

Markham 2024 Budget



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2024 CAPITAL BUDGET

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CITY OF MARKHAM
2024 CAPITAL AND OTHER PROGRAMS BUDGET
by Department

#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
CAPITAL BUDGET REQUESTS								
Development Services								
<i>Culture</i>								
24001	Culture Public Art Master Plan Implementation Phase 5 of 5	248,000					248,000	Public Art Acq. Project 22220
	TOTAL Culture	248,000	-	-	-	-	248,000	
<i>Museum</i>								
24002	Museum Maintenance	23,800		23,800				
	TOTAL Museum	23,800	-	23,800	-	-	-	
<i>Theatre</i>								
24003	Theatre-Building Maintenance	123,700		123,700				
24004	Theatre-Stage & Technical Maintenance	72,900		72,900				
	TOTAL Theatre	196,600	-	196,600	-	-	-	
<i>Arts Centres</i>								
24005	Gallery Building Interior Maintenance and Repairs	105,800		105,800				
24006	Gallery Courtyard Repairs	106,800		106,800				
24007	Gallery Masonry Repairs	103,300		103,300				
24008	Gallery McKay House Maintenance	46,800		46,800				
	TOTAL Arts Centres	362,700	-	362,700	-	-	-	
<i>Planning</i>								
24009	2024 Planning & Design Staff	715,900			715,900			
24010	Age Friendly Guideline: Costing Analysis exercise	50,400			50,400			
24011	Biodiversity Strategy	156,400	156,400					
24012	City-wide Urban Design Guidelines	121,900			121,900			
24013	Designated Heritage Prop. Grant Prog.-Residential -2024	30,000					30,000	Designated Heritage Prop Grant
24014	ePLAN Project Dox Workflows and Monitoring Development Review Processes - Additional fur	235,100					235,100	Development Fees
24015	Heritage Façade Improvements/Sign Replacement - 2024	30,000	30,000					
24016	Markham Centre Secondary Plan	61,100			61,100			
24017	Markham Sustainability Metric: Energy Performance Verif.	95,100					95,100	Development Fees
24018	Markville Secondary Plan (Phase 2 of 2)	80,600			80,600			
24019	Planning for Urban Boundary Expansion Lands	254,400			254,400			
	TOTAL Planning	1,830,900	186,400	-	1,284,300	-	360,200	
<i>Parks Design & Construction</i>								
24020	Community Garden Maintenance	45,800		45,800				
24021	Cornell Centre East Parkette - Design & Construction	1,172,600			1,172,600			
24022	Cornell Centre West Parkette - Design & Construction	402,400			402,400			
24023	Denison Park Table Tennis	10,300			10,300			
24024	Innovation and Songbird Parks - Design & Construction	1,153,300			1,153,300			
24025	James Cochrane Park Phase 2 Expansion - (Des. & Con.)	387,200			387,200			
24026	Park Development Guidelines	181,400			117,910		63,490	Non-DC Growth
24027	Parks Renaissance Planner	122,600			122,600			
24028	Traffic Control Cabinet Wraps	16,400		16,400				
24029	Tree Planting and Engineered Soil Pilot	31,200					31,200	Landscape Recovery
24030	Tree Planting in Grand Cornell and South Unionville Parks	14,400					14,400	Landscape Recovery
24031	Volleyball in Reesor Park	146,900			141,036		5,864	Landscape Recovery
	TOTAL Parks Design & Construction	3,684,500	-	62,200	3,507,346	-	114,954	
<i>Engineering</i>								
24032	407 Transitway Realignment Justification Study	304,600			304,600			
24033	Apple Creek Blvd Road Safety Improvements (Design & CA)	410,600			266,890		143,710	Non DC Growth/CBC
24034	Cycling and Pedestrian Advisory Committee	28,000			2,800		25,200	Non DC Growth
24035	Elgin Mills -Woodbine to Warden Ave (Property)	28,761,200			28,761,200			
24036	Engineering Staff Salary Recovery	546,200			546,200			

