

NEPEAN RIVER FLOODPLAIN RISK MANAGEMENT STUDY & PLAN INCLUDING NARELLAN CREEK APPENDIX I – OPTION COSTINGS Final Report (13 November 2022)

59916092 Nepean River FRMSP Cost Estimate					
	FM1.2 - Building a Levee near Lerida Avenue (380m Length)				
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)	•			626,90
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	24,472	sq. m	10	244,72
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	3670.8	cu. m	25	91,77
2.3	Dispose of excess topsoil (nominal 10% allowance)	367.08	cu. m	200	73,41
2.4	Pull up and dispose existing road surface		sq.m	150	- /
	SUBTOTAL				409,90
3.0	PROVISION OF BUND				
3.1	Construct Bund - fill & regrade to suit new design levels, including provision of fill	65603.2	cu.m	50	3,280,16
3.2	Install overflow weir		lin.m	15000	
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Low Flow Pipe		lin.m	1070	
0.0	SUBTOTAL	I		1010	3,280,16
4.0	Pavements				
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing		sq. m	120	
	SUBTOTAL			-	
5.0	MINOR LANDSCAPING				
5.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	24,472	50 m	20	489,44
0.1	SUBTOTAL	27,772	sq. m		489,44 489,44
	CONSTRUCTION SUB-TOTAL				4,806,40

8.0	CONTINGENCIES	
8.1	50% construction cost	2,403,
	CONSTRUCTION TOTAL, excluding GST	7,209,
	GST	720,
	CONSTRUCTION TOTAL, including GST	7,930,
	CONSTRUCTION TOTAL, rounded	7,930,

1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed.

Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.

NOTES:

1. Estimate does not include Consultant's fees, including design or project management

2. Estimate / rates in 2016 dollars and does not allow for inflation

59916092 August 2019

Nepean River FRMSP

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Cost Est Option:	timate FM1.6 - Building a Levee near Alpha Road (430m Length)				
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)	•		•	1,249,400
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	36,980	sq. m	10	369,800
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	5547	cu. m	25	138,675
2.3	Dispose of excess topsoil (nominal 10% allowance)	554.7	cu. m	200	110,940
2.4	Pull up and dispose existing road surface	1290	sq.m	150	193,500
	SUBTOTAL		·		812,915
3.0	PROVISION OF BUND				
3.1	Construct Bund - fill & regrade to suit new design levels, including provision of fill	132440	cu.m	50	6,622,000
3.2	Install overflow weir		lin.m	15000	(
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Low Flow Pipe		lin.m	1070	(
5.5	SUBTOTAL			1070	6,622,000
4.0	Pavements	,			.,. ,
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	1290	sq. m	120	154,800
	SUBTOTAL				154,800
5.0	MINOR LANDSCAPING				
5.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	36,980	sq. m	20	739,600
	SUBTOTAL			•	739,600
	CONSTRUCTION SUB-TOTAL				9,578,715
	CONSTRUCTION SUB-TUTAL	-			3,570,715

8.0	CONTINGENCIES	
8.1	50% construction cost	4,78
	CONSTRUCTION TOTAL, excluding GST	14,36
	GST	1,43
	CONSTRUCTION TOTAL, including GST	15,80
	CONSTRUCTION TOTAL, rounded	15,80

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NOTES:

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59916092 August 2019

Nepean River FRMSP

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Cost Est	timate				
Option:	FM1.7 - Macquarie Grove Road raising				
					v1
TEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				2,302,9
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	30,000	sq. m	10	300,0
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	4500	cu. m	25	112,5
2.3	Dispose of excess topsoil (nominal 10% allowance)	450	cu. m	200	90,0
2.4	Pull up and dispose existing road surface	10000	sq.m	150	1,500,0
	SUBTOTAL				2,002,5
3.0	EARTHWORKS				
3.1	Raise road base to new levels including compaction of fill	210000	cu.m	50	10,500,0
	SUBTOTAL				10,500,0
4.0	PAVEMENTS				
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	10000	sq. m	120	1,200,00
	SUBTOTAL	10000	oqim	120	1,200,0
		•			
5.0	BRIDGES				
5.1	Raise the Existing bridge height to match the proposed road	75	lin.m	60000	4,500,0
	SUBTOTAL				4,500,0
6.0	TRAFFIC CONTROL				
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	1050000	1,050,0
0.1	SUBTOTAL	<u> </u>	item	1030000	1,050,0
7.0	MINOR LANDSCAPING				
	Repair disturbed areas in accordance with landscape architects requirements				
7.1	(nominal allowance)	30,000	sq. m	20	600,0
	SUBTOTAL				600,00
	CONSTRUCTION SUB-TOTAL				22,155,4
	CONTINGENCIES				
8.0					
8.0	50% construction cost				6,646,62

