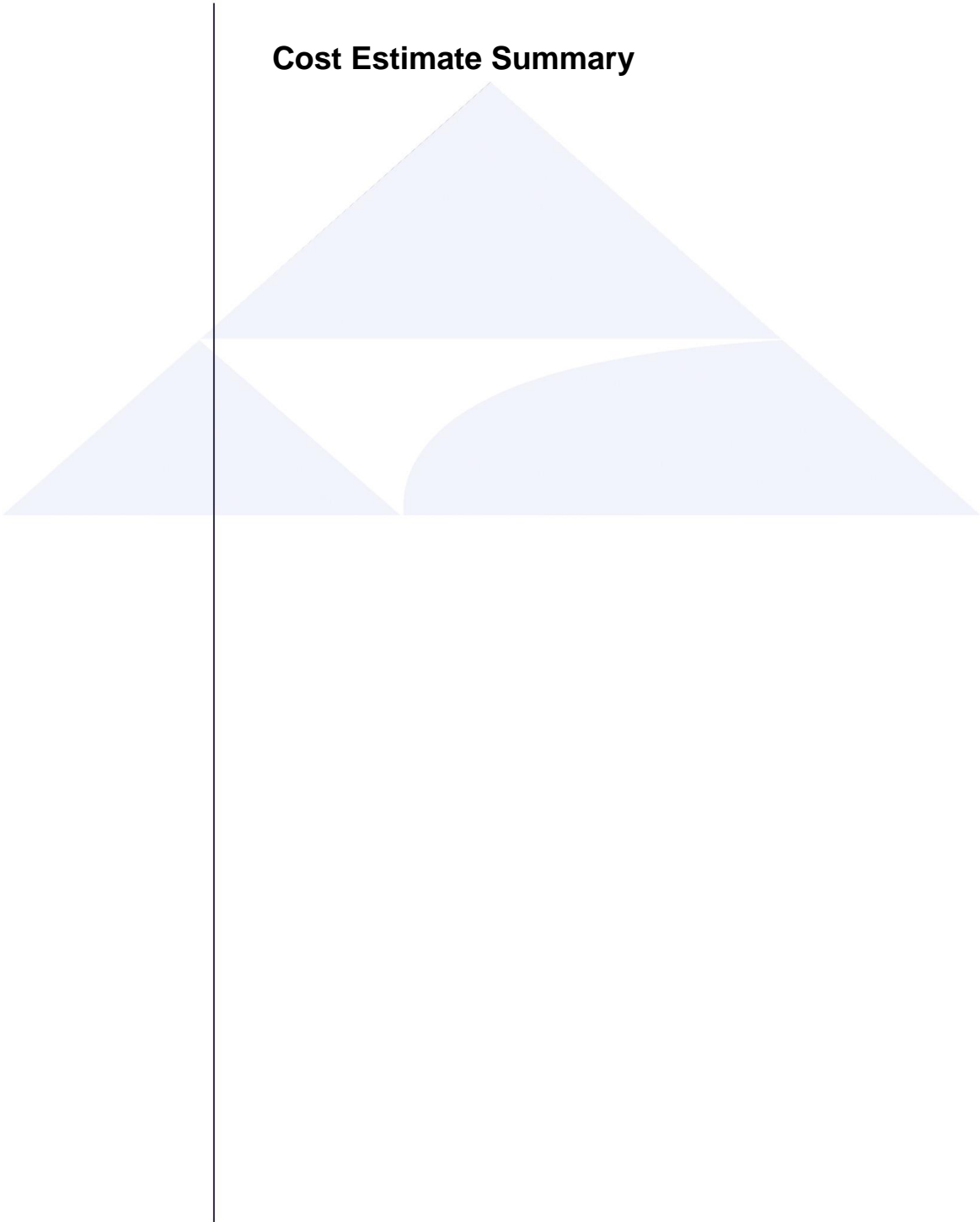
Considering that this estimate is based on concept planning stage development information instead of full detailed design information, we recommend that a more detailed cost plan should be prepared once detailed design is developed including, but not limited to, structural, services, geotechnical, environmental including development consent conditions.

