



Cost Assumptions

appendix D

Cost Estimates

A high level order of magnitude cost estimate was prepared for each of the 138 projects for capital budgeting purposes. The estimates prepared are only a guide based on a preliminary understanding of the site, programing, schematic design, cost of similar waterfront improvements and anticipated level of investment. The estimates also include consulting fees and a contingency allowance and are based on 2016 dollars.

Costs associated with land access and environmental remediation, if required, are not included in the construction estimate numbers. Opportunities for cost sharing, money available through Development Charges, donations, grants and other potential revenue streams have also not been factored into these costs.

Once a design process is initiated for each site a more detailed and accurate cost estimate will be possible. Efficiencies related to undertaking projects simultaneously, or in conjunction with other capital projects may also present opportunities to reduce or offset costs.

The following tables provide the assumptions used to costs each of the 138 waterfront projects. The prices in the following tables have been rounded off.

Cost Assumptions

Some of the assumptions used in developing the estimates include:

Pre-construction Design Costs:

Construction value under 350k	12%
350k to 1 million	10%
1 million +	8%

Park Upgrade/ Construction Costs

Base Park	\$100/m2
Park Renovation	\$125/m2
Enhanced Waterfront Park	\$150/m2
Premier Urban Park Space	\$300/m2

Pathway Development

Base Asphalt Trail (3 metres)	\$250/lm
Granular Trail (2.5 metres)	\$150/lm
Waterfront Promenade	\$1,500/lm

Lighting

Pedestrian Lighting (promenade)	\$500/lm
Area Lighting	\$20 / m2

Clearing and Grubbing	\$75/lm
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Contingency	10%
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Focus Area #1 Projects Cost Assumptions

#	Project	Construction	Contingency	Design Costs	Total (Rounded)
1.01	LaSalle Causeway - enhanced pedestrian access / crossing	\$160,000	\$16,000	\$176,000	\$200,000
1.02	Create Connection from causeway to Anglin Lot (@ DND Lands)	\$275,000	\$35,000	\$310,000	\$350,000
1.03	Sidewalk from LaSalle Causeway to King St.	\$92,000	\$9,000	\$101,000	\$120,000
1.04	Frontenac Village (Boardwalk / dockwall improvements)	\$110,000	\$10,000	\$120,000	\$140,000
1.05	Anglin Parking Lot Connection (buffered pedestrian route - shore edge)	\$345,000	\$35,000	\$380,000	\$430,000
1.06	Wellington Street Sidewalk (both sides Bay Street to Douglas Fluhler Park)	\$130,000	\$13,000	\$143,000	\$185,000
1.07	Anglin Bay Bridge (From Frontenac Village to Douglas R. Fluhler Park)	\$450,000	\$45,000	\$495,000	\$560,000
1.08	Douglas R. Fluhler Park	\$2,260,000	\$224,000	\$2,484,000	\$2,684,000
1.09	Molly Brant Park (From north end of DFP to Molly Brant Point)	\$375,000	\$38,000	\$413,000	\$460,000
1.10	Emma Martin Park	\$400,000	\$40,000	\$440,000	\$490,000
1.11	Public Works Lands Connection Lookout (By River St. Pumping Station)	\$125,000	\$13,000	\$138,000	\$160,000
1.12	Tannery Lands (River Edge)	\$1,100,000	\$110,000	\$1,210,000	\$1,310,000
1.13	Land Bridge connection from Tannery to Belle Park	\$750,000	\$75,000	\$825,000	\$910,000
1.14	Belle Park Pathway Improvements (Periphery)	\$284,000	\$28,000	\$312,000	\$350,000
1.15	Belle Park Lookout	\$275,000	\$28,000	\$303,000	\$340,000

