

Menangle Park Contributions Plan 2020



APPENDIX A

WORKS COST PLAN

**MENANGLE PARK URBAN
RELEASE AREA COST PLAN
VERIFICATION FOR
CONTRIBUTIONS PLAN**

URBANGROWTH

October 2016



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APPENDIX A ESTIMATES



1 CONTACT

DETAIL	DESCRIPTION
NAME OF COMPANY/TRADING NAME	WTP Australia Pty Ltd
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00	5 October 2016	Final
01	7 October 2016	Final
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2 COMPLETED WORKS SCHEDULE COSTS

Table A. Community Facilities

Plan Ref. (Fig 3)	Facility	(a)	(b)	Subtotal	Preliminaries, Margin, Professional Fees, LSL etc	Plans of Management and Env Approvals	Project Management	Project contingency	Estimated total cost	Notes
		Quantity	Rate							
	Works									
	Community Centre									
	facility	500m2	\$4,040 /m2	2,019,860	371,000	41,000	61,000	250,000	2,742,860	
	parking allowance	847m2	\$173 /m2	146,642	27,000	3,000	5,000	19,000	200,642	
C1.1(b)	half road frontage	72m	\$1,600 /m	115,008	17,000	3,000	4,000	14,000	153,008	Half road width adopted as +8.7m wide
	Other									
C1.1(d)	half road frontage	108m	\$1,600 /m	172,512	25,000	4,000	6,000	21,000	228,512	Half road width adopted as +8.7m wide
	Sub-total			2,454,022	440,000	51,000	76,000	304,000	3,325,022	
	Total									

Table B. Open Space and Recreation

(a) (b)

Plan Ref. (Fig 4)	Facility	Quantity	Rate	Subtotal	Preliminaries, Margin, Professional Fees, LSL etc	Plans of Management and Env Approvals	Project Management	Project contingency	Estimated total cost	Notes
	Works									
	Local Parks									
O1.1(a)	Local OS	1	759,514	759,514	109,000	16,000	23,000	91,000	998,514	
O1.1(b)	OS half road frontage	340m	\$1,600 /m	544,000	79,000	11,000	17,000	66,000	717,000	Half road width adopted as +8.7m wide
O1.2(a)	Local OS	1	695,166	695,166	100,000	14,000	21,000	84,000	914,166	
O1.2(b)	OS half road frontage	387m	\$1,600 /m	619,200	89,000	13,000	19,000	75,000	815,200	Half road width adopted as +8.7m wide
O1.3(a)	Local OS	1	73,807	73,807	11,000	2,000	3,000	9,000	98,807	
O1.3(b)	OS half road frontage	202m	\$1,600 /m	323,200	47,000	7,000	10,000	39,000	426,200	Half road width adopted as +8.7m wide
O1.4(a)	Local OS	1	360,960	360,960	52,000	8,000	11,000	44,000	475,960	
O1.4(b)	OS half road frontage	188m	\$1,600 /m	300,800	44,000	7,000	10,000	37,000	398,800	Half road width adopted as +8.7m wide
	District Parks									
O1.5(a)	District OS	1	2,574,610	2,574,610	370,000	52,000	78,000	308,000	3,382,610	
O1.5(b)	OS half road frontage	1466m	\$1,600 /m	2,345,600	337,000	47,000	71,000	281,000	3,081,600	Half road width adopted as +8.7m wide

Table B. Open Space and Recreation – Cont.

		(a)	(b)							
Plan Ref. (Fig 4)	Facility	Quantity	Rate	Subtotal	Preliminaries, Margin, Professional Fees, LSL etc	Plans of Management and Env Approvals	Project Management	Project contingency	Estimated total cost	Notes
O1.6(a)	District OS	1	10,184,254	10,184,254	1,462,000	204,000	306,000	1,216,000	13,372,254	
O1.6(b)	OS half road frontage	2063m	\$1,600 /m	3,300,800	474,000	67,000	100,000	395,000	4,336,800	Half road width adopted as +8.7m wide
O1.7(a)	District OS	1	1,647,296	1,647,296	237,000	33,000	50,000	197,000	2,164,296	
O1.7(b)	OS half road frontage	276m	\$1,600 /m	441,600	64,000	9,000	14,000	53,000	581,600	Half road width adopted as +8.7m wide
	Sportsground									
O1.8 (a)	Playing Fields	1	6,817,547	6,817,547	979,000	137,000	205,000	814,000	8,952,547	
	Car Park	2281m2	\$173 /m2	394,911	73,000	8,000	12,000	49,000	536,911	
	Amenities Building	213m2	\$2,712 /m2	577,738	107,000	12,000	18,000	72,000	786,738	
	Sub-total			31,961,004	4,634,000	647,000	968,000	3,830,000	42,040,004	
	Total									



Table C. Traffic and Transport

(a) (b)

Plan Ref. (Fig 7)	Facility	Quantity	Rate	Subtotal	Preliminaries, Margin, Professional Fees, LSL etc	Plans of Management and Env Approvals	Project Management	Project contingency	Estimated total cost	Notes
	Works									
	<i>Spring Farm Parkway</i>									
T1.1	Stage 1 (CH5300 to Menangle Road Intersection)									
	Collector North - M5 ramps (CH5430.404-5750)									
	- earthworks	1	1,490,262	1,490,262	424,490		160,119	465,747	2,540,618	
	- dual carriageway	1	3,879,279	3,879,279	1,104,985		416,803	1,212,378	6,613,445	
	- bridges	1	included	included	included	included	included	included	included	
	M5 Ramps to Menangle Road (CH6040-6125)									
	- earthworks	1	851,309	851,309	242,489		91,468	265,208	1,450,474	
	- dual carriageway	1	1,700,673	1,700,673	484,425		182,726	529,810	2,897,634	
	M5 bridge and ramps (CH5750-6040)									
	- bridge	1	6,880,000	6,880,000	1,959,719		739,211	1,911,466	11,490,395	
	- ramps and intersection	1	20,904,412	20,904,412	5,954,472		2,246,041	5,807,859	34,912,784	
	Intersections									
	-Collector and parkway (CH5300-5430)	1	2,498,281	2,498,281	711,617		268,424	755,228	4,233,549	
	Spring Farm Parkway and Menangle Road (SFP CH 6125 to CH6200, MR CH0.00-800)	1	18,230,139	18,230,139	5,192,724		1,958,709	5,573,478	30,955,050	

Table C. Traffic and Transport – Cont.

(a) (b)

Plan Ref. (Fig 7)	Facility	Quantity	Rate	Subtotal	Preliminaries, Margin, Professional Fees, LSL etc	Plans of Management and Env Approvals	Project Management	Project contingency	Estimated total cost	Notes
T1.2	Stage 2 (CH3407.436 to CH5300)									
	- earthworks	1	45,315,166	45,315,166	13,743,622		4,853,546	15,072,764	78,985,098	
	- dual carriageway (including intersections CH2750 and CH4350)	1	20,936,904	20,936,904	6,349,946		2,242,477	6,964,048	36,493,376	
	- bridges over Main southern rail corridor and creekline	1	10,633,800	10,633,800	4,248,724		1,500,433	4,659,617	21,042,574	
	Road Upgrade Works									
	Menangle Road Widening - 2 lane duplication from CH1060 to Gilchrist Drive intersection	1	9,925,284	9,925,284	1,425,000	199,000	298,000	1,185,000	13,032,284	
	Menangle Rd and Glenlee Rd intersection MR CH800-CH1341.956	1	included	included	included	included	included	included	included	included in Spring Farm Parkway and Menangle Road (SFP CH 6125 to CH6200, MR CH0.00-800)
	Menangle Rd/Cummins Rd intersection	1	1,752,084	1,752,084	252,000	36,000	53,000	210,000	2,303,084	
	Menangle Rd / Collector road intersections	1	727,150	727,150	105,000	15,000	22,000	87,000	956,150	
	Collector Roads									
	standard	6,829 m	1,256	8,577,224	1,231,000	172,000	258,000	1,024,000	11,262,224	

Table C. Traffic and Transport – Cont.

(a) (b)

Plan Ref. (Fig 7)	Facility	Quantity	Rate	Subtotal	Preliminaries, Margin, Professional Fees, LSL etc	Plans of Management and Env Approvals	Project Management	Project contingency	Estimated total cost	Notes
	non busroute	3,214 m	1,187	3,815,018	548,000	77,000	115,000	456,000	5,011,018	Upgrade from local (9.6m pavement) to collector (11.0m pavement)
	Bridge over Howes Creek	1613	2,482	4,002,727	575,000	81,000	121,000	478,000	5,257,727	
	Bridge over OS5	921	2,482	2,285,500	328,000	46,000	69,000	273,000	3,001,500	
	Cycleways									
	Menangle Road									
	- in road reserve	5,500	249	1,371,196	197,000	28,000	42,000	164,000	1,802,196	
	- M5 bridge augmentation	120	24,931	2,991,701	430,000	60,000	90,000	358,000	3,929,701	
	Collector Roads									
	- in road reserve	8,724	179	1,560,740	224,000	32,000	47,000	187,000	2,050,740	
	- Mark Evans bridge augmentation	324	7,104	2,301,740	331,000	47,000	70,000	275,000	3,024,740	
	Playing Fields link	740	249	184,488	27,000	4,000	6,000	23,000	244,488	
	Spring Farm Parkway									
	- Spur line to Collector North (m)	1,799	139	249,170	36,000	5,000	8,000	30,000	328,170	
	- Collector North to M5 Ramps (m)	415	139	57,479	9,000	2,000	2,000	8,000	78,479	
	- M5 Ramps to Menangle Road (m)	274	139	37,950	6,000	1,000	2,000	5,000	51,950	



Table C. Traffic and Transport - Cont.

(a) (b)

Plan Ref. (Fig 7)	Facility	Quantity	Rate	Subtotal	Preliminaries, Margin, Professional Fees, LSL etc	Plans of Management and Env Approvals	Project Management	Project contingency	Estimated total cost	Notes
	<i>Miscellaneous</i>									
	Bus Stops Shelter	12	17,313	207,757	30,000	5,000	7,000	25,000	274,757	
	Bus Stops Non Shelter	12	3,116	37,396	6,000	1,000	2,000	5,000	51,396	
	Menangle Park Station Cycle Parking	1	5,771	5,771	1,000	1,000	1,000	1,000	9,771	
	Sub-total			173,410,601	46,178,213	812,000	15,872,956	48,011,604	284,285,373	
	Total									

Table D. Trunk Drainage and Water Quality

(a) (b)

Plan Ref (Fig 5)	Facility	Quantity	Rate	Subtotal	Preliminaries, Margin, Professional Fees, LSL etc	Plans of Management and Env Approvals	Project Management	Project contingency	Estimated total cost	Notes
	Works									
	Basin 7									
D1.1(a)	detention facility - civils	1	760,621	760,621	110,000	16,000	23,000	91,000	1,000,621	
D1.1(a)	detention facility - landscaping	1	1,641,415	1,641,415	236,000	33,000	50,000	197,000	2,157,415	
D1.1(b)	half road frontage	498m	\$1,600 /m	796,800	115,000	16,000	24,000	96,000	1,047,800	Half road width adopted as +8.7m wide
	Basin 8									
D1.2(a)	detention facility - civils	1	1,144,972	1,144,972	165,000	23,000	35,000	137,000	1,504,972	
D1.2(a)	detention facility - landscaping	1	1,509,107	1,509,107	217,000	31,000	46,000	181,000	1,984,107	
D1.2(b)	half road frontage	480m	\$1,600 /m	768,000	111,000	16,000	24,000	92,000	1,011,000	Half road width adopted as +8.7m wide
	Basin 13									
D1.3(a)	detention facility - civils	1	813,715	813,715	117,000	17,000	25,000	98,000	1,070,715	
D1.3(a)	detention facility - landscaping	1	802,414	802,414	116,000	17,000	25,000	97,000	1,057,414	
D1.3(b)	half road frontage	150m	\$1,600 /m	240,000	35,000	5,000	8,000	29,000	317,000	Half road width adopted as +8.7m wide
	Trunk Drainage									
D1.20	civils and landscaping	1	1,949,238	1,949,238	280,000	39,000	59,000	233,000	2,560,238	

Table D. Trunk Drainage and Water Quality - Cont.

(a) (b)

Plan Ref (Fig 5)	Facility	Quantity	Rate	Subtotal	Preliminaries, Margin, Professional Fees, LSL etc	Plans of Management and Env Approvals	Project Management	Project contingency	Estimated total cost	Notes
	Wetlands									
D1.4	Wetland riparian corridor	7700m2	\$47 /m2	364,383	53,000	8,000	11,000	44,000	480,383	
D1.7	Wetland riparian corridor	5250m2	\$47 /m2	248,443	36,000	5,000	8,000	30,000	327,443	
D1.10	Wetland riparian corridor	1670m2	\$47 /m2	79,028	12,000	2,000	3,000	10,000	106,028	
D1.11	Wetland riparian corridor	1080m2	\$47 /m2	51,108	8,000	2,000	2,000	7,000	70,108	
D1.12	Wetland riparian corridor	1010m2	\$47 /m2	47,796	7,000	1,000	2,000	6,000	63,796	
	Bioretention & stabilisation									
D1.17	Bio retention	1	457,816	457,816	66,000	10,000	14,000	55,000	602,816	
D1.18	Bio retention	1	928,247	928,247	134,000	19,000	28,000	111,000	1,220,247	
D1.8 & D1.14	Wetlands and stabilisation to playing fields	1	1,129,413	1,129,413	163,000	23,000	34,000	135,000	1,484,413	
D1.9	Bioretention and stabilisation to corridor	1	1,075,408	1,075,408	155,000	22,000	33,000	129,000	1,414,408	
D1.13(a)	Bio retention	570m2	\$214 /m2	121,711	18,000	3,000	4,000	15,000	161,711	
D1.13(b)	half road frontage (m)	20m	\$1,600 /m	32,000	5,000	1,000	1,000	4,000	43,000	Half road width adopted as +8.7m wide
D1.13(a)	Stabilisation and GPTs	1	239,028	239,028	35,000	5,000	8,000	29,000	316,028	
D1.15	Bio retention	2520m2	\$214 /m2	538,091	78,000	11,000	17,000	65,000	709,091	
D1.19(a)	Bio retention	900m2	\$214 /m2	192,175	28,000	4,000	6,000	24,000	254,175	
D1.19(b)	half road frontage (m)	20m	\$1,600 /m	32,000	5,000	1,000	1,000	4,000	43,000	Half road width adopted as +8.7m wide
D1.7, D1.6, D1.16	Northern Corridor	1	334,362	334,362	48,000	7,000	11,000	41,000	441,362	



Table D. Trunk Drainage and Water Quality - Cont.

(a) (b)

Plan Ref (Fig 5)	Facility	Quantity	Rate	Subtotal	Preliminaries, Margin, Professional Fees, LSL etc	Plans of Management and Env Approvals	Project Management	Project contingency	Estimated total cost	Notes
D1.5, D1.16	Northern Corridor 2 & 3	1	4,312,209	4,312,209	619,000	87,000	130,000	515,000	5,663,209	
	<i>HR1 and HR2</i>									
D1.22, D1.23	Stabilisation and GPTs (HR1 and HR2)	1	506,347	506,347	73,000	11,000	16,000	61,000	667,347	
	Sub-total			21,115,846	3,045,000	435,000	648,000	2,536,000	27,779,846	
	Total									

3 SCHEDULE OF INFORMATION USED

The following information has been used in the preparation of this cost plan verification report:

- Plans as prepared by SMEC Urban Consulting Group (including quantities):
 - Figure 1B, Draft 14/09/2016 Urban Structure Plan;
 - 75723.09.P22d-P22 – Land Acquisition Plan;
 - 78080_P23-28-P23 – Traffic and Transport;
 - 78080_P23-28-P24 – Trunk Drainage and Water Quality;
 - 78080_P23-28-P25 – Open Space and Recreation;
 - 78080_P23-28-P26 – Drainage Land;
 - 78080_P23-28-P28 – Community Land;
 - 78080_P23-28-P29 – Contribution Areas.
- Plans and associated costs as prepared by JMD Design:
 - SK01 Issue B Playing Fields;
 - SK02 Issue B Southern Drainage;
 - SK03B Issue C Northern Drainage;
 - SK04 Issue B OS1;
 - SK05 Issue B OS7;
 - SK06 Issue A OS9;
 - SK07 Issue B DB7;
 - SK08 Issue B DB8;
 - SK09 Issue B DB13;
 - SK10 Issue B OS6;
 - SK11 Issue A OS8.
- Strategic Concept Design for Spring Farm Parkway as prepared by AECOM.

Additionally, it should be noted that we received the following information for the preparation of the November 2011 cost plan. To the best of our knowledge this information has not been updated, other than where noted below.

- Campbelltown City Council Blair Athol Estate community centre plans;
- Campbelltown City Council amenities building concept plan;
- Social Sustainability Report, Heather Nesbitt Planning, February 2010 and Addendum by GHD, October 2016;
- Local Flooding and Stormwater Quantity Management (Detention), GHD, May 2010;
- WSUD Strategy, AECOM, June 2010;
- Transport Management and Accessibility Plan, AECOM, June 2010;
- Spring Farm Parkway Route by AECOM 2016.

