

Appendix E

Construction Cost Estimates

Appendix E Construction Cost Estimates

Total Project

Project:		SINGLETON BYPASS STRATEGIC OPTIONS COST ESTIMATE CENTRAL OPTION 1 TOTAL PROJECT SUMMARY				Prepared by: <i>Mark Raven</i>
Project No:		Date: August 2012		Estimate Stage: Strategic		
Item	Estimate (excluding contingency)	Contingency % Amount	Estimate (including contingency)	% of Total Estimate	Comments/Assumptions	
1. Project Development						
1 (a) Route/Concept/EIS or REF	\$6,244,935	35% \$2,185,727	\$8,430,662		2% of Infrastructure	
1 (b) Project Management Services	\$249,797	35% \$87,429	\$337,226		4% of 1a	
1 (c) Client Representation	\$24,980	35% \$8,743	\$33,723		10% of 1b	
1 (d) Community Liason	\$200,000	35% \$70,000	\$270,000			
Sub total	\$6,719,712	35% \$2,351,899	\$9,071,612	1.6%		
2. Investigation and Design						
2 (a) Investigation and Design	\$18,734,805	40% \$7,493,922	\$26,228,728		6% of Infrastructure	
2 (b) Project Management Services	\$749,392	40% \$299,757	\$1,049,149		4% of 2a	
2 (c) Client Representation	\$74,939	40% \$29,976	\$104,915		10% of 2b	
Sub total	\$19,559,137	40% \$7,823,655	\$27,382,792	4.7%		
3. Property Acquisitions						
3 (a) Acquire Property	\$10,000,000	50% \$5,000,000	15,000,000		ref RMS email 13/9/12	
3 (b) Professional Services for Property	\$700,000	50% \$350,000	\$1,050,000			
3 (c) Project Management Services	\$28,000	50% \$14,000	\$42,000			
3 (d) Client Representation	\$2,800	50% \$1,400	\$4,200			
3 (e) Compensatory Habitat						
Sub total	\$10,730,800	50% \$5,365,400	\$16,096,200	2.8%		
4. Public Utility Adjustments						
4 (a) Adjust Utilities					Included in Construction	
4 (b) Project Management Services						
4 (c) Client Representation						
Sub total	\$0	0% \$0	\$0	0.0%		
5. Construction						
5 (a) Infrastructure						
Central Option 1	\$312,246,758	55% \$172,724,204	\$484,970,962			
5 (b) Client Arranged Insurance	\$3,122,468	55% \$1,727,242	\$4,849,710			
5 (c) Primary Testing	\$6,244,935	55% \$3,454,484	\$9,699,419		2% of 5a	
5 (d) Project Management Services	\$12,489,870	55% \$6,908,968	\$19,398,838		4% of 5a	
5 (e) Client Representation	\$1,248,987	55% \$690,897	\$1,939,884		10% of 5d	
Sub total	\$335,353,018	55% \$185,505,795	\$520,858,813	90.0%		
6. Finalisation						
6 (a) Refurbish old route					Incl in item 5	
6 (b) Project data and performance	\$3,122,468	55% \$1,727,242	\$4,849,710		1% of 5a	
6 (c) Project Management Services	\$124,899	55% \$69,090	\$193,988		4% of 6b	
6 (d) Client Representation	\$12,490	55% \$6,909	\$19,399		10% of 6c	
Sub total	\$3,259,856	55% \$1,803,241	\$5,063,097	0.9%		
TOTAL	\$375,622,523	54% \$202,849,990	\$578,472,513	100%	RMS require 35% -70%	
Project Management	\$13,641,959	4%	\$21,021,202	4%		
Client Representation	\$1,364,196	0.4%	\$2,102,120	0.4%		
Reality checks:	Excl Cont		Incl Cont			
Project Cost /km	\$19,770		\$30,446			
Project Cost /lane km	\$9,885		\$15,223			
	Quantity	Unit	Rate Excl contingency			
Bridges	18,200	m2	\$4,576	/m2		
Main Pavements	57,500	m2	\$120	/m2		
Earthworks Cut/Fill	154,238	m3	\$23	/m3		