5 Exclusions

1. Land costs and land acquisition costs
2. Interest, finance, legal fees
3. Marketing costs
4. Council Contributions
5. Diversion and amplification of existing services
6. Removal of contaminants and hazardous materials
7. Extreme geotechnical conditions
8. Upgrade and Widening of Constitution Road and Well Street
9. Seawall remediation works
10. Works outside site boundaries
11. Loose fitments and furniture
12. Staging of Development
13. GST
14. Escalation from date of this estimate to actual date of commencement of construction

Appendix A

Cost Estimate Summary



SHEPHERDS BAY URBAN RENEWAL, MEADOWBANK

INDICATIVE ESTIMATE OF CAPITAL INVESTMENT VALUE

	No. of Units/ Element Qty	Element Unit	Total Area (GFA) *	Unit Cost	Total Cost (Excl. GST)	Total Cost (Excl. GST)
			m2			
New Built Elements						
Residential Apartments	2,005	No	245,778	1,950	479,267,100	
Residential and Non-Residential Carparking (Basement)	2,957	No		35,000	103,495,000	
Commercial Spaces			10,003	2,200	22,006,600	
Sub-Total						604,768,700
Demolition & Site Preparation Works						
Demolition of existing buildings (approx. area)	62,562	m2		85	5,317,770	
Sub-Total						5,317,770
Infrastructure						
Civil/ Infrastructure Works per APK/consultants assessment (see attached detailed cost estimate)	1	Item		45,636,170	45,636,170	
Sub-Total						45,636,170
External Works and Landscaping						
External Works/ Open Space Works /Landscaping Incl. Deep Soil Planting	14,000	m2		350	4,900,000	
Sub-Total						4,900,000
Total Construction Cost						660,622,640
Design, Professional & Authorities Fees						
Design, Professional & Authorities Fees (8%)					52,850,000	
Sub-Total						52,850,000
Total GFA			255,781			
Total Estimated Capital Investment Value					713,472,640	713,472,640

Notes:

Preliminaries & Builder's Margin Included

Escalation during construction included

Escalation from date of estimate to actual commencement of construction excluded

* See definitions of GFA in Appendix B

**Shepherds Bay Urban Renewal
Infrastructure and Open Space Works**



Item	Description	Quantity	Unit	Rate	Subtotal	Factor	Total	Total
1	ROADWORKS AND PUBLIC FOOTPATHS							
	Street lighting separately included		Note					
1.1	BELMORE STREET							
	Site preparation including minor cut and fill	1,289	m2	50.00	64,450.00			64,450
	Road pavement complete (assume asphalt pavement)	591	m2	300.00	177,300.00			177,300
	Kerb and gutter	197	m	100.00	19,690.00			19,690
	Footpath (assume RC footpath)	443	m2	110.00	48,745.40			48,745
	Road marking, signage and sundries	591	m2	20.00	11,820.00			11,820
	Grass verge along road	255	m2	65.00	16,605.55			16,606
	Tree incl. tree pit	16	No	1,200.00	19,200.00			19,200
	Subsoil drain under kerb including trench excavation, filter material and backfill	197	m	65.00	12,805.00			12,805
	Gully pit (say each per 30m) and pipe connection to existing main (say 8m long)	8	No	7,500.00	60,000.00			60,000
	Allow for traffic management (10%)	1	Item	43,061.60	43,061.60			43,062
						Sub-total		473,678
1.2	BOWDEN STREET							
	Site preparation including minor cut and fill	2,108	m2	50.00	105,400.00			105,400
	Road pavement complete (assume asphalt pavement)	996	m2	300.00	298,800.00			298,800
	Kerb and gutter	332	m	100.00	33,224.00			33,224
	Footpath (assume RC footpath)	661	m2	110.00	72,734.20			72,734
	Road marking, signage and sundries	996	m2	20.00	19,920.00			19,920
	Grass verge along road	451	m2	65.00	29,335.80			29,336
	Tree incl. tree pit	25	No	1,200.00	30,000.00			30,000
	Subsoil drain under kerb including trench excavation, filter material and backfill	332	m	65.00	21,580.00			21,580
	Gully pit (say each per 30m) and pipe connection to existing main (say 8m long)	11	No	7,500.00	82,500.00			82,500
	Allow for traffic management (10%)	1	Item	69,349.40	69,349.40			69,349
						Sub-total		762,843
1.3	CONSTITUTION ROAD (Footpath, Kerb and Gutter Works Only)							
	Road widening of Constitution Road (assumed by Council)	1	Item					Excl
	Site preparation including minor cut and fill	2,850	m2	50.00	142,500.00			142,500
	Road pavement complete (assume asphalt pavement)	1,257	m2	300.00	377,100.00			377,100
	Kerb and gutter	419	m	100.00	41,864.00			41,864
	Footpath (assume RC footpath)	988	m2	110.00	108,717.40			108,717
	Road marking, signage and sundries	2,991	m2	20.00	59,820.00			59,820
	Installation of left in only (right turn from Constitution banned) at the intersection of Constitution Road and Hamilton Crescent	1	Item					Incl
	Grass verge along road	605	m2	65.00	39,312.65			39,313
	Tree incl. tree pit	35	No	1,200.00	42,000.00			42,000
	Subsoil drain under kerb including trench excavation, filter material and backfill	419	m	65.00	27,211.60			27,212
	Gully pit (say each per 30m) and pipe connection to existing main (say 8m long)	14	No	7,500.00	105,000.00			105,000
	Allow for traffic management (10%)	1	Item	94,352.57	94,352.57			94,353
						Sub-total		1,037,878
1.4	HAMILTON CRESCENT WEST (Roundabout to Constitution Road)							
	Site preparation including minor cut and fill	1,793	m2	25.00	44,825.00			44,825
	Road pavement complete (assume asphalt pavement)	881	m2	300.00	264,177.00			264,177
	Kerb and gutter	373	m	100.00	37,280.00			37,280
	Footpath (assume RC footpath)	414	m2	110.00	45,584.00			45,584
	Road marking, signage and sundries	881	m2	20.00	17,620.00			17,620
	Pedestrian crossing decks including post and footing, approx 3m wide x 2m length	8	No	3,000.00	24,000.00			24,000
	Grass area along road	498	m2	45.00	22,410.00			22,410
	Tree incl. tree pit	19	No	1,200.00	22,800.00			22,800
	Subsoil drain under kerb including trench excavation, filter material and backfill	373	m	65.00	24,245.00			24,245
	Gully pit (say each per 30m) and pipe connection to existing main (say 8m long)	6	No	4,500.00	27,000.00			27,000
	Main stormwater pipe	95	m	650.00	61,750.00			61,750
	Manhole (each per 50m)	2	No	6,000.00	12,000.00			12,000
	Allow for associated retaining walls and earthwork	1	Item	80,000.00	80,000.00			80,000
	Allow for street furniture	1	Item	20,000.00	20,000.00			20,000
	Allow for traffic management to existing road	1	Item	10,000.00	10,000.00			10,000
						Sub-total		713,691
1.5	NANCARROW AVENUE (Roundabout to Belmore Street)							
	Site preparation including minor cut and fill	2,051	m2	25.00	51,275.00			51,275
	Road pavement complete (assume asphalt pavement)	1,252	m2	300.00	375,627.00			375,627
	Kerb and gutter	338	m	100.00	33,840.00			33,840
	Footpath (assume RC footpath)	579	m2	110.00	63,691.10			63,691
	Road marking, signage and sundries	1,252	m2	20.00	25,040.00			25,040
	Grass verge along road	220	m2	65.00	14,288.95			14,289
	Tree incl. tree pit	15	No	1,200.00	18,000.00			18,000
	Subsoil drain under kerb including trench excavation, filter material and backfill	338	m	65.00	21,970.00			21,970
	Gully pit (say each per 30m) and pipe connection to existing main (say 8m long)	5	No	4,500.00	22,500.00			22,500
	Main stormwater pipe	153	m	650.00	99,450.00			99,450
	Manhole (each per 50m)	3	No	6,000.00	18,000.00			18,000
	Retaining walls (say 4m high)	126	m	2,350.00	295,465.50			295,466
	Allow for street furniture	1	Item	20,000.00	20,000.00			20,000
	Allow for traffic management to existing road	1	Item	10,000.00	10,000.00			10,000
						Sub-total		1,069,148
1.6	NANCARROW AVENUE (Roundabout to Bowden Street)							
	Site preparation including minor cut and fill	3,875	m2	25.00	96,875.00			96,875
	Road pavement (assume asphalt pavement)	1,961	m2	300.00	588,252.00			588,252
	Kerb and gutter	537	m	100.00	53,701.00			53,701
	Footpath (assume RC footpath)	1,042	m2	110.00	114,637.60			114,638
	Road marking, signage and sundries	1,961	m2	20.00	39,220.00			39,220
	Grass verge along road	872	m2	65.00	56,666.35			56,666