4 SCHEDULE OF ASSUMPTIONS

The following assumptions, made for the preparation of the November 2011 cost plan, have been made in the preparation of this cost plan verification report:

- **General**
 - The works will be competitively tendered;
 - Preliminaries allowance of 6% relates to items such as site establishment, supervision, large plant, scaffolding services, notices and fees, insurances - essentially all works that are not permanent physical parts of construction and are not directly associated with individual permanent physical parts or components of the construction;
 - Margin allowance addresses all overheads and profit for the procurement of the works identified in the Section 94 plan and is included within the rates as previously discussed with Urbangrowth (Landcom);
 - Long service levy of 0.35% payable pursuant to construction projects;
 - Professional Fees allowance of 8% for civils works and 12% for building works to cover the engagement of all required professional consultants for the procurement of the required constructions including Architectural, Structural Engineering, Electrical Engineering, Mechanical Engineering, Hydraulics, Landscape, Quantity Surveyor, Geotech Engineer and other specialist consultants;
 - Plan of management allowance of 1% as open space areas identified in the Section 94 plan will ultimately become community land under the Local Government Act 1993. All community land must have a plan of management prepared and implemented. The allowance reflects the need for these plans of management to be prepared;
 - Environmental plans allowance of 1% as works identified in the Section 94 plan will generally need to be the subject to environmental assessment under the EPA Act and go through the approvals process of the council. The allowance reflects the need for planning assessments to be carried out for the capital works;
 - Project Management allowance at 3% as delivery of each of the projects included in the Section 94 planned to be coordinated including supervision and administration of contracts;
 - Construction contingency allowance at 10% as works in the Section 94 plan (and their costs) are based on high level strategic studies. For many of the items, planning has not yet reached the concept stage and the location of (and therefore site conditions attached to) many works has not yet been resolved. It is appropriate therefore to make an allowance for a cost contingency in the Section 94 plan.
- **Community Facilities**
 - GFA of community facilities 500m²;
 - Budget derived from similar projects;
 - Allowance for fit out per S94 Practice Note;

- Rates increased in line with indices as published by NSW Government Public Works.
- Open Space
 - Amenities building as drawing previously provided by Campbelltown City Council and budget derived from similar projects;
 - Playing fields, district parks and local parks scope as detailed within budget estimates contained within Appendix A;
 - Playing fields, district parks and local parks quantities, checked and amended by WTP as required, as detailed within budget estimates contained within Appendix A;
 - Playing fields, district parks and local parks rates, checked and amended by WTP as required, as detailed within budget estimates contained within Appendix A;
 - No allowance for sewer pumping station shown within sportsground as we have been previously advised this will be by Sydney Water.
- Stormwater Quality Management
 - Wetlands stormwater collected in pipes and swales from catchment areas for reuse or discharge to receiving catchments via horizontal flow;
 - Bioretention swales filter stormwater through soil media where it is collected and discharged into wetlands;
 - Water quality management areas treat stormwater stored in wetlands by discharging stormwater to receiving channels by vertical flow through soil filtered media;
 - Quantities as supplied by GHD have been assumed correct as insufficient information to carry out check;
 - Rates as supplied by AECOM and GHD have been checked and amended by WTP as required;
 - Adjustments made to rates, as supplied, to include for bulk earthworks;
 - Landscaping and associated works excluded from rates, as supplied, and included within Open Space rates;
 - Rates increased in line with indices as published by NSW Government Public Works.
- Traffic and Transport Management
 - Roundabouts and intersections scope includes excavation to sub-grade level, sub-base, base, AC, concrete, reinforcement, signage;
 - Local roads generally comprising 9.6m road pavement, 2x1.5m footpath, 2x2.4m verge (2x1.8m turf, 2x0.6m planted), kerb and gutter and line marking. Scope includes stripping topsoil, bulk earthworks, cut/fill, boxing out, trim and proof roll, select material zone, 150mm sub-base, kerb and gutter, 100mm base-course, sealer coat, 2 x 25mm AC, primer seal, line marking, signs, stormwater pipe and pits, subsoil drainage, electrical cable and street-lights, 100mm reinforced concrete footpaths, trees, topsoil, turf and planting to verge and boundary;

- Collector roads generally comprising 11.6m road pavement, 1.5m footpath, 2x2.4m verge (2x1.8m turf, 2x0.6m planted), 2.5m cycleway (measured separately), kerb and gutter and line marking. Scope includes stripping topsoil, bulk earthworks, cut/fill, boxing out, trim and proof roll, select material zone, 250mm sub-base, kerb and dish drains, 200mm base-course, sealer coat, 2 x 25mm AC, primer seal, line marking, signs, stormwater pipe and pits, subsoil drainage, electrical cable and street-lights, 100mm reinforced concrete footpaths, trees, topsoil, turf to verge and planting to boundary;
- Half road frontage allowances are based upon local road construction;
- Collector road costs are extra over local road costs.

5 SCHEDULE OF EXCLUSIONS

The following items have been excluded from the costs contained within the cost plan verification report:

- Land Costs, stamp duty and taxes, legal fees;
- Interest Charges and Holding Costs and other Developer's costs;
- Costs associated with change of use of land;
- Local Authority Fees and Charges;
- Cost associated with changes to legislation;
- Site remediation (if required), disposal and handling of asbestos and contaminated material below ground;
- Diversion of and/or removal existing services below ground;
- Upgrading/extending existing Authority Services;
- Abnormal ground conditions;
- Staging costs;
- Escalation in construction costs or changes in market conditions beyond October 2016;
- GST.



APPENDIX A
ESTIMATES

W

URBANGROWTH
PROJECT NAME: Menangle Park
PROBABLE COST ESTIMATE - TOTALS UPDATED TO 2016

BUDGET ESTIMATE

ITEM	DESCRIPTION	UNIT	QTY	RATE(2011)	TOTAL	DRAINAGE	OPEN SPACE
1.0	DETENTION BASIN 13 (DB13)						
1.1	Minor Earthworks						
	i) Allow for minor grading and trimming to achieve desired levels +/- 300mm	item	14,132	\$ 3.50	\$ 49,462.00	\$ 49,462.00	
1.2	Planting						
	i) Mass Weed Removal, Cultivation and Mulching	m ²	5,573	\$ 10.00	\$ 55,730.00	\$ 55,730.00	
	ii) Supply and plant material	m ²	5,573	\$ 15.00	\$ 83,595.00	\$ 83,595.00	
1.3	Turf						
	i) Prepare,cultivation & trim	m ²	6,066	\$ 2.00	\$ 12,132.00	\$ 12,132.00	
	ii) Reinforced grass cell for service access	m ²	146	\$ 30.00	\$ 4,380.00	\$ 4,380.00	
	iii) Turf	m ²	5,920	\$ 6.00	\$ 35,520.00	\$ 35,520.00	
1.4	Water Supply						
	i) Connection & meter incl backflow valve etc	item	1	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00	
	ii) reticulation & QCV's	item	1	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	
1.5	Recreation items						
	i) Insitu Reinforced concrete path, vehicular grade, nom. 4m width, 200mm thick supply, place & finish broomed - including excavation and forming complete	m ²	540	\$ 125.00	\$ 67,500.00	\$ 67,500.00	
	ii) Decomposed granite, 100mm thick stabilised decomposed granite as specified with 100mm thick compacted roadbase	m ²	630	\$ 35.00	\$ 22,050.00	\$ 22,050.00	
	iii) Seating with arms & back on concrete pad	each	2	\$ 2,500.00	\$ 5,000.00	\$ 5,000.00	
	iv) Bollards - supply and install	each	6	\$ 800.00	\$ 4,800.00	\$ 4,800.00	
1.6	Pedestrian Bridge - supply and install complete						
	i) Hardwood Timber Bridge - as detailed and specified	m ²	48	\$ 680.00	\$ 32,640.00	\$ 32,640.00	
	ii) Balustrade - fabricate and install	lin.m	32	\$ 450.00	\$ 14,400.00	\$ 14,400.00	
	iii) treatment at abutments	each	2	\$ 500.00	\$ 1,000.00	\$ 1,000.00	
1.7	Raingardens						
	i) Reinforced concrete hob wall to engineers details	lin.m	206	\$ 50.00	\$ 10,300.00	\$ 10,300.00	
	ii) Nom. 1m thick filtering media incl geofab liner	m ²	1,120	\$ 185.00	\$ 207,200.00	\$ 207,200.00	
	iii) Subsoil drainage - supply and install	m ²	1,120	\$ 25.00	\$ 28,000.00	\$ 28,000.00	
	iv) bioretention species	m ²	1,120	\$ 25.00	\$ 28,000.00	\$ 28,000.00	
1.8	Treatment to GPT surrounds	item	2	\$ 5,000.00	\$ 10,000.00	\$ 10,000.00	
1.9	Maintenance	months	12	\$ 1,250.00	\$ 15,000.00	\$ 15,000.00	
	Preliminaries & Design Contingency	%	0.00		\$ 0.00	\$ -	
	DB 13 SUBTOTAL				\$ 695,209.00	\$ 695,209.00	\$ -
					\$ 802,414.13	\$ 802,414.13	\$ -
2.0	OPEN SPACE 1 (OS1)						
2.1	Minor Earthworks						
	i) Allow for bulk earthworks	m3	2,236.00	\$ 6.00	\$ 13,416.00		\$ 13,416.00
	ii) Allow for minor grading and trimming to achieve desired levels +/- 300mm	item	8,254	\$ 3.50	\$ 28,889.00		\$ 28,889.00
2.2	Planting						
	i) Mass Weed Removal, Cultivation and Mulching	m ²	4,471	\$ 10.00	\$ 44,710.00		\$ 44,710.00
	ii) Mass planting Type 1	m ²	1,789	\$ 25.00	\$ 44,725.00		\$ 44,725.00
	iii) Mass planting Type 2	m ²	1,607	\$ 15.00	\$ 24,105.00		\$ 24,105.00
	iv) Macrophytes	m	1,075	\$ 15.00	\$ 16,125.00		\$ 16,125.00
	iv) Trees - 100L	each	21	\$ 280.00	\$ 5,880.00		\$ 5,880.00
2.3	Turf						
	i) Prepare,cultivation & trim	m ²	1,276	\$ 2.00	\$ 2,552.00		\$ 2,552.00
	ii) Reinforced grass cell for service access	m ²		\$ 30.00	\$ -		\$ -
	iii) Turf	m ²	1,276	\$ 6.00	\$ 7,656.00		\$ 7,656.00
2.4	Sandstone boulders to overland floodpath						
	i) Random place sandstone boulders	m ²	384	\$ 100.00	\$ 38,400.00		\$ 38,400.00
2.5	Informal play						
	i) Rock mulch, Tufts of native grasses, logs	m ²	860	\$ 50.00	\$ 43,000.00		\$ 43,000.00
2.6	Concrete Walls - Supply & Install Complete						
	ii) Nom.500mm High Insitu Conc Seating Wall	lin.m	44	\$ 450.00	\$ 19,800.00		\$ 19,800.00
2.7	Decks to culverts - supply and install complete						
	i) Deck over culvert -	m ²	87	\$ 680.00	\$ 59,160.00		\$ 59,160.00
	ii) Balustrade - fabricate and install	lin.m	30	\$ 450.00	\$ 13,500.00		\$ 13,500.00
2.8	Water Supply						
	i) Connection & meter incl backflow valve etc	item	1	\$ 3,500.00	\$ 3,500.00		\$ 3,500.00
	ii) reticulation & QCV's	item	1	\$ 5,000.00	\$ 5,000.00		\$ 5,000.00
	iii) bubbler	item	1	\$ 4,000.00	\$ 4,000.00		\$ 4,000.00
2.9	Recreation items						
	i) Play equipment swing set/mutiplay/2 other	item	1	\$ 72,800.00	\$ 72,800.00		\$ 72,800.00
	ii) Wet pour rubber soft fall	m ²	158	\$ 200.00	\$ 31,600.00		\$ 31,600.00
	iii) Shade structure	item	1	\$ 35,000.00	\$ 35,000.00		\$ 35,000.00
	iv) picnic settings	item	2	\$ 3,500.00	\$ 7,000.00		\$ 7,000.00
	v) bench	item	2	\$ 1,400.00	\$ 2,800.00		\$ 2,800.00
	vi) Vandal Resistant Bins including 120ltr inner liner	item	2	\$ 1,800.00	\$ 3,600.00		\$ 3,600.00
	vii) Bollards - supply and install	each	5	\$ 800.00	\$ 4,000.00		\$ 4,000.00
	viii) Insitu Reinforced concrete footpath, nom. 1.5m width, 100mm thicksupply, place & finish broomed - including excavation and forming complete	m ²	291	\$ 85.00	\$ 24,735.00		\$ 24,735.00
	ix) Insitu Reinforced concrete footpath, nom. 2.5m width, 100mm thicksupply, place & finish broomed - including excavation and forming complete	m ²	295	\$ 85.00	\$ 25,075.00		\$ 25,075.00
	x) 5% vehicular grade for crossings - service access etc	m ²	29	\$ 125.00	\$ 3,662.50		\$ 3,662.50
	xi) Seating with arms & back on concrete pad	each	2	\$ 2,500.00	\$ 5,000.00		\$ 5,000.00
2.10	Pedestrian Bridge - supply and install complete						
	i) Hardwood Timber Bridge - as detailed and specified	m ²	38	\$ 680.00	\$ 25,840.00		\$ 25,840.00
	ii) Balustrade - fabricate and install	lin.m	20	\$ 450.00	\$ 9,000.00		\$ 9,000.00
	iii) treatment at abutments	each	2	\$ 500.00	\$ 1,000.00		\$ 1,000.00
2.11	Bioretention / Raingardens						
	i) Nom. 750mm High Walls - 500x500x1000 Sandstone Boulders as specified and detailed to rain garden	lin.m	44	\$ 300.00	\$ 13,200.00	\$ 13,200.00	
	ii) Nom. 1500mm max High Walls - 300x300x450 Sandstone Boulders as specified and detailed	lin.m	72	\$ 500.00	\$ 36,000.00	\$ 36,000.00	
	iii) Nom. 1m thick filtering media incl geofab liner	m ²	270	\$ 185.00	\$ 49,950.00	\$ 49,950.00	
	iv) Subsoil drainage - supply and install	m ²	270	\$ 25.00	\$ 6,750.00	\$ 6,750.00	
	v) bioretention species	m ²	270	\$ 25.00	\$ 6,750.00	\$ 6,750.00	
2.12	Treatment to GPT surrounds	item					