Total Project

Project:		SINGLETON BYPASS STRATEGIC OPTIONS COST ESTIMATE NORTHERN OPTION 1 TOTAL PROJECT SUMMARY				Prepared by: <i>Mark Raven</i>
Project No:		Date: August 2012		Estimate Stage: Strategic		
Item	Estimate (excluding contingency)	Contingency % Amount	Estimate (including contingency)	% of Total Estimate	Comments/Assumptions	
1. Project Development						
1 (a) Route/Concept/EIS or REF	\$8,371,942	35% \$2,930,180	\$11,302,121		2% of Infrastructure	
1 (b) Project Management Services	\$334,878	35% \$117,207	\$452,085		4% of 1a	
1 (c) Client Representation	\$33,488	35% \$11,721	\$45,208		10% of 1b	
1 (d) Community Liason	\$200,000	35% \$70,000	\$270,000			
Sub total	\$8,940,307	35% \$3,129,107	\$12,069,415	1.5%		
2. Investigation and Design						
2 (a) Investigation and Design	\$25,115,825	40% \$10,046,330	\$35,162,155		6% of Infrastructure	
2 (b) Project Management Services	\$1,004,633	40% \$401,853	\$1,406,486		4% of 2a	
2 (c) Client Representation	\$100,463	40% \$40,185	\$140,649		10% of 2b	
Sub total	\$26,220,921	40% \$10,488,368	\$36,709,290	4.7%		
3. Property Acquisitions						
3 (a) Acquire Property	\$21,333,333	50% \$10,666,667	\$32,000,000.00		ref RMS email 13/9/12	
3 (b) Professional Services for Property	\$1,493,333	50% \$746,667	\$2,240,000			
3 (c) Project Management Services	\$59,733	50% \$29,867	\$89,600			
3 (d) Client Representation	\$5,973	50% \$2,987	\$8,960			
3 (e) Compensatory Habitat						
Sub total	\$22,892,373	50% \$11,446,187	\$34,338,560	4.4%		
4. Public Utility Adjustments						
4 (a) Adjust Utilities					Included in Construction	
4 (b) Project Management Services						
4 (c) Client Representation						
Sub total	\$0	0% \$0	\$0	0.0%		
5. Construction						
5 (a) Infrastructure Northern Option 1	\$418,597,082	54% \$227,854,170	\$646,451,252			
5 (b) Client Arranged Insurance	\$4,185,971	54% \$2,278,542	\$6,464,513			
5 (c) Primary Testing	\$8,371,942	54% \$4,557,083	\$12,929,025		2% of 5a	
5 (d) Project Management Services	\$16,743,883	54% \$9,114,167	\$25,858,050		4% of 5a	
5 (e) Client Representation	\$1,674,388	54% \$911,417	\$2,585,805		10% of 5d	
Sub total	\$449,573,266	54% \$244,715,378	\$694,288,644	88.5%		
6. Finalisation						
6 (a) Refurbish old route					Incl in item 5	
6 (b) Project data and performance	\$4,185,971	54% \$2,278,542	\$6,464,513		1% of 5a	
6 (c) Project Management Services	\$167,439	54% \$91,142	\$258,581		4% of 6b	
6 (d) Client Representation	\$16,744	54% \$9,114	\$25,858		10% of 6c	
Sub total	\$4,370,154	54% \$2,378,798	\$6,748,951	0.9%		
TOTAL	\$511,997,021	53% \$272,157,839	\$784,154,859	100%	RMS require 35% -70%	
Project Management	\$18,310,566	4%	\$28,064,802	4%		
Client Representation	\$1,831,057	0.4%	\$2,806,480	0.4%		
Reality checks:	Excl Cont		Incl Cont			
Project Cost /km	\$25,600		\$39,208			
Project Cost /lane km	\$12,800		\$19,604			
	Quantity	Unit	Rate Excl contingency			
Bridges	28,000	m2	\$4,669	/m2		
Main Pavements	239,840	m2	\$117	/m2		
Earthworks Cut/Fill	410,437	m3	\$21	/m3		