**Shepherds Bay Urban Renewal
Infrastructure and Open Space Works**



Item	Description	Quantity	Unit	Rate	Subtotal	Factor	Total	Total
	Tree incl. tree pit	32	No	1,200.00	38,400.00		38,400	
	Subsoil drain under kerb including trench excavation, filter material and backfill	537	m	65.00	34,905.00		34,905	
	Gully pit (say each per 30m) and pipe connection to existing main (say 8m long)	8	No	4,500.00	36,000.00		36,000	
	Main stormwater pipe	240	m	650.00	156,000.00		156,000	
	Manhole (each per 50m)	5	No	6,000.00	30,000.00		30,000	
	Allow for street furniture	1	Item	28,000.00	28,000.00		28,000	
	Allow for traffic management to existing road	1	Item	10,000.00	10,000.00		10,000	
						Sub-total	1,282,657	
1.7	NANCARROW AVENUE (Roundabout)							
	Round about works complete	1	Item	450,000.00	450,000.00		450,000	
	Road pavement (assume asphalt pavement)	412	m2	0.00	0.00		Incl.	
	Kerb and gutter	77	m	0.00	0.00		Incl.	
	Road marking, signage and sundries	412	m2	0.00	0.00		Incl.	
	Subsoil drain under kerb including trench excavation, filter material and backfill	77	m	0.00	0.00		Incl.	
	Gully pit and pipe connection to new main (say 30m per no and each 8m long)	6	No	0.00	0.00		Incl.	
	Main stormwater pipe	23	m	0.00	0.00		Incl.	
	Manhole (50m per no)	1	No	0.00	0.00		Incl.	
	Allow for traffic management	1	Item	0.00	0.00		Incl.	
						Sub-total	450,000	
1.8	ROTHESAY AVENUE (to Belmore Street)							
	Site preparation including minor cut and fill	2,877	m2	25.00	71,925.00		71,925	
	Road pavement comprising Porphyry stone with 30mm mortar bedding on, laid on 180mm reinforced concrete pavement and 100mm compacted thickness fine crushed rock base	1,834	m2	500.00	916,995.00		916,995	
	Kerb and gutter	484	m	100.00	48,353.00		48,353	
	Footpath/cycle track	765	m2	110.00	84,170.90		84,171	
	Road marking, signage and sundries	1,834	m2	20.00	36,680.00		36,680	
	Grass verge along road	278	m2	65.00	18,068.70		18,069	
	Footpath (assume RC footpath)	16	No	350.00	5,600.00		5,600	
	Subsoil drain under kerb including trench excavation, filter material and backfill	484	m	65.00	31,460.00		31,460	
	Gully pit (say each per 30m) and pipe connection to existing main (say 8m long)	10	No	4,500.00	45,000.00		45,000	
	Main stormwater pipe	160	m	650.00	104,000.00		104,000	
	Manhole (each per 50m)	3	No	6,000.00	18,000.00		18,000	
	Allow for street furniture	1	Item	20,000.00	20,000.00		20,000	
	Allow for traffic management to existing road (assume not required)	1	Item		0.00		Excl.	
						Sub-total	1,400,253	
1.9	ELIMINATION OF ON-SITE PARKING							
	Allow for elimination of on-site parking in Belmore Street and Parsonage Street between Rothsay Avenue and Porter Street including signage and road marking modification works, barrier, etc (assume retain existing kerb line)	1	Item	80,000.00	80,000.00		80,000	
						Sub-total	80,000	
1.10	LOOP ROAD INTO PORTER STREET							
	Allow for banning of the right turn movement from the Loop Road into Porter Street including signage and road marking modification works, barrier, etc	1	Item	30,000.00	30,000.00		30,000	
						Sub-total	30,000	
1.11	ROTHESAY AVENUE (to Bowden Street under 146 Bowden Street development) - By others							
1.12	WELL STREET ROAD WIDENING - By others							
1.12.1	Street Lighting to Belmore Street, Bowden Street, Constitution Road and Formal Entry							
	Street lighting for Nancarrow Avenue, Rothesay Avenue and part Bowden Street separately included in Electrical Services budget		Note					
1.12.2	BELMORE STREET							
	Street lighting (cable, conduit and pit)	210	m		0.00		Assume existing	
	Street lighting pole (say 20m per pole)	10	No		0.00		Assume existing	
						Sub-total	0	
1.12.3	BOWDEN STREET							
	Street lighting (cable, conduit and pit) (incl electrical budget)	240	m		0.00		Included	
	Street lighting (cable, conduit and pit)	105	m	650.00	68,250.00		68,250	
	Street lighting pole	3	No	15,000.00	45,000.00		45,000	
						Sub-total	113,250	
1.12.4	CONSTITUTION ROAD							
	Street lighting (cable, conduit and pit)	440	m	650.00	286,000.00		286,000	
	Street lighting pole	15	No	15,000.00	225,000.00		225,000	
						Sub-total	511,000	
1.12.5	HAMILTON CRESCENT WEST (FORMAL ENTRY)							
	Street lighting (cable, conduit and pit)	180	m	650.00	117,000.00		117,000	
	Street lighting pole	4	No	15,000.00	60,000.00		60,000	
						Sub-total	177,000	
	TOTAL ROADWORKS AND PUBLIC FOOTPATHS				8,101,397.26			8,101,397
2	PUBLIC OPENSOURCE WORKS							
2.1	UPPER RIPARIAN FORESHORE AND PEDESTRIAN SPINE NORTH							
	Site preparation including minor cut and fill	3,678	m2	50.00	183,885.00		183,885	
	Pedestrian axis	841	m2	150.00	126,123.00		126,123	
	Extra over for stairs	3	No	10,000.00	30,000.00		30,000	
	Riparian water body including landscape	287	m2	1,000.00	286,640.00		286,640	
	Water surrounding building edge pool	85	m2	1,000.00	84,930.00		84,930	
	Allowance for pump, equipment, pipework and accessories for water feature	1	Item	50,000.00	50,000.00		50,000	
	Pedestrian bridge including post and footing	144	m2	1,200.00	173,376.00		173,376	
	Dry creek/riparian zone	126	m2	650.00	81,737.50		81,738	
	Deep soil zone including planting	1,190	m2	400.00	476,000.00		476,000	