URBANGROWTH
 PROJECT NAME: Menangle Park
 PROBABLE COST ESTIMATE - TOTALS UPDATED TO 2016

BUDGET ESTIMATE

ITEM	DESCRIPTION	UNIT	QTY	RATE(2011)	TOTAL	DRAINAGE	OPEN SPACE
	GPT-Supply, deliver and install COS 1518		3	\$ 58,000.00	\$ 174,000.00	\$ 174,000.00	
	Culverts		1	\$ 110,000.00	\$ 110,000.00	\$ 110,000.00	
2.13	Concrete edging - supply and install complete	lin.m	106	\$ 35.00	\$ 3,710.00		\$ 3,710.00
2.14	Maintenance	months	12	\$ 2,400.00	\$ 28,800.00		\$ 28,800.00
2.15	Preliminaries & Design Contingency	%	0.00		\$ -		\$ -
	OS 1 SUBTOTAL				\$ 1,054,690.50	\$ 396,650.00	\$ 658,040.50
					\$ 1,217,329.69	\$ 457,815.65	\$ 759,514.04
3.0	Riparian Zone 1 (R1)						
3.1	Minor Earthworks						
	i) Allow for minor grading and trimming to achieve desired levels +/- 300mm	item	32,259	\$ 1.00	\$ 32,259.00		\$ 32,259.00
3.3	Seed Collection						
	i) Collection of Seed and Plant Propagation Material for	ha	3.72	\$ 10,000.00	\$ 37,200.00		\$ 37,200.00
3.4	APZ Revegetation Management						
	i) Mass Weed Removal for Revegetation- existing plant community primary treatment	m²	4,645	\$ 1.00	\$ 4,645.00		\$ 4,645.00
	ii) Supply and plant propagated material to say 100% of area	m²	4,645	\$ 15.00	\$ 69,675.00		\$ 69,675.00
	iii) Bush revegetation Ongoing maintenance	monthl y	24.00	\$ 460.00	\$ 11,040.00		\$ 11,040.00
3.5	Revegetation Management						
	i) Mass Weed, cultivation and mulch	m²	33,358	\$ 10.00	\$ 333,580.00		\$ 333,580.00
	ii) Supply and plant mass planting (incl. CRZ & VB to riparian corridor) to 100% of area	m²	33,358	\$ 15.00	\$ 500,370.00		\$ 500,370.00
	iii) 10m wide jute mat & planting macrophyte species to creekline	m²	5,550	\$ 30.00	\$ 166,500.00		\$ 166,500.00
	iv) Bush revegetation Ongoing maintenance	monthl y	24.00	\$ 5,510.00	\$ 132,240.00		\$ 132,240.00
4.9	Planting						
	i) Mass Weed Removal, Cultivation and Mulching	m²	3,837	\$ 10.00	\$ 38,370.00		\$ 38,370.00
	ii) Supply and plant material	m²	3,837	\$ 15.00	\$ 57,555.00		\$ 57,555.00
3.6	Turf						
	i) Prepare, cultivation & trim	m²	2,089	\$ 2.00	\$ 4,178.00		\$ 4,178.00
	ii) Reinforced grass cell for service access	m²		\$ 30.00	\$ -		\$ -
	iii) Turf	m²	2,089	\$ 6.00	\$ 12,534.00		\$ 12,534.00
	iv) Concrete Edge	lin.m	108	\$ 35.00	\$ 3,780.00		\$ 3,780.00
3.7	Recreation items						
	i) Insitu Reinforced concrete footpath, nom. 2.5m width, 100mm thick supply, place & finish broomed - including excavation and forming complete	m²	173	\$ 85.00	\$ 14,705.00		\$ 14,705.00
	ii) 5% vehicular grade for crossings - service access etc	m²	9	\$ 125.00	\$ 1,081.25		\$ 1,081.25
	iii) Seating with arms & back on concrete pad	each	3	\$ 2,500.00	\$ 7,500.00		\$ 7,500.00
3.8	Raingardens						
	i) Nom. 750mm High Walls - 500x500x1000 Sandstone Boulders as specified and detailed to rain garden	lin.m	98	\$ 300.00	\$ 29,400.00	\$ 29,400.00	
	ii) Nom. 1500mm max High Walls - 500x500x1000 Sandstone Boulders as specified and detailed	lin.m	55	\$ 500.00	\$ 27,500.00	\$ 27,500.00	
	iii) Nom. 1m thick filtering media incl geofab liner	m²	594	\$ 185.00	\$ 109,890.00	\$ 109,890.00	
	iv) Subsoil drainage - supply and install	m²	594	\$ 25.00	\$ 14,850.00	\$ 14,850.00	
	v) bioretention species	m²	594	\$ 25.00	\$ 14,850.00	\$ 14,850.00	
3.9	Treatment to GPT surrounds						
	GPT-Supply, deliver and install CDS 1009	item	2	\$ 5,000.00	\$ 10,000.00	\$ 10,000.00	
		item	2.00	\$ 32,000.00	\$ 64,000.00	\$ 64,000.00	
3.10	Treatment to culvert						
		item		\$ 10,000.00	\$ -	\$ -	
3.11	Maintenance to raingardens	months	24	\$ 800.00	\$ 19,200.00	\$ 19,200.00	
3.12	Preliminaries & Design Contingency	%	0.00		\$ 0.00	\$ -	
	RIPARIAN 1 SUBTOTAL				\$ 1,716,902.25	\$ 289,690.00	\$ 1,427,212.25
					\$ 1,981,658.20	\$ 334,361.82	\$ 1,647,296.38
4.0	Detention Basin 12 (DB12) Wet/ Riparian 2& 3/ Open Space 3/ 4/ 5						
4.1	Minor Earthworks						
	i) Allow for minor grading and trimming to achieve desired levels +/- 300mm	item	332,000	\$ 0.25	\$ 83,000.00		\$ 83,000.00
4.2	Seed Collection						
	i) Collection of Seed and Plant Propagation Material for Restoration Area, Rehabilitation Area	Ha	33.20	\$ 10,000.00	\$ 332,000.00		\$ 332,000.00
4.3	Regeneration Management						
	i) Mass Weed Removal for Regeneration - existing plant community primary treatment	m²	89,553	\$ 1.00	\$ 89,553.00		\$ 89,553.00
	ii) Detailed Weed Removal for Regeneration- existing plant community secondary treatment	m²	89,553	\$ 1.20	\$ 107,463.60		\$ 107,463.60
	iii) Supply and plant propagated material to say 20% of area	m²	17,911	\$ 15.00	\$ 268,659.00		\$ 268,659.00
	iv) Bush regeneration Ongoing maintenance	monthl y	24	\$ 8,900.00	\$ 213,600.00		\$ 213,600.00
4.4	Revegetation Management						
	i) Mass Weed Removal for Revegetation- existing plant community primary treatment	m²	257,372	\$ 1.00	\$ 257,372.00		\$ 257,372.00
	ii) Supply and plant mass planting (incl. CRZ & VB to riparian corridor) to 100% of area	m²	231,997	\$ 15.00	\$ 3,479,955.00		\$ 3,479,955.00
	iii) 10m wide jute mat & planting macrophyte species to creekline	m²	25,375	\$ 30.00	\$ 761,250.00		\$ 761,250.00
	iv) Bush revegetation Ongoing maintenance	monthl y	24	\$ 24,000.00	\$ 576,000.00		\$ 576,000.00
4.5	Detention Basin						
	i) Medium	m²	2,763	\$ 30.00	\$ 82,890.00	\$ 82,890.00	
	ii) wetland species	m²	2,763	\$ 125.00	\$ 345,375.00	\$ 345,375.00	
	iii) Nom. 750mm High Walls - 300x300x450 Sandstone Boulders as specified and detailed	m	185	\$ 300.00	\$ 55,500.00	\$ 55,500.00	
	iv) Edge treatment	m	185	\$ 75.00	\$ 13,875.00	\$ 13,875.00	
4.5.1	Water Aeration and minor recirculation						
	iii) Incl. pump, and pipework & Miscellaneous effects - supply & install complete	item	1	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	
4.6	Raingardens						
	i) Nom. 1m thick filtering media incl geofab liner	m²	5,567	\$ 185.00	\$ 1,029,895.00	\$ 1,029,895.00	

URBANGROWTH
PROJECT NAME: Menangle Park
PROBABLE COST ESTIMATE - TOTALS UPDATED TO 2016

BUDGET ESTIMATE

ITEM	DESCRIPTION	UNIT	QTY	RATE(2011)	TOTAL	DRAINAGE	OPEN SPACE
	ii) Subsoil drainage - supply and install	m ²	5,567	\$ 25.00	\$ 139,175.00	\$ 139,175.00	
	iii) bioretention species	m ²	5,567	\$ 25.00	\$ 139,175.00	\$ 139,175.00	
4.6.1	Rip Rap Retaining Walls - Supply & Install						
	i) Nom. 750mm High Walls - 500x500x1000 Sandstone Boulders as specified and detailed	lin.m	1,565	\$ 300.00	\$ 469,500.00	\$ 469,500.00	
	ii) Nom. 1500mm max High Walls - 500x500x1000 Sandstone Boulders as specified and detailed	lin.m	302	\$ 500.00	\$ 151,000.00	\$ 151,000.00	
4.7	Wetland						
	i) Nom. 750mm High Walls - 300x300x450 Sandstone Boulders as specified and detailed	lin.m	1,034	\$ 300.00	\$ 310,200.00	\$ 310,200.00	
	iii) Nom. 300mm thick filtering media incl geofab liner	m ²	27,307	\$ 30.00	\$ 819,210.00	\$ 819,210.00	
	v) Wetland species	m ²	27,307	\$ 25.00	\$ 682,675.00	\$ 682,675.00	
	vi) Treatment to GPT Surrounds	item	0	\$ 5,000.00	\$ -	\$ -	
	vii) Inlet & Outlet headwall & surrounding treatment	item	0	\$ -	\$ -	\$ -	
	viii) Connection between wetlands	item	0	\$ -	\$ -	\$ -	
4.8	Existing Dam						
	i) Retain dam as billabong type feature	item				\$ -	
4.9	Planting						
	i) Mass Weed Removal, Cultivation and Mulching	m ²	13,220	\$ 10.00	\$ 132,200.00		\$ 132,200.00
	ii) Supply and plant material	m ²	13,220	\$ 15.00	\$ 198,300.00		\$ 198,300.00
4.10	Turf						
	i) Prepare,cultivation & trim	m ²	30,444	\$ 2.00	\$ 60,888.00		\$ 60,888.00
	ii) Reinforced grass cell for service access	m ²		\$ 30.00	\$ -		
	iii) Turf	m ²	30,444	\$ 6.00	\$ 182,664.00		\$ 182,664.00
	iv) Concrete Edge	lin.m	538	\$ 35.00	\$ 18,830.00		\$ 18,830.00
4.11	Water Supply						
	i) Connection & meter incl backflow valve etc	item	1	\$ 3,500.00			\$ -
	ii) reticulation & QCV's	item	1	\$ 5,000.00			\$ -
4.12	Recreation items						
	i) Shade structure		2		\$ -		\$ -
	ii) picnic settings		2		\$ -		\$ -
	iii) Vandal Resistant Bins including 120ltr inner liner		2	\$ 1,800.00	\$ 3,600.00		\$ 3,600.00
	iv) Insitu Reinforced concrete footpath, nom. 2.5m width, 100mm thicksupply, place & finish broomed - including excavation and forming complete	m ²	7,115	\$ 85.00	\$ 604,775.00		\$ 604,775.00
	v) Specialist paving - eg lightly washed special aggregate pedestrian grade	m ²	454	\$ 100.00	\$ 45,400.00		\$ 45,400.00
	vi) Decomposed granite, 100mm thick stabilised decomposed granite as specified with 100mm thick compacted roadbase	m ²	2,655	\$ 35.00	\$ 92,925.00		\$ 92,925.00
	vii) Seating with arms & back on concrete pad	each	26	\$ 2,500.00	\$ 65,000.00		\$ 65,000.00
4.12.1	Decking - supply and install complete						
	i) Hardwood Timber Decking	m ²		\$ 680.00			\$ -
	ii) Balustrade - fabricate and install	lin.m		\$ 450.00			\$ -
4.13	Pedestrian Bridge - supply and install complete						
	i) Hardwood Timber Bridge - as detailed and specified	m ²	96	\$ 680.00	\$ 65,280.00		\$ 65,280.00
	ii) Balustrade - fabricate and install	lin.m	75	\$ 450.00	\$ 33,750.00		\$ 33,750.00
	iii) treatment at abutments	each	6	\$ 500.00	\$ 3,000.00		\$ 3,000.00
4.14	Treatment to GPT surrounds						
	GPT-Supply, deliver and install CDS 1009	item	7.00	\$ 32,000.00	\$ 224,000.00	\$ 224,000.00	
	Channel stabilisation works (per GHD Oct 11)	item	1.00	\$ 283,554.00	\$ 283,554.00	\$ 283,554.00	
4.15	Treatment to culvert						
		each	3	\$ 10,000.00	\$ 30,000.00	\$ 30,000.00	
4.16	Maintenance to raingardens ,wetland & l/scape						
		months	12	\$ 3,600.00	\$ 43,200.00	\$ 43,200.00	
4.17	Preliminaries & Design Contingency						
		%	0.00		\$ 0.00	\$ -	
	DSB 12/R2/R3/ OS 3/4/5 SUBTOTAL				\$ 12,559,688.60	\$ 4,884,224.00	\$ 7,675,464.60
					\$ 14,496,463.01	\$ 5,637,398.73	\$ 8,859,064.28
5.0	Detention Basin 7 (DB7)						
5.1	Minor Earthworks						
	i) Allow for minor grading and trimming to achieve desired levels +/- 300mm	item	19,852	\$ 3.50	\$ 69,482.00	\$ 69,482.00	
5.2	Planting						
	i) Mass weed removal for cultivation & mulch	m ²	4,476	\$ 10.00	\$ 44,760.00	\$ 44,760.00	
	ii) Supply and plant material	m ²	4,476	\$ 25.00	\$ 111,900.00	\$ 111,900.00	
5.3	Turf						
	i) Prepare,cultivation & trim	m ²	5,938	\$ 2.00	\$ 10,740.00	\$ 10,740.00	
	ii) Reinforced grass cell for service access	m ²	568	\$ 30.00	\$ 17,040.00	\$ 17,040.00	
	iii) Turf	m ²	5,370	\$ 6.00	\$ 32,220.00	\$ 32,220.00	
5.4	Decks to culverts - supply and install complete						
	i) Deck over culvert -	m ²	99	\$ 680.00	\$ 67,320.00	\$ 67,320.00	
	ii) Balustrade - fabricate and install	lin.m	36	\$ 450.00	\$ 16,200.00	\$ 16,200.00	
5.5	Water Supply						
	i) Connection & meter incl backflow valve etc	item	1	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00	
	ii) reticulation & QCV's	item	1	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	
5.6	Recreation items						
	i) Insitu Reinforced concrete footpath, nom. 2.5m width, 100mm thicksupply, place & finish broomed - including excavation and forming complete	m ²	456	\$ 85.00	\$ 38,760.00	\$ 38,760.00	
	ii) vehicular grade for crossings - service access etc	m ²	51	\$ 125.00	\$ 6,375.00	\$ 6,375.00	
	iii) Decomposed granite, 100mm thick stabilised decomposed granite as specified with 100mm thick compacted roadbase	m ²	1,089	\$ 35.00	\$ 38,115.00	\$ 38,115.00	
	iv) Seating with arms & back on deck	each	3	\$ 2,500.00	\$ 7,500.00	\$ 7,500.00	
	v) Bollards - supply and install	each	10	\$ 800.00	\$ 8,000.00	\$ 8,000.00	
5.7	Pedestrian Bridge - supply and install complete						
	i) Hardwood Timber Bridge - as detailed and specified	m ²	100	\$ 680.00	\$ 68,000.00	\$ 68,000.00	
	ii) Balustrade - fabricate and install	lin.m	31	\$ 450.00	\$ 13,950.00	\$ 13,950.00	
	iii) treatment at abutments	each	2	\$ 500.00	\$ 1,000.00	\$ 1,000.00	
5.8	Raingardens						
	i) Rip Rap 750mm high nom	lin.m	385	\$ 300.00	\$ 115,500.00	\$ 115,500.00	
	ii) Nom. 1m thick filtering media incl geofab liner	m ²	3,033	\$ 185.00	\$ 561,105.00	\$ 561,105.00	
	iii) Subsoil drainage - supply and install	m ²	3,033	\$ 25.00	\$ 75,825.00	\$ 75,825.00	
	iv) bioretention species	m ²	3,033	\$ 25.00	\$ 75,825.00	\$ 75,825.00	
5.9	Treatment to GPT surrounds						
		item	2	\$ 5,000.00	\$ 10,000.00	\$ 10,000.00	