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24037	Enterprise Blvd. @ Rouge Valley Dr. Pedestrian Crossing	73,100			73,100			
24271	Main Street Markham Reconst. & Sanit. Sewer Upgrade Des.	962,500		770,000	192,500			
24038	Markham Center Trails Phase 4 Design & CA	1,279,300			831,546		447,754	Project 22328 CIP
24039	Markham Centre Trails Phase 3 - Construction &CA	1,403,600			316,420		1,087,180	Project 22328 CIP
24040	Markham Cycles	22,400			2,240		20,160	Non DC Growth
24041	Markham Cycling Day Event	16,800			1,680		15,120	Non DC Growth
24042	Markham School Zone Safety Guideline	335,000			67,000		268,000	Non DC Growth
24043	McCowan Road Culvert Replacement	441,900					441,900	Land Acquisition
24044	Mount Joy Creek Realignment Class EA	365,500			365,500			
24045	National Active School Streets Initiative	103,600			10,360		93,240	Non DC Growth/ Federal Grant
24046	New Traffic Signals (Construction)	890,100			890,100			
24047	New Traffic Signals (Design & Construction Administration)	158,400			158,400			
24048	Pedestrian Cross-Over (PXO) Design & Construction	347,200			225,680		121,520	Non-DC Growth/CBC
24049	Residential Infill Service Connections	1,679,000					1,679,000	100% Homeowners
24051	Rouge Valley Trails Phase 4B Property Acquisition	335,000			335,000			
24052	Sidewalk Program (Construction)	4,505,500			2,928,576		1,576,924	Non DC Growth/CBC
24053	Smart Commute Markham-Richmond Hill	76,300			76,300			
24054	South Unionville Ave Pavement Marking & Signage	243,700			48,740		194,960	Non DC Growth
24055	Streetlighting Peer Review	75,100					75,100	Developer
24056	SWM Guidelines Update	94,700			94,700			
24057	Traffic Assets Replacement	426,500		426,500				
24058	Traffic Operational Improvements	57,000			37,050		19,950	Non DC Growth/CBC
24059	Yorktech extension (Rodick Rd. to Warden Ave) EA	393,500			393,500			
TOTAL Engineering		44,336,300	-	1,196,500	36,930,082	-	6,209,718	
TOTAL Development Services		50,682,800	186,400	1,841,800	41,721,728	-	6,932,872	
Chief Administrative Office								
Fire & Emergency Services								
24060	Fire Hose Replacement	32,300		32,300				
24061	Firefighting Tools & Equipment Replacement	79,100		79,100				
24062	Hazardous Materials Replacement	11,400		11,400				
24063	Radio Repeaters and Bone Mic Headsets Replacement	87,100		87,100				
24064	Replacement of Equipment due to Staff Retirements	115,700		115,700				
24065	Rescue Equipment Replacement	10,200		10,200				
24066	Technical Rescue Program - Trench	152,600	152,600					
24067	Vehicle/Industrial Extrication Modernization	366,300		366,300				
TOTAL Fire & Emergency Services		854,700	152,600	702,100	-	-	-	
TOTAL Chief Administrative Officer		854,700	152,600	702,100	-	-	-	
Corporate Services								
IT Services								
24068	ITS - Finance System Modernization	805,900	467,410	338,490				
24069	ITS - Tour App	75,000	45,000				30,000	\$20k MuniAccTax, \$10k Foundation
24070	Museum Wifi	87,900	87,900					
24071	Library - Scheduling Software	50,900					50,900	CF from project 20060
24072	ITS - Auto CAD License or replacement	20,400	20,400					
24073	ITS - Cell Boosters (Community Centres)	53,400	53,400					
24075	ITS - Cloud Storage Backup	26,700		26,700				
24076	ITS - Corporate CRM Systems Implementation	2,238,700		2,238,700				
24077	ITS - ESRI Enterprise License	98,700	19,740				78,960	Development Fee, Building Fee, WW
24078	ITS - Existing Portal Infrastructure Extension	341,900		273,520			68,380	Development Fee, Building Fee, WW
24079	ITS - Front Desk	55,600					55,600	Leveraging Technology
24080	ITS - IT Consultants 2024	254,400	203,520				50,880	Development Fee, Building Fee, WW
24081	ITS - Life Cycle Asset Replacement	479,300		396,900			82,400	\$33k DvlpFee,\$25k WW,\$25k BldgFee
24082	ITS - Portal/Mobile Part 2	534,200	534,200					
TOTAL IT Services		5,123,000	1,431,570	3,274,310	-	-	417,120	

