

**Bike and Pedestrian Master Plan**

Opinion of Probable Costs

Section **Summary**

<b>Roadway</b>	<b>Cost per mile</b>	
<b>Major Arterial</b>	\$	1,350,000 per mile
<b>Minor Arterial (McDonald west of Invergordon)</b>	\$	800,000 per mile
<b>Minor Arterial (McDonald east of Invergordon)</b>	\$	650,000 per mile
<b>Minor Arterial (with Median)</b>	\$	1,400,000 per mile
<b>Minor Arterial (without Median)</b>	\$	1,200,000 per mile
<b>Collector</b>	\$	1,400,000 per mile
<b>Local Option A</b>	\$	600,000 per mile
<b>Local Option B</b>	\$	- per mile
<b>Wash Trail</b>	\$	550,000 per mile
<b>10' Wide Path</b>	\$	505,000 per mile
<b>Bike Lane</b>	\$	25,000 per mile
<b>Bike Lane with striped buffer</b>	\$	36,000 per mile
<b>Intersection Crossing Ped/Bike (striped only, ped/bike buttons, ADA ramps)</b>	\$	170,000 each
<b>Intersection Crossing Ped/Bike (w/ pavers, ped/bike buttons, ADA ramps)</b>	\$	282,000 each
<b>Intersection Crossing Ped/Bike (stamp color, ped/bike buttons, ADA ramps)</b>	\$	221,000 each

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Section **Major Arterial**

Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS	1	\$ 98,841.60	\$ 98,841.60
2	6' Sidewalk (6" concrete)	LF	5,280	\$ 36.00	\$ 190,080.00
3	10' Shared Use Path (6" concrete))	LF	5,280	\$ 60.00	\$ 316,800.00
4	Landscape, DG and Irrigation Restoration	SF	105,600	\$ 3.00	\$ 316,800.00
5	White Traffic Paint Stripe	LF		\$ 0.50	\$ -
6	Bike Lane Marking Symbol	EA		\$ 250.00	\$ -
<b>Subtotal</b>					<b>\$ 922,521.60</b>

**Assumptions:**

1. Cost per mile.
2. Does not include retaining wall or buffer wall costs.
3. Does not include additional ROW costs.
4. Cost assumes existing lights and traffic signals remain in place.
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.

Design Contingency (20%) \$ 184,504.32

Design Fee (10%) \$ 92,252.16

Construction Admin (14%) \$ 129,153.02

**TOTAL \$ 1,328,431.10**

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Section Minor Arterial McDonald west

Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS	1	\$ 58,924.80	\$ 58,924.80
2	6' Sidewalk (6" concrete)	LF		\$ 36.00	\$ -
3	10' Shared Use Path (6" concrete))	LF	5,280	\$ 60.00	\$ 316,800.00
4	Landscape, DG and Irrigation Restoration	SF	58,080	\$ 3.00	\$ 174,240.00
5	White Traffic Paint Stripe	LF		\$ 0.50	\$ -
6	Bike Lane Marking Symbol	EA		\$ 250.00	\$ -
Subtotal					\$ 549,964.80
Assumptions:					
1. Cost per mile.					Design Contingency (20%) \$ 109,992.96
2. Does not include retaining wall or buffer wall costs.					Design Fee (10%) \$ 54,996.48
3. Does not include additional ROW costs.					Construction Admin (14%) \$ 76,995.07
4. Cost assumes existing lights and traffic signals remain in place.					
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.					
TOTAL					\$ 791,949.31

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Section Minor Arterial McDonald east

Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS	1	\$ 46,718.40	\$ 46,718.40
2	6' Sidewalk (6" concrete) <i>Assume adding only to south side</i>	LF	5,280	\$ 36.00	\$ 190,080.00
3	10' Shared Use Path (6" concrete))	LF		\$ 60.00	\$ -
4	Landscape, DG and Irrigation Restoration	SF	58,080	\$ 3.00	\$ 174,240.00
5	White Traffic Paint Stripe	LF	30,000	\$ 0.50	\$ 15,000.00
6	Bike Lane Marking Symbol	EA	40	\$ 250.00	\$ 10,000.00
Subtotal					\$ 436,038.40
Assumptions:					
1. Cost per mile.					Design Contingency (20%) \$ 87,207.68
2. Does not include retaining wall or buffer wall costs.					Design Fee (10%) \$ 43,603.84
3. Does not include additional ROW costs.					Construction Admin (14%) \$ 61,045.38
4. Cost assumes existing lights and traffic signals remain in place.					
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.					
TOTAL					\$ 627,895.30

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Section Minor Arterial w median

Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS	1	\$ 101,841.60	\$ 101,841.60
2	6' Sidewalk (6" concrete)	LF	5,280	\$ 36.00	\$ 190,080.00
3	10' Shared Use Path (6" concrete))	LF	5,280	\$ 60.00	\$ 316,800.00
4	Landscape, DG and Irrigation Restoration	SF	105,600	\$ 3.00	\$ 316,800.00
5	White Traffic Paint Stripe	LF	30,000	\$ 0.50	\$ 15,000.00
6	Bike Lane Marking Symbol	EA	40	\$ 250.00	\$ 10,000.00
Subtotal					\$ 950,521.60
Assumptions:					
1. Cost per mile.					Design Contingency (20%) \$ 190,104.32
2. Does not include retaining wall or buffer wall costs.					Design Fee (10%) \$ 95,052.16
3. Does not include additional ROW costs.					Construction Admin (14%) \$ 133,073.02
4. Cost assumes existing lights and traffic signals remain in place.					
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.					
TOTAL					\$ 1,368,751.10

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Section Minor Arterial w-out median

Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS	1	\$ 86,128.80	\$ 86,128.80
2	6' Sidewalk (6" concrete)	LF	10,560	\$ 36.00	\$ 380,160.00
3	10' Shared Use Path (6" concrete))	LF		\$ 60.00	\$ -
4	Landscape, DG and Irrigation Restoration	SF	105,600	\$ 3.00	\$ 316,800.00
5	White Traffic Paint Stripe	LF	21,560	\$ 0.50	\$ 10,780.00
6	Bike Lane Marking Symbol	EA	40	\$ 250.00	\$ 10,000.00
Subtotal					\$ 803,868.80
Assumptions:					
1. Cost per mile.					Design Contingency (20%) \$ 160,773.76
2. Does not include retaining wall or buffer wall costs.					Design Fee (10%) \$ 80,386.88
3. Does not include additional ROW costs.					Construction Admin (14%) \$ 112,541.63
4. Cost assumes existing lights and traffic signals remain in place.					
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.					
TOTAL					\$ 1,157,571.07

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Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS	1	\$ 101,841.60	\$ 101,841.60
2	6' Sidewalk (6" concrete)	LF	5,280	\$ 36.00	\$ 190,080.00
3	10' Shared Use Path (6" concrete))	LF	5,280	\$ 60.00	\$ 316,800.00
4	Landscape, DG and Irrigation Restoration	SF	105,600	\$ 3.00	\$ 316,800.00
5	White Traffic Paint Stripe	LF	30,000	\$ 0.50	\$ 15,000.00
6	Bike Lane Marking Symbol	EA	40	\$ 250.00	\$ 10,000.00
Subtotal					\$ 950,521.60
Assumptions:					
1. Cost per mile.					Design Contingency (20%) \$ 190,104.32
2. Does not include retaining wall or buffer wall costs.					Design Fee (10%) \$ 95,052.16
3. Does not include additional ROW costs.					Construction Admin (14%) \$ 133,073.02
4. Cost assumes existing lights and traffic signals remain in place.					
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.					
TOTAL					\$ 1,368,751.10