URBANGROWTH
 PROJECT NAME: Menangle Park
 PROBABLE COST ESTIMATE - TOTALS UPDATED TO 2016

BUDGET ESTIMATE

ITEM	DESCRIPTION	UNIT	QTY	RATE(2011)	TOTAL	DRAINAGE	OPEN SPACE
5.10	Maintenance	months	12	\$ 2,000.00	\$ 24,000.00	\$ 24,000.00	
5.11	Preliminaries & Design Contingency	%	0.00		\$ 0.00	\$ -	
	DB 7 SUBTOTAL				\$ 1,422,117.00	\$ 1,422,117.00	\$ -
					\$ 1,641,415.42	\$ 1,641,415.42	\$ -
6.0	Detention Basin 8 (DB8)						
6.1	Minor Earthworks						
	i) Allow for minor grading and trimming to achieve desired levels +/- 300mm	item	18,500	\$ 3.50	\$ 64,750.00	\$ 64,750.00	
6.2	Planting						
	i) Mass Weed Removal, Cultivation and Mulching	m ²	9,332	\$ 10.00	\$ 93,320.00	\$ 93,320.00	
	ii) Supply and plant material	m ²	9,332	\$ 25.00	\$ 233,300.00	\$ 233,300.00	
6.3	Turf						
	i) Prepare, cultivation & trim	m ²	5,244	\$ 2.00	\$ 10,488.00	\$ 10,488.00	
	ii) Reinforced grass cell for service access	m ²	347	\$ 30.00	\$ 10,410.00	\$ 10,410.00	
	iii) Turf	m ²	4,897	\$ 6.00	\$ 29,382.00	\$ 29,382.00	
6.4	Decks to culverts - supply and install complete						
	i) Hardwood Timber Deck over culvert	m ²	120	\$ 680.00	\$ 81,600.00	\$ 81,600.00	
	ii) Balustrade - fabricate and install	lin.m	41	\$ 450.00	\$ 18,450.00	\$ 18,450.00	
6.5	Water Supply						
	i) Connection & meter incl backflow valve etc	item	1	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00	
	ii) reticulation & QCV's	item	1	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	
6.6	Recreation items						
	i) In situ Reinforced concrete footpath, nom. 2.5m width, 100mm thick supply, place & finish broomed - including excavation and forming complete	m ²	585	\$ 85.00	\$ 49,725.00	\$ 49,725.00	
	ii) Vehicular grade for crossings - service access etc	m ²	200	\$ 125.00	\$ 25,000.00	\$ 25,000.00	
	iii) Decomposed granite, 100mm thick stabilised decomposed granite as specified with 100mm thick compacted roadbase	m ²	689	\$ 35.00	\$ 24,115.00	\$ 24,115.00	
	iv) Seating with arms & back on deck	each	4	\$ 2,500.00	\$ 10,000.00	\$ 10,000.00	
	v) Bollards - supply and install	each	7	\$ 800.00	\$ 5,600.00	\$ 5,600.00	
6.7	Pedestrian Bridge (Special item) - supply and install complete						
	i) Curved Hardwood Timber Bridge - as detailed and spec	m ²	100	\$ 680.00	\$ 68,000.00	\$ 68,000.00	
	ii) Balustrade - fabricate and install	lin.m	31	\$ 450.00	\$ 13,950.00	\$ 13,950.00	
	iii) Treatment at abutments	each	2	\$ 500.00	\$ 1,000.00	\$ 1,000.00	
6.8	Raingardens						
	i) Reinforced concrete hob wall to engineers details	lin.m	231	\$ 50.00	\$ 11,550.00	\$ 11,550.00	
	iii) Nom. 1m thick filtering media incl geofab liner	m ²	2,227	\$ 185.00	\$ 411,995.00	\$ 411,995.00	
	iv) Subsoil drainage - supply and install	m ²	2,227	\$ 25.00	\$ 55,675.00	\$ 55,675.00	
	v) Bioretention species	m ²	2,227	\$ 25.00	\$ 55,675.00	\$ 55,675.00	
6.9	Treatment to GPT surrounds	item	2	\$ 5,000.00	\$ 10,000.00	\$ 10,000.00	
6.10	Maintenance	months	12	\$ 1,250.00	\$ 15,000.00	\$ 15,000.00	
6.11	Preliminaries & Design Contingency	%	0.00		\$ 0.00	\$ -	
	DB 8 SUBTOTAL				\$ 1,307,485.00	\$ 1,307,485.00	\$ -
					\$ 1,509,106.52	\$ 1,509,106.52	\$ -
7.0	Open Space 6 (OS 6)						
7.1	Minor Earthworks						
	i) Bulk earthworks	m ³	8,351.00	\$ 10.00	\$ 83,510.00	\$ 83,510.00	
	i) Allow for minor grading and trimming to achieve desired levels +/- 300mm	item	8,351	\$ 3.50	\$ 29,228.50	\$ 29,228.50	
7.2	Planting						
	i) Mass Weed Removal, Cultivation and Mulching	m ²	3,881	\$ 10.00	\$ 38,810.00	\$ 38,810.00	
	ii) Supply and plant material	m ²	3,881	\$ 15.00	\$ 58,215.00	\$ 58,215.00	
	iv) Trees - 100L	each	71	\$ 350.00	\$ 24,850.00	\$ 24,850.00	
7.3	Causeway Type Pedestrian Crossing						
	i) In situ Reinforced concrete footpath, nom. 2.5m width, 100mm thick supply, place & finish broomed - including excavation and forming complete	m ²	75	\$ 85.00	\$ 6,375.00	\$ 6,375.00	
	ii) Cast in situ concrete stair 2.5m wide 10 risers with central handrail	each	4	\$ 6,000.00	\$ 24,000.00	\$ 24,000.00	
7.4	Bioretention Cells						
	i) Rip Rap wall 750mm high nom.	lin.m	863	\$ 300.00	\$ 258,900.00	\$ 258,900.00	
	iii) Nom. 1m thick filtering media incl geofab liner	m ²	3,535	\$ 185.00	\$ 653,975.00	\$ 653,975.00	
	iv) Subsoil drainage - supply and install	m ²	3,535	\$ 25.00	\$ 88,375.00	\$ 88,375.00	
	v) Bioretention species	m ²	3,535	\$ 25.00	\$ 88,375.00	\$ 88,375.00	
7.5	Treatment to GPT surrounds	item	5	\$ 5,000.00	\$ 25,000.00	\$ 25,000.00	
	GPT -Supply, deliver and install CDS 1518	item	5.00	\$ 58,000.00	\$ 290,000.00	\$ 290,000.00	
	Culverts	Item	1.00	\$ -	\$ -	\$ -	
7.6	Maintenance	months	12	\$ 1,600.00	\$ 19,200.00	\$ 19,200.00	
7.7	Preliminaries & Design Contingency	%	0.00		\$ 0.00	\$ -	
	OS 6 SUBTOTAL				\$ 1,688,813.50	\$ 1,688,813.50	\$ -
					\$ 1,949,238.01	\$ 1,949,238.01	\$ -
8.0	Open Space 7 (OS7)						
8.1	Minor Earthworks						
	i) Bulk earthworks	m ³	4,523.50	\$ 6.00	\$ 27,141.00	\$ 27,141.00	
	i) Allow for minor grading and trimming to achieve desired levels +/- 300mm	item	9,047	\$ 3.50	\$ 31,664.50	\$ 31,664.50	
8.2	Seed Collection						
	i) Collection of Seed and Plant Propagation Material for Restoration Area, Rehabilitation Area	Ha	0.12	\$ 10,000.00	\$ 1,200.00	\$ 1,200.00	
8.3	Regeneration Management						
	ii) Mass Weed Removal for Regeneration- existing plant community primary treatment	m ²	700	\$ 1.00	\$ 700.00	\$ 700.00	
	iii) Detailed Weed Removal for Regeneration- existing plant community secondary treatment	m ²	700	\$ 1.20	\$ 840.00	\$ 840.00	
	iv) Supply and plant propagated material to say 20% of area	m ²	140	\$ 15.00	\$ 2,100.00	\$ 2,100.00	
	v) Bush regeneration Ongoing maintenance	month	12	\$ 800.00	\$ 9,600.00	\$ 9,600.00	
8.4	Revegetation Management						

URBANGROWTH
 PROJECT NAME: Menangle Park
 PROBABLE COST ESTIMATE - TOTALS UPDATED TO 2016

BUDGET ESTIMATE

ITEM	DESCRIPTION	UNIT	QTY	RATE(2011)	TOTAL	DRAINAGE	OPEN SPACE
	i) Mass Weed Removal for Revegetation- existing plant community primary treatment	m²	531	\$ 1.00	\$ 531.00		\$ 531.00
	ii) Supply and plant propagated material to say 100% of area	m²	531	\$ 15.00	\$ 7,965.00		\$ 7,965.00
8.5	Planting						
	i) Mass Weed Removal, Cultivation and Mulching	m²	2,020	\$ 10.00	\$ 20,200.00		\$ 20,200.00
	ii) Supply and plant material	m²	2,020	\$ 15.00	\$ 30,300.00		\$ 30,300.00
	iii) Mass planting Type 1	m²	367	\$ 25.00	\$ 9,175.00		\$ 9,175.00
	iii) Mass planting Type 2	m²	1,600	\$ 15.00	\$ 24,000.00		\$ 24,000.00
	iv) Macrophytes	m²	53	\$ 15.00	\$ 795.00		\$ 795.00
	iv) Trees - 100L	each	21	\$ 350.00	\$ 7,350.00		\$ 7,350.00
8.6	Turf						
	i) Prepare,cultivation & trim	m²	2,556	\$ 2.00	\$ 5,112.00		\$ 5,112.00
	ii) Reinforced grass cell for service access	m²		\$ 30.00	\$ -		\$ -
	iii) Turf	m²	2,556	\$ 6.00	\$ 15,336.00		\$ 15,336.00
8.7	Decomposed Granite - Supply & Install Complete						
	i) 100mm thick stabilised decomposed granite as specified with 100mm thick compacted roadbase	m²	155	\$ 35.00	\$ 5,425.00		\$ 5,425.00
8.8	Water Supply						
	i) Connection & meter incl backflow valve etc	item	1	\$ 3,500.00	\$ 3,500.00		\$ 3,500.00
	ii) reticulation & QCV's	item	1	\$ 5,000.00	\$ 5,000.00		\$ 5,000.00
8.9	Recreation items						
	i) Play equipment swing set/multiplay/3 other	item	1	\$ 72,800.00	\$ 72,800.00		\$ 72,800.00
	ii) Wet pour rubber soft fall	m²	170	\$ 200.00	\$ 34,000.00		\$ 34,000.00
	iii) Shade structure	each	2	\$ 35,000.00	\$ 70,000.00		\$ 70,000.00
	v) Picnic settings	each	5	\$ 3,500.00	\$ 17,500.00		\$ 17,500.00
	vi) Vandal Resistant Bins including 120ltr inner liner	each	2	\$ 1,800.00	\$ 3,600.00		\$ 3,600.00
	x) Drinking fountain accessible supply & install complete with overflow	each	1	\$ 4,000.00	\$ 4,000.00		\$ 4,000.00
	vii) Bollards - supply and install	each	11	\$ 800.00	\$ 8,800.00		\$ 8,800.00
	vii) Insitu Reinforced concrete footpath, nom. 1.5m width, 100mm thicksupply, place & finish broomed - including excavation and forming complete	m²	165	\$ 85.00	\$ 14,025.00		\$ 14,025.00
	vii) Insitu Reinforced concrete footpath, nom. 2.5m width, 100mm thicksupply, place & finish broomed - including excavation and forming complete	m²	650	\$ 85.00	\$ 55,250.00		\$ 55,250.00
	iii) vehicular grade for crossings - service access etc	m²	148	\$ 125.00	\$ 18,500.00		\$ 18,500.00
8.10	Concrete edging - supply and install complete	lin.m	128	\$ 35.00	\$ 4,480.00		\$ 4,480.00
8.11	Pedestrian Bridge (Special item) - supply and install complete						
	i) Curved Hardwood Timber Bridge - as detailed and spec	m²	60	\$ 680.00	\$ 40,800.00		\$ 40,800.00
	ii) Balustrade - fabricate and install	lin.m	44	\$ 450.00	\$ 19,800.00		\$ 19,800.00
	iii) Treatment at abutments	each	4	\$ 500.00	\$ 2,000.00		\$ 2,000.00
8.12	Bioretention Cells						
	i) Reinforced concrete hob wall to engineers details	lin.m	326	\$ 50.00	\$ 16,300.00	\$ 16,300.00	
	ii) Nom. 1m thick filtering media incl geofab liner	m²	1,238	\$ 185.00	\$ 229,030.00	\$ 229,030.00	
	iii) Subsoil drainage - supply and install	m²	1,238	\$ 25.00	\$ 30,950.00	\$ 30,950.00	
	iv) bioretention species	m²	1,238	\$ 25.00	\$ 30,950.00	\$ 30,950.00	
8.13	Treatment to GPT surrounds	item	3	\$ 5,000.00	\$ 15,000.00	\$ 15,000.00	
	GPT-Supply, deliver and install CDS 1518	item	3.00	\$ 58,000.00	\$ 174,000.00	\$ 174,000.00	
	Culverts	item	1.00	\$ 308,000.00	\$ 308,000.00	\$ 308,000.00	
8.14	Energy Dissipation						
8.15	Maintenance of landscape areas- as specified incl watering requirements, mowing incl bush regen areaetc	month	12	\$ 2,400.00	\$ 28,800.00		\$ 28,800.00
8.16	Preliminaries	%	0.00		\$ 0.00		\$ -
	OS 7 SUBTOTAL				\$ 1,406,519.50	\$ 804,230.00	\$ 602,289.50
					\$ 1,623,412.69	\$ 928,246.78	\$ 695,165.92
9.0	Open Space 8 (OS8)						
9.1	Seed Collection						
	i) Collection of Seed and Plant Propagation Material for Restoration Area, Rehabilitation Area	Ha	0.50	\$ 10,000.00	\$ 5,000.00		\$ 5,000.00
9.2	Regeneration Management						
	ii) Mass Weed Removal for Regeneration- existing plant community primary treatment	m²	5,057	\$ 1.00	\$ 5,057.00		\$ 5,057.00
	iii) Detailed Weed Removal for Regeneration- existing plant community secondary treatment	m²	5,057	\$ 1.20	\$ 6,068.40		\$ 6,068.40
	iv) Supply and plant propagated material to say 20% of area	m²	1,011	\$ 15.00	\$ 15,171.00		\$ 15,171.00
	v) Bush regeneration Ongoing maintenance	monthl y	12	\$ 500.00	\$ 6,000.00		\$ 6,000.00
9.3	Rural Type Fence						
	i) Fence	lin.m	290	\$ 85.00	\$ 24,650.00		\$ 24,650.00
	ii) Gates	each	4	\$ 500.00	\$ 2,000.00		\$ 2,000.00
9.4	Preliminaries & Design Contingency	%	0.00		\$ 0.00		\$ -
	OS 8 SUBTOTAL				\$ 63,946.40	\$ -	\$ 63,946.40
					\$ 73,807.29	\$ -	\$ 73,807.29
10.0	Open Space 9 (OS9)						
10.1	Minor Earthworks						
	i) Bulk earthworks	m3	2,524.00	\$ 6.00	\$ 15,144.00		\$ 15,144.00
	i) Allow for minor grading and trimming to achieve desired levels +/- 300mm	item	5,048	\$ 3.50	\$ 17,668.00		\$ 17,668.00
10.2	Planting						
	i) Mass Weed Removal, Cultivation and Mulching	m²	2,698	\$ 10.00	\$ 26,980.00		\$ 26,980.00
	ii) Mass planting Type 1	m²	1,244	\$ 25.00	\$ 31,100.00		\$ 31,100.00
	iii) Mass planting Type 2	m²	1,454	\$ 15.00	\$ 21,810.00		\$ 21,810.00
	iv) Trees - 100L	each	10	\$ 280.00	\$ 2,800.00		\$ 2,800.00
10.3	Turf						
	i) Prepare,cultivation & trim	m²	1,521	\$ 2.00	\$ 3,042.00		\$ 3,042.00
	ii) Reinforced grass cell for service access	m²		\$ 30.00	\$ -		\$ -
	iii) Turf	m²	1,521	\$ 6.00	\$ 9,126.00		\$ 9,126.00
10.4	Decomposed Granite - Supply & Install Complete						
	i) 100mm thick stabilised decomposed granite as specified with 100mm thick compacted roadbase	m²	109	\$ 35.00	\$ 3,815.00		\$ 3,815.00