Total Project

Project:		SINGLETON BYPASS STRATEGIC OPTIONS COST ESTIMATE NORTHERN OPTION 2 TOTAL PROJECT SUMMARY				Prepared by: <i>Mark Raven</i>
Project No:		Date: August 2012		Estimate Stage: Strategic		
Item	Estimate (excluding contingency)	Contingency % Amount	Estimate (including contingency)	% of Total Estimate	Comments/Assumptions	
1. Project Development						
1 (a) Route/Concept/EIS or REF	\$6,963,675	35% \$2,437,286	\$9,400,962		2% of Infrastructure	
1 (b) Project Management Services	\$278,547	35% \$97,491	\$376,038		4% of 1a	
1 (c) Client Representation	\$27,855	35% \$9,749	\$37,604		10% of 1b	
1 (d) Community Liason	\$200,000	35% \$70,000	\$270,000			
Sub total	\$7,470,077	35% \$2,614,527	\$10,084,604	1.6%		
2. Investigation and Design						
2 (a) Investigation and Design	\$20,891,026	40% \$8,356,411	\$29,247,437		6% of Infrastructure	
2 (b) Project Management Services	\$835,641	40% \$334,256	\$1,169,897		4% of 2a	
2 (c) Client Representation	\$83,564	40% \$33,426	\$116,990		10% of 2b	
Sub total	\$21,810,232	40% \$8,724,093	\$30,534,324	4.7%		
3. Property Acquisitions						
3 (a) Acquire Property	\$15,333,333	50% \$7,666,667	\$23,000,000		ref RMS email 13/9/12	
3 (b) Professional Services for Property	\$1,073,333	50% \$536,667	\$1,610,000			
3 (c) Project Management Services	\$42,933	50% \$21,467	\$64,400			
3 (d) Client Representation	\$4,293	50% \$2,147	\$6,440			
3 (e) Compensatory Habitat						
Sub total	\$16,453,893	50% \$8,226,947	\$24,680,840	3.8%		
4. Public Utility Adjustments						
4 (a) Adjust Utilities					Included in Construction	
4 (b) Project Management Services						
4 (c) Client Representation						
Sub total	\$0	0% \$0	\$0	0.0%		
5. Construction						
5 (a) Infrastructure Northern Option 2	\$348,183,772	55% \$190,011,847	\$538,195,619			
5 (b) Client Arranged Insurance	\$3,481,838	55% \$1,900,118	\$5,381,956			
5 (c) Primary Testing	\$6,963,675	55% \$3,800,237	\$10,763,912		2% of 5a	
5 (d) Project Management Services	\$13,927,351	55% \$7,600,474	\$21,527,825		4% of 5a	
5 (e) Client Representation	\$1,392,735	55% \$760,047	\$2,152,782		10% of 5d	
Sub total	\$373,949,372	55% \$204,072,724	\$578,022,095	89.1%		
6. Finalisation						
6 (a) Refurbish old route					Incl in item 5	
6 (b) Project data and performance	\$3,481,838	55% \$1,900,118	\$5,381,956		1% of 5a	
6 (c) Project Management Services	\$139,274	55% \$76,005	\$215,278		4% of 6b	
6 (d) Client Representation	\$13,927	55% \$7,600	\$21,528		10% of 6c	
Sub total	\$3,635,039	55% \$1,983,724	\$5,618,762	0.9%		
TOTAL	\$423,318,612	53% \$225,622,014	\$648,940,626	100%	RMS require 35% -70%	
Project Management	\$15,223,746	4%	\$23,353,439	4%		
Client Representation	\$1,522,375	0.4%	\$2,335,344	0.4%		
Reality checks:	Excl Cont		Incl Cont			
Project Cost /km	\$21,024		\$32,229			
Project Cost /lane km	\$10,512		\$16,115			
	Quantity	Unit	Rate Excl contingency			
Bridges	21,000	m2	\$4,576	/m2		
Main Pavements	214,505	m2	\$123	/m2		
Earthworks Cut/Fill	428,044	m3	\$23	/m3		