2,880,202
31,682,222
31,682,300

Nepean River FRMSP

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Cost Est Option:					
	FM1.7a - Macquarie Grove Road raising and Bridge widening	and raising		_	
TEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	v1 COST
1.0	GENERAL AND PRELIMINARIES				
	I	<u>г</u>		r	
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)	1	item		257,9
2.0	DEMOLITION, CLEARING AND GRUBBING			l	201,0
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	8,880	sq. m	10	88,8
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	1332	cu. m	25	33,3
2.3	Dispose of excess topsoil (nominal 10% allowance)	133.2	cu. m	200	26,6
2.4	Pull up and dispose existing road surface	2960	sq.m	150	444,0
	SUBTOTAL				592,7
3.0	EARTHWORKS				
3.1	Raise road base to new 20%AEP levels including compaction of fill	10800	cu.m	50	540,0
	SUBTOTAL				540,0
4.0	PAVEMENTS				
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	2960	60 m	120	355,2
7.1	SUBTOTAL	2900	sq. m	120	<u> </u>
5.0	BRIDGES				
5.1	Widen the Existing bridge SUBTOTAL	890	lin.m	60000	53,400,00
					55,400,0
6.0	TRAFFIC CONTROL	1 1			
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	54000	54,0
	SUBTOTAL				54,0
7.0	MINOR LANDSCAPING				
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	8,880	60 m	20	177 0
1.1	SUBTOTAL	0,000	sq. m	20	<u>177,6</u> 177,6
	CONSTRUCTION SUB-TOTAL				55,377,4
8.0	CONTINGENCIES				

GST	7,199,067
CONSTRUCTION TOTAL, including GST	79,189,739
CONSTRUCTION TOTAL, rounded	79,189,800
DISCLAIMER:	
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NOTES:	
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2. Estimate / rates in 2010 dollars and does not allow for inflation	

Nepean River FRMSP

Cost Est	timate		51	aping the Fut	ure
Option:	FM1.8 - Sheathers Lane Drainage Augmentation - 1.2 m (w) x ().45 m (H) c	ulvert		
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	v1 COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)			-	40,30
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	72	sq. m	10	72
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	10.8	cu. m	25	27
2.3	Dispose of excess topsoil (nominal 10% allowance)	1.08	cu. m	200	21
2.4	Pull up and dispose existing road surface	160	sq.m	150	24,00
3.0	DRAINAGE Supply, excavate, bed, lay, joint, backfill and provide connections for 0.375m	<u>, </u>			
3.1	dia. Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.375m		lin.m	1041.3	
3.2	Pipe		lin.m	1128.075	
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m dia. Pipe		lin.m	1301.625	
3.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe		lin.m	1388.4	
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1648.725	
3.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia.		lin.m	1909.05	
3.7	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia.		lin.m	2256.15	
3.8	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia.		lin.m	1388.4	
3.9	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 2.25m dia.		lin.m	3818.1	
3.1	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	4963.53	
3.11 3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m lin.m	1388.4	
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 0.45m culvert	40	lin.m	3200	128,00
	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x				

4.0	PAVEMENTS				
	SUBTOTAL				202,400
3.14	Allowance for nightworks (assume for works on all regional/state roads)	1	item	38,400	38,400
3.18	installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
0.17	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage		Guon	00000	
3.17	Supply, excavate, bed, lay, backfill surcharge pit		each	30000	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	1	each	6000	6,000
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4859.4	0
3.90	1.2m culvert		lin.m	3680	0
	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x				

4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	160	sq. m	120	19,20
	SUBTOTAL	100	3 9 . m	120	19,20
5.0	PROPERTY BY-BACK				
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	
	SUBTOTAL				
6.0	TRAFFIC CONTROL				
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	20240	20,24
	SUBTOTAL	·		-	20,24
7.0	MINOR LANDSCAPING				
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	72	sq. m	20	1,44
	SUBTOTAL				1,44
	CONSTRUCTION SUB-TOTAL				308,78
8.0	CONTINGENCIES				
8.1	50% construction cost				92,63
	CONSTRUCTION TOTAL, excluding GST				401,42
	GST				40,14
	CONSTRUCTION TOTAL, including GST				441,56
DISCLAII	CONSTRUCTION TOTAL, rounded				441,60
	stimate of cost is provided in good faith using information available at this stage. Th	is estimate	of cost is not	quaranteed	
ardno (I	NSW) will not accept liability in the event that actual costs exceed the estimate.			9	
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	te does not include Consultant's fees, including design or project management te / rates in 2017 dollars and does not allow for inflation				
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Nepean River FRMSP

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Cost Est Option:	imate FM1.9 - Building a Levee near Little Street (1070m Length)				
			LINUT	DATE	v1
TIEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				675,700
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	39,590	sq. m	10	395,90
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	5938.5	cu. m	25	148,46
2.3	Dispose of excess topsoil (nominal 10% allowance)	593.85	cu. m	200	118,77
2.4	Pull up and dispose existing road surface		sq.m	150	,
	SUBTOTAL		- 1		663,133
3.0	PROVISION OF BUND				
3.1	Construct Bund - fill & regrade to suit new design levels, including provision of fill	60990	cu.m	50	3,049,50
3.2	Install overflow weir		lin.m	15000	
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Low Flow Pipe		lin.m	1070	(
	SUBTOTAL			1	3,049,50
4.0	Pavements				
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing		sq. m	120	(
	SUBTOTAL				
5.0	MINOR LANDSCAPING				
5.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	39,590	sq. m	20	791,800
	SUBTOTAL	50,000			791,800
	CONSTRUCTION SUB-TOTAL				5,180,133