URBANGROWTH
 PROJECT NAME: Menangle Park
 PROBABLE COST ESTIMATE - TOTALS UPDATED TO 2016

BUDGET ESTIMATE

ITEM	DESCRIPTION	UNIT	QTY	RATE(2011)	TOTAL	DRAINAGE	OPEN SPACE
10.5	Concrete Walls - Supply & Install Complete						
	i) Nom. 600mm High Insitu Conc Retaining Wall	lin.m	14	\$ 650.00	\$ 8,775.00		\$ 8,775.00
	ii) Nom.450mm High Insitu Conc Seating Wall	lin.m	58	\$ 450.00	\$ 25,875.00		\$ 25,875.00
10.6	Concrete Steps - Supply & Install						
	i) Nom. 150mm High Riser, 300mm Wide Tread, Insitu Conc Steps	lin.m	4	\$ 600.00	\$ 2,400.00		\$ 2,400.00
10.7	Water Supply						
	i) Connection & meter incl backflow valve etc	item	1	\$ 3,500.00	\$ 3,500.00		\$ 3,500.00
	ii) reticulation & QCV's	item	1	\$ 5,000.00	\$ 5,000.00		\$ 5,000.00
10.8	Recreation items						
	i) Shelter	item	1	\$ 35,000.00	\$ 35,000.00		\$ 35,000.00
	ii) picnic settings	item	2	\$ 3,500.00	\$ 7,000.00		\$ 7,000.00
	iii) bench	item	2	\$ 1,400.00	\$ 2,800.00		\$ 2,800.00
	iv) Vandal Resistant Bins including 120ltr inner liner	item	2	\$ 1,800.00	\$ 3,600.00		\$ 3,600.00
	v) Drinking fountain accessible supply & install complete with overflow	each	1	\$ 4,000.00	\$ 4,000.00		\$ 4,000.00
	vi) Insitu Reinforced concrete footpath, nom. 2.5m width, 100mm thick supply, place & finish broomed - including excavation and forming complete	m²	640	\$ 85.00	\$ 54,400.00		\$ 54,400.00
	vii) 5% vehicular grade for crossings - service access etc	m²	32	\$ 125.00	\$ 4,000.00		\$ 4,000.00
	viii) Seating with arms & back on concrete pad	each	2	\$ 2,500.00	\$ 5,000.00		\$ 5,000.00
10.9	Concrete edging - supply and install complete	lin.m	20	\$ 35.00	\$ 700.00		\$ 700.00
10.10	Maintenance	months	12	\$ 1,600.00	\$ 19,200.00		\$ 19,200.00
10.11	Preliminaries & Design Contingency	%	0.00		\$ 0.00		\$ -
	OS 9 SUBTOTAL				\$ 312,735.00	\$ -	\$ 312,735.00
					\$ 360,960.49	\$ -	\$ 360,960.49
11.0	Riparian 4 (R4)/OS10						
11.1	Minor Earthworks						
	i) Bulk earthworks	m3	40,070.50	\$ 6.00	\$ 240,423.00		\$ 240,423.00
	i) Allow for minor grading and trimming to achieve desired levels +/- 300mm	item	80,141	\$ 3.50	\$ 280,493.50		\$ 280,493.50
11.2	Seed Collection						
	i) Collection of Seed and Plant Propagation Material for Restoration Area, Rehabilitation Area	Ha	5.48	\$ 10,000.00	\$ 54,800.00		\$ 54,800.00
11.3	Revegetation Management						
	i) Mass Weed Removal for Revegetation- existing plant community primary treatment	m²	54,775	\$ 1.00	\$ 54,775.00		\$ 54,775.00
	ii) Supply and plant mass planting (incl. CRZ & VB to riparian corridor) to 100% of area	m²	45,495	\$ 15.00	\$ 682,425.00		\$ 682,425.00
	iii) 10m wide jute mat & planting macrophyte species to creekline	m²	9,280	\$ 30.00	\$ 278,400.00		\$ 278,400.00
	iv) Bush revegetation Ongoing maintenance	monthl y	24	\$ 5,300.00	\$ 127,200.00		\$ 127,200.00
11.4	Bioretention Basins						
	i) Nom. 750m High Walls - 300x300x450 Sandstone Boulders as specified and detailed to rain garden	lin.m	185	\$ 300.00	\$ 55,500.00	\$ 55,500.00	
	ii) Nom. 1500m max High Walls - 300x300x450 Sandstone Boulders as specified and detailed	lin.m	287	\$ 500.00	\$ 143,500.00	\$ 143,500.00	
	iii) Nom. 1m thick filtering media incl geofab liner	m²	1,480	\$ 185.00	\$ 273,800.00	\$ 273,800.00	
	iv) Subsoil drainage - supply and install	m²	1,480	\$ 25.00	\$ 37,000.00	\$ 37,000.00	
	v) bioretention species	m²	1,480	\$ 25.00	\$ 37,000.00	\$ 37,000.00	
	vii) Reconfigure existing dam to billabong (approx 1,368m²)	item	1	\$ -	\$ -	\$ -	
11.4.1	Treatment to GPT Surrounds						
	GPT-Supply, deliver and install CDS 1009	item	6.00	\$ 5,000.00	\$ 30,000.00	\$ 30,000.00	
	Channel stabilisation works (per GHD Oct 11)	item	6.00	\$ 32,000.00	\$ 192,000.00	\$ 192,000.00	
		item	1.00	\$ 126,630.00	\$ 126,630.00	\$ 126,630.00	
11.5	Wetland						
	i) Nom. 300mm thick filtering media incl geofab liner	m²	660	\$ 30.00	\$ 19,800.00	\$ 19,800.00	
	ii) Wetland species	m²	660	\$ 25.00	\$ 16,500.00	\$ 16,500.00	
	iii) Connection between wetlands	item	0	\$ -	\$ -	\$ -	
11.6	PAVING						
	i) Insitu Reinforced concrete footpath, nom. 2.5m width, 100mm thick supply, place & finish broomed - including excavation and forming complete	m²	5,071	\$ 85.00	\$ 431,035.00		\$ 431,035.00
	ii) Specialist paving - eg lightly washed special aggregate pedestrian grade	m²	267	\$ 100.00	\$ 26,700.00		\$ 26,700.00
	iii) 5% vehicular grade for crossings - service access etc	m²	267	\$ 125.00	\$ 33,375.00		\$ 33,375.00
11.7	Decks to culverts - supply and install complete						
	i) Deck over culvert -	m²	104	\$ 680.00	\$ 70,720.00		\$ 70,720.00
	ii) Balustrade - fabricate and install	lin.m	42	\$ 450.00	\$ 18,900.00		\$ 18,900.00
11.8	Pedestrian Bridge - supply and install complete						
	i) Hardwood Timber Bridge/Viewing Deck - as detailed and specified	m²	64	\$ 680.00	\$ 43,520.00		\$ 43,520.00
	ii) Balustrade - fabricate and install	lin.m	40	\$ 450.00	\$ 18,000.00		\$ 18,000.00
	iii) treatment at abutments	each	4	\$ 500.00	\$ 2,000.00		\$ 2,000.00
11.9	Furniture - supply and install complete						
	i) Seating with arms & back on concrete pad	each	13	\$ 2,500.00	\$ 32,500.00		\$ 32,500.00
	iv) Bollards - supply and install	each	12	\$ 800.00	\$ 9,600.00		\$ 9,600.00
11.10	Planting & turfing - supply & install						
11.11	Planting - cultivate, supply & install						
	i) 5 Litre Tree Planting (incl. stake if required)	each	15	\$ 15.00	\$ 225.00		\$ 225.00
	ii) Semi mature 100 litre Tree Planting (incl. stake if required)	each	3	\$ 350.00	\$ 1,050.00		\$ 1,050.00
	iii) Mass planting to detailed landscaped areas (incl. cultivation, soil, mulch, etc)	m²	629	\$ 35.00	\$ 22,015.00		\$ 22,015.00
11.12	Turfing - General Only - cultivate, supply, lay and establish	m²	1,873	\$ 10.00	\$ 18,730.00		\$ 18,730.00
11.13	Concrete edging - supply and install complete	lin.m	142	\$ 35.00	\$ 4,970.00		\$ 4,970.00
11.14	Maintenance Bioretention & Landscape areas	month	12	\$ 1,600.00	\$ 19,200.00		\$ 19,200.00
11.15	Preliminaries & Design Contingency	%	0.00		\$ 0.00		\$ -
	R4, OS10				\$ 3,162,363.50	\$ 931,730.00	\$ 2,230,633.50
					\$ 3,650,017.68	\$ 1,075,407.99	\$ 2,574,609.69

URBANGROWTH
PROJECT NAME: Menangle Park
PROBABLE COST ESTIMATE - TOTALS UPDATED TO 2016

BUDGET ESTIMATE

ITEM	DESCRIPTION	UNIT	QTY	RATE(2011)	TOTAL	DRAINAGE	OPEN SPACE
12.0	Playing Fields						
12.1	Minor Earthworks						
	i) Bulk earthworks	m3	60,454.00	\$ 6.00	\$ 362,724.00		\$ 362,724.00
	i) Allow for minor grading and trimming to achieve desired levels +/- 300mm	item	241,815	\$ 1.00	\$ 241,815.00		\$ 241,815.00
12.2	Seed Collection						
	i) Collection of Seed and Plant Propagation Material for Restoration Area, Rehabilitation Area	Ha	9.90	\$ 10,000.00	\$ 99,000.00		\$ 99,000.00
12.3	Regeneration Management						
	ii) Mass Weed Removal for Regeneration- existing plant community primary treatment	m²	41,408	\$ 1.00	\$ 41,408.00		\$ 41,408.00
	iii) Detailed Weed Removal for Regeneration- existing plant community secondary treatment	m²	41,408	\$ 1.20	\$ 49,689.60		\$ 49,689.60
	iv) Supply and plant propagated material to say 20% of area	m²	8,282	\$ 15.00	\$ 124,224.00		\$ 124,224.00
	v) Bush regeneration Ongoing maintenance	monthl y	24	\$ 4,700.00	\$ 112,800.00		\$ 112,800.00
12.4	Revegetation Management						
	i) Mass Weed Removal for Revegetation- existing plant community primary treatment	m²	47,612	\$ 2.00	\$ 95,224.00		\$ 95,224.00
	ii) Supply and plant mass planting (incl. CRZ & VB to riparian corridor) to 100% of area	m²	40,712	\$ 15.00	\$ 610,680.00		\$ 610,680.00
	iii) 10m wide jute mat & planting macrophyte species to creekline	m²	6,900	\$ 30.00	\$ 207,000.00		\$ 207,000.00
	v) Bush revegetation Ongoing maintenance	monthl y	24	\$ 5,000.00	\$ 120,000.00		\$ 120,000.00
12.5	Wetland						
	i) Nom. 750m High Walls - 300x300x450 Sandstone Boulders as specified and detailed	lin.m	400	\$ 300.00	\$ 120,000.00	\$ 120,000.00	
	ii) Nom 1:3 grade batter (incl. bank stabilisation)	lin.m	400	\$ 25.00	\$ 10,000.00	\$ 10,000.00	
	iii) Nom. 300mm thick filtering media incl geofab liner	m²	10,886	\$ 30.00	\$ 326,580.00	\$ 326,580.00	
	v) Wetland species	m²	10,886	\$ 25.00	\$ 272,150.00	\$ 272,150.00	
	vi) Treatment to GPT Surrounds	item	2.00	\$ 5,000.00	\$ 10,000.00	\$ 10,000.00	
	GPT -Supply, deliver and install CDS 1009		2.00	\$ 32,000.00	\$ 64,000.00	\$ 64,000.00	
	vii) Inlet & Outlet headwall & surrounding treatment	item	3.00	\$ 2,500.00	\$ 7,500.00	\$ 7,500.00	
	viii) Connection between wetlands	item	205.00	\$ 50.00	\$ 10,250.00	\$ 10,250.00	
	ix) Reconfigure existing dam to billabong (approx 6,282m²)	item	6,282.00	\$ 5.00	\$ 31,410.00	\$ 31,410.00	
	Channel stabilisation works (per GHD Oct 11)		1.00	\$ 126,630.00	\$ 126,630.00	\$ 126,630.00	
12.6	Recreation items						
	i) Playground (U/5's) allow swing, see saw, rocker, wet pour soft fall (approx. 68m²), incidental seating, shelter, etc				\$ 200,000.00		\$ 200,000.00
	ii) Playground (12yrs +) allow 3 swings, 3 spica's, climbing net, conalastic way, equal access equipment, wet pour soft fallsoft (approx. 465m²), incidental seating, shelter, etc				\$ 400,000.00		\$ 400,000.00
	iii) Playground (Nature Play) allow 24 stumps, 5 balancing logs, 50 Lm rope, large fallen tree trunk, softfall mulch (approx. 300m²), sandpit (approx. 67m²), stepping stones (approx. 150 each), etc				\$ 200,000.00		\$ 200,000.00
	iv) Multiuse courts - plexipave surface on AC	m²	1,090	\$ 85.00	\$ 92,650.00		\$ 92,650.00
	v) Multiuse courts - Sporting fixtures	each	4	\$ 3,500.00	\$ 14,000.00		\$ 14,000.00
12.7	Concrete Seating Walls						
	i) Reinforced concrete footings to engineers details	lin.m	210	\$ 200.00	\$ 42,000.00		\$ 42,000.00
	ii) Reinforced insitu concrete wall (Nom. 500mm High) to engineers details	lin.m	210	\$ 500.00	\$ 105,000.00		\$ 105,000.00
12.8	PAVING						
	i) Insitu Reinforced concrete footpath, nom. 2.5m width, 100mm thicksupply, place & finish broomed - including excavation and forming complete	m²	5,409	\$ 85.00	\$ 459,765.00		\$ 459,765.00
	ii) Specialist paving - eg lightly washed special aggregate pedestrian grade	m²	400	\$ 125.00	\$ 50,000.00		\$ 50,000.00
	iii) 5% vehicular grade for crossings - service access etc	m²	291	\$ 125.00	\$ 36,375.00		\$ 36,375.00
12.9	Pedestrian Bridge - supply and install complete						
	i) Hardwood Timber Bridge - as detailed and specified	m²	75	\$ 680.00	\$ 51,000.00		\$ 51,000.00
	ii) Balustrade - fabricate and install	lin.m	60	\$ 450.00	\$ 27,000.00		\$ 27,000.00
	iii) treatment at abutments	each	4	\$ 500.00	\$ 2,000.00		\$ 2,000.00
12.10	Drinking Fountain						
	i) connection to potable incl applic fee, meter, backflow valve etc and some pipe work	item	2	\$ 3,500.00	\$ 7,000.00		\$ 7,000.00
	ii) Drinking fountain accessible supply & install complete with overflow	each	2	\$ 4,000.00	\$ 8,000.00		\$ 8,000.00
12.11	Furniture - supply and install complete						
	i) Seating with arms & back on concrete pad	each	26	\$ 2,500.00	\$ 65,000.00		\$ 65,000.00
	ii) benches no backs	each	4	\$ 1,500.00	\$ 6,000.00		\$ 6,000.00
	iii) Table seats	each	2	\$ 3,500.00	\$ 7,000.00		\$ 7,000.00
	iv) Bollards - supply and install	each	24	\$ 800.00	\$ 19,200.00		\$ 19,200.00
	v) Vandal Resistant Bins including 120ltr inner liner	each	6	\$ 1,800.00	\$ 10,800.00		\$ 10,800.00
12.12	Shelters - supply and install complete						
	i) shelters	each	1	\$ 35,000.00	\$ 35,000.00		\$ 35,000.00
12.13	BBQ						
	i) electrical connection and meter	item	1	\$ 3,500.00	\$ 3,500.00		\$ 3,500.00
	ii) Double BBQ with stainless steel bench top & masonry surround	item	1	\$ 15,000.00	\$ 15,000.00		\$ 15,000.00
12.14	Planting & turfing - supply & install						
12.15	Planting - cultivate, supply & install						
	i) 5 Litre Tree Planting (incl. stake if required)	each	97	\$ 15.00	\$ 1,455.00		\$ 1,455.00
	ii) Semi mature 1000 litre Tree Planting (incl. stake if required)	each	7	\$ 3,500.00	\$ 24,500.00		\$ 24,500.00
	iii) 75% mass planting underneath (incl. cultivation, soil, mulch, spade edge, etc)	m²	2,600	\$ 20.00	\$ 52,000.00		\$ 52,000.00
	iv) 25% mulch underneath (inclu. Spade edge, etc)	m²	1,300	\$ 6.00	\$ 7,800.00		\$ 7,800.00

URBANGROWTH
 PROJECT NAME: Menangle Park
 PROBABLE COST ESTIMATE - TOTALS UPDATED TO 2016

BUDGET ESTIMATE

ITEM	DESCRIPTION	UNIT	QTY	RATE(2011)	TOTAL	DRAINAGE	OPEN SPACE
	iii) Mass planting to detailed landscaped areas (incl. cultivation, soil, mulch, etc)	m²	1,774	\$ 35.00	\$ 62,090.00		\$ 62,090.00
12.16	Sports fields						
	i) construct field including drainage, soil medium and turf (combined sports field area = 50,535m²)	each	2	\$ 195,000.00	\$ 390,000.00		\$ 390,000.00
	ii) irrigation including centrally located tank	each	2	\$ 120,000.00	\$ 240,000.00		\$ 240,000.00
	iii) Lighting	each	1	\$ 250,000.00	\$ 250,000.00		\$ 250,000.00
12.17	Turfing - General Only - cultivate, supply, lay and establish	m²	91,735	\$ 10.00	\$ 917,350.00		\$ 917,350.00
12.18	Concrete edging - supply and install complete	lin.m	1,110	\$ 35.00	\$ 38,850.00		\$ 38,850.00
12.19	Fencing & Gates- supply and install complete						
	i) Chainwire mesh fence (colour: black) nom. 1.2m High, incl. openings, gates, etc	lin.m	455	\$ 85.00	\$ 38,675.00		\$ 38,675.00
	ii) Vehicular access gate (to councils specification)	item	3	\$ 750.00	\$ 2,250.00		\$ 2,250.00
12.20	Public Art	item	1	\$ 100,000.00	\$ 100,000.00		\$ 100,000.00
12.21	Amenities/Clubhouse Building	item	1		\$ -		\$ -
12.22	Carpark	item	1		\$ -		\$ -
12.23	Sewer Pumping Station	item	1		\$ -		\$ -
12.24	Establishing watering system QCV's only	item	1	\$ 10,000.00	\$ 10,000.00		\$ 10,000.00
12.25	Maintenance of landscape areas- as specified incl watering requirements, mowing etc	month	24	\$ 2,400.00	\$ 57,600.00		\$ 57,600.00
12.26	Sports field maintenance	month	24	\$ 6,500.00	\$ 156,000.00		\$ 156,000.00
12.27	Preliminaries & Design Contingency	%	0.00		\$ 0.00	\$ -	\$ -
	Playing Fields				\$ 6,885,220.60	\$ 978,520.00	\$ 5,906,700.60
					\$ 7,946,960.23	\$ 1,129,413.27	\$ 6,817,546.95

Estimate Summary Sheet



Project: MENANGLE PARK STRATEGIC CONCEPT DESIGN	Estimate Prepared by: WT Partnership
	Quantities Prepared by: WT Partnership
	Design Prepared by: Aecom
Project No:	Estimate Type: Concept

