

# **Appendix G**

## **Cost Estimate**



**PRELIMINARY CONSTRUCTION ESTIMATE**

**ROAD** Intersection of Highway 50 and Mayfield  
**From:** Daylight Triangle

**To:** Daylight Triangle

Component/ Category	Item Description	Units	Unit Price	Quantity	Sub Total	Total
<b>Design/Contract Administration</b>	Design	lump sum			\$70,000	
	Contract Administration	lump sum			\$25,000	
	Contingency (specify %) - 20%				\$19,000	
	<b>Sub Total</b>					\$114,000
<b>Property Acquisition</b>	Strip property purchase Whole purchase (specify)	ha lump sum		0.1		
<b>Utility Relocation</b>	General	km	300000	0.1	\$30,000	
	Other (specify)					
	Contingency (specify %)-20%				\$6,000	
	<b>Sub Total</b>					\$36,000
<b>Construction</b>	Excavation/Earthworks	m3	14	3,700	\$51,800	
	Install storm sewer	m per diam	350	210	\$73,500	
	Granular 'A'	tonne	19	1350	\$25,650	
	Granular 'B'	tonne	18	2550	\$45,900	
	Asphalt Base	tonne	70	1440	\$100,800	
	Asphalt Top	tonne	90	800	\$72,000	
	Remove curb and gutter	m	10	420	\$4,200	
	Install curb and gutter	m	40.7	420	\$17,094	
	Install subdrains	m	60	210	\$12,600	
	Install catch-basin leads	m				
	Remove catch-basin	each				
	Install catch-basin	each	2670	1	\$2,670	
	Adjust catch-basin	each				
	Remove manhole	each				
	Install manhole	each	4000	1	\$4,000	
	Adjust manhole	each				
	Asphalt removal	m2	4	4100	\$16,400	
	Asphalt planing	m2				
	Asphalt in place recycle	m2				
	Asphalt pulverising	m2				
	OGS	each	20000	1	\$20,000	
	Pavement Marking	m	5	400	\$2,000	
	Contingency (specify %)- 20%					\$89,723
<b>Sub Total</b>						\$538,337
<b>Intersections</b>	Additional turning lane (specify extra lanes and Municipal split)					
	Contingency (specify %)					
	<b>Sub Total</b>					



**PRELIMINARY CONSTRUCTION ESTIMATE**

**ROAD** Intersection of Highway 50 and Mayfield  
**From:** Daylight Triangle

**To:** Daylight Triangle

Component/ Category	Item Description	Units	Unit Price	Quantity	Sub Total	Total
<b>Streetlights</b>	Both sides	km or each	300,000	0.15	\$45,000	
	Centre median	km or each				
	Median	km				
	Contingency (specify %) - 20%				\$9,000	
	<b>Sub Total</b>					\$54,000
<b>Traffic Signals</b>	Permanent 4 - way (Modification Only)	each	150,000	1	\$150,000	
	Permanent 3 - way	each				
	Temporary	each	100000	1	\$100,000	
	Contingency (specify %) - 20%				\$50,000	
	<b>Sub Total</b>					\$300,000
<b>Culverts</b>	Rehabilitation of existing	m				
	Widening of existing	m				
	Removal of existing	m				
	New structure	m				
	Contingency (specify %) - 20%					
	<b>Sub Total</b>					
<b>Bridges</b>	Rehabilitation of existing					
	Widening of existing					
	Removal of existing					
	New structure					
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Noise Walls</b>	Installation					
	Removal of existing					
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Landscaping/ Sidewalks</b>	Sidewalk (1.5m)	m2	80	85	\$6,800	
	Trees and shrubs					
	Other (specify)					
	3.0m Combined Pathway	m2	80	100	\$8,000	
	Potential Sidewalk 1.5m (on East of Highway 50)	m2	80	40	\$3,200	
	Contingency (specify %) - 20%				\$3,600	
	<b>Sub Total</b>					\$21,600

**PROJECT TOTAL**

**\$1,063,937**

Without Potential Sidewalk

**\$1,060,097**

<b>CASH FLOW</b>	<b>Year I</b>	<b>Year II</b>	<b>Year III</b>	<b>Year IV</b>	<b>Total</b>