8.0	CONTINGENCIES	
8.1	50% construction cost	2,590,0
	CONSTRUCTION TOTAL, excluding GST	7,770,1
	GST	777,0
	CONSTRUCTION TOTAL, including GST	8,547,2
	CONSTRUCTION TOTAL, rounded	8,547,3

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59916092 August 2019

Nepean River FRMSP



Cost Estimate

Option: FM1.13 - Channel Formalisation at Matahill Creek near Ron Dine memorial Reserve (deepeening the channel)

				I	v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				152,300
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	12,600	sq. m	10	126,000
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	1890	cu. m	25	47,250
2.3	Dispose of excess topsoil (nominal 10% allowance)	189	cu. m	200	37,800
2.4	Pull up and dispose existing road surface	100	sq.m	150	15,000
	SUBTOTAL				226,050
3.0	EARTHWORKS				
3.1	Formalise, shape and regrade channel, including disposal / provision of cut / fill	10500	cu. m	50	525,000
	SUBTOTAL				525,000
4.0	PAVEMENTS				
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	100	sq. m	120	12,000
	SUBTOTAL				12,000
5.0	MINOR LANDSCAPING				
5.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	12,600	sq. m	20	252,000
	SUBTOTAL	_,	- 1		252,000
	CONSTRUCTION SUB-TOTAL				1,167,350

8.0	CONTINGENCIES	
8.1	50% construction cost	583,675
	CONSTRUCTION TOTAL, excluding GST	1,751,025
	GST	175,103
	CONSTRUCTION TOTAL, including GST	1,926,128
	CONSTRUCTION TOTAL, rounded	1,926,200

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Nepean River FRMSP

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59916092 August 2019

Nepean River FRMSP

59916092 Nepean River FRMSP					
Cost Est Option:	FM1.15 - Building a Levee near McCrae Drive (450m Length)				
ITEM NO				DATE	v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				67,700
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	5,850	sq. m	10	58,500
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	877.5	cu. m	25	21,938
2.3	Dispose of excess topsoil (nominal 10% allowance)	87.75	cu. m	200	17,550
2.4	Pull up and dispose existing road surface		sq.m	150	, C
	SUBTOTAL		•	<u> </u>	97,988
3.0	PROVISION OF BUND				
3.1	Construct Bund - fill & regrade to suit new design levels, including provision of fill	4725	cu.m	50	236,250
3.2	Install overflow weir		lin.m	15000	(
3.3	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia. Low Flow Pipe		lin.m	1070	C
0.0	SUBTOTAL			1010	236,250
4.0	Pavements				
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing		sq. m	120	C
	SUBTOTAL				0
5.0	MINOR LANDSCAPING				
5.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	5,850	sq. m	20	117,000
-	SUBTOTAL	,			117,000
					E40.000
	CONSTRUCTION SUB-TOTAL				518,938

8.0	CONTINGENCIES	
8.1	50% construction cost	259
	CONSTRUCTION TOTAL, excluding GST	778
	GST	77
	CONSTRUCTION TOTAL, including GST	856
	CONSTRUCTION TOTAL, rounded	856

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59916092 August 2019

Nepean River FRMSP

FM1.23- Werombi Road Drainage Augmentation (widening the bridge from 10 m to 78m) v1 TEM NO. DESCRIPTION OF WORK QUANTITY UNIT RATE COST 1.0 GENERAL AND PRELIMINARIES 1.1 Site establishment, security fencing, facilities & disestablishment 1 item	ost Est	imate		Sha	aping the Futu	re
TEM NO. DESCRIPTION OF WORK QUANTITY UNIT RATE COST 1.0 GENERAL AND PRELIMINARIES item 1 <t< th=""><th></th><th></th><th>a bridge frou</th><th>m 10 m to</th><th>78m)</th><th></th></t<>			a bridge frou	m 10 m to	78m)	
TEM NO. DESCRIPTION OF WORK QUANTITY UNIT RATE COST 1.0 GENERAL AND PRELIMINARIES item		rm1.25- werolindi Koad Drainage Augmentation (widening the	s bridge iroi		, <i>r</i> onij	
1.0 GENERAL AND PRELIMINARIES 1.1 Site establishment, security fencing, facilities & disestablishment 1 item 1.2 Provision of sediment & erosion control 1 item 1 1.3 Construction sector & survey 1 item 1 1.4 Work as executed survey & documentation 1 item 1 1.5 Geotechnical supervision, testing & certification 1 item 1 1.5 Geotechnical supervision, testing & certification 1 item 1 1.6 Geotechnical supervision, testing & certification 1 item 1 2.0 DEMOLITION, CLEARING AND GRUBBING 849,0 10 1,1,1 2.1 Clearing & grubbing of vegatated areas (nominal allowance) 170 sq.m 10 1,1,1 2.2 Strip topsoil & stockpile for re-use (assuming 150mm depth) 25.5 cu.m 200 5 2.3 Dispose of excess topsoil (nominal 10% allowance) 2,55 cu.m 200 5 3.0 BRIDGES 1 1872 sq.m 120 224,6 3.1	TEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	
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6.1 pipe install cost) 1 item 468000 468,00	5.1					
		TRAFFIC CONTROL				
	6.0	Control of traffic during works, incl allowance for night works (assumed 10% of		.,		