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Section Local Option A

Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS	1	\$ 43,718.40	\$ 43,718.40
2	6' Sidewalk (6" concrete)	LF	5,280	\$ 36.00	\$ 190,080.00
3	10' Shared Use Path (6" concrete))	LF		\$ 60.00	\$ -
4	Landscape, DG and Irrigation Restoration	SF	58,080	\$ 3.00	\$ 174,240.00
5	White Traffic Paint Stripe	LF		\$ 0.50	\$ -
6	Bike Lane Marking Symbol	EA		\$ 250.00	\$ -
Subtotal					\$ 408,038.40
Assumptions:					
1. Cost per mile.					Design Contingency (20%) \$ 81,607.68
2. Does not include retaining wall or buffer wall costs.					Design Fee (10%) \$ 40,803.84
3. Does not include additional ROW costs.					Construction Admin (14%) \$ 57,125.38
4. Cost assumes existing lights and traffic signals remain in place.					
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.					
TOTAL					\$ 587,575.30



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Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS		\$ -	\$ -
2	6' Sidewalk (6" concrete)	LF		\$ 36.00	\$ -
3	10' Shared Use Path (6" concrete))	LF		\$ 60.00	\$ -
4	Landscape, DG and Irrigation Restoration	SF		\$ 3.00	\$ -
5	White Traffic Paint Stripe	LF		\$ 0.50	\$ -
6	Bike Lane Marking Symbol	EA		\$ 250.00	\$ -
Subtotal					\$ -
Assumptions:			Design Contingency (20%)		\$ -
			Design Fee (10%)		\$ -
			Construction Admin (14%)		\$ -
			TOTAL		\$ -

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Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS	1	\$ 40,350.00	\$ 40,350.00
2	Landscape, DG and Irrigation Restoration	SF	60,000	\$ 3.00	\$ 180,000.00
3	Stabilized Decomposed Granite	SF	65,000	\$ 1.25	\$ 81,250.00
4	Site Furnishings (benches, trash receptacles, doggie litter stations)	LS	75,000	\$ 1.00	\$ 75,000.00
Subtotal					\$ 376,600.00
Assumptions:					
1. Cost per mile.					Design Contingency (20%) \$ 75,320.00
2. Does not include retaining wall or buffer wall costs.					Design Fee (10%) \$ 37,660.00
3. Does not include additional ROW costs.					Construction Admin (14%) \$ 52,724.00
4. Cost assumes existing lights and traffic signals remain in place.					
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.					
TOTAL					\$ 542,304.00

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Section 10' Wide Path

Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS		\$ 41,817.60	\$ -
2	6' Sidewalk (6" concrete)	LF		\$ 36.00	\$ -
3	10' Shared Use Path (6" concrete))	LF	5,280	\$ 60.00	\$ 316,800.00
4	Landscape, DG and Irrigation Restoration	SF	10,560	\$ 3.00	\$ 31,680.00
5	White Traffic Paint Stripe	LF		\$ 0.50	\$ -
6	Bike Lane Marking Symbol	EA		\$ 250.00	\$ -
Subtotal					\$ 348,480.00
Assumptions:					
1. Cost per mile.					Design Contingency (20%) \$ 69,696.00
2. Does not include retaining wall or buffer wall costs.					Design Fee (10%) \$ 34,848.00
3. Does not include additional ROW costs.					Construction Admin (14%) \$ 48,787.20
4. Cost assumes existing lights and traffic signals remain in place.					
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.					
TOTAL					\$ 501,811.20

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Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS		\$ 1,833.60	\$ -
2	6' Sidewalk (6" concrete)	LF		\$ 36.00	\$ -
3	10' Shared Use Path (6" concrete))	LF		\$ 60.00	\$ -
4	Landscape, DG and Irrigation Restoration	SF		\$ 3.00	\$ -
5	White Traffic Paint Stripe	LF	10,560	\$ 0.50	\$ 5,280.00
6	Bike Lane Marking Symbol	EA	40	\$ 250.00	\$ 10,000.00
Subtotal					\$ 15,280.00
Assumptions:					
1. Cost per mile.					Design Contingency (20%) \$ 3,056.00
2. Does not include retaining wall or buffer wall costs.					Design Fee (10%) \$ 1,528.00
3. Does not include additional ROW costs.					Construction Admin (14%) \$ 2,139.20
4. Cost assumes existing lights and traffic signals remain in place.					
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.					
TOTAL					\$ 22,003.20