**PRELIMINARY CONSTRUCTION ESTIMATE**

**ROAD** Highway 50  
**From:** Intersection of Mayfield North Limit **To:** 320m north of Mayfield Road

Component/ Category	Item Description	Units	Unit Price	Quantity	Sub Total	Total
<b>Design/Contract Administration</b>	Design	lump sum			\$70,000	
	Contract Administration	lump sum			\$25,000	
	Contingency (specify %) - 20%				\$19,000	
	<b>Sub Total</b>					\$114,000
<b>Property Acquisition</b>	Strip property purchase Whole purchase (specify)	ha lump sum				
<b>Utility Relocation</b>	General	km	300000	0.27	\$81,000	
	Other (specify)					
	Contingency (specify %)-20%				\$16,200	
	<b>Sub Total</b>					\$97,200
<b>Construction</b>	Excavation/Earthworks	m3	14	4,000	\$56,000	
	Install storm sewer	m per diam	350	260	\$91,000	
	Granular 'A'	tonne	19	2950	\$56,050	
	Granular 'B'	tonne	18	5700	\$102,600	
	Asphalt Base	tonne	70	2400	\$168,000	
	Asphalt Top	tonne	90	1000	\$90,000	
	Remove curb and gutter	m	10	520	\$5,200	
	Install curb and gutter	m	40.7	520	\$21,164	
	Install subdrains	m	60	260	\$15,600	
	Install catch-basin leads	m				
	Remove catch-basin	each				
	Install catch-basin	each				
	Adjust catch-basin	each				
	Remove manhole	each				
	Install manhole	each	4000	14	\$56,000	
	Adjust manhole	each				
	Asphalt removal	m2	4	5500	\$22,000	
	Asphalt planing	m2				
	Asphalt in place recycle	m2				
	Asphalt pulverising	m2				
	Pavement Marking	m	5	1050	\$5,250	
Contingency (specify %)- 20%					\$137,773	
<b>Sub Total</b>						\$826,637
<b>Intersections</b>	Additional turning lane (specify extra lanes and Municipal split)					
	Contingency (specify %)					
	<b>Sub Total</b>					



**PRELIMINARY CONSTRUCTION ESTIMATE**

**ROAD** Highway 50  
**From:** Intersection of Mayfield North Limit **To:** 320m north of Mayfield Road

Component/ Category	Item Description	Units	Unit Price	Quantity	Sub Total	Total
<b>Streetlights</b>	Both sides	km or each	300,000	0.27	<b>\$81,000</b>	
	Centre median	km or each				
	Median	km				
	Contingency (specify %) - 20%				<b>\$16,200</b>	
	<b>Sub Total</b>					<b>\$97,200</b>
<b>Traffic Signals</b>	Permanent 4 - way (Modification Only)	each				
	Permanent 3 - way	each				
	Temporary	each				
	Contingency (specify %) - 20%					
	<b>Sub Total</b>					
<b>Culverts</b>	Rehabilitation of existing	m				
	Widening of existing	m				
	Removal of existing	m				
	New structure	m				
	Contingency (specify %) - 20%					
	<b>Sub Total</b>					
<b>Bridges</b>	Rehabilitation of existing					
	Widening of existing					
	Removal of existing					
	New structure					
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Noise Walls</b>	Installation					
	Removal of existing					
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Landscaping/ Sidewalks</b>	Sidewalk (1.5m)	m2	80	405	<b>\$32,400</b>	
	Trees and shrubs					
	Other (specify)					
	3.0m Combined Pathway	m2	80			
	Potential Sidewalk 1.5m (on East of Highway 50)	m2	80			
	Contingency (specify %) - 20%				<b>\$6,480</b>	
	<b>Sub Total</b>					<b>\$38,880</b>