Project:		SINGLETON BYPASS STRATEGIC OPTIONS COST ESTIMATE SOUTHERN OPTION 1 TOTAL PROJECT SUMMARY				Prepared by: Mark Raven
Project No:		Date: March 2013				Rev: F
Estimate Stage: Strategic						
Item	Estimate	Contingency		Estimate	% of Total	Comments/Assumptions
	(excluding contingency)	%	Amount	(including contingency)	Estimate	
1. Project Development						
1 (a) Route/Concept/EIS or REF	\$6,099,951	35%	\$2,134,983	\$8,234,933		2% of Infrastructure
1 (b) Project Management Services	\$243,998	35%	\$85,399	\$329,397		4% of 1a
1 (c) Client Representation	\$24,400	35%	\$8,540	\$32,940		10% of 1b
1 (d) Community Liason	\$200,000	35%	\$70,000	\$270,000		
Sub total	\$6,568,348	35%	\$2,298,922	\$8,867,270	1.4%	
2. Investigation and Design						
2 (a) Investigation and Design	\$18,299,852	40%	\$7,319,941	\$25,619,792		6% of Infrastructure
2 (b) Project Management Services	\$731,994	40%	\$292,798	\$1,024,792		4% of 2a
2 (c) Client Representation	\$73,199	40%	\$29,280	\$102,479		10% of 2b
Sub total	\$19,105,045	40%	\$7,642,018	\$26,747,063	4.2%	
3. Property Acquisitions						
3 (a) Acquire Property	\$46,255,160	60%	\$27,753,096	74,008,256		To be confirmed by RMS
3 (b) Professional Services for Property	\$3,237,861	60%	\$1,942,717	\$5,180,578		
3 (c) Project Management Services	\$129,514	60%	\$77,709	\$207,223		
3 (d) Client Representation	\$12,951	60%	\$7,771	\$20,722		
3 (e) Compensatory Habitat						
Sub total	\$49,635,487	60%	\$29,781,292	\$79,416,779	12.6%	
4. Public Utility Adjustments						
4 (a) Adjust Utilities						Included in Construction
4 (b) Project Management Services						
4 (c) Client Representation						
Sub total	\$0	0%	\$0	\$0	0.0%	
5. Construction						
5 (a) Infrastructure						2% of 5a 4% of 5a 10% of 5d
Southern Option 1	\$304,997,528	56%	\$169,832,888	\$474,830,417		
5 (b) Client Arranged Insurance	\$3,049,975	56%	\$1,698,329	\$4,748,304		
5 (c) Primary Testing	\$6,099,951	56%	\$3,396,658	\$9,496,608		
5 (d) Project Management Services	\$12,199,901	56%	\$6,793,316	\$18,993,217		
5 (e) Client Representation	\$1,219,990	56%	\$679,332	\$1,899,322		
Sub total	\$327,567,346	56%	\$182,400,522	\$509,967,868	81.0%	
6. Finalisation						
6 (a) Refurbish old route						Incl in item 5
6 (b) Project data and performance	\$3,049,975	56%	\$1,698,329	\$4,748,304		1% of 5a
6 (c) Project Management Services	\$121,999	56%	\$67,933	\$189,932		4% of 6b
6 (d) Client Representation	\$12,200	56%	\$6,793	\$18,993		10% of 6c
Sub total	\$3,184,174	56%	\$1,773,055	\$4,957,230	0.8%	
TOTAL	\$406,060,400	55%	\$223,895,810	\$629,956,210	100%	RMS require 35% -70%
Project Management	\$13,427,407	3%		\$20,744,561	3%	
Client Representation	\$1,342,741	0.3%		\$2,074,456	0.3%	
Reality checks:	Excl Cont			Incl Cont		
Project Cost /km	\$18,047			\$27,998		
Project Cost /lane km	\$9,024			\$13,999		
	Quantity	Unit		Rate Excl contingency		
Bridges	17,220	m2		\$4,759	/m2	
Main Pavements	199,000	m2		\$120	/m2	
Earthworks Cut/Fill	346,029	m3		\$26	/m3	