**Shepherds Bay Urban Renewal
Infrastructure and Open Space Works**



Item	Description	Quantity	Unit	Rate	Subtotal	Factor	Total	Total
	Open lawn (part deep soil zone)	620	m2	250.00	154,917.50			154,918
	Stepping stones set in turf	68	m2	300.00	20,493.00			20,493
	Private open space	385	m2					Excl.
	Sculptural public art	1	No	10,000.00	10,000.00			10,000
	Allowance for retaining walls	1	Item	40,000.00	40,000.00			40,000
	Allowance for street furniture/playground equipment	1	Item	50,000.00	50,000.00			50,000
	Allowance for stormwater	3,678	m2	40.00	147,120.00			147,120
	Allowance for irrigation	1,878	m2	18.00	33,804.00			33,804
	Allowance for lighting (measured length of path)	246	m	1,200.00	295,200.00			295,200
						Sub-total		2,244,226
2.2	LOWER RIPARIAN FORESHORE AND PEDESTRIAN SPINE SOUTH							
	Site preparation including minor cut and fill	6,191	m2	50.00	309,569.00			309,569
	Pedestrian axis	2,259	m2	150.00	338,869.50			338,870
	Extra over for stairs	4	No	10,000.00	40,000.00			40,000
	Riparian water body including landscape	245	m2	1,000.00	245,370.00			245,370
	Pedestrian bridge including post and footing	175	m2	1,200.00	209,748.00			209,748
	Water feature path	85	m2	800.00	68,032.00			68,032
	Allowance for pump, equipment, pipework and accessories for water feature path	1	Item	50,000.00	50,000.00			50,000
	Dry creek/riparian zone	493	m2	650.00	320,443.50			320,444
	Deep soil zone including planting	1,253	m2	400.00	501,200.00			501,200
	Open lawn (part deep soil zone)	1,332	m2	250.00	332,902.50			332,903
	Planter wall with seating edge (say 1m high)	47	m	650.00	30,550.00			30,550
	Private open space	349	m2					Excl.
	Sculptural public art	2	No	20,000.00	40,000.00			40,000
	Allowance for retaining walls	130	m	1,800.00	234,000.00			234,000
	Allowance for sundries walls	1	Item	20,000.00	20,000.00			20,000
	Allowance for street furniture/playground equipment	1	Item	60,000.00	60,000.00			60,000
	Allowance for stormwater	6,191	m2	40.00	247,640.00			247,640
	Allowance for irrigation	2,934	m2	18.00	52,812.00			52,812
	Allowance for lighting (measured length of path)	185	m	1,200.00	222,000.00			222,000
						Sub-total		3,323,137
2.3	UPPER EASTERN PEDESTRIAN LINK							
	Site preparation including minor cut and fill	2,973	m2	50.00	148,647.50			148,648
	Formal pathway with feature paving	753	m2	320.00	240,908.80			240,909
	Extra over for stairs	2	No	10,000.00	20,000.00			20,000
	Central water feature pool	102	m2	1,000.00	102,100.00			102,100
	Allowance for pump, equipment, pipework and accessories for bubble jets	1	Item	50,000.00	50,000.00			50,000
	Deep soil zone including planting	572	m2	400.00	228,800.00			228,800
	Open lawn (part deep soil zone)	62	m2	250.00	15,600.00			15,600
	Raised planter beds	574	m2	400.00	229,624.00			229,624
	Planter wall with seating edge (say 1m high)	196	m	650.00	127,263.50			127,264
	Private open space	910	m2					Excl.
	Allowance for retaining walls	1	Item	30,000.00	30,000.00			30,000
	Allowance for street furniture/playground equipment	1	Item	35,000.00	35,000.00			35,000