**PROJECT TOTAL**

**\$1,173,917**

CASH FLOW	Year I	Year II	Year III	Year IV	Total

**PRELIMINARY CONSTRUCTION ESTIMATE**

**ROAD** Highway 50  
**From:** Castlemore Road **To:** South of Mayfield Intersection Limit

Component/ Category	Item Description	Units	Unit Price	Quantity	Sub Total	Total
<b>Design/Contract Administration</b>	Design	lump sum			\$1,200,000	
	Contract Administration	lump sum			\$400,000	
	Contingency (specify %) - 20%				\$320,000	
	<b>Sub Total</b>					\$1,920,000
<b>Property Acquisition</b>	Strip property purchase Whole purchase (specify)	ha lump sum		2.3		\$5,494,921
<b>Utility Relocation</b>	General	km	300000	5.28	\$1,584,000	
	Other (specify)					
	Contingency (specify %)-20%				\$316,800	
	<b>Sub Total</b>					\$1,900,800
<b>Construction</b>	Excavation/Earthworks	m3	14	110,300	\$1,544,200	
	Install storm sewer	m per diam	350	5275	\$1,846,250	
	Granular 'A'	tonne	19	14700	\$279,300	
	Granular 'B'	tonne	18	28650	\$515,700	
	Asphalt Base	tonne	70	3260	\$228,200	
	Asphalt Top	tonne	90	16100	\$1,449,000	
	Remove curb and gutter	m	10	1510	\$15,100	
	Install curb and gutter	m	40.7	14460	\$588,522	
	Install subdrains	m	60	5275	\$316,500	
	Install catch-basin leads	m				
	Remove catch-basin	each				
	Install catch-basin	each	2670	35	\$93,450	
	Adjust catch-basin	each				
	Remove manhole	each				
	Install manhole	each	4000	171	\$684,000	
	Adjust manhole	each				
	Asphalt removal	m2	4	100400	\$401,600	
	Asphalt planing	m2				
	Asphalt in place recycle	m2				
	Asphalt pulverising	m2				
	Retaining Wall	m	500	38	\$19,000	
	OGS	each	20000	17	\$340,000	
	Pavement Marking	m	5	23000	\$115,000	
Transit Infrastructure	each	2000	5	\$10,000		
	Contingency (specify %)- 20%				\$1,689,164	
	<b>Sub Total</b>					\$10,134,986
<b>Intersections</b>	Additional turning lane (specify extra lanes and Municipal split)					
	Contingency (specify %)					
	<b>Sub Total</b>					



**PRELIMINARY CONSTRUCTION ESTIMATE**

**ROAD** Highway 50  
**From:** Castlemore Road **To:** South of Mayfield Intersection Limit

Component/ Category	Item Description	Units	Unit Price	Quantity	Sub Total	Total
<b>Streetlights</b>	Both sides	km or each	300,000	5.28	<b>\$1,584,000</b>	
	Centre median	km or each				
	Median	km				
	Contingency (specify %) - 20%				<b>\$316,800</b>	
	<b>Sub Total</b>					<b>\$1,900,800</b>
<b>Traffic Signals</b>	Permanent 4 - way (Modification Only)	each	150,000	3	<b>\$450,000</b>	
	Permanent 3 - way	each				
	Temporary	each	100000	3	<b>\$300,000</b>	
	Contingency (specify %) - 20%				<b>\$150,000</b>	
	<b>Sub Total</b>					<b>\$900,000</b>
<b>Culverts</b>	Rehabilitation of existing	m	1100	210	<b>\$231,000</b>	
	Widening of existing	m	36	100	<b>\$3,600</b>	
	Removal of existing	m	1100	300	<b>\$330,000</b>	
	New structure	m				
	Contingency (specify %) - 20%				<b>\$112,920</b>	
	<b>Sub Total</b>					<b>\$677,520</b>
<b>Bridges</b>	Rehabilitation of existing					
	Widening of existing					
	Removal of existing					
	New structure					
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Noise Walls</b>	Installation					
	Removal of existing					
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Landscaping/ Sidewalks</b>	Sidewalk (1.5m)	m2	80	1560	<b>\$124,800</b>	
	Trees and shrubs					
	Other (specify)					
	3.0m Combined Pathway	m2	80	15900	<b>\$1,272,000</b>	
	Potential Sidewalk 1.5m (on East of Highway 50)	m2	80	7960	<b>\$636,800</b>	
Contingency (specify %) - 20%				<b>\$406,720</b>		
	<b>Sub Total</b>					<b>\$2,440,320</b>