Total Project

Project:		SINGLETON BYPASS STRATEGIC OPTIONS COST ESTIMATE REDUCED LENGTH CENTRAL OPTION 1 TOTAL PROJECT SUMMARY				Prepared by: <i>Mark Raven</i>
Project No:		Date: August 2012		Estimate Stage: Strategic		
Item	Estimate (excluding contingency)	Contingency % Amount	Estimate (including contingency)	% of Total Estimate	Comments/Assumptions	
1. Project Development						
1 (a) Route/Concept/EIS or REF	\$5,047,412	35% \$1,766,594	\$6,814,006		2% of Infrastructure	
1 (b) Project Management Services	\$201,896	35% \$70,664	\$272,560		4% of 1a	
1 (c) Client Representation	\$20,190	35% \$7,066	\$27,256		10% of 1b	
1 (d) Community Liason	\$200,000	35% \$70,000	\$270,000			
Sub total	\$5,469,498	35% \$1,914,324	\$7,383,823	1.6%		
2. Investigation and Design						
2 (a) Investigation and Design	\$15,142,236	40% \$6,056,895	\$21,199,131		6% of Infrastructure	
2 (b) Project Management Services	\$605,689	40% \$242,276	\$847,965		4% of 2a	
2 (c) Client Representation	\$60,569	40% \$24,228	\$84,797		10% of 2b	
Sub total	\$15,808,495	40% \$6,323,398	\$22,131,893	4.8%		
3. Property Acquisitions						
3 (a) Acquire Property	\$6,000,000	50% \$3,000,000	\$9,000,000		Refer email from RMS 13/9/12	
3 (b) Professional Services for Property	\$420,000	50% \$210,000	\$630,000			
3 (c) Project Management Services	\$16,800	50% \$8,400	\$25,200			
3 (d) Client Representation	\$1,680	50% \$840	\$2,520			
3 (e) Compensatory Habitat						
Sub total	\$6,438,480	50% \$3,219,240	\$9,657,720	2.1%		
4. Public Utility Adjustments						
4 (a) Adjust Utilities					Included in Construction	
4 (b) Project Management Services						
4 (c) Client Representation						
Sub total	\$0	0% \$0	\$0	0.0%		
5. Construction						
5 (a) Infrastructure Reduced Length Central Option 1	\$252,370,608	54% \$137,311,915	\$389,682,523		2% of 5a 4% of 5a 10% of 5d	
5 (b) Client Arranged Insurance	\$2,523,706	54% \$1,373,119	\$3,896,825			
5 (c) Primary Testing	\$5,047,412	54% \$2,746,238	\$7,793,650			
5 (d) Project Management Services	\$10,094,824	54% \$5,492,477	\$15,587,301			
5 (e) Client Representation	\$1,009,482	54% \$549,248	\$1,558,730			
Sub total	\$271,046,033	54% \$147,472,996	\$418,519,029	90.6%		
6. Finalisation						
6 (a) Refurbish old route					Incl in item 5	
6 (b) Project data and performance	\$2,523,706	54% \$1,373,119	\$3,896,825		1% of 5a	
6 (c) Project Management Services	\$100,948	54% \$54,925	\$155,873		4% of 6b	
6 (d) Client Representation	\$10,095	54% \$5,492	\$15,587		10% of 6c	
Sub total	\$2,634,749	54% \$1,433,536	\$4,068,286	0.9%		
TOTAL	\$301,397,255	53% \$160,363,495	\$461,760,750	100%	RMS require 35% -70%	
Project Management	\$11,020,159	4%	\$16,888,899	4%		
Client Representation	\$1,102,016	0.4%	\$1,688,890	0.4%		
Reality checks:	Excl Cont		Incl Cont			
Project Cost /km	\$33,489		\$51,307			
Project Cost /lane km	\$16,744		\$25,653			
	Quantity	Unit	Rate Excl contingency			
Bridges	18,200	m2	\$4,576	/m2		
Main Pavements	43,800	m2	\$120	/m2		
Earthworks Cut/Fill	118,370	m3	\$21	/m3		