#	Project	Construction	Contingency	Design Costs	Total (Rounded)
1.16	Village Apartments Pathway Improvements (waterside path)	\$150,000	\$15,000	\$165,000	\$190,000
1.17	Third Crossing Landscape Improvements (at future bridge abutments)	\$500,000	\$50,000	\$550,000	\$610,000
1.18	Newmarket Lane Pathway Improvements (connect to outer station lookout)	\$225,000	\$23,000	\$248,000	\$280,000
1.19	Railway Underpass Pathway Connection	\$250,000	\$25,000	\$275,000	\$310,000
1.20	Create Connection (East of Montreal) from Underpass to Greer (below escarpment west of CN tracks)	\$328,000	\$33,000	\$361,000	\$410,000
1.21	On Street Connection from Greer to Sutherland Dr. Park	\$90,000	\$9,000	\$99,000	\$115,000
1.22	Sutherland Drive Park	\$250,000	\$25,000	\$275,000	\$310,000
1.23	Pathway Connecting Sutherland Dr. Park to Highway 401 Crossing (edge of escarpment)	\$530,000	\$53,000	\$583,000	\$660,000
1.24	West 401 Crossing (at Montreal Street)	\$35,000	\$3,500	\$38,500	\$50,000
1.25	Carpool Lot to Battersea South Pathway (Montreal / 401)	\$125,000	\$12,500	\$137,500	\$160,000
1.26	On Road link via Kingston Mills Rd. to Locks	\$300,000	\$30,000	\$330,000	\$370,000
1.27	Kingston Mills Locks Improvements	\$180,000	\$20,000	\$200,000	\$225,000
1.28	Pathway connection south of Kingston Mills Road to 401 (East side canal)	\$555,000	\$56,000	\$611,000	\$690,000

#	Project	Construction	Contingency	Design Costs	Total (Rounded)
1.29	East 401 Crossing	\$1,087,500	\$109,000	\$1,196,500	\$1,350,000
1.30	Pathway Connections south of 401 (east side to quarry)	\$975,000	\$98,000	\$1,073,000	\$1,210,000
1.31	MacLean Trails Park	\$380,000	\$38,000	\$418,000	\$470,000
1.32	Lilla Burke Park	\$250,000	\$25,000	\$275,000	\$310,000
1.33	Former Rideau Marina Redevelopment	\$400,000	\$40,000	\$440,000	\$490,000
1.34	100 Foot Park	\$280,000	\$28,000	\$308,000	\$350,000
1.35	Highway 15 Onroad Link from 100 Foot Park to Craftsman Blvd	\$100,000	\$10,000	\$110,000	\$150,000
1.36	Highway 15 Roadside Lookout (north of Barriefield) on west side @Craftsman	\$250,000	\$25,000	\$275,000	\$310,000
1.37	Green Bay Open Space (North of James St. at point)	\$288,000	\$29,000	\$317,000	\$360,000
Total Focus Area #1					\$18,069,000

Focus Area #2 Projects Cost Assumptions

#	Project	Construction	Contingency	Design Costs	Total (Rounded)
2.01	Kingston Mills Locks North Dock	\$190,000	\$19,000	\$30,000	\$245,000
2.02	Southern Colonel By Lake Waterfront Path (East of Eden Valley Open Space)	\$295,000	\$30,000	\$45,000	\$370,000
2.03	Northern Colonel By Lake Waterfront Path (South of Edenwood Park)	\$310,000	\$30,000	\$40,000	\$380,000
2.04	Edenwood Park	\$370,000	\$37,000	\$43,000	\$450,000
2.05	Aragon Road Boat Launch (roadside at Colonel By Lake)	\$100,000	\$10,000	\$13,000	\$133,000
2.06	Cecil & Wilma Graham Park (Aragon Rd)	\$1,864,000	\$186,000	\$165,000	\$2,215,000
2.07	Jarvis Open Space (end of Jarvis Road)	\$265,000	\$30,000	\$18,000	\$313,000
2.08	Colonel By Park	\$330,000	\$33,000	\$47,000	\$410,000
2.09	Lookout on Treasure Island Causeway (at causeway)	\$125,000	\$13,000	\$22,000	\$160,000
2.10	Madoma Community Centre	\$280,000	\$28,000	\$42,000	\$350,000
2.11	Channel View Park	\$200,000	\$20,000	\$30,000	\$250,000
2.12	English Landing Park	\$200,000	\$20,000	\$30,000	\$250,000
2.13	Grass Creek Park	\$2,000,000	\$200,000	\$175,000	\$2,375,000
2.14	Rawsons Point	\$200,000	\$20,000	\$30,000	\$250,000
2.15	Riverwood Park	\$250,000	\$25,000	\$45,000	\$320,000
2.16	Little Collins Lake Small Craft Access (East side - Perth Rd)	\$120,000	\$13,000	\$13,000	\$133,000
2.17	Loughborough Lake Boat Launch (winter fishing access + snowmobile access)	\$175,000	\$18,000	\$23,000	\$193,000
2.18	Leo Lake Small Craft Launch	\$130,000	\$13,000	\$23,000	\$143,000
Total Focus Area #2					\$8,940,000