**PROJECT TOTAL**

**\$25,369,347**

Without Potential Sidewalk

**\$24,605,187**

<b>CASH FLOW</b>	<b>Year I</b>	<b>Year II</b>	<b>Year III</b>	<b>Year IV</b>	<b>Total</b>

**PRELIMINARY CONSTRUCTION ESTIMATE**

**ROAD** Mayfield Road  
**From:** 85m east of Coleraine Drive **To:** Intersection of Highway 50

Component/ Category	Item Description	Units	Unit Price	Quantity	Sub Total	Total
<b>Design/Contract Administration</b>	Design	lump sum			\$300,000	
	Contract Administration	lump sum			\$100,000	
	Contingency (specify %) - 20%				\$80,000	
	<b>Sub Total</b>					\$480,000
<b>Property Acquisition</b>	Strip property purchase Whole purchase (specify)	ha lump sum		1.6		\$2,505,079
<b>Utility Relocation</b>	General	km	300000	1.3	\$390,000	
	Other (specify)					
	Contingency (specify %) - 0.2				\$78,000	
	<b>Sub Total</b>					\$468,000
<b>Construction</b>	Excavation/Earthworks	m3	14	32,100	\$449,400	
	Install storm sewer	m per diam	350	1250	\$437,500	
	Granular 'A'	tonne	19	3700	\$70,300	
	Granular 'B'	tonne	18	7320	\$131,760	
	Asphalt Base	tonne	70	1280	\$89,600	
	Asphalt Top	tonne	90	2880	\$259,200	
	Remove curb and gutter	m	10	650	\$6,500	
	Install curb and gutter	m	40.7	2800	\$113,960	
	Install subdrains	m	60	1250	\$75,000	
	Install catch-basin leads	m				
	Remove catch-basin	each				
	Install catch-basin	each	2670	8	\$21,360	
	Adjust catch-basin	each				
	Remove manhole	each				
	Install manhole	each	4000	52	\$208,000	
	Adjust manhole	each				
	Asphalt removal	m2	4	12960	\$51,840	
	Asphalt planing	m2				
	Asphalt in place recycle	m2				
	Asphalt pulverising	m2				
OGS	each	20000	4	\$80,000		
Pavement Marking	m	5	3500	\$17,500		
	Contingency (specify %)- 20%				\$402,384	
	<b>Sub Total</b>					\$2,414,304
<b>Intersections</b>	Additional turning lane (specify extra lanes and Municipal split)	m	500	680	\$340,000	
	Contingency (20 %)				\$68,000	
	<b>Sub Total</b>					\$408,000





**PRELIMINARY CONSTRUCTION ESTIMATE**

**ROAD** Mayfield Road  
**From:** 85m east of Coleraine Drive **To:** Intersection of Highway 50

Component/ Category	Item Description	Units	Unit Price	Quantity	Sub Total	Total
<b>Streetlights</b>	Both sides	km or each	300,000	1.5	\$450,000	
	Centre median	km or each				
	Median	km				
	Contingency (specify %) - 20%				\$90,000	
	<b>Sub Total</b>					\$540,000
<b>Traffic Signals</b>	Permanent 4 - way (Modification Only)	each				
	Permanent 3 - way	each				
	Temporary	each				
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Culverts</b>	Rehabilitation of existing	m	1100	30	\$33,000	
	Widening of existing	m				
	Removal of existing	m	1100	50	\$55,000	
	New structure					
	Contingency (specify %) - 20%				\$17,600	
	<b>Sub Total</b>					\$105,600
<b>Bridges</b>	Rehabilitation of existing					
	Widening of existing					
	Removal of existing					
	New structure					
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Noise Walls</b>	Installation					
	Removal of existing					
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Landscaping/ Sidewalks</b>	Sidewalk (1.5m)	m2	80	450	\$36,000	
	Trees and shrubs					
	Other (specify)					
	3.0m Combined Pathway	m2	80	3800	\$304,000	
	Contingency (specify %) - 20%				\$68,000	
	<b>Sub Total</b>					\$408,000