Total Project

Project:		SINGLETON BYPASS STRATEGIC OPTIONS COST ESTIMATE REDUCED LENGTH NORTHERN OPTION 1 TOTAL PROJECT SUMMARY				Prepared by: <i>Mark Raven</i>
Project No:		Date: August 2012		Estimate Stage: Strategic		
Item	Estimate (excluding contingency)	Contingency % Amount	Estimate (including contingency)	% of Total Estimate	Comments/Assumptions	
1. Project Development						
1 (a) Route/Concept/EIS or REF	\$7,651,775	35% \$2,678,121	\$10,329,896		2% of Infrastructure	
1 (b) Project Management Services	\$306,071	35% \$107,125	\$413,196		4% of 1a	
1 (c) Client Representation	\$30,607	35% \$10,712	\$41,320		10% of 1b	
1 (d) Community Liason	\$200,000	35% \$70,000	\$270,000			
Sub total	\$8,188,453	35% \$2,865,959	\$11,054,412	1.5%		
2. Investigation and Design						
2 (a) Investigation and Design	\$22,955,325	40% \$9,182,130	\$32,137,455		6% of Infrastructure	
2 (b) Project Management Services	\$918,213	40% \$367,285	\$1,285,498		4% of 2a	
2 (c) Client Representation	\$91,821	40% \$36,729	\$128,550		10% of 2b	
Sub total	\$23,965,359	40% \$9,586,144	\$33,551,503	4.7%		
3. Property Acquisitions						
3 (a) Acquire Property	\$21,333,333	50% \$10,666,667	\$32,000,000.00		Refer email from RMS 13/9/12	
3 (b) Professional Services for Property	\$1,493,333	50% \$746,667	\$2,240,000			
3 (c) Project Management Services	\$59,733	50% \$29,867	\$89,600			
3 (d) Client Representation	\$5,973	50% \$2,987	\$8,960			
3 (e) Compensatory Habitat						
Sub total	\$22,892,373	50% \$11,446,187	\$34,338,560	4.8%		
4. Public Utility Adjustments						
4 (a) Adjust Utilities					Included in Construction	
4 (b) Project Management Services						
4 (c) Client Representation						
Sub total	\$0	0% \$0	\$0	0.0%		
5. Construction						
5 (a) Infrastructure Reduced Length Northern Option 1	\$382,588,748	54% \$208,308,401	\$590,897,148			
5 (b) Client Arranged Insurance	\$3,825,887	54% \$2,083,084	\$5,908,971			
5 (c) Primary Testing	\$7,651,775	54% \$4,166,168	\$11,817,943		2% of 5a	
5 (d) Project Management Services	\$15,303,550	54% \$8,332,336	\$23,635,886		4% of 5a	
5 (e) Client Representation	\$1,530,355	54% \$833,234	\$2,363,589		10% of 5d	
Sub total	\$410,900,315	54% \$223,723,222	\$634,623,537	88.2%		
6. Finalisation						
6 (a) Refurbish old route					Incl in item 5	
6 (b) Project data and performance	\$3,825,887	54% \$2,083,084	\$5,908,971		1% of 5a	
6 (c) Project Management Services	\$153,035	54% \$83,323	\$236,359		4% of 6b	
6 (d) Client Representation	\$15,304	54% \$8,332	\$23,636		10% of 6c	
Sub total	\$3,994,227	54% \$2,174,740	\$6,168,966	0.9%		
TOTAL	\$469,940,727	53% \$249,796,251	\$719,736,978	100%	RMS require 35% -70%	
Project Management	\$16,740,603	4%	\$25,660,539	4%		
Client Representation	\$1,674,060	0.4%	\$2,566,054	0.4%		
Reality checks:	Excl Cont		Incl Cont			
Project Cost /km	\$26,224		\$40,164			
Project Cost /lane km	\$13,112		\$20,082			
	Quantity	Unit	Rate Excl contingency			
Bridges	28,000	m2	\$4,669	/m2		
Main Pavements	117,190	m2	\$117	/m2		
Earthworks Cut/Fill	406,241	m3	\$21	/m3		