	Allowance for stormwater	2,973	m2	40.00	118,920.00			118,920
	Allowance for irrigation	1,208	m2	18.00	21,744.00			21,744
	Allowance for lighting (measured length of path)	91	m	1,200.00	109,200.00			109,200
						Sub-total		1,477,808
2.4	CENTRAL SPINE, CENTRAL FORESHORE PLAZA AND UPPER LEVEL PUBLIC SQUARE							
	Site preparation including minor cut and fill	5,007	m2	50.00	250,351.50			250,352
	Pedestrian path with feature paving	3,222	m2	525.00	1,691,550.00			1,691,550
	Extra over for steps	221	m2	2,000.00	442,740.00			442,740
	Market plaza space with feature paving	240	m2	525.00	125,800.50			125,801
	Timber terrace with siting edge	196	m2	600.00	117,390.00			117,390
	Central feature water path pool	76	m2	1,000.00	75,940.00			75,940
	Allowance for pump, equipment, pipework and accessories for bubble jets	1	Item	50,000.00	50,000.00			50,000
	Main axis water feature with bubble jets (3 nos)	30	m2	1,000.00	29,710.00			29,710
	Allowance for pump, equipment, pipework and accessories for bubble jets	1	Item	50,000.00	50,000.00			50,000
	Linear water channel and wall with bubble jets, approx 19m long x 4m high (plan area measured)	88	m2	1,700.00	150,416.00			150,416
	Allowance for pump, equipment, pipework and accessories for bubble jets	1	Item	50,000.00	50,000.00			50,000
	Water feature pop jet and interactive play	23	m2	1,000.00	23,180.00			23,180
	Allowance for pump, equipment, pipework and accessories for bubble jets	1	Item	30,000.00	30,000.00			30,000
	Screen planting	278	m2	400.00	111,328.00			111,328
	Level turf space	175	m2	120.00	21,018.00			21,018
	Green wall against building	21	m	500.00	10,455.00			10,455
	Raised shrub beds with specimen tree planting to creat avenue	436	m2	400.00	174,360.00			174,360
	Planter wall with seating edge (say 1m high)	98	m	650.00	63,531.00			63,531
	Tree including individual tree bed (public area)	35	No	1,200.00	42,000.00			42,000
	Allow for sundry soft landscaping	1	Item	40,000.00	40,000.00			40,000
	Private open space	243	m2					Excl.
	Bollards (Upper level public square)	81	No	600.00	48,600.00			48,600
	Sculptural public art	1	No	40,000.00	40,000.00			40,000
	Retaining walls (say 3m high)	57	m	1,800.00	102,312.00			102,312
	Allowance for sundry retaining walls	1	Item	20,000.00	20,000.00			20,000
	Allowance for street furniture/playground equipment	1	Item	60,000.00	60,000.00			60,000
	Allowance for stormwater	5,007	m2	40.00	200,280.00			200,280
	Allowance for irrigation	889	m2	18.00	16,002.00			16,002
	Vertical lighting columns including cable and conduit	12	No	5,000.00	60,000.00			60,000
	Allowance for lighting (measured length of path)	103	m	1,800.00	185,400.00			185,400
						Sub-total		4,282,364
2.5	LOWER EASTERN PEDESTRIAN LINK (STAGE 1)							
	Site preparation including minor cut and fill	1,958	m2	50.00	97,891.50			97,892
	Pedestrian path	916	m2	320.00	293,120.00			293,120
	Extra over for steps and access ramps	174	m2	1,080.00	188,319.60			188,320
	Pedestrian bridge including post and footing	5	m2	1,200.00	6,276.00			6,276