Item	Base Estimate (excluding contingency)	Contingency		Estimate (including contingency)	% of Total Estimate	Comments/Assumptions
		%	Contingency Amount			
1. Concept Development						
1 (a) Route/Concept/EIS	\$ 3,380,000.00	25%	\$ 845,000.00	\$ 4,225,000.00		3.0% of 5 (a)-(c)
1 (b) Project Management Services	\$ 338,000	25%	\$ 84,500.00	\$ 422,500.00		10.0% of 1 (a)
1 (c) Sponsor	\$ 33,800	25%	\$ 8,450.00	\$ 42,250.00		10.0% of 1 (b)
1 (d) Community Liaison	\$ 10,000	25%	\$ 2,500.00	\$ 12,500.00		
Sub Total	\$ 3,761,800	25%	\$ 940,450	\$ 4,702,250	2.54%	
2. Detail Design & Documentation						
2 (a) Investigation and Design	\$ 4,506,000	25%	\$ 1,126,500.00	\$ 5,632,500.00		4.0% of 5 (a)-(c)
2 (b) Project Management Services	\$ 451,000	25%	\$ 112,750.00	\$ 563,750.00		10.0% of 2 (a)
2 (c) Sponsor	\$ 45,100	25%	\$ 11,275.00	\$ 56,375.00		10.0% of 2 (b)
Sub Total	\$ 5,002,100	25%	\$ 1,250,525	\$ 6,252,625	3.38%	
3. Property Acquisitions						
3 (a) Acquire Property	\$ -	40%	\$ -	\$ -		
3 (b) Professional Services for Property	\$ -	25%	\$ -	\$ -		7.0% of 3 (a)
3 (c) Project Management Services	\$ -	25%	\$ -	\$ -		10.0% of 3 (b)
3 (d) Sponsor	\$ -	25%	\$ -	\$ -		10.0% of 3 (c)
Sub Total	\$ -	-	\$ -	\$ -	0.00%	
4. Utility Adjustments						
4 (a) Adjust Utilities	\$ 13,250,000	20%	\$ 2,650,000	\$ 15,900,000		
4 (b) Project Management Services	\$ 1,325,000	25%	\$ 331,250.00	\$ 1,656,250.00		10.0% of 4 (a)
4 (c) Sponsor	\$ 132,500	25%	\$ 33,125.00	\$ 165,625.00		10.0% of 4 (b)
Sub Total	\$ 14,707,500	20%	\$ 3,014,375	\$ 17,721,875	9.94%	
5. Infrastructure Construction						
5 (a)-(c) Infrastructure	\$ 112,662,448	22%	\$ 24,257,412	\$ 136,919,860		
5 (d) Project Management Services	\$ 9,013,000	25%	\$ 2,253,250.00	\$ 11,266,250.00		8.0% of 5 (a)-(c)
5 (e) Sponsor	\$ 901,000	25%	\$ 225,250.00	\$ 1,126,250.00		10.0% of 5 (d)
5 (f) PA Insurance	\$ 692,500	25%	\$ 173,125.00	\$ 865,625.00		0.55% of sum of Utilities + 5 (a)-(c)
Sub Total	\$ 123,268,948	22%	\$ 26,909,037	\$ 150,177,985	83.29%	
6. Finalisation						
6 (a) Refurbish Old Route	\$ -		\$ -	\$ -		
6 (b) Project data & Completion Review	\$ 1,127,000	25%	\$ 281,750.00	\$ 1,408,750.00		1.0% of 5 (a)-(c)
6 (c) Project Management Services	\$ 112,700	25%	\$ 28,175.00	\$ 140,875.00		10.0% of 6 (b)
6 (d) Sponsor	\$ 11,270	25%	\$ 2,817.50	\$ 14,087.50		10.0% of 6 (c)
Sub Total	\$ 1,250,970	25%	\$ 312,743	\$ 1,563,713	0.85%	
TOTAL	\$ 147,991,318	22%	\$ 32,427,130	\$ 180,418,448	100.00%	

Menangle Park - Spring Farm Parkway (Chainage 2300-5300)
 Strategic Concept Estimate
 August 2016

Pay Item	Description of work	Quantity	Unit	Rate	Amount	Contingency		
						%	Value	Amount
G1 - JOB SPECIFIC REQUIREMENTS								
G1P1	Provide new driveway to existing house	-	m2	\$ 120.00	\$ -	25%	\$ -	\$ -
G1P2	Construct retaining wall around existing gas well location	1	lump sum	\$ 36,000.00	\$ 36,000.00	25%	\$ 9,000.00	\$ 45,000.00
G1P3	Provide access to existing gas well locations off Menangle Road	-	lump sum	\$ 10,000.00	\$ 10,000.00	25%	\$ 2,500.00	\$ 12,500.00
G1P3		-	lump sum	\$ -	\$ -	25%	\$ -	\$ -
G1	JOB SPECIFIC REQUIREMENTS			Sub-Total:	\$ 46,000.00	25.00%	\$ 11,500.00	\$ 57,500.00
G2-C2 - GENERAL REQUIREMENTS (MAJOR CONTRACTS)								
G2-C2P1	Primary Testing Subcontract (Provisional Sum) (if designated in Annexure G2/A)	1	provisional sum	\$ 555,600.00	\$ 555,600.00	25%	\$ 138,900.00	\$ 694,500.00
G2-C2P2	WAE Drawings	1	lump sum	\$ 111,000.00	\$ 111,000.00	25%	\$ 27,750.00	\$ 138,750.00
G2-C2	GENERAL REQUIREMENTS (MAJOR CONTRACTS)			Sub-Total:	\$ 666,600.00	25.00%	\$ 166,650.00	\$ 833,250.00
G4 - PRINCIPAL'S PROJECT ACCOMMODATION								
G4P1	Establishment of Principal's Project Accommodation	1	lump sum	\$ 400,000.00	\$ 400,000.00	25%	\$ 100,000.00	\$ 500,000.00
G4P2	Maintenance of Principal's Project Accommodation until Completion	40	week	\$ 2,500.00	\$ 100,000.00	25%	\$ 25,000.00	\$ 125,000.00
G4P3	Maintenance of Principal's Project Accommodation after Completion (Item with provisional quantity)	4	week	\$ 1,500.00	\$ 6,000.00	25%	\$ 1,500.00	\$ 7,500.00
G4P4	Removal of Principal's Project Accommodation	1	lump sum	\$ 75,000.00	\$ 75,000.00	25%	\$ 18,750.00	\$ 93,750.00
G4	PRINCIPAL'S PROJECT ACCOMMODATION			Sub-Total:	\$ 581,000.00	25.00%	\$ 145,250.00	\$ 726,250.00
G7 - UTILITY ADJUSTMENT								
G7P2	Allowance for utility adjustments, including streetlighting and intersection traffic signalling	1	provisional sum	\$ 13,250,000.00	\$ 13,250,000.00	20%	\$ 2,650,000.00	\$ 15,900,000.00
G7	UTILITY ADJUSTMENT			Sub-Total:	\$ 13,250,000.00	20.00%	\$ 2,650,000.00	\$ 15,900,000.00
G10 - TRAFFIC MANAGEMENT								
G10P1	Traffic Management	1	lump sum	\$ 750,000.00	\$ 750,000.00	25%	\$ 187,500.00	\$ 937,500.00
G10P2	Maintenance of Traffic Control Measures	40	week	\$ 7,000.00	\$ 280,000.00	25%	\$ 70,000.00	\$ 350,000.00
G10	TRAFFIC MANAGEMENT			Sub-Total:	\$ 1,030,000.00	25.00%	\$ 257,500.00	\$ 1,287,500.00
G36 - ENVIRONMENTAL PROTECTION								
G36P1	<i>Building Condition Inspections</i>							
G36P1.1	Residential	1	each	\$ 2,500.00	\$ 2,500.00	25%	\$ 625.00	\$ 3,125.00
G36P1.2	Commercial	1	each	\$ 5,000.00	\$ 5,000.00	25%	\$ 1,250.00	\$ 6,250.00
G36P2	<i>Site Monitoring</i>							
G36P2.1	Air Quality	1	lump sum	\$ 88,000.00	\$ 88,000.00	25%	\$ 22,000.00	\$ 110,000.00
G36P2.2	Noise	1	lump sum	\$ 72,000.00	\$ 72,000.00	25%	\$ 18,000.00	\$ 90,000.00
G36P2.3	Ground Vibration	1	lump sum	\$ 72,000.00	\$ 72,000.00	25%	\$ 18,000.00	\$ 90,000.00
G36P3	<i>Land Condition Assessments Reports For Principal Nominated Area(s) Used For Contractor's Facilities</i>							

Pay Item	Description of work	Quantity	Unit	Rate	Amount	Contingency		
						%	Value	Amount
G36P3.1	Pre-construction Land Condition Assessment Reports	1	lump sum	\$ 1,000.00	\$ 1,000.00	25%	\$ 250.00	\$ 1,250.00
G36P3.2	Post-construction Land Condition Assessment Reports	1	lump sum	\$ 1,000.00	\$ 1,000.00	25%	\$ 250.00	\$ 1,250.00
G36	ENVIRONMENTAL PROTECTION			Sub-Total:	\$ 241,500.00	25.00%	\$ 60,375.00	\$ 301,875.00
G38 - SOIL AND WATER MANAGEMENT								
G38P1	<i>Soil and Water Management Control Measures</i>							
G38P1.1	Establishment of Soil and Water Management Control Measures	1	lump sum	\$ 300,000.00	\$ 300,000.00	25%	\$ 75,000.00	\$ 375,000.00
G38P1.2	Maintenance of Soil and Water Management Control Measures	40	per week	\$ 1,500.00	\$ 60,000.00	25%	\$ 15,000.00	\$ 75,000.00
G38P2	Site Water Quality Monitoring	40	per week	\$ 1,400.00	\$ 56,000.00	20%	\$ 11,200.00	\$ 67,200.00
G38P3	Operational Basins	1	lump sum	\$ 150,000.00	\$ 150,000.00	20%	\$ 30,000.00	\$ 180,000.00
G38	SOIL AND WATER MANAGEMENT			Sub-Total:	\$ 416,000.00	24.33%	\$ 101,200.00	\$ 517,200.00
G40 - CLEARING AND GRUBBING								
G40P1	Clearing and Grubbing	1	lump sum	\$ 385,000.00	\$ 385,000.00	25%	\$ 96,250.00	\$ 481,250.00
G40P7	Demolition of Existing Kerb and Gutter	500	m	\$ 30.00	\$ 15,000.00	25%	\$ 3,750.00	\$ 18,750.00
G40	CLEARING AND GRUBBING			Sub-Total:	\$ 400,000.00	25.00%	\$ 100,000.00	\$ 500,000.00
R11 - STORMWATER DRAINAGE								
R11P2	<i>Excavation for Stormwater Drainage Structures</i>							
R11P2(a)	Reinforced Concrete and Fibre Reinforced Concrete Pipes	5,900	m3	\$ 120.00	\$ 708,000.00	25%	\$ 177,000.00	\$ 885,000.00
R11P2(c)	Other Drainage Structures	237	m3	\$ 120.00	\$ 28,440.00	25%	\$ 7,110.00	\$ 35,550.00
R11P3	Excavation for Open Drains		m3	\$ 88.40	\$ -	25%	\$ -	\$ -
R11P4	Inadequate Foundation Material under Drainage Structures and Open Drains (Item with provisional quantity)		m3	\$ 119.00	\$ -	25%	\$ -	\$ -
R11P5	<i>Precast Concrete and Fibre Reinforced Concrete Pipes</i>							
R11P5.4	Reinforced Concrete Pipe 600mm Dia. - Class 4	4,058	m	\$ 550.00	\$ 2,232,028.00	15%	\$ 334,804.20	\$ 2,566,832.20
R11P6	<i>Precast Concrete Box Culvert Structures</i>							
R11P6.1	Precast Concrete Box Culvert structures	38	m	\$ 7,500.00	\$ 285,000.00	25%	\$ 71,250.00	\$ 356,250.00
R11P7	<i>Drainage Structures Other Than Pipes and Box Culverts</i>							
R11P7.1	Headwall to suit a single cell 600mm Pipe	1	each	\$ 5,000.00	\$ 5,000.00	15%	\$ 750.00	\$ 5,750.00
R11P7.2	<i>Supply and Install Pits</i>							
R11P7.2.1	Type SA1 - Standard Gully Pit Type SA1	82	each	\$ 3,800.00	\$ 311,600.00	25%	\$ 77,900.00	\$ 389,500.00
R11P7.2.2	Allow for special junction pits	1	each	\$ 35,000.00	\$ 35,000.00	25%	\$ 8,750.00	\$ 43,750.00
R11P16	Rip Rap Scour Protection	25	m3	\$ 280.00	\$ 7,000.00	15%	\$ 1,050.00	\$ 8,050.00
R11	STORMWATER DRAINAGE			Sub-Total:	\$ 3,612,068.00	18.79%	\$ 678,614.20	\$ 4,290,682.20
R15 - KERBS AND GUTTERS								
R15P1	<i>Kerbs and Gutters</i>							
R15P1.1	Type SA	5,875	m	\$ 70.00	\$ 411,250.00	25%	\$ 102,812.50	\$ 514,062.50
R15P1.2	Type SF	6,360	m	\$ 60.00	\$ 381,600.00	25%	\$ 95,400.00	\$ 477,000.00
R15P1.3	Type SO	105	m	\$ 70.00	\$ 7,350.00	15%	\$ 1,102.50	\$ 8,452.50
R15P2	<i>Kerb Ramps</i>							
R15P2.1	Kerb Ramps	4	each	\$ 500.00	\$ 2,000.00	25%	\$ 500.00	\$ 2,500.00
R15P2.2	Vehicle Crossing	2	m	\$ 95.00	\$ 190.00	25%	\$ 47.50	\$ 237.50
R15	KERBS AND GUTTERS			Sub-Total:	\$ 802,390.00	24.91%	\$ 199,862.50	\$ 1,002,252.50
R33 - TRENCH DRAINS								
R33P1	Excavation	1,630	m3	\$ 40.00	\$ 65,196.00	25%	\$ 16,299.00	\$ 81,495.00
R33P2	<i>Drainage Pipe</i>							
R33P2.1	100 mm dia Corrugated Perforated Plastic Drainage Pipe	9,055	m	\$ 12.00	\$ 108,660.00	25%	\$ 27,165.00	\$ 135,825.00
R33P2.2	100 mm dia Corrugated Non-perforated Plastic Drainage Pipe		m	\$ 10.80	\$ -	15%	\$ -	\$ -
R33P3	<i>Filter Material</i>							
R33P3.1	Aggregate Filter Material	1,630	m3	\$ 140.00	\$ 228,186.00	25%	\$ 57,046.50	\$ 285,232.50
R33P3.2	No Fines Concrete		m3	\$ 255.00	\$ -	15%	\$ -	\$ -
R33P4	Supply and Installation of Geotextile	19,016	m2	\$ 4.00	\$ 76,062.00	25%	\$ 19,015.50	\$ 95,077.50

Pay Item	Description of work	Quantity	Unit	Rate	Amount	Contingency		
						%	Value	Amount
R33	TRENCH DRAINS			Sub-Total:	\$ 478,104.00	25.00%	\$ 119,526.00	\$ 597,630.00
R44 - EARTHWORKS								
<i>R44P1</i>	<i>Topsoil</i>							
R44P1.2	Removal and Stockpiling of Non-contaminated Topsoil	54,130	m3	\$ 11.00	\$ 595,424.72	25%	\$ 148,856.18	\$ 744,280.90
R44P2	General Earthworks (Cut/Fill)	65,762	m3	\$ 18.00	\$ 1,183,720.12	25%	\$ 295,930.03	\$ 1,479,650.15
R44P3	Imported or Borrowed Material	1,354,884	m3	\$ 38.00	\$ 51,485,593.71	25%	\$ 12,871,398.43	\$ 64,356,992.14
R44P4	Unsuitable Material (Item with provisional quantity)	6,576	m3	\$ 83.70	\$ 550,429.86	25%	\$ 137,607.46	\$ 688,037.32
<i>R44P5</i>	<i>Selected Material in the Selected Material Zone and Verge Material</i>							
R44P5.2	Selected Material Imported from beyond the Limits of Works area	18,930	m3	\$ 60.00	\$ 1,135,800.00	25%	\$ 283,950.00	\$ 1,419,750.00
<i>R44P7</i>	<i>Foundation Treatments</i>							
R44P7.1	Treatment Type E1 and Cutting Type C1 - Loosen and Recompact	63,100	m2	\$ 5.00	\$ 315,500.00	25%	\$ 78,875.00	\$ 394,375.00
R44	EARTHWORKS			Sub-Total:	\$ 55,266,468.41	25.00%	\$ 13,816,617.10	\$ 69,083,085.51
R82 - LEAN-MIX CONCRETE SUBBASE								
R82P1	Supply and Place Concrete in base	15,533	m3	\$ 270.00	\$ 4,193,910.00	15%	\$ 629,086.50	\$ 4,822,996.50
R82P2	Finish and Cure base	56,481	m2	\$ 5.00	\$ 282,405.00	15%	\$ 42,360.75	\$ 324,765.75
R82P3	Surface Debonding Treatment	56,481	m2	\$ 2.00	\$ 112,962.00	15%	\$ 16,944.30	\$ 129,906.30
R82	LEAN-MIX CONCRETE SUBBASE			Sub-Total:	\$ 4,589,277.00	15.00%	\$ 688,391.55	\$ 5,277,668.55
R101 - COLD MILLING OF ROAD PAVEMENT MATERIALS								
R101P1	Milling to Specified Depth of Cut	-	m2	\$ 45.00	\$ -	20%	\$ -	\$ -
R101	COLD MILLING OF ROAD PAVEMENT MATERIALS			Sub-Total:	\$ -	#DIV/0!	\$ -	\$ -
R106 - SPRAYED BITUMINOUS SURFACING (WITH CUTBACK BITUMEN)								
R106P2	Supply and Spray Binder - Class 170 Bitumen (including Adhesion Agent where required and Preparation of Surface)	-	litre	\$ 4.50	\$ -	25%	\$ -	\$ -
R106P5	Supply, Incorporate and Spray Cutter Oil in Binder	-	cold litre	\$ 3.50	\$ -	25%	\$ -	\$ -
R106	SPRAYED BITUMINOUS SURFACING (WITH CUTBACK BITUMEN)			Sub-Total:	\$ -	#DIV/0!	\$ -	\$ -
R116 - HEAVY DUTY DENSE GRADED ASPHALT								
R116P1	Supply and Application of Tack Coat (Including Preparation of Surface)	56,481	litre	\$ 4.50	\$ 254,164.50	25%	\$ 63,541.13	\$ 317,705.63
<i>R116P2</i>	<i>Heavy Duty Dense Asphalt in Corrective Courses</i>							
R116P2.5	20 mm Nominal Size, 150mm thick	-	m2	\$ 90.00	\$ -	25%	\$ -	\$ -
<i>R116P3</i>	<i>Heavy Duty Dense Asphalt in Intermediate Courses</i>							
<i>R116P3.3</i>	<i>20 mm Nominal Size</i>							
R116P3.3.1	20 mm Nominal Size, 80 mm thick	56,481	m2	\$ 52.80	\$ 2,982,196.80	25%	\$ 745,549.20	\$ 3,727,746.00
<i>R116P4</i>	<i>Heavy Duty Dense Asphalt in Wearing Course</i>							
<i>R116P4.3</i>	<i>10 mm Nominal Size, (AR 450), 40 mm thick</i>							
R116	HEAVY DUTY DENSE GRADED ASPHALT			Sub-Total:	\$ 4,908,198.90	25.00%	\$ 1,227,049.73	\$ 6,135,248.63
R131 - GUIDE POSTS								
R131P1	Supply and Installation of Guide Posts	25	each	\$ 31.90	\$ 797.50	15%	\$ 119.63	\$ 917.13
R131P2	Removal of Existing Guide Posts		each	\$ 15.40	\$ -	15%	\$ -	\$ -
R131	GUIDE POSTS			Sub-Total:	\$ 797.50	15.00%	\$ 119.63	\$ 917.13
R132 - SAFETY BARRIER SYSTEMS								
<i>R132P9</i>	<i>Construction of Transitions</i>							
R132P9.1	Thrie Beam	8,168	m	\$ 400.00	\$ 3,267,200.00	15%	\$ 490,080.00	\$ 3,757,280.00
R132	SAFETY BARRIER SYSTEMS			Sub-Total:	\$ 3,267,200.00	15.00%	\$ 490,080.00	\$ 3,757,280.00
R141 - PAVEMENT MARKING								