Focus Area #3 Projects Cost Assumptions

#	Project	Construction	Contingency	Design Costs	Total (Rounded)
3.01	Arthur Lower Park (at Homeward Ave and Bath Rd)	\$275,000	\$28,000	\$37,000	\$340,000
3.02	Collins Bay Open Space (at Rankin Cres and Bath Rd.)	\$156,250	\$16,000	\$27,750	\$200,000
3.03	Collins Bay Boat Launch (Phase 2)	\$240,000	\$24,000	\$36,000	\$300,000
3.04	Collins Bay Road Right of Way Waterfront Access	\$125,000	\$13,000	\$22,000	\$160,000
3.05	Bath Road Bridge Connection (Bayridge Drive)	\$420,000	\$42,000	\$43,000	\$505,000
3.06	Coverdale Drive On Street Pathway (south side)	\$430,000	\$43,000	\$47,000	\$520,000
3.07	Rotary Park	\$275,000	\$28,000	\$37,000	\$340,000
3.08	Lemoine Point Conservation Area	\$450,000	\$45,000	\$50,000	\$550,000
3.09	Waterfront Pathway Connection - From Lemoine Point to Front Rd.	\$900,000	\$90,000	\$50,000	\$1,040,000
3.10	Front Rd Path on Street Pathway (Lemoine to Smugglers Cove)	\$325,000	\$32,000	\$43,000	\$400,000
3.11	Smugglers Cove (Old Front Rd. and Front Rd - west end)	\$125,000	\$13,000	\$17,000	\$155,000
3.12	Old Front Rd Path on Street Pathway	\$380,000	\$38,000	\$42,000	\$460,000
3.13	Horsy Bay Parkette (at Bayridge and Front Rd.)	\$200,000	\$20,000	\$30,000	\$250,000
3.14	Lakeland Point Drive on Street Pathway	\$280,000	\$28,000	\$37,000	\$345,000
3.15	Reddendale On Road Path (Front Rd to Patterson Park)	\$490,000	\$49,000	\$51,000	\$590,000
3.16	Private Park (Between 39 and 41 Lakeland Point Drive)	\$75,000	\$8,000	\$100,000	\$100,000
3.17	Everitt Park	\$175,000	\$17,500	\$27,500	\$220,000