**Shepherds Bay Urban Renewal
Infrastructure and Open Space Works**



Item	Description	Quantity	Unit	Rate	Subtotal	Factor	Total	Total
	Linear water channel and wall with bubble jets, approx 9m long x 2m high (plan area measured)	60	m2	1,200.00	72,372.00		72,372	
	Allowance for pump, equipment, pipework and accessories for bubble jets	1	Item	40,000.00	40,000.00		40,000	
	Raised planter beds	982	m2	400.00	392,880.00		392,880	
	Planter wall with seating edge (say 1m high)	467	m	650.00	303,745.00		303,745	
	Allowance for retaining walls	1	Item	20,000.00	20,000.00		20,000	
	Allowance for street furniture/playground equipment	1	Item	20,000.00	20,000.00		20,000	
	Allowance for stormwater	1,958	m2	40.00	78,320.00		78,320	
	Allowance for irrigation	982	m2	18.00	17,676.00		17,676	
	Allowance for lighting (measured length of path)	96	m	1,200.00	115,200.00		115,200	
						Sub-total	1,645,800	
	TOTAL PUBLIC OPENSOURCE WORKS				12,973,334.40			12,973,334
3	SERVICE INFRASTRUCTURE							
3.1	Hydraulic (Estimate cost per Floth)							
	Water Services	1	Item	1,075,635.00	1,075,635.00		1,075,635	
	Sewer Drainage	1	Item	1,184,815.00	1,184,815.00		1,184,815	
	Gas Services	1	Item	505,302.00	505,302.00		505,302	
	Associated builders works	1	Item	200,000.00	200,000.00		200,000	
	Developer Contribution	1	Item	500,000.00	500,000.00		500,000	
	Contingency (10%)	1	Item	346,575.20	346,575.20		346,575	
						Sub-total	3,812,327	
	Say \$3,850,000				37,673		37,673	
						Total	3,850,000	
3.2	Electrical and Comms (Estimated cost per Floth)							
	HV/LV Conduits & Street Lights	1	Item	1,526,262.20	1,526,262.20		1,526,262	
	HV Mains	1	Item	355,047.00	355,047.00		355,047	
	Comms Conduits	1	Item	413,082.00	413,082.00		413,082	
	HV Feeders from Zone Substation	1	Item	5,300,000.00	5,300,000.00		5,300,000	
	Associated builders works	1	Item	350,000.00	350,000.00		350,000	
						Sub-total	7,944,391	
	Say \$8,000,000				55,609		55,609	
						Total	8,000,000	
3.3	Stormwater Services							
	Allowance for Stormwater Services Amplifications	1	Item	1,500,000.00	1,500,000.00		1,500,000	
						Total	1,500,000	
	TOTAL SERVICE INFRASTRUCTURE				13,350,000.00			13,350,000
4	FLOOD PATH AND TRUNK DRAINAGE (EXCLUDING UPSTREAM WORKS AT CONSTITUTION ROAD AND BEYOND)							
4.1	Trunk Drainage Estimate							
	Connection to existing surface inlet pit in Ann Thron Park	1	Item	25,000.00	25,000.00		25,000	
	Connection existing street drainage network to proposed trunk drainage	1	Item	25,000.00	25,000.00		25,000	
	Connection to existing box culvert including demolish existing headwall	1	No	50,000.00	50,000.00		50,000	
	Existing oil pipeline prior for construction							
	Allow for verified the oil pipeline prior for construction	1	Item	2,000.00	2,000.00		2,000	
	Allow for upholding and support existing pipeline	1	Item	20,000.00	20,000.00		20,000	
	Outlet to Parramatta River (including remove existing seawall, new seawall, outlet and modification)							
	Remove existing seawall	1	Item	80,000.00	80,000.00		80,000	
	New outlet (pipe measured separately)	1	Item	50,000.00	50,000.00		50,000	
	New seawall	1	Item	100,000.00	100,000.00		100,000	
	Proposed Stormwater Pits							
	TD2 & TD4 - internal chamber 900 x 3600mm	2	No	40,000.00	80,000.00		80,000	
	TD3 - internal chamber 900 x 3000mm	1	No	38,000.00	38,000.00		38,000	
	TD5 - internal chamber 3000 x 3000mm	1	No	59,000.00	59,000.00		59,000	
	TD6 - internal chamber 1500 x 4100mm	1	No	54,000.00	54,000.00		54,000	
	Gross pollutant trap and overflow chamber	1	No	100,000.00	100,000.00		100,000	
	Proposed stormwater pipe and depth not exceeding 4.0m depth							
	2100 RCP class 3 (Constitution Road) (measured separately)	41	m			Included in below		
	2250 RCP class 3	97	m	6,600.00	640,200.00		640,200	
	2250 RCP class 3 (Nancarrow Avenue) (measured separately)	7	m			Included in below		
	2400 RCP class 3	130	m	7,100.00	923,000.00		923,000	
	3.2 x 1.2m box culvert	21	m	9,000.00	189,000.00		189,000	
	3.2 x 1.2m box culvert (BG&E design)	50	m	9,000.00	450,000.00		450,000	
	Proposed emergency overland flow path	353	m	200.00	70,600.00		70,600	
						Sub-total	2,955,800	
	Allow for traffic management 10%	1	Item	295,580.00	295,580.00		295,580	
	Allow for preliminaries and margin 20%	1	Item	650,276.00	650,276.00		650,276	
	Allow for contingency 10%	1	Item		0.00	Separately Included		
	Allow for design and professional fees 8%	1	Item		0.00	Separately Included		
						Total	3,901,656	
4.2	ALLOWANCE FOR BORING AND TUNNELLING WORKS							
	Pipework including boring /tunnelling under Constitution Road for trunk drain work							
	2100RCP class 3 (included in above)	41	m	6,400.00	262,400.00		262,400	
	Allow for pit for both end for boring/tunnelling	2	No	40,000.00	80,000.00		80,000	
	Allow for boring and tunnelling including support and upholding utilities	41	m	14,000.00	574,000.00		574,000	
	Allow for service division	1	Item	102,500.00	102,500.00		102,500	
	Pipework including boring /tunnelling under Nancarrow Avenue for trunk drain work							
	2250RCP class 3 (included in above)	7	m	6,400.00	44,800.00		44,800	
	Allow for pit for both end for boring/tunnelling	2	No	40,000.00	80,000.00		80,000	
	Allow for boring and tunnelling including support and upholding utilities	7	m	14,000.00	98,000.00		98,000	
	Allow for service division	1	Item	17,500.00	17,500.00		17,500	
						Sub-total	1,259,200	
	Allow for traffic management (assumed not required)	1	Item	0.00	0.00		0	
	Allow for preliminaries and margin 20%	1	Item	251,840.00	251,840.00		251,840	
	Allow for contingency (10%)	1	Item		0.00	Separately Included		
	Allow for design and professional fees 8%	1	Item		0.00	Separately Included		
						Total	1,511,040	