**PROJECT TOTAL**

**\$7,328,983**

CASH FLOW	Year I	Year II	Year III	Year IV	Total

**PRELIMINARY CONSTRUCTION ESTIMATE**

**ROAD** Albion Vaughan Road  
**From:** East of Intersection of Hwy 50 **To:** 350m East of Highway 50

Component/ Category	Item Description	Units	Unit Price	Quantity	Sub Total	Total
<b>Design/Contract Administration</b>	Design	lump sum			\$70,000	
	Contract Administration	lump sum			\$20,000	
	Contingency (specify %) - 20%				\$18,000	
	<b>Sub Total</b>					\$108,000
<b>Property Acquisition</b>	Strip property purchase Whole purchase (specify)	ha lump sum		0.1		
<b>Utility Relocation</b>	General	km	300000	0.3	\$90,000	
	Other (specify)					
	Contingency (specify %) - 0.2				\$18,000	
	<b>Sub Total</b>					\$108,000
<b>Construction</b>	Excavation/Earthworks	m3	14	3,900	\$54,600	
	Install storm sewer	m per diam	350	300	\$105,000	
	Granular 'A'	tonne	19	2200	\$41,800	
	Granular 'B'	tonne	18	4180	\$75,240	
	Asphalt Base	tonne	70	920	\$64,400	
	Asphalt Top	tonne	90	780	\$70,200	
	Remove curb and gutter	m	10	50	\$500	
	Install curb and gutter	m	40.7	600	\$24,420	
	Install subdrains	m	60	300	\$18,000	
	Install catch-basin leads	m				
	Remove catch-basin	each				
	Install catch-basin	each	2670	14	\$37,380	
	Adjust catch-basin	each				
	Remove manhole	each				
	Install manhole	each	4000	2	\$8,000	
	Adjust manhole	each				
	Asphalt removal	m2	4	3740	\$14,960	
	Asphalt planing	m2				
	Asphalt in place recycle	m2				
	Asphalt pulverising	m2				
Pavement Marking	m	5	1500	\$7,500		
Contingency (specify %)- 20%					\$104,400	
<b>Sub Total</b>						\$626,400
<b>Intersections</b>	Additional turning lane (specify extra lanes and Municipal split)					
	Contingency (specify %)					
	<b>Sub Total</b>					



**PRELIMINARY CONSTRUCTION ESTIMATE**

**ROAD** Albion Vaughan Road  
**From:** East of Intersection of Hwy 50 **To:** 350m East of Highway 50

Component/ Category	Item Description	Units	Unit Price	Quantity	Sub Total	Total
<b>Streetlights</b>	Both sides	km or each	300,000	0.3	<b>\$90,000</b>	
	Centre median	km or each				
	Median	km				
	Contingency (specify %) - 20%				<b>\$18,000</b>	
	<b>Sub Total</b>					<b>\$108,000</b>
<b>Traffic Signals</b>	Permanent 4 - way (Modification Only)	each				
	Permanent 3 - way	each				
	Temporary	each				
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Culverts</b>	Rehabilitation of existing	m				
	Widening of existing	m				
	Removal of existing	m				
	New structure	m				
	Contingency (specify %) - 20%					
	<b>Sub Total</b>					
<b>Bridges</b>	Rehabilitation of existing					
	Widening of existing					
	Removal of existing					
	New structure					
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Noise Walls</b>	Installation					
	Removal of existing					
	Contingency (specify %)					
	<b>Sub Total</b>					
<b>Landscaping/ Sidewalks</b>	Sidewalk (1.5m)	m2				
	Trees and shrubs					
	Other (specify)					
	3.0m Combined Pathway	m2				
	Contingency (specify %) - 20%					
	<b>Sub Total</b>					

**PROJECT TOTAL**

**\$950,400**

CASH FLOW	Year I	Year II	Year III	Year IV	Total