#	Project	Construction	Contingency	Design Costs	Total (Rounded)
3.18	Private Park (18 Lakeshore Blvd) "No Dog" Park	\$125,000	\$13,000	\$22,000	\$160,000
3.19	Crerar Park	\$325,000	\$33,000	\$52,000	\$410,000
3.20	Patterson Park	\$225,000	\$25,000	\$30,000	\$280,000
3.21	Sand Bay (Behind Invista)	\$1,400,000	\$140,000	\$130,000	\$1,670,000
3.22	Cataraqui Bay Breakwater Study	\$250,000	\$25,000	\$35,000	\$310,000
3.23	Front Road Causeway (west end by Invista)	\$275,000	\$28,000	\$37,000	\$340,000
3.24	Little Cataraqui Marsh Pathway West (CSL Lands)	\$1,012,500	\$101,000	\$96,500	\$1,210,000
3.25	Greenview Drive Pathway Connection (By Apartments)	\$115,000	\$12,000	\$23,000	\$150,000
3.26	Rideau Trail: Little Cataraqui Marsh Pathway (East)	\$925,000	\$93,000	\$102,000	\$1,120,000
3.27	Elevator Bay Pier (South End)	\$560,000	\$56,000	\$64,000	\$680,000
Total Focus Area #3					\$12,805,000

Focus Area #4 Projects Cost Assumptions

#	Project	Construction	Contingency	Design Costs	Total (Rounded)
4.01	Improved Connection through Providence Continuing Care Centre (Behind Hospital)	\$555,000	\$55,000	\$60,000	\$670,000
4.02	Transport Canada Coal Dock (at Lakewater Lane)	\$295,000	\$29,000	\$32,000	\$356,000
4.03	Portsmouth Olympic Harbour				TBD
4.04	Kingston Penitentiary (Foot of Sir John A. Macdonald Blvd)	\$1,200,000	\$120,000	\$105,000	\$1,425,000
4.05	King Street West Sidewalk (South Side from Penitentiary to Breakwater Park)	\$540,000	\$54,000	\$66,000	\$660,000
4.06	Sidewalk in Alwington Place King St. to CSC St. Helens)	\$120,000	\$12,000	\$18,000	\$150,000
4.07	Correction Canada Property - Pathway link Alwington to Tett (through St. Helens)	\$135,000	\$14,000	\$21,000	\$170,000
4.08	J.K. Tett Centre	\$200,000	\$20,000	\$20,000	\$240,000
4.09	Breakwater Park (2013 Master Plan)	\$4,100,000	\$410,000	\$361,000	\$4,880,000
4.10	Kingston Central Heating Plant (southside)	\$550,000	\$60,000	\$75,000	\$685,000
4.11	Macdonald Park	\$2,250,000	\$230,000	\$200,000	\$2,680,000
4.12	Richardson Beach	\$1,125,000	\$115,000	\$100,000	\$1,340,000
4.13	On Road Pathway - Emily St. to Simcoe Street via King	\$120,000	\$12,000	\$18,000	\$150,000
Total Focus Area #4					\$13,406,000

Focus Area #5 Projects Cost Assumptions

#	Project	Construction	Contingency	Design Costs	Total (Rounded)
5.01	Waterfront Pathway Connection Simcoe St. to West St.	\$237,500	\$24,000	\$38,500	\$300,000
5.02	West Street Boat Launch	\$350,000	\$35,000	\$55,000	\$440,000
5.03	An Gorta Mor Park	\$400,000	\$40,000	\$50,000	\$490,000
5.04	Pump House Steam Museum Pathway Improvements	\$200,000	\$20,000	\$30,000	\$250,000
5.05	Pathway Improvements	\$250,000	\$25,000	\$35,000	\$310,000
5.06	Lower Union Parking Reconfiguration	\$356,250	\$36,000	\$47,000	\$440,000
5.07	Lower Union Pier Enhancements	\$800,000	\$80,000	\$88,000	\$970,000
5.08	Navy Memorial Park	\$280,000	\$28,000	\$37,000	\$350,000
5.09	Pedestrian Feature Bridge (Lower Union Pier to Marine Museum)	\$400,000	\$40,000	\$44,000	\$490,000
5.10	Marine Museum Promenade and Park	\$490,000	\$49,000	\$54,000	\$600,000
5.11	Gore Street Enhancement and Lookout	\$280,000	\$28,000	\$37,000	\$350,000
5.12	Battery Park	\$360,000	\$36,000	\$44,000	\$440,000
5.13	Confederation Basin Breakwater	\$1,000,000	\$100,000	\$90,000	\$1,190,000
5.14	Confederation Basin Marina	\$650,000	\$65,000	\$70,000	\$785,000
5.15	Waterfront Promenade Improvements (Williams to Johnson St.)	\$400,000	\$40,000	\$50,000	\$490,000
5.16	Pedestrian Feature Bridge (Battery Park to Delta Hotel)	\$650,000	\$65,000	\$72,000	\$792,000
5.17	Delta Hotel Perimeter Walkway Enhancements	\$1,470,000	\$147,000	\$130,000	\$1,750,000
5.18	Clarence Street Enhancements (Parking and Sidewalk Enhancements)	\$300,000	\$30,000	\$40,000	\$370,000