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Finance								
24083	Insurance Risk Management Software Implementation	54,200	54,200					
24084	Internal Project Management	1,025,100			1,025,100			
	TOTAL Finance	1,079,300	54,200	-	1,025,100	-	-	
Legislative Services								
24085	eScribe Board Manager Plus	21,000	21,000					
	TOTAL Legislative Services	21,000	21,000	-	-	-	-	
Sustainability and Asset Management								
24086	600 Village Parkway - Parking Lot Paving	128,200		98,870			29,330	Unionville Presbyterian Church
24087	8100 Warden Facility Repair and/or Replacement Projects	158,400		158,400				
24088	Accessibility Retrofit Program	117,300		117,300				
24089	Angus Glen C.C. East Entrance Wall Repair	160,000		160,000				
24090	Angus Glen C.C. Library Window Replacement	270,000		270,000				
24091	Building Automation Systems Replacement Program	1,044,400		1,044,400				
24092	Building Envelope/Structural Review	57,800		57,800				
24093	Centennial C.C. HVAC Replacement	329,300		329,300				
24094	Civic Centre Repair and/or Replacement Projects	1,740,000		1,740,000				
24095	Cornell C.C. Exhaust Fan and Overhead Doors Project	200,000		200,000				
24096	Corporate Accommodations	262,600		262,600				
24097	Corporate Asset Management	279,800		72,748			207,052	74% Water Rate, 26% LC
24098	Corporate Security Operations & System Upgrades	359,000		359,000				
24099	Designated Substances Management	10,200		10,200				
24100	Facility Energy Management Program	132,300					132,300	MECO
24101	Fire Facilities Repair and/or Replacement Projects	327,600		327,600				
24102	Fire Systems Maintenance at Various City Facilities	30,600		30,600				
24103	Library Facilities Repair and/or Replacement Projects	168,100		168,100				
24104	Municipal Building Backflow Prevention - Annual Testing	52,200		52,200				
24105	Municipal Building Backflow Prevention Survey	41,100		41,100				
24106	Museum - Various Buildings	347,200		347,200				
24107	Operations & Parks Facilities Repair/Replacement Projects	830,900		830,900				
24108	Other Facilities Repair and/or Replacement Projects	25,000		25,000				
24109	Parking Lot Light Replacement	43,100		43,100				
24110	Recycling Depots Repair and/or Replacement Projects	40,800		40,800				
24111	Roofing Maintenance and Repair	163,200		163,200				
24112	Roofing Replacement Projects	813,800		813,800				
24113	Salary Recoveries for staff	1,577,700		1,382,400			195,300	MECO
24114	Satellite Community Centre Repair and/or Replacement	79,600		79,600				
24115	Tennis Clubhouse Repair and/or Replacement Projects	27,500		13,750			13,750	Tennis Club
	TOTAL Sustainability and Asset Management	9,817,700	-	9,239,968	-	-	577,732	
	TOTAL Corporate Services	16,041,000	1,506,770	12,514,278	1,025,100	-	994,852	
Community Services								
Recreation Services								
24116	Aaniin C.C. Dance Studio Wall Refurbishment	21,000		21,000				
24117	Angus Glen C.C. Door Replacement	534,000		534,000				
24118	Angus Glen C.C. Exterior Entrance Interlock Replacement	314,700		314,700				
24119	Angus Glen C.C. Heat Exchanger Replacement	56,000		56,000				
24120	Angus Glen C.C. Lighting Panel Replacement	66,100		66,100				
24121	Angus Glen C.C. Pool Drytron Replacement	183,400		183,400				
24122	Angus Glen Tennis Centre Exit Blocks Replacement	48,000		48,000				
24123	Angus Glen Tennis Centre Fire Alarm System Replacement	22,000		22,000				
24124	Armada C.C. Expansion Tank Replacement	8,000		8,000				
24125	Camp Chimo Flag Pole Replacement	7,700		7,700				
24126	Centennial C.C. Arena Pad Replacement	1,113,500		1,113,500				
24127	Centennial C.C. Arena Washrooms Refurbishment	84,500		84,500				
24128	Centennial C.C. Mechanical Replacement	710,800		710,800				
24129	Centennial C.C. Pool Heat Exchanger Replacement	61,600		61,600				