**Shepherds Bay Urban Renewal
Infrastructure and Open Space Works**



Item	Description	Quantity	Unit	Rate	Subtotal	Factor	Total	Total
	TOTAL FLOOD PATH AND TRUNK DRAINAGE (EXCLUDING UPSTREAM WORKS AT CONSTITUTION ROAD AND BEYOND)				5,412,696.00			5,412,696
5	TRAFFIC SIGNALS							
	Allow for traffic signals at the intersection of Constitution Road and Bowden Street including excavation, conduit, cable, pits, post, traffic light, traffic management, etc	1	item	600,000.00	600,000.00		600,000	
	Allow for traffic signals at the intersection of Belmore Street and Nancarrow Avenue including excavation, conduit, cable, pits, post, traffic light, traffic management, etc	1	item	500,000.00	500,000.00		500,000	
	Allow for traffic signals at the intersection of Parsonage Street, Porter Street and Loop Road including excavation, conduit, cable, pits, post, traffic light, traffic management, etc	1	item	550,000.00	550,000.00		550,000	
	TOTAL TRAFFIC SIGNALS				1,650,000.00			1,650,000
					Sub-total			41,487,428
	Contingency (10%)							4,148,743
	Design & Professional Fees							<u>Separately Included</u>
					Total Cost (excl GST)			45,636,170
	EXCLUSIONS:							
	Land Costs, Finance and Interest							
	Authorities Fees, DA and CC Costs							
	Design and Professional Fees							
	Legal fees							
	Archeological and heritage conservation assessment and works							
	Contribution and charges							
	Hard and soft landscape works within landscaped podiums							
	Constitution Road Regarding (assume Council will reconstruct road to meet new development levels)							
	Widening of Constitution Road and Well Street							
	Foreshore landscaping outside site boundaries							
	Flood strategy works upstream of Constitution Road							
	Carbon tax impact							
	Escalation from date of estimate to actual date of commencement of works							
	GST							

Appendix B

Definitions of Areas

The term **Gross Floor Area (GFA)** used in this document is the sum of the “Fully Enclosed Covered Area” and “Unenclosed Covered Area” as defined below.

Fully Enclosed Covered Area (FECA)

The sum of all such areas at all building floor levels, including basements (except unexcavated portions), floored roof spaces and attics, garages, penthouses, enclosed porches and attached enclosed covered ways alongside buildings, equipment rooms, lift shafts, vertical ducts, staircases and any other fully enclosed spaces and usable areas of the building, computed by measuring from the normal inside face of exterior walls but ignoring any projections such as plinths, columns, piers and the like which project from the normal inside face of exterior walls.

It shall not include open courts, light wells, connecting or isolated covered ways and net open areas of upper portions of rooms, lobbies, halls, interstitial spaces and the like which extend through the storey being computed.

Unenclosed Covered Area (UCA)

The sum of all such areas at all building floor levels, including roofed balconies, open verandahs, porches and porticos, attached open covered ways alongside buildings, undercrofts and usable space under buildings, unenclosed access galleries (including ground floor) and any other trafficable covered areas of the building which are not totally enclosed by full height walls, computed by measuring the areas between the enclosing walls or balustrade (ie from the inside face of the UCA excluding the wall or balustrade thickness). When the covering element (ie roof or upper floor) is supported by columns, is cantilevered or is suspended, or any combination of these, the measurements shall be taken to the edge of the paving or the edge of the cover, whichever is the lesser.

UCA shall not include eaves overhangs, sun shading, awnings and the like where these do not relate to clearly defined trafficable covered areas, nor shall it include connecting or isolated covered ways which are elements of external works or outbuildings.

The definitions of FECA and UCA above are consistent with the definitions in the Australian Cost Management Manual published by the Australian Institute of Quantity Surveyors.

It should be noted that local councils or authorities may adopt other definitions for Gross Floor Area for the purposes of floor space ratio calculations or the likes.