#	Project	Construction	Contingency	Design Costs	Total (Rounded)
5.19	Confederation Park	\$5,200,000	\$520,000	\$450,000	\$6,150,000
5.20	Crawford Wharf	\$810,000	\$81,000	\$90,000	\$980,000
5.21	Holiday Inn	\$637,500	\$64,000	\$70,000	\$780,000
5.22	Waterfront Promenade (Princess Street to Queen Street Pier)	\$675,000	\$68,000	\$77,000	\$820,000
5.23	Queen Street Pier Promenade	\$555,000	\$56,000	\$69,000	\$680,000
5.24	Wolfe Island Ferry Terminal	\$400,000	\$40,000	\$50,000	\$490,000

Total Focus Area #5 \$20,707,000

Focus Area #6 Projects Cost Assumptions

#	Project	Construction	Contingency	Design Costs	Total (Rounded)
6.01	Wolf Island Ferry to LaSalle Causeway (sidewalk improvements)	\$120,000	\$12,000	\$18,000	\$150,000
6.02	RMC Waterfront Promenade (around edge of RMC)	\$1,065,000	\$105,000	\$100,000	\$1,270,000
6.03	Fort Henry Waterfront Pathway (around Navy Bay)	\$443,750	\$44,000	\$50,000	\$540,000
6.04	Fort Henry Walkways (by Fort on point)	\$645,000	\$65,000	\$70,000	\$790,000
6.05	Deadmans' Bay Pathway (Martello to DND lands)	\$325,000	\$40,000	\$45,000	\$410,000
6.06	Arrowhead Beach Park	\$355,000	\$35,000	\$40,000	\$430,000
6.07	Pathway connecting Arrowhead Beach to Lurdys Lane	\$810,000	\$81,000	\$89,000	\$980,000
6.08	Ravensview Park	\$125,000	\$13,000	\$22,000	\$160,000
6.09	Pathway connecting LaSalle Blvd to McKnight Rd	\$263,000	\$27,000	\$40,000	\$330,000
6.10	Sibbit Park	\$125,000	\$13,000	\$17,000	\$160,000
6.11	Pathway connecting Sibbit Ave to Greensboro Ave	\$146,000	\$15,000	\$19,000	\$180,000
6.12	Faircrest Park	\$150,000	\$15,000	\$20,000	\$190,000
6.13	Riverside Waterside Park	\$250,000	\$25,000	\$33,000	\$310,000
6.14	Pathway connecting Concord Dr. to King Pitt Rd	\$192,500	\$19,000	\$25,000	\$240,000
6.15	Pathway connecting Glenn Lawrence Cres. to Milton Ave (through woodlot)	\$1,025,000	\$103,000	\$90,000	\$1,220,000
6.16	Milton Connection (vacant subdivsuin lot / woodlot)	\$170,000	\$17,000	\$22,000	\$210,000
6.17	Milton Lookout Park	\$265,000	\$27,000	\$35,000	\$330,000
6.18	Esplanade Park	\$425,000	\$43,000	\$56,000	\$530,000
6.19	Esplanade to Hwy 2 Fishing Platform	\$115,000	\$12,000	\$23,000	\$150,000
Total Focus Area #6					\$8,580,000