Total Project

Project:		SINGLETON BYPASS STRATEGIC OPTIONS COST ESTIMATE REDUCED LENGTH NORTHERN OPTION 2 TOTAL PROJECT SUMMARY				Prepared by: <i>Mark Raven</i>
Project No:		Date: August 2012		Estimate Stage: Strategic		
Item	Estimate (excluding contingency)	Contingency % Amount	Estimate (including contingency)	% of Total Estimate	Comments/Assumptions	
1. Project Development						
1 (a) Route/Concept/EIS or REF	\$6,421,453	35% \$2,247,509	\$8,668,961		2% of Infrastructure	
1 (b) Project Management Services	\$256,858	35% \$89,900	\$346,758		4% of 1a	
1 (c) Client Representation	\$25,686	35% \$8,990	\$34,676		10% of 1b	
1 (d) Community Liason	\$200,000	35% \$70,000	\$270,000			
Sub total	\$6,903,997	35% \$2,416,399	\$9,320,396	1.6%		
2. Investigation and Design						
2 (a) Investigation and Design	\$19,264,359	40% \$7,705,744	\$26,970,102		6% of Infrastructure	
2 (b) Project Management Services	\$770,574	40% \$308,230	\$1,078,804		4% of 2a	
2 (c) Client Representation	\$77,057	40% \$30,823	\$107,880		10% of 2b	
Sub total	\$20,111,991	40% \$8,044,796	\$28,156,787	4.7%		
3. Property Acquisitions						
3 (a) Acquire Property	\$13,333,333	50% \$6,666,667	20,000,000		Refer email from RMS 13/9/12	
3 (b) Professional Services for Property	\$933,333	50% \$466,667	\$1,400,000			
3 (c) Project Management Services	\$37,333	50% \$18,667	\$56,000			
3 (d) Client Representation	\$3,733	50% \$1,867	\$5,600			
3 (e) Compensatory Habitat						
Sub total	\$14,307,733	50% \$7,153,867	\$21,461,600	3.6%		
4. Public Utility Adjustments						
4 (a) Adjust Utilities					Included in Construction	
4 (b) Project Management Services						
4 (c) Client Representation						
Sub total	\$0	0% \$0	\$0	0.0%		
5. Construction						
5 (a) Infrastructure Reduced Length Northern Option 2	\$321,072,648	55% \$175,739,223	\$496,811,870		2% of 5a 4% of 5a 10% of 5d	
5 (b) Client Arranged Insurance	\$3,210,726	55% \$1,757,392	\$4,968,119			
5 (c) Primary Testing	\$6,421,453	55% \$3,514,784	\$9,936,237			
5 (d) Project Management Services	\$12,842,906	55% \$7,029,569	\$19,872,475			
5 (e) Client Representation	\$1,284,291	55% \$702,957	\$1,987,247			
Sub total	\$344,832,023	55% \$188,743,925	\$533,575,949	89.3%		
6. Finalisation						
6 (a) Refurbish old route					Incl in item 5	
6 (b) Project data and performance	\$3,210,726	55% \$1,757,392	\$4,968,119		1% of 5a	
6 (c) Project Management Services	\$128,429	55% \$70,296	\$198,725		4% of 6b	
6 (d) Client Representation	\$12,843	55% \$7,030	\$19,872		10% of 6c	
Sub total	\$3,351,998	55% \$1,834,717	\$5,186,716	0.9%		
TOTAL	\$389,507,743	53% \$208,193,705	\$597,701,447	100%	RMS require 35% -70%	
Project Management	\$14,036,101	4%	\$21,552,762	4%		
Client Representation	\$1,403,610	0.4%	\$2,155,276	0.4%		
Reality checks:	Excl Cont		Incl Cont			
Project Cost /km	\$28,567		\$43,836			
Project Cost /lane km	\$14,283		\$21,918			
	Quantity	Unit	Rate Excl contingency			
Bridges	21,000	m2	\$4,576	/m2		
Main Pavements	128,095	m2	\$123	/m2		
Earthworks Cut/Fill	405,356	m3	\$23	/m3		