7.0	MINOR LANDSCAPING				
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	170	sq. m	20	3,400
	SUBTOTAL				3,400
	CONSTRUCTION SUB-TOTAL				6,508,688
8.0	CONTINGENCIES				
8.1	50% construction cost				1,952,606

CONSTRUCTION TOTAL, excluding GST	8,461,294
GST	846,129
CONSTRUCTION TOTAL, including GST	9,307,423
CONSTRUCTION TOTAL, rounded	9,307,500
DISCLAIMER:	
1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed.	
Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.	
NOTES:	
1. Estimate does not include Consultant's fees, including design or project management	
2. Estimate / rates in 2016 dollars and does not allow for inflation	

Nepean River FRMSP

ITEM NO. DESCRIPTION OF WORK QUANTITY UNIT RATE CO: 1.0 GENERAL AND PRELIMINARIES 1 item - - 1.1 Site establishment, accurity fencing, facilities & disestablishment 1 item - 1.2 Provision of sadiment & decision control 1 item - - 1.3 Construction setout & survey 1 item - - 1.4 Work as executed & survey 1 item - - 1.6 Georefunction setout & survey 1 item - - 1.6 Georefunctional supervision, control of control at the seton seton & survey 2,86 2.0 DEMOLITION, CLEARING AND GRUBBING - 2,86 2.1 Clearing & grubbing of vegatated areas (nominal allowance) 48,000 sq. m 10 46 2.3 Dispose of excess lopsoil (nominal 10% allowance) 720 cu. m 2.60 14 2.4 Pull up and dispose subspoil (nominal 10% allowance) 720 cu. m 50 12.00 3.1 Rate mata bases to new levels including compaction of fill 24.0000 m. m 60 12.00 4.1 Bustor TAL 1.20 1.92 1.92 1.92	Cost Estimate FM1.26 - Cut Hill Road raising at Cobbitty Creek crossing Intern No. DESCRIPTION OF WORK QUANTITY UNIT RATE C 1.0 GENERAL AND PRELIMINARIES 1.1 Site establishment, security fencing, facilities & disestablishment 1 item - - 1.2 Provision of sodiment & orosion control 1 item - - - 1.3 Construction setout & survey 1 item -	10
PMI.2.0 - Cut Hill Road Tasing at Cobbity Creek Crossing ITEM NO. DESCRIPTION OF WORK QUANTITY UNIT RATE COI 1.0 GENERAL AND PRELIMINARIES 1 Item Coi 1.1 Site establishment, security fending, facilities & disestablishment 1 Item Coi 1.2 Provision of sedment & erosion control 1 Item Coi 1.3 Construction seturity fending, facilities & disestablishment 1 Item Coi 1.4 Work as essociated avery & documentation 1 Item Coi 1.5 Geodechnical supervision, testing & certification 1 Item Cois 2.0 DEMOLITION, CLEARING AND ORUBBING 2 Coil m 200 14 2.1 Clearing & grubbing of vegatated areas (nominal allowance) 48,000 sq. m 10 44 2.3 Dispose of excess topsail (nominal 10% allowance) 720 Coil m 200 14 2.4 Pullup and dispose existing road surface 12,00 sq. m 10 42 3.1 Raise read bases to new levels including demolition and disposel of sq. m 12,00 12,00 3.0 EARTHWORKS 1 12,00 12,00 3.1 Raise read base to new levels	PM1.26 - Cut Hill Road raising at Cobbing Creek crossing ITEM NO. DESCRIPTION OF WORK QUANTITY UNIT RATE C 1.0 GENERAL AND PRELIMINARIES 1 item - 1.1 Site establishment, security fercing, facilities & disestablishment 1 item - 1.2 Provision of sediment & erosion control 1 item - - 1.3 Construction seturity & documentation 1 item - - 1.4 Work as executed survey 1 item - - - 1.4 Work as executed survey 1 item - - - - 1.5 Genotechnical supervision, testing & certification 1 item - - 2, 2.0 DEMOLITON, CLEARING AND GRUBBING - - 2, - 2, - - 2, 2.1 Clearing & grubbing of vegatated areas (nominal allowance) 46,000 sg.m 10 - - 2, 2.3 Dispose of excess topsoil (nominal 10% allowance) 720 cu.m 200 2, <	
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6.0 TRAFFIC CONTROL Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost) 1 item 1200000 1,20 SUBTOTAL 1 item 1200000 1,20 7.0 MINOR LANDSCAPING 1 1 1 1 7.1 Repair disturbed areas in accordance with landscape architects requirements (nominal allowance) 48,000 sq. m 20 96 SUBTOTAL 96 96 96 96 96 96 8.0 CONTINGENCIES 22,17 96 96 96	6.0 TRAFFIC CONTROL 6.1 Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost) 1 item 1200000 1,2 SUBTOTAL 1 1 1,2 1,2	
6.1 Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost) 1 item 1200000 1,20 SUBTOTAL 1 item 1200000 1,20 7.0 MINOR LANDSCAPING 1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost) 1 item 1200000 1,2 SUBTOTAL 1 1 1 1,2 1,2	
6.1 pipe install cost) 1 item 1200000 1,20 SUBTOTAL 1,20 1,20 1,20 1,20 7.0 MINOR LANDSCAPING 1,20 1,20 1,20 7.1 Repair disturbed areas in accordance with landscape architects requirements (nominal allowance) 48,000 sq. m 20 96 SUBTOTAL 96 96 96 96 96 96 SUBTOTAL 22,17 96 96 96 96 96 8.0 CONTINGENCIES 22,17 96 96 96 96 96	6.1 pipe install cost) 1 item 1200000 1,2 SUBTOTAL 1 1 1 1 1,2 1,2	
SUBTOTAL 1,20 7.0 MINOR LANDSCAPING 7.1 Repair disturbed areas in accordance with landscape architects requirements (nominal allowance) 48,000 sq. m 20 96 SUBTOTAL 96 96 96 96 96 SUBTOTAL 20 96 96 96 SUBTOTAL 20 96 96 SUBTOTAL 20 96 96 8.0 CONSTRUCTION SUB-TOTAL 22,17	SUBTOTAL 1,	1 200 0
7.0 MINOR LANDSCAPING 7.1 Repair disturbed areas in accordance with landscape architects requirements (nominal allowance) 48,000 sq. m 20 96 SUBTOTAL 96 96 96 96 96 SUBTOTAL 20 96 96 96 SUBTOTAL 20 96 96 SUBTOTAL 20 96 96 SUBTOTAL 22,17 22,17 8.0 CONTINGENCIES 96		1,200,0
Repair disturbed areas in accordance with landscape architects requirements (nominal allowance) 48,000 sq. m 20 96 SUBTOTAL 96 CONSTRUCTION SUB-TOTAL 96 8.0 CONTINGENCIES	7.0 MINOR LANDSCAPING	
7.1 (nominal allowance) 48,000 sq. m 20 96 SUBTOTAL 96		
SUBTOTAL 96 CONSTRUCTION SUB-TOTAL 22,17 8.0 CONTINGENCIES		960,0
8.0 CONTINGENCIES		960,0
	CONSTRUCTION SUB-TOTAL 22,	2,176,6
8.1 50% construction cost 6,65		
	8.150% construction cost6,	6,652,9