Pay Item	Description of work	Quantity	Unit	Rate	Amount	Contingency			
						%	Value	Amount	
R141P3	Non-profile Thermoplastic Pavement Marking Material - Longitudinal Lines								
R141P3.1	Longitudinal Linemarkings, Transverse Lines and Other Symbols	1	lump sum	\$ 190,230.00	\$ 190,230.00	25%	\$ 47,557.50	\$ 237,787.50	
R141	PAVEMENT MARKING			Sub-Total:	\$ 190,230.00	25.00%	\$ 47,557.50	\$ 237,787.50	
R142 - RETROREFLECTIVE RAISED PAVEMENT MARKERS									
R142P2	Installation of Retroreflective Raised Pavement Markers	1,400	each	\$ 7.00	\$ 9,800.00	25%	\$ 2,450.00	\$ 12,250.00	
R142	RETROREFLECTIVE RAISED PAVEMENT MARKERS			Sub-Total:	\$ 9,800.00	25.00%	\$ 2,450.00	\$ 12,250.00	
R143 - SIGNPOSTING									
R143P1	Manufacture of Sign Panels								
R143P1.1	Small Signposting	128	each	\$ 405.00	\$ 51,840.00	25%	\$ 12,960.00	\$ 64,800.00	
R143P1.4	Medium Signposting	128	each	\$ 363.00	\$ 46,464.00	15%	\$ 6,969.60	\$ 53,433.60	
R143	SIGNPOSTING			Sub-Total:	\$ 98,304.00	20.27%	\$ 19,929.60	\$ 118,233.60	
R173 - GENERAL CONCRETE PAVING									
R173P1	Concrete Paving								
R173P1.1	N20 Concrete Paving - 100mm Thickness	-	m2	\$ 91.00	\$ -	25%	\$ -	\$ -	
R173	GENERAL CONCRETE PAVING			Sub-Total:	\$ -	#DIV/0!	\$ -	\$ -	
R178 - VEGETATION									
R178P3	Topsoiling Using Imported Material Including Surface Preparation								
R178P3.1	Areas with a slope of 4 to 1 or flatter using Topsoil Type 1	17,836	m2	\$ 12.03	\$ 214,567.08	25%	\$ 53,641.77	\$ 268,208.85	
R178P3.2	Areas of steeper than 4 to 1 using Topsoil Type 2 (Item with provisional quantity)	-	m2	\$ 8.00	\$ -	25%	\$ -	\$ -	
R178P3.3	Topsoiling for Areas Under Turf (Item with provisional quantity)	52,609	m2	\$ 4.00	\$ 210,437.33	25%	\$ 52,609.33	\$ 263,046.67	
R178P7	Hydroseeding	17,836	m2	\$ 0.29	\$ 5,172.44	25%	\$ 1,293.11	\$ 6,465.55	
R178P18	Turfing for Slopes and Open Drain Areas								
R178P18.1	Areas with gradient 4 to 1 or flatter.	52,609	m2	\$ 5.95	\$ 313,025.53	25%	\$ 78,256.38	\$ 391,281.92	
R178P19	Watering (item with Provisional Quantity)	1,000	kL	\$ 22.00	\$ 22,000.00	25%	\$ 5,500.00	\$ 27,500.00	
R178	VEGETATION			Sub-Total:	\$ 765,202.39	25.00%	\$ 191,300.60	\$ 956,502.98	
R179 - LANDSCAPE PLANTING									
R179P1	Landscaping Subcontract	1	Provisional Sum		\$ -	40%	\$ -	\$ -	
R179	LANDSCAPE PLANTING			Sub-Total:	\$ -	#DIV/0!	\$ -	\$ -	
R201 - FENCING									
R201P1	Rural Fencing - Wire	7,000	m	\$ 33.80	\$ 236,600.00	15%	\$ 35,490.00	\$ 272,090.00	
R201	FENCING			Sub-Total:	\$ 236,600.00	15.00%	\$ 35,490.00	\$ 272,090.00	
BRIDGE									
	Bridge over existing private rail siding (CH3350)	1	Lump Sum	\$ 3,375,000.00	\$ 3,375,000.00	10%	\$ 337,500.00	\$ 3,712,500.00	
	Bridge over creek & fauna crossing (CH4150)	1	Lump Sum	\$ 4,395,000.00	\$ 4,395,000.00	10%	\$ 439,500.00	\$ 4,834,500.00	
R201P9	Bridge over main southern railway (CH4600)	1	Lump Sum	\$ 6,238,800.00	\$ 6,238,800.00	10%	\$ 623,880.00	\$ 6,862,680.00	
R201P9	Bridge over Hume Highway (CH5950)	1	Lump Sum	\$ -	\$ -	10%	\$ -	\$ -	
R201	BRIDGE			Sub-Total:	\$ 14,008,800.00	15.00%	\$ 1,400,880.00	\$ 15,409,680.00	
	Allow for Preliminaries and Margin				\$ 20,972,908.04		\$ 4,482,068.68	\$ 25,454,976.72	
TOTAL AMOUNT (Excluding GST)					\$ 125,912,448.23	21.37%	\$ 26,907,412.08	\$ 152,819,860.31	

Estimate Summary Sheet



Project: MENANGLE PARK STRATEGIC CONCEPT DESIGN	Estimate Prepared by: WT Partnership Quantities Prepared by: WT Partnership Design Prepared by: Aecom Estimate Type: Concept
Project No:	

Item	Base Estimate (excluding contingency)	Contingency		Estimate (including contingency)	% of Total Estimate	Comments/Assumptions
		%	Contingency Amount			
1. Concept Development						
1 (a) Route/Concept/EIS	\$ 1,446,000.00	25%	\$ 361,500.00	\$ 1,807,500.00		3.0% of 5 (a)-(c)
1 (b) Project Management Services	\$ 145,000	25%	\$ 36,250.00	\$ 181,250.00		10.0% of 1 (a)
1 (c) Sponsor	\$ 14,500	25%	\$ 3,625.00	\$ 18,125.00		10.0% of 1 (b)
1 (d) Community Liaison	\$ 10,000	25%	\$ 2,500.00	\$ 12,500.00		
Sub Total	\$ 1,615,500	25%	\$ 403,875	\$ 2,019,375	2.25%	
2. Detail Design & Documentation						
2 (a) Investigation and Design	\$ 1,928,000	25%	\$ 482,000.00	\$ 2,410,000.00		4.0% of 5 (a)-(c)
2 (b) Project Management Services	\$ 193,000	25%	\$ 48,250.00	\$ 241,250.00		10.0% of 2 (a)
2 (c) Sponsor	\$ 19,300	25%	\$ 4,825.00	\$ 24,125.00		10.0% of 2 (b)
Sub Total	\$ 2,140,300	25%	\$ 535,075	\$ 2,675,375	2.98%	
3. Property Acquisitions						
3 (a) Acquire Property	\$ -	40%	\$ -	\$ -		
3 (b) Professional Services for Property	\$ -	25%	\$ -	\$ -		7.0% of 3 (a)
3 (c) Project Management Services	\$ -	25%	\$ -	\$ -		10.0% of 3 (b)
3 (d) Sponsor	\$ -	25%	\$ -	\$ -		10.0% of 3 (c)
Sub Total	\$ -	-	\$ -	\$ -	0.00%	
4. Utility Adjustments						
4 (a) Adjust Utilities	\$ 13,250,000	20%	\$ 2,650,000	\$ 15,900,000		
4 (b) Project Management Services	\$ 1,325,000	25%	\$ 331,250.00	\$ 1,656,250.00		10.0% of 4 (a)
4 (c) Sponsor	\$ 132,500	25%	\$ 33,125.00	\$ 165,625.00		10.0% of 4 (b)
Sub Total	\$ 14,707,500	20%	\$ 3,014,375	\$ 17,721,875	20.49%	
5. Infrastructure Construction						
5 (a)-(c) Infrastructure	\$ 48,196,566	21%	\$ 9,899,936	\$ 58,096,502		
5 (d) Project Management Services	\$ 3,856,000	25%	\$ 964,000.00	\$ 4,820,000.00		8.0% of 5 (a)-(c)
5 (e) Sponsor	\$ 386,000	25%	\$ 96,500.00	\$ 482,500.00		10.0% of 5 (d)
5 (f) PA Insurance	\$ 338,000	25%	\$ 84,500.00	\$ 422,500.00		0.55% of sum of Utilities + 5 (a)-(c)
Sub Total	\$ 52,776,566	21%	\$ 11,044,936	\$ 63,821,502	73.53%	
6. Finalisation						
6 (a) Refurbish Old Route	\$ -		\$ -	\$ -		
6 (b) Project data & Completion Review	\$ 482,000	25%	\$ 120,500.00	\$ 602,500.00		1.0% of 5 (a)-(c)
6 (c) Project Management Services	\$ 48,200	25%	\$ 12,050.00	\$ 60,250.00		10.0% of 6 (b)
6 (d) Sponsor	\$ 4,820	25%	\$ 1,205.00	\$ 6,025.00		10.0% of 6 (c)
Sub Total	\$ 535,020	25%	\$ 133,755	\$ 668,775	0.75%	
TOTAL	\$ 71,774,886	21%	\$ 15,132,016	\$ 86,906,902	100.00%	

Menangle Park - Spring Farm Parkway (Chainage 5300-6100)
 Strategic Concept Estimate
 August 2016

Pay Item	Description of work	Quantity	Unit	Rate	Amount	Contingency		
						%	Value	Amount
G1 - JOB SPECIFIC REQUIREMENTS								
G1P1	Provide new driveway to existing house	150	m2	\$ 120.00	\$ 18,000.00	25%	\$ 4,500.00	\$ 22,500.00
G1P2	Construct retaining wall around existing gas well location	-	lump sum	\$ 36,000.00	\$ 36,000.00	25%	\$ 9,000.00	\$ 45,000.00
G1P3	Provide access to existing gas well locations off Menangle Road	1	lump sum	\$ 10,000.00	\$ 10,000.00	25%	\$ 2,500.00	\$ 12,500.00
G1P3		-	lump sum	\$ -	\$ -	25%	\$ -	\$ -
G1	JOB SPECIFIC REQUIREMENTS			Sub-Total:	\$ 64,000.00	25.00%	\$ 16,000.00	\$ 80,000.00
G2-C2 - GENERAL REQUIREMENTS (MAJOR CONTRACTS)								
G2-C2P1	Primary Testing Subcontract (Provisional Sum) (if designated in Annexure G2/A)	1	provisional sum	\$ 268,500.00	\$ 268,500.00	25%	\$ 67,125.00	\$ 335,625.00
G2-C2P2	WAE Drawings	1	lump sum	\$ 54,000.00	\$ 54,000.00	25%	\$ 13,500.00	\$ 67,500.00
G2-C2	GENERAL REQUIREMENTS (MAJOR CONTRACTS)			Sub-Total:	\$ 322,500.00	25.00%	\$ 80,625.00	\$ 403,125.00
G4 - PRINCIPAL'S PROJECT ACCOMMODATION								
G4P1	Establishment of Principal's Project Accommodation	1	lump sum	\$ 400,000.00	\$ 400,000.00	25%	\$ 100,000.00	\$ 500,000.00
G4P2	Maintenance of Principal's Project Accommodation until Completion	60	week	\$ 2,500.00	\$ 150,000.00	25%	\$ 37,500.00	\$ 187,500.00
G4P3	Maintenance of Principal's Project Accommodation after Completion (Item with provisional quantity)	4	week	\$ 1,500.00	\$ 6,000.00	25%	\$ 1,500.00	\$ 7,500.00
G4P4	Removal of Principal's Project Accommodation	1	lump sum	\$ 75,000.00	\$ 75,000.00	25%	\$ 18,750.00	\$ 93,750.00
G4	PRINCIPAL'S PROJECT ACCOMMODATION			Sub-Total:	\$ 631,000.00	25.00%	\$ 157,750.00	\$ 788,750.00
G7 - UTILITY ADJUSTMENT								
G7P2	Allowance for utility adjustments, including streetlighting and intersection traffic signalling	1	provisional sum	\$ 13,250,000.00	\$ 13,250,000.00	20%	\$ 2,650,000.00	\$ 15,900,000.00
G7	UTILITY ADJUSTMENT			Sub-Total:	\$ 13,250,000.00	20.00%	\$ 2,650,000.00	\$ 15,900,000.00
G10 - TRAFFIC MANAGEMENT								
G10P1	Traffic Management	1	lump sum	\$ 750,000.00	\$ 750,000.00	25%	\$ 187,500.00	\$ 937,500.00
G10P2	Maintenance of Traffic Control Measures	60	week	\$ 7,000.00	\$ 420,000.00	25%	\$ 105,000.00	\$ 525,000.00
G10	TRAFFIC MANAGEMENT			Sub-Total:	\$ 1,170,000.00	25.00%	\$ 292,500.00	\$ 1,462,500.00
G36 - ENVIRONMENTAL PROTECTION								
G36P1	<i>Building Condition Inspections</i>							
G36P1.1	Residential	1	each	\$ 2,500.00	\$ 2,500.00	25%	\$ 625.00	\$ 3,125.00
G36P1.2	Commercial	1	each	\$ 5,000.00	\$ 5,000.00	25%	\$ 1,250.00	\$ 6,250.00
G36P2	<i>Site Monitoring</i>							
G36P2.1	Air Quality	1	lump sum	\$ 132,000.00	\$ 132,000.00	25%	\$ 33,000.00	\$ 165,000.00
G36P2.2	Noise	1	lump sum	\$ 108,000.00	\$ 108,000.00	25%	\$ 27,000.00	\$ 135,000.00
G36P2.3	Ground Vibration	1	lump sum	\$ 108,000.00	\$ 108,000.00	25%	\$ 27,000.00	\$ 135,000.00
G36P3	<i>Land Condition Assessments Reports For Principal Nominated Area(s) Used For Contractor's Facilities</i>							