Project:		SINGLETON BYPASS STRATEGIC OPTIONS COST ESTIMATE REDUCED LENGTH SOUTHERN OPTION 1 TOTAL PROJECT SUMMARY				Prepared by: Mark Raven
Project No:		Date: March 2013				Rev: B
Estimate Stage: Strategic						
Item	Estimate (excluding contingency)	%	Contingency Amount	Estimate (including contingency)	% of Total Estimate	Comments/Assumptions
1. Project Development						
1 (a) Route/Concept/EIS or REF	\$5,635,080	35%	\$1,972,278	\$7,607,358		2% of Infrastructure
1 (b) Project Management Services	\$225,403	35%	\$78,891	\$304,294		4% of 1a
1 (c) Client Representation	\$22,540	35%	\$7,889	\$30,429		10% of 1b
1 (d) Community Liason	\$200,000	35%	\$70,000	\$270,000		
Sub total	\$6,083,023	35%	\$2,129,058	\$8,212,081	1.4%	
2. Investigation and Design						
2 (a) Investigation and Design	\$16,905,239	40%	\$6,762,096	\$23,667,335		6% of Infrastructure
2 (b) Project Management Services	\$676,210	40%	\$270,484	\$946,693		4% of 2a
2 (c) Client Representation	\$67,621	40%	\$27,048	\$94,669		10% of 2b
Sub total	\$17,649,069	40%	\$7,059,628	\$24,708,697	4.2%	
3. Property Acquisitions						
3 (a) Acquire Property	\$45,797,045	60%	\$27,478,227	73,275,272		To be confirmed by RMS
3 (b) Professional Services for Property	\$3,205,793	60%	\$1,923,476	\$5,129,269		
3 (c) Project Management Services	\$128,232	60%	\$76,939	\$205,171		
3 (d) Client Representation	\$12,823	60%	\$7,694	\$20,517		
3 (e) Compensatory Habitat						
Sub total	\$49,143,893	60%	\$29,486,336	\$78,630,229	13.4%	
4. Public Utility Adjustments						
4 (a) Adjust Utilities						Included in Construction
4 (b) Project Management Services						
4 (c) Client Representation						
Sub total	\$0	0%	\$0	\$0	0.0%	
5. Construction						
5 (a) Infrastructure Reduced Length Southern Option 1	\$281,753,982	56%	\$157,995,573	\$439,749,555		2% of 5a 4% of 5a 10% of 5d
5 (b) Client Arranged Insurance	\$2,817,540	56%	\$1,579,956	\$4,397,496		
5 (c) Primary Testing	\$5,635,080	56%	\$3,159,911	\$8,794,991		
5 (d) Project Management Services	\$11,270,159	56%	\$6,319,823	\$17,589,982		
5 (e) Client Representation	\$1,127,016	56%	\$631,982	\$1,758,998		
Sub total	\$302,603,777	56%	\$169,687,245	\$472,291,022	80.3%	
6. Finalisation						
6 (a) Refurbish old route						Incl in item 5
6 (b) Project data and performance	\$2,817,540	56%	\$1,579,956	\$4,397,496		1% of 5a
6 (c) Project Management Services	\$112,702	56%	\$63,198	\$175,900		4% of 6b
6 (d) Client Representation	\$11,270	56%	\$6,320	\$17,590		10% of 6c
Sub total	\$2,941,512	56%	\$1,649,474	\$4,590,985	0.8%	
TOTAL	\$378,421,274	55%	\$210,011,741	\$588,433,015	100%	RMS require 35% -70%
Project Management	\$12,412,705	3%		\$19,222,040	3%	
Client Representation	\$1,241,271	0.3%		\$1,922,204	0.3%	
Reality checks:	Excl Cont			Incl Cont		
Project Cost /km	\$18,460			\$28,704		
Project Cost /lane km	\$9,230			\$14,352		
	Quantity	Unit		Rate Excl contingency		
Bridges	17,220	m2		\$4,759	/m2	
Main Pavements	180,800	m2		\$120	/m2	
Earthworks Cut/Fill	310,681	m3		\$26	/m3	