GST	2,882,958
CONSTRUCTION TOTAL, including GST	31,712,538
CONSTRUCTION TOTAL, rounded	31,712,600
DISCLAIMER:	
1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed.	
Cardno (NSW) will not accept liability in the event that actual costs exceed the estimate.	
NOTES:	
1. Estimate does not include Consultant's fees, including design or project management	
2. Estimate / rates in 2010 dollars and does not allow for inflation	

Nepean River FRMSP

ost Es	timate			aping the Fut	
ption:	FM1.32 - Cut Hill Road Drainage Augmentation at Bringelly Cre culvert	eek - 4.2 m	(w) x 1.2	m (H)	v1
FEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)	i		-	109,8
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	144	sq. m	10	1,4
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	21.6	cu. m	25	5
2.3	Dispose of excess topsoil (nominal 10% allowance)	2.16	cu. m	200	4
2.4	Pull up and dispose existing road surface	210	sq.m	150	31,5
	SUBTOTAL				33,9
3.0	DRAINAGE				
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.375m dia. Pipe		lin m	1041.3	
	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia.		lin.m		
3.2	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m		lin.m	1128.075	
3.3	dia. Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia.		lin.m	1301.625	
3.4	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia.		lin.m	1388.4	
3.5	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia.		lin.m	1648.725	
3.6	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia.		lin.m	1909.05	
3.7	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia.		lin.m	2256.15	
3.8	Pipe		lin.m	1388.4	
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe		lin.m	3818.1	
3.10	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.25m dia. Pipe		lin.m	4963.53	
3.11	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert		lin.m	1388.4	
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert		lin.m	1735.5	
3.13	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x 1.2m culvert		lin.m	2776.8	
3.90	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x 1.2m culvert				
	Supply, excavate, bed, lay, joint, backfill and provide connections for 4.2m x		lin.m	3680	
3.2 3.16	1.2m culvert Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	30 0	lin.m each	14500 6000	435,0
3.17	Supply, excavate, bed, lay, backfill surcharge pit	~	each	30000	
3.18	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	43,500	43,5
3.14	Allowance for nightworks (assume for works on all regional/state roads)	1	item	130,500	130,5
					609,0

	Reinstate disturbed road pavement, including demolition and disposal of				
4.1	additional material to provide good jointing	210	sq. m	120	25,200
	SUBTOTAL				25,200
5.0	PROPERTY BY-BACK				
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	(
	SUBTOTAL				0
6.0	TRAFFIC CONTROL				
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	60900	60,900
	SUBTOTAL				60,900
7.0	MINOR LANDSCAPING				
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	144	sq. m	20	2,880
	SUBTOTAL				2,88
	CONSTRUCTION SUB-TOTAL				841,692
8.0	CONTINGENCIES				
8.1	50% construction cost				252,50
	CONSTRUCTION TOTAL, excluding GST				1,094,20
	GST				109,420
	CONSTRUCTION TOTAL, including GST				1,203,62
	CONSTRUCTION TOTAL, rounded				1,203,70
DISCLAI					
	stimate of cost is provided in good faith using information available at this stage. The	nis estimate	of cost is not	guaranteed.	
	NSW) will not accept liability in the event that actual costs exceed the estimate.				
IOTES:					
. Estima	ate does not include Consultant's fees, including design or project management ate / rates in 2017 dollars and does not allow for inflation				