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Section **Bike Lane w stripe buffer**

Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS		\$ 3,000.00	\$ -
2	6' Sidewalk (6" concrete)	LF		\$ 36.00	\$ -
3	10' Shared Use Path (6" concrete))	LF		\$ 60.00	\$ -
4	Landscape, DG and Irrigation Restoration	SF		\$ 3.00	\$ -
5	White Traffic Paint Stripe	LF	30,000	\$ 0.50	\$ 15,000.00
6	Bike Lane Marking Symbol	EA	40	\$ 250.00	\$ 10,000.00
Subtotal					\$ 25,000.00
Assumptions:					
1. Cost per mile.					Design Contingency (20%) \$ 5,000.00
2. Does not include retaining wall or buffer wall costs.					Design Fee (10%) \$ 2,500.00
3. Does not include additional ROW costs.					Construction Admin (14%) \$ 3,500.00
4. Cost assumes existing lights and traffic signals remain in place.					
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.					
TOTAL					\$ 36,000.00

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Section **Crossing Striped**

Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS	1	\$ 12,567.60	\$ 12,567.60
2	Saw Cut and Remove Asphalt Paving	SF	600	\$ 0.55	\$ 330.00
3	Asphalt Paving	SF	600	\$ 3.10	\$ 1,860.00
4	Remove Curb and Gutter	LF	320	\$ 4.00	\$ 1,280.00
5	Curb/Gutter	LF	320	\$ 18.00	\$ 5,760.00
6	Remove Sidewalk	SF	2,000	\$ 3.00	\$ 6,000.00
7	6' Sidewalk (6" concrete)	LF	1,200	\$ 36.00	\$ 43,200.00
8	Remove Sidewalk Ramp	EA	4	\$ 1,000.00	\$ 4,000.00
9	Sidewalk ADA Ramp	EA	4	\$ 2,500.00	\$ 10,000.00
10	Landscape, DG and Irrigation Restoration	SF	3,200	\$ 3.00	\$ 9,600.00
11	White Traffic Paint Stripe	LF	1,800	\$ 0.50	\$ 900.00
12	Bike Lane Marking Symbol	EA	4	\$ 250.00	\$ 1,000.00
13	Crossing with Concrete Unit Pavers	SF		\$ 16.00	\$ -
14	Ribbon Curb at Pavers	LF		\$ 16.00	\$ -
15	Stamped and Colored Asphalt Coating	SF		\$ 10.00	\$ -
16	Ped Push Button on Pole	EA	4	\$ 1,800.00	\$ 7,200.00
17	Bike Push Button on Pole	EA	4	\$ 1,800.00	\$ 7,200.00
18	Ped Signal	EA	4	\$ 1,600.00	\$ 6,400.00
<b>Subtotal</b>					<b>\$ 117,297.60</b>

**Assumptions:**

1. Cost per mile.
2. Does not include retaining wall or buffer wall costs.
3. Does not include additional ROW costs.
4. Cost assumes existing lights and traffic signals remain in place.
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.

Design Contingency (20%) \$ 23,459.52

Design Fee (10%) \$ 11,729.76

Construction Admin (14%) \$ 16,421.66

**TOTAL \$ 168,908.54**

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Section **Crossing w Pavers**

Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS	1	\$ 20,943.60	\$ 20,943.60
2	Saw Cut and Remove Asphalt Paving	SF	600	\$ 0.55	\$ 330.00
3	Asphalt Paving	SF	600	\$ 3.10	\$ 1,860.00
4	Remove Curb and Gutter	LF	320	\$ 4.00	\$ 1,280.00
5	Curb/Gutter	LF	320	\$ 18.00	\$ 5,760.00
6	Remove Sidewalk	SF	2,000	\$ 3.00	\$ 6,000.00
7	6' Sidewalk (6" concrete)	LF	1,200	\$ 36.00	\$ 43,200.00
8	Remove Sidewalk Ramp	EA	4	\$ 1,000.00	\$ 4,000.00
9	Sidewalk ADA Ramp	EA	4	\$ 2,500.00	\$ 10,000.00
10	Landscape, DG and Irrigation Restoration	SF	3,200	\$ 3.00	\$ 9,600.00
11	White Traffic Paint Stripe	LF	600	\$ 0.50	\$ 300.00
12	Bike Lane Marking Symbol	EA	4	\$ 250.00	\$ 1,000.00
13	Crossing with Concrete Unit Pavers	SF	3,200	\$ 16.00	\$ 51,200.00
14	Ribbon Curb at Pavers	LF	1,200	\$ 16.00	\$ 19,200.00
15	Stamped and Colored Asphalt Coating	SF		\$ 10.00	\$ -
16	Ped Push Button on Pole	EA	4	\$ 1,800.00	\$ 7,200.00
17	Bike Push Button on Pole	EA	4	\$ 1,800.00	\$ 7,200.00
18	Ped Signal	EA	4	\$ 1,600.00	\$ 6,400.00
<b>Subtotal</b>					<b>\$ 195,473.60</b>

**Assumptions:**

1. Cost per mile.
2. Does not include retaining wall or buffer wall costs.
3. Does not include additional ROW costs.
4. Cost assumes existing lights and traffic signals remain in place.
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.

Design Contingency (20%) \$ 39,094.72

Design Fee (10%) \$ 19,547.36

Construction Admin (14%) \$ 27,366.30

**TOTAL \$ 281,481.98**

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Section **Crossing w Stamp Color Asphalt**

Item	Description	Unit	QTY.	Unit Cost	Extended Amount
1	General Conditions (Mobilization, Traffic Control, SWPP, Staking) (12%)	LS	1	\$ 16,407.60	\$ 16,407.60
2	Saw Cut and Remove Asphalt Paving	SF	600	\$ 0.55	\$ 330.00
3	Asphalt Paving	SF	600	\$ 3.10	\$ 1,860.00
4	Remove Curb and Gutter	LF	320	\$ 4.00	\$ 1,280.00
5	Curb/Gutter	LF	320	\$ 18.00	\$ 5,760.00
6	Remove Sidewalk	SF	2,000	\$ 3.00	\$ 6,000.00
7	6' Sidewalk (6" concrete)	LF	1,200	\$ 36.00	\$ 43,200.00
8	Remove Sidewalk Ramp	EA	4	\$ 1,000.00	\$ 4,000.00
9	Sidewalk ADA Ramp	EA	4	\$ 2,500.00	\$ 10,000.00
10	Landscape, DG and Irrigation Restoration	SF	3,200	\$ 3.00	\$ 9,600.00
11	White Traffic Paint Stripe	LF	1,800	\$ 0.50	\$ 900.00
12	Bike Lane Marking Symbol	EA	4	\$ 250.00	\$ 1,000.00
13	Crossing with Concrete Unit Pavers	SF		\$ 16.00	\$ -
14	Ribbon Curb at Pavers	LF		\$ 16.00	\$ -
15	Stamped and Colored Asphalt Coating	SF	3,200	\$ 10.00	\$ 32,000.00
16	Ped Push Button on Pole	EA	4	\$ 1,800.00	\$ 7,200.00
17	Bike Push Button on Pole	EA	4	\$ 1,800.00	\$ 7,200.00
18	Ped Signal	EA	4	\$ 1,600.00	\$ 6,400.00
<b>Subtotal</b>					<b>\$ 153,137.60</b>

**Assumptions:**

1. Cost per mile.
2. Does not include retaining wall or buffer wall costs.
3. Does not include additional ROW costs.
4. Cost assumes existing lights and traffic signals remain in place.
5. Does not include existing pavement maintenance, mill/overlay, micro-seal, etc.

Design Contingency (20%) \$ 30,627.52

Design Fee (10%) \$ 15,313.76

Construction Admin (14%) \$ 21,439.26

**TOTAL \$ 220,518.14**