Pay Item	Description of work	Quantity	Unit	Rate	Amount	Contingency		
						%	Value	Amount
G36P3.1	Pre-construction Land Condition Assessment Reports	1	lump sum	\$ 1,000.00	\$ 1,000.00	25%	\$ 250.00	\$ 1,250.00
G36P3.2	Post-construction Land Condition Assessment Reports	1	lump sum	\$ 1,000.00	\$ 1,000.00	25%	\$ 250.00	\$ 1,250.00
G36	ENVIRONMENTAL PROTECTION			Sub-Total:	\$ 357,500.00	25.00%	\$ 89,375.00	\$ 446,875.00
G38 - SOIL AND WATER MANAGEMENT								
<i>G38P1</i>	<i>Soil and Water Management Control Measures</i>							
G38P1.1	Establishment of Soil and Water Management Control Measures	1	lump sum	\$ 300,000.00	\$ 300,000.00	25%	\$ 75,000.00	\$ 375,000.00
G38P1.2	Maintenance of Soil and Water Management Control Measures	60	per week	\$ 1,500.00	\$ 90,000.00	25%	\$ 22,500.00	\$ 112,500.00
G38P2	Site Water Quality Monitoring	60	per week	\$ 1,400.00	\$ 84,000.00	20%	\$ 16,800.00	\$ 100,800.00
G38P3	Operational Basins	1	lump sum	\$ 150,000.00	\$ 150,000.00	20%	\$ 30,000.00	\$ 180,000.00
G38	SOIL AND WATER MANAGEMENT			Sub-Total:	\$ 474,000.00	24.11%	\$ 114,300.00	\$ 588,300.00
G40 - CLEARING AND GRUBBING								
G40P1	Clearing and Grubbing	1	lump sum	\$ 385,000.00	\$ 385,000.00	25%	\$ 96,250.00	\$ 481,250.00
G40P7	Demolition of Existing Kerb and Gutter	500	m	\$ 30.00	\$ 15,000.00	25%	\$ 3,750.00	\$ 18,750.00
G40	CLEARING AND GRUBBING			Sub-Total:	\$ 400,000.00	25.00%	\$ 100,000.00	\$ 500,000.00
R11 - STORMWATER DRAINAGE								
<i>R11P2</i>	<i>Excavation for Stormwater Drainage Structures</i>							
R11P2(a)	Reinforced Concrete and Fibre Reinforced Concrete Pipes	4,700	m3	\$ 120.00	\$ 564,000.00	25%	\$ 141,000.00	\$ 705,000.00
R11P2(c)	Other Drainage Structures	191	m3	\$ 120.00	\$ 22,920.00	25%	\$ 5,730.00	\$ 28,650.00
R11P3	Excavation for Open Drains		m3	\$ 88.40	\$ -	25%	\$ -	\$ -
R11P4	Inadequate Foundation Material under Drainage Structures and Open Drains (Item with provisional quantity)		m3	\$ 119.00	\$ -	25%	\$ -	\$ -
<i>R11P5</i>	<i>Precast Concrete and Fibre Reinforced Concrete Pipes</i>							
R11P5.4	Reinforced Concrete Pipe 600mm Dia. - Class 4	3,256	m	\$ 550.00	\$ 1,790,927.00	15%	\$ 268,639.05	\$ 2,059,566.05
<i>R11P6</i>	<i>Precast Concrete Box Culvert Structures</i>							
R11P6.1	Precast Concrete Box Culvert structures	281	m	\$ 7,500.00	\$ 2,107,500.00	25%	\$ 526,875.00	\$ 2,634,375.00
<i>R11P7</i>	<i>Drainage Structures Other Than Pipes and Box Culverts</i>							
R11P7.1	Headwall to suit a single cell 600mm Pipe	9	each	\$ 5,000.00	\$ 45,000.00	15%	\$ 6,750.00	\$ 51,750.00
<i>R11P7.2</i>	<i>Supply and Install Pits</i>							
R11P7.2.1	Type SA1 - Standard Gully Pit Type SA1	66	each	\$ 3,800.00	\$ 250,800.00	25%	\$ 62,700.00	\$ 313,500.00
R11P7.2.2	Allow for special junction pits	1	each	\$ 35,000.00	\$ 35,000.00	25%	\$ 8,750.00	\$ 43,750.00
R11P16	Rip Rap Scour Protection	225	m3	\$ 280.00	\$ 63,000.00	15%	\$ 9,450.00	\$ 72,450.00
R11	STORMWATER DRAINAGE			Sub-Total:	\$ 4,879,147.00	21.11%	\$ 1,029,894.05	\$ 5,909,041.05
R15 - KERBS AND GUTTERS								
<i>R15P1</i>	<i>Kerbs and Gutters</i>							
R15P1.1	Type SA	5,426	m	\$ 70.00	\$ 379,820.00	25%	\$ 94,955.00	\$ 474,775.00
R15P1.2	Type SF	3,776	m	\$ 60.00	\$ 226,560.00	25%	\$ 56,640.00	\$ 283,200.00
R15P1.3	Type SO	784	m	\$ 70.00	\$ 54,880.00	15%	\$ 8,232.00	\$ 63,112.00
<i>R15P2</i>	<i>Kerb Ramps</i>							
R15P2.1	Kerb Ramps	4	each	\$ 500.00	\$ 2,000.00	25%	\$ 500.00	\$ 2,500.00
R15P2.2	Vehicle Crossing	3	m	\$ 95.00	\$ 285.00	25%	\$ 71.25	\$ 356.25
R15	KERBS AND GUTTERS			Sub-Total:	\$ 663,545.00	24.17%	\$ 160,398.25	\$ 823,943.25
R33 - TRENCH DRAINS								
R33P1	Excavation	1,317	m3	\$ 40.00	\$ 52,660.80	25%	\$ 13,165.20	\$ 65,826.00
<i>R33P2</i>	<i>Drainage Pipe</i>							
R33P2.1	100 mm dia Corrugated Perforated Plastic Drainage Pipe	7,314	m	\$ 12.00	\$ 87,768.00	25%	\$ 21,942.00	\$ 109,710.00
R33P2.2	100 mm dia Corrugated Non-perforated Plastic Drainage Pipe		m	\$ 10.80	\$ -	15%	\$ -	\$ -
<i>R33P3</i>	<i>Filter Material</i>							
R33P3.1	Aggregate Filter Material	1,317	m3	\$ 140.00	\$ 184,312.80	25%	\$ 46,078.20	\$ 230,391.00
R33P3.2	No Fines Concrete		m3	\$ 255.00	\$ -	15%	\$ -	\$ -
R33P4	Supply and Installation of Geotextile	15,359	m2	\$ 4.00	\$ 61,437.60	25%	\$ 15,359.40	\$ 76,797.00

Pay Item	Description of work	Quantity	Unit	Rate	Amount	Contingency		
						%	Value	Amount
R33	TRENCH DRAINS			Sub-Total:	\$ 386,179.20	25.00%	\$ 96,544.80	\$ 482,724.00
R44 - EARTHWORKS								
<i>R44P1</i>	<i>Topsoil</i>							
R44P1.2	Removal and Stockpiling of Non-contaminated Topsoil	22,146	m3	\$ 11.00	\$ 243,601.62	25%	\$ 60,900.41	\$ 304,502.03
R44P2	General Earthworks (Cut/Fill)	1,424	m3	\$ 18.00	\$ 25,627.66	25%	\$ 6,406.92	\$ 32,034.58
R44P3	Imported or Borrowed Material	293,755	m3	\$ 38.00	\$ 11,162,699.65	25%	\$ 2,790,674.91	\$ 13,953,374.57
R44P4	Unsuitable Material (Item with provisional quantity)	142	m3	\$ 83.70	\$ 11,916.86	25%	\$ 2,979.22	\$ 14,896.08
<i>R44P5</i>	<i>Selected Material in the Selected Material Zone and Verge Material</i>							
R44P5.2	Selected Material Imported from beyond the Limits of Works area	8,469	m3	\$ 60.00	\$ 508,140.00	25%	\$ 127,035.00	\$ 635,175.00
<i>R44P7</i>	<i>Foundation Treatments</i>							
R44P7.1	Treatment Type E1 and Cutting Type C1 - Loosen and Recompact	28,230	m2	\$ 5.00	\$ 141,150.00	25%	\$ 35,287.50	\$ 176,437.50
R44	EARTHWORKS			Sub-Total:	\$ 12,093,135.80	25.00%	\$ 3,023,283.95	\$ 15,116,419.75
R82 - LEAN-MIX CONCRETE SUBBASE								
R82P1	Supply and Place Concrete in base	6,206	m3	\$ 270.00	\$ 1,675,620.00	15%	\$ 251,343.00	\$ 1,926,963.00
R82P2	Finish and Cure base	22,567	m2	\$ 5.00	\$ 112,835.00	15%	\$ 16,925.25	\$ 129,760.25
R82P3	Surface Debonding Treatment	22,567	m2	\$ 2.00	\$ 45,134.00	15%	\$ 6,770.10	\$ 51,904.10
R82	LEAN-MIX CONCRETE SUBBASE			Sub-Total:	\$ 1,833,589.00	15.00%	\$ 275,038.35	\$ 2,108,627.35
R101 - COLD MILLING OF ROAD PAVEMENT MATERIALS								
R101P1	Milling to Specified Depth of Cut	27,771	m2	\$ 45.00	\$ 1,249,695.00	20%	\$ 249,939.00	\$ 1,499,634.00
R101	COLD MILLING OF ROAD PAVEMENT MATERIALS			Sub-Total:	\$ 1,249,695.00	20.00%	\$ 249,939.00	\$ 1,499,634.00
R106 - SPRAYED BITUMINOUS SURFACING (WITH CUTBACK BITUMEN)								
R106P2	Supply and Spray Binder - Class 170 Bitumen (including Adhesion Agent where required and Preparation of Surface)	66,650	litre	\$ 4.50	\$ 299,926.80	25%	\$ 74,981.70	\$ 374,908.50
R106P5	Supply, Incorporate and Spray Cutter Oil in Binder	3,333	cold litre	\$ 3.50	\$ 11,663.82	25%	\$ 2,915.96	\$ 14,579.78
R106	SPRAYED BITUMINOUS SURFACING (WITH CUTBACK BITUMEN)			Sub-Total:	\$ 311,590.62	25.00%	\$ 77,897.66	\$ 389,488.28
R116 - HEAVY DUTY DENSE GRADED ASPHALT								
R116P1	Supply and Application of Tack Coat (Including Preparation of Surface)	50,338	litre	\$ 4.50	\$ 226,521.00	25%	\$ 56,630.25	\$ 283,151.25
<i>R116P2</i>	<i>Heavy Duty Dense Asphalt in Corrective Courses</i>							
R116P2.5	20 mm Nominal Size, 150mm thick	-	m2	\$ 90.00	\$ -	25%	\$ -	\$ -
<i>R116P3</i>	<i>Heavy Duty Dense Asphalt in Intermediate Courses</i>							
<i>R116P3.3</i>	<i>20 mm Nominal Size</i>							
R116P3.3.1	20 mm Nominal Size, 80 mm thick	22,567	m2	\$ 52.80	\$ 1,191,537.60	25%	\$ 297,884.40	\$ 1,489,422.00
<i>R116P4</i>	<i>Heavy Duty Dense Asphalt in Wearing Course</i>							
<i>R116P4.3</i>	<i>10 mm Nominal Size, (AR 450), 40 mm thick</i>	50,338	m2	\$ 29.60	\$ 1,490,004.80	25%	\$ 372,501.20	\$ 1,862,506.00
R116	HEAVY DUTY DENSE GRADED ASPHALT			Sub-Total:	\$ 2,908,063.40	25.00%	\$ 727,015.85	\$ 3,635,079.25
R131 - GUIDE POSTS								
R131P1	Supply and Installation of Guide Posts	25	each	\$ 31.90	\$ 797.50	15%	\$ 119.63	\$ 917.13
R131P2	Removal of Existing Guide Posts		each	\$ 15.40	\$ -	15%	\$ -	\$ -
R131	GUIDE POSTS			Sub-Total:	\$ 797.50	15.00%	\$ 119.63	\$ 917.13
R132 - SAFETY BARRIER SYSTEMS								
<i>R132P9</i>	<i>Construction of Transitions</i>							
R132P9.1	Thrie Beam	4,265	m	\$ 400.00	\$ 1,706,000.00	15%	\$ 255,900.00	\$ 1,961,900.00
R132	SAFETY BARRIER SYSTEMS			Sub-Total:	\$ 1,706,000.00	15.00%	\$ 255,900.00	\$ 1,961,900.00
R141 - PAVEMENT MARKING								

Pay Item	Description of work	Quantity	Unit	Rate	Amount	Contingency			
						%	Value	Amount	
R141P3	Non-profile Thermoplastic Pavement Marking Material - Longitudinal Lines								
R141P3.1	Longitudinal Linemarkings, Transverse Lines and Other Symbols	1	lump sum	\$ 233,040.00	\$ 233,040.00	25%	\$ 58,260.00	\$ 291,300.00	
R141	PAVEMENT MARKING			Sub-Total:	\$ 233,040.00	25.00%	\$ 58,260.00	\$ 291,300.00	
R142 - RETROREFLECTIVE RAISED PAVEMENT MARKERS									
R142P2	Installation of Retroreflective Raised Pavement Markers	1,400	each	\$ 7.00	\$ 9,800.00	25%	\$ 2,450.00	\$ 12,250.00	
R142	RETROREFLECTIVE RAISED PAVEMENT MARKERS			Sub-Total:	\$ 9,800.00	25.00%	\$ 2,450.00	\$ 12,250.00	
R143 - SIGNPOSTING									
R143P1	Manufacture of Sign Panels								
R143P1.1	Small Signposting	157	each	\$ 405.00	\$ 63,585.00	25%	\$ 15,896.25	\$ 79,481.25	
R143P1.4	Medium Signposting	157	each	\$ 363.00	\$ 56,991.00	15%	\$ 8,548.65	\$ 65,539.65	
R143	SIGNPOSTING			Sub-Total:	\$ 120,576.00	20.27%	\$ 24,444.90	\$ 145,020.90	
R173 - GENERAL CONCRETE PAVING									
R173P1	Concrete Paving								
R173P1.1	N20 Concrete Paving - 100mm Thickness	4,020	m2	\$ 91.00	\$ 365,820.00	25%	\$ 91,455.00	\$ 457,275.00	
R173	GENERAL CONCRETE PAVING			Sub-Total:	\$ 365,820.00	25.00%	\$ 91,455.00	\$ 457,275.00	
R178 - VEGETATION									
R178P3	Topsoiling Using Imported Material Including Surface Preparation								
R178P3.1	Areas with a slope of 4 to 1 or flatter using Topsoil Type 1	14,597	m2	\$ 12.03	\$ 175,601.91	25%	\$ 43,900.48	\$ 219,502.39	
R178P3.2	Areas of steeper than 4 to 1 using Topsoil Type 2 (Item with provisional quantity)	6,531	m2	\$ 8.00	\$ 52,248.00	25%	\$ 13,062.00	\$ 65,310.00	
R178P3.3	Topsoiling for Areas Under Turf (Item with provisional quantity)	34,213	m2	\$ 4.00	\$ 136,850.67	25%	\$ 34,212.67	\$ 171,063.33	
R178P7	Hydroseeding	21,128	m2	\$ 0.29	\$ 6,127.12	25%	\$ 1,531.78	\$ 7,658.90	
R178P18	Turfing for Slopes and Open Drain Areas								
R178P18.1	Areas with gradient 4 to 1 or flatter.	34,213	m2	\$ 5.95	\$ 203,565.37	25%	\$ 50,891.34	\$ 254,456.71	
R178P19	Watering (item with Provisional Quantity)	1,000	kL	\$ 22.00	\$ 22,000.00	25%	\$ 5,500.00	\$ 27,500.00	
R178	VEGETATION			Sub-Total:	\$ 596,393.06	25.00%	\$ 149,098.27	\$ 745,491.33	
R179 - LANDSCAPE PLANTING									
R179P1	Landscaping Subcontract	1	Provisional Sum		\$ -	40%	\$ -	\$ -	
R179	LANDSCAPE PLANTING			Sub-Total:	\$ -	#DIV/0!	\$ -	\$ -	
R201 - FENCING									
R201P1	Rural Fencing - Wire	7,000	m	\$ 33.80	\$ 236,600.00	15%	\$ 35,490.00	\$ 272,090.00	
R201	FENCING			Sub-Total:	\$ 236,600.00	15.00%	\$ 35,490.00	\$ 272,090.00	
BRIDGE									
	Bridge over existing private rail siding (CH3350)	1	Lump Sum	\$ -	\$ -	10%	\$ -	\$ -	
	Bridge over creek & fauna crossing (CH4150)	1	Lump Sum	\$ -	\$ -	10%	\$ -	\$ -	
R201P9	Bridge over main southern railway (CH4600)	1	Lump Sum	\$ -	\$ -	10%	\$ -	\$ -	
R201P9	Bridge over Hume Highway (CH5950)	1	Lump Sum	\$ 6,880,000.00	\$ 6,880,000.00	10%	\$ 688,000.00	\$ 7,568,000.00	
R201	BRIDGE			Sub-Total:	\$ 6,880,000.00	15.00%	\$ 688,000.00	\$ 7,568,000.00	
	Allow for Preliminaries and Margin				\$ 10,228,594.32		\$ 2,089,155.94	\$ 12,317,750.26	
TOTAL AMOUNT (Excluding GST)					\$ 61,446,565.90	20.42%	\$ 12,549,935.63	\$ 73,996,501.53	

SERVICES

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