Nepean River FRMSP

Shaping the Future Cost Estimate FM2.1 - Construct Detention Basin near Mount Annan Dr and **Option: Narellan Road ITEM NO. DESCRIPTION OF WORK** QUANTITY UNIT RATE 1.0 **GENERAL AND PRELIMINARIES** 1.1 Site establishment, security fencing, facilities & disestablishment 1 item 1.2 Provision of sediment & erosion control 1 item 1.3 Construction setout & survey 1 item 1.4 Work as executed survey & documentation 1 item Geotechnical supervision, testing & certification 1.5 1 item SUBTOTAL (Assumed as 15% of works cost, excluding property purchase) 2.0 **DEMOLITION, CLEARING AND GRUBBING** Clearing & grubbing of vegatated areas (nominal allowance) 2.1 1,515 10 sq. m 25 2.2 Strip topsoil & stockpile for re-use (assuming 150mm depth) 227.25 cu. m Dispose of excess topsoil (nominal 10% allowance) 200 2.3 22.725 cu. m 2.4 Pull up and dispose existing road surface sq.m 35 SUBTOTAL DRAINAGE 3.0 Supply, excavate, bed, lay, joint, backfill and provide connections for 0.375m 3.1 dia. Pipe 50 lin.m 1041.3 Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. 1128.075 3.2 Pipe lin.m Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m 1301.625 3.3 dia. Pipe lin.m Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. 3.4 Pipe lin.m Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. 3.5 Pipe lin.m Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia. 3.6 Pipe lin.m Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia. 3.7 Pipe lin.m Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia.

1388.4 0 1648.725 0 1909.05 2256.15 3.8 1388.4 Pipe lin.m 0 Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. 3.9 lin.m 3818.1 Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia. 3.10 Pipe lin.m 4512.3 0 Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x 0.45m culvert 3.11 lin.m 1388.4 Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x

	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x				
3.13	1.2m culvert		lin.m	2776.8	C
	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x				
3.14	0.4m culvert		lin.m	3239.6	0
	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x				
3.15	2.4m culvert		lin.m	4859.4	C
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	2	each	5000	10,000
	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage				
3.17	installation cost, with minimum cost of \$30,000)	1	item	30,000	30,000
	SUBTOTAL				92,065

4.0 EARTHWORKS

0.6m culvert

3.12

59916092 Nepean River FRMSP

59916092 August 2019

Neapean River FRMSP

APPENDIX I COST ESTIMATES

Cardno

v1

COST

118,000

15,150

5,681

4,545

25,376

52,065

lin.m

1735.5

C

0

4.1	Import, prepare and compact fill material		cu. m	120	(
4.2	Excavate material, including disposal / provision of cut	3150	cu. m	200	630,00
	SUBTOTAL				630,00
5.0	PROPERTY BY-BACK				
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	
	SUBTOTAL				
6.0	TRAFFIC CONTROL				
6.1	Control of traffic during works, incl allowance for night works (assumed 10% of pipe install cost)	1	item	9207	9,20
	SUBTOTAL				9,20
7.0	MINOR LANDSCAPING				
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	1,515	sq. m	20	30,30
	SUBTOTAL				30,30
	CONSTRUCTION SUB-TOTAL				904,94
8.0	CONTINGENCIES				
8.1	50% construction cost				271,48
	CONSTRUCTION TOTAL, excluding GST				1,176,43
	GST				117,64
	CONSTRUCTION TOTAL, including GST				1,294,07
	CONSTRUCTION TOTAL, rounded				1,294,10
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	stimate of cost is provided in good faith using information available at this stage. The	nis estimate	of cost is not	guaranteed.	
	NSW) will not accept liability in the event that actual costs exceed the estimate.				
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	te does not include Consultant's fees, including design or project management				
. Estima	te / rates in 2010 dollars and does not allow for inflation				

Neapean River FRMSP

ost Est	timate			aping the Fut	
ption:	FM2.2 - Drainage Augmentation from Narellan Road along Pad	dy Miller A	venue (cl	hanging	
	the pipe size to 2.25 m dia)			5 5	v1
EM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				355,1
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	855	sq. m	10	8,5
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	128.25	cu. m	25	3,2
2.3	Dispose of excess topsoil (nominal 10% allowance)	12.825	cu. m	200	2,5
2.4	Pull up and dispose existing road surface	1200	sq.m	150	180,0
	SUBTOTAL		- 1		194,3
3.0	DRAINAGE				
0.4	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.375m dia. Pipe		lin m	1041.2	
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia.		lin.m	1041.3	
3.2 3.3	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m		lin.m lin.m	1128.075	
3.4	dia. Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia. Pipe			1388.4	
	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia.		lin.m		
3.5	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia.		lin.m	1648.725	
3.6	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia.		lin.m	1909.05	
3.7	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia.		lin.m	2256.15	
3.8	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia.		lin.m	1388.4	
3.9	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 2.25m dia.		lin.m	3818.1	
3.1	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x	300	lin.m	4963.53	1,489,0
3.11	0.45m culvert Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x		lin.m	1388.4	
3.12	0.6m culvert Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x		lin.m	1735.5	
3.13	1.2m culvert Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x		lin.m	2776.8	
3.90	1.2m culvert		lin.m	3680	
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4859.4	
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	12	each	6000	72,0
3.17	Supply, excavate, bed, lay, backfill surcharge pit Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage		each	30000	
3.18	installation cost, with minimum cost of \$30,000)	1	item	156,106	156,1
3.14	Allowance for nightworks (assume for works on all regional/state roads)	1	item	111,679	111,6
	SUBTOTAL				1,828,8

	Reinstate disturbed road pavement, including demolition and disposal of				
4.1	additional material to provide good jointing	1200	sq. m	120	144,000
	SUBTOTAL				144,000
5.0	PROPERTY BY-BACK				
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	(
	SUBTOTAL				(
6.0	TRAFFIC CONTROL				
	Control of traffic during works, incl allowance for night works (assumed 10% of				
6.1	pipe install cost)	1	item	182884	182,884
	SUBTOTAL				182,884
7.0	MINOR LANDSCAPING				
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	855	sq. m	20	17,10
	SUBTOTAL				17,10
	CONSTRUCTION SUB-TOTAL				2,722,250
					_,,
8.0	CONTINGENCIES				
8.1	50% construction cost				816,67
	CONSTRUCTION TOTAL, excluding GST				3,538,92
	GST				353,89
	CONSTRUCTION TOTAL, including GST				3,892,81
	CONSTRUCTION TOTAL, rounded				3,892,90
	MER:				
DISCLAII					
	stimate of cost is provided in good faith using information available at this stage. The	is estimate	of cost is not	guaranteed.	
I. This es	stimate of cost is provided in good faith using information available at this stage. Th NSW) will not accept liability in the event that actual costs exceed the estimate.	is estimate	of cost is not	guaranteed.	
. This es Cardno (l		is estimate	of cost is not	guaranteed.	
I. This es Cardno (f NOTES :		is estimate	of cost is not	guaranteed.	

Nepean River FRMSP

Cost Estimate

Option: FM2.4 - Redirect flows to Kenny Creek near Farm House place via new channel (5m wide channel)

Cardno Shaping the Future

EM NO	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)				59
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	2,275	sq. m	10	22
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	341.25	cu. m	25	8
2.3	Dispose of excess topsoil (nominal 10% allowance)	34.125	cu. m	200	6
2.4	Pull up and dispose existing road surface		sq.m	150	
	SUBTOTAL				38
3.0	EARTHWORKS				
3.1	Construct Channel - Excavate material, including disposal / provision of cut	1575	cu. m	200	315
	SUBTOTAL				315
4.0	Pavements				
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing		sq. m	120	
	SUBTOTAL				
5.0	MINOR LANDSCAPING				
5.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	2,275	sq. m	20	45
	SUBTOTAL				45
	CONSTRUCTION SUB-TOTAL	L			458

8.1 50% construction cost	229,2
CONSTRUCTION TOTAL, excluding GST	687,6
GST	68,7
CONSTRUCTION TOTAL, including GST	756,3
CONSTRUCTION TOTAL, rounded	756,4
ISCLAIMER:	
This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guarantee	ed.
ardno (NSW) will not accept liability in the event that actual costs exceed the estimate.	

Nepean River FRMSP

NOTES:

1. Estimate does not include Consultant's fees, including design or project management

2. Estimate / rates in 2016 dollars and does not allow for inflation

59916092 August 2019

Nepean River FRMSP

5991609	2 Nepean River FRMSP			Card aping the Futu	
Cost Est					
Option:	FM2.5 - Modify existing Detention Basin at Mount Anan High S	chool (incr	ease bun	id height)	
					v1
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)	•		•	27,10
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	1,495	sq. m	10	14,95
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	224.25	cu. m	25	5,60
2.3	Dispose of excess topsoil (nominal 10% allowance)	22.425	cu. m	200	4,48
2.4	Pull up and dispose existing road surface	120	sq.m	150	18,00
	SUBTOTAL				43,04
3.0	PROVISION OF BUND				
3.1	Construct Bund - fill & regrade to suit new design levels, including provision of fill	1315.6	cu.m	50	65,78
3.2	Install overflow weir	1	lin.m	15000	15,00
	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m dia.	10			
3.3		12	lin.m	1070	12,84
	SUBTOTAL				93,62
4.0	Pavements				
4.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	120	sq. m	120	14,4(
	SUBTOTAL				14,40
5.0	MINOR LANDSCAPING				
5.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	1,495	ea m	20	29,90
0.1	SUBTOTAL	0.00	sq. m	20	29,90 29,90
		l			23,30
	CONSTRUCTION SUB-TOTAL				208,06

8.0	CONTINGENCIES	
8.1	50% construction cost	1
	CONSTRUCTION TOTAL, excluding GST	3.
	GST	
	CONSTRUCTION TOTAL, including GST	34
	CONSTRUCTION TOTAL, rounded	34

1. This estimate of cost is provided in good faith using information available at this stage. This estimate of cost is not guaranteed.

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NOTES:

1. Estimate does not include Consultant's fees, including design or project management

2. Estimate / rates in 2016 dollars and does not allow for inflation

59916092 August 2019

Nepean River FRMSP

	2 Nepean River FRMSP			Barc aping the Fut	
Cost Est	imate				
Option:	FM2.6 - Drainage Augmentation along James Way upstream o	f Rigelsford	d Street		
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	RATE	v1 COST
1.0	GENERAL AND PRELIMINARIES				
1.1	Site establishment, security fencing, facilities & disestablishment	1	item		
1.2	Provision of sediment & erosion control	1	item		
1.3	Construction setout & survey	1	item		
1.4	Work as executed survey & documentation	1	item		
1.5	Geotechnical supervision, testing & certification	1	item		
	SUBTOTAL (Assumed as 15% of works cost, excluding property purchase)			-	74,10
2.0	DEMOLITION, CLEARING AND GRUBBING				
2.1	Clearing & grubbing of vegatated areas (nominal allowance)	194	sq. m	10	1,93
2.2	Strip topsoil & stockpile for re-use (assuming 150mm depth)	29.025	cu. m	25	72
2.3	Dispose of excess topsoil (nominal 10% allowance)	2.9025	cu. m	200	58
2.4	Pull up and dispose existing road surface	300	sq.m	150	45,00
	SUBTOTAL				48,24
3.0	DRAINAGE				
3.1	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.375m dia. Pipe		lin.m	1041.3	
3.2	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m dia. Pipe		lin.m	1128.075	
	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.825m				
3.3	dia. Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia.		lin.m	1301.625	
3.4	Pipe		lin.m	1388.4	
3.5	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.05m dia. Pipe		lin.m	1648.725	
2.6	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m dia.		lin m	1000.05	
3.6	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 1.35m dia.		lin.m	1909.05	
3.7	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.9m dia.		lin.m	2256.15	
3.8	Pipe		lin.m	1388.4	
3.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m dia. Pipe	30	lin.m	3818.1	114,54
5.9	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.1m dia.	50		3010.1	114,04
3.1	Pipe Supply, excavate, bed, lay, joint, backfill and provide connections for 0.45m x	45	lin.m	4512.3	203,05
3.11	0.45m culvert		lin.m	1388.4	
3.12	Supply, excavate, bed, lay, joint, backfill and provide connections for 0.6m x 0.6m culvert]	lin.m	1735.5	
	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.2m x				
3.13	1.2m culvert Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x	┨────┤	lin.m	2776.8	

4.0	PAVEMENTS				
	SUBTOTAL				369,156
3.14	Allowance for nightworks (assume for works on all regional/state roads)		item	15,229	0
3.18	Adjustment of exsiting services (nominal allowance) (assumed 10% of drainage installation cost, with minimum cost of \$30,000)	1	item	33,560	33,560
3.17	Supply, excavate, bed, lay, backfill surcharge pit		each	30000	0
3.16	Install new drainage / junction pit (assumed 1 pit per 25m of pipe)	3	each	6000	18,000
3.15	Supply, excavate, bed, lay, joint, backfill and provide connections for 2.4m x 2.4m culvert		lin.m	4859.4	0
3.90	1.2m culvert		lin.m	3680	0
	Supply, excavate, bed, lay, joint, backfill and provide connections for 1.8m x				

	Reinstate disturbed road pavement, including demolition and disposal of			<u> </u>	
4.1	additional material to provide good jointing	300	sq. m	120	36,000
	SUBTOTAL				36,000
5.0	PROPERTY BY-BACK				
5.1	Purchase of properties in order to create drainage easements	0	each	1300000	0
	SUBTOTAL				0
6.0	TRAFFIC CONTROL				
	Control of traffic during works, incl allowance for night works (assumed 10% of		1		
6.1	pipe install cost)	1	item	36916	36,916
	SUBTOTAL				36,916
7.0	MINOR LANDSCAPING				
7.1	Repair disturbed areas in accordance with landscape architects requirements (nominal allowance)	194	sq. m	20	3,870
	SUBTOTAL				3,870
	CONSTRUCTION SUB-TOTAL				568,283
8.0	CONTINGENCIES				
8.1	50% construction cost				170,48
	CONSTRUCTION TOTAL, excluding GST				738,768
	GST				73,877
	CONSTRUCTION TOTAL, including GST				812,64
	CONSTRUCTION TOTAL, rounded				812,70
DISCLAII	MER:				
. This es	stimate of cost is provided in good faith using information available at this stage. The	nis estimate	of cost is not	guaranteed.	
ardno (I	NSW) will not accept liability in the event that actual costs exceed the estimate.				
IOTES:					
. Estima	te does not include Consultant's fees, including design or project management				
. Estima	te / rates in 2017 dollars and does not allow for inflation				

Nepean River FRMSP