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24130	Centennial C.C. Pool Maintenance Equipment Replacement	23,500		23,500				
24131	Centennial C.C. Refrigeration System Replacement	1,250,100		1,250,100				
24132	Clatworthy Arena Expansion Joint Refurbishment	8,700		8,700				
24133	Clatworthy Arena Front Entrance Concrete Replacement	25,000		25,000				
24134	Clatworthy Arena Ice Equipment Replacement	9,600		9,600				
24135	Clatworthy Arena Rubber Floor Replacement	222,700		222,700				
24136	Clatworthy Arena Window Refurbishment	12,000		12,000				
24137	Cornell C.C. Carpet Replacement	172,400		172,400				
24138	Cornell C.C. Parking Structure Annual Maintenance	455,700		455,700				
24139	Cornell C.C. Pool Mechanical System Replacement	264,100		264,100				
24140	Crosby C.C. Arena Boards Replacement	56,100		56,100				
24141	Crosby C.C. Painting Project	55,600		55,600				
24142	Crosby C.C. Windows Replacement	64,500		64,500				
24143	Heintzman House Basement Carpet Replacement	18,500		18,500				
24144	Heintzman House Front Entrance Stone Refurbishment	55,000		55,000				
24145	Markham Village C.C. Fire Panel Replacement	14,400		14,400				
24146	Milliken Mills C.C. Ceiling Tile Replacement	279,100		279,100				
24147	Milliken Mills C.C. Site Features Phase 1 of 2 - Design	24,600		24,600				
24148	Milliken Mills Soccer Dome LED Lighting Replacement	101,000		101,000				
24149	Mount Joy C.C. Arena Heating Replacement	20,900		20,900				
24150	Mount Joy C.C. Doors Replacement	61,300		61,300				
24151	Mount Joy C.C. Indoor Artificial Turf Replacement	265,800		265,800				
24152	Pan Am Centre Aerial Platform Lift Replacement	20,000		20,000				
24153	Pan Am Centre Gymnasium Blinds Replacement	85,000		85,000				
24154	Pan Am Centre Gymnasium Wood Refinishing	25,000		25,000				
24155	Pan Am Centre Pool Equipment Replacement	20,400		20,400				
24156	Pan Am Centre Reception Counter Replacement	40,000		40,000				
24157	Pingle House Exterior Painting	17,000		17,000				
24158	Recreation AED Program Replacement	10,700		10,700				
24159	Recreation Aquatics Equipment Replacement	88,300		88,300				
24160	Recreation Facility Condition Assessment Project	50,000		50,000				
24161	Recreation Fitness Equipment Replacement	55,100		55,100				
24162	Recreation Lifeguard Chairs Replacement	36,000		36,000				
24163	Recreation Pool Drain Line Inspection	25,000		25,000				
24164	Recreation Pool Grouting Replacement	75,000		75,000				
24165	Recreation Program Equipment Replacement	97,500		97,500				
24166	Recreation Tables and Chairs Replacement	55,100		55,100				
24167	Rouge River C.C. Outdoor Pool Interlock Deck Replacement	41,200		41,200				
24168	Rouge River C.C. Wood Floor Refinishing	18,600		18,600				
24169	St. Roberts Soccer Dome Painting Project	27,000		27,000				
24170	St. Roberts Soccer Dome Washroom Counter Replacement	9,000		9,000				
24171	Thornhill C.C. East Rink Arena Netting Replacement	17,000		17,000				
24172	Thornhill C.C. Fitness Spa Replacement	326,500		326,500				
24173	Thornhill C.C. Industrial Kitchen Equipment Replacement	6,000		6,000				
24174	Thornhill C.C. Pro Shop Flooring Replacement	27,000		27,000				
24175	Thornhill C.C. Refrigeration System Replacement	605,000		605,000				
24176	Thornhill C.C. Windows and Walls Refurbishment	82,400		82,400				
24177	Water St. Seniors Centre Flooring Replacement	85,800		85,800				
24178	Water St. Seniors Centre HVAC and Fans Replacement	39,200		39,200				
24179	Water St. Seniors Centre Kitchen Equipment Replacement	9,800		9,800				
TOTAL Recreation Services		8,686,500	-	8,686,500	-	-	-	
Markham Public Library								
24180	Consulting Service for Ward 2 Community Consultation	41,100			41,100			
24181	Library Furniture, Equipment & Shelving Replacement	191,100		191,100				
TOTAL Markham Public Library		232,200	-	191,100	41,100	-	-	
Operations - Roads								
24182	Asphalt Resurfacing	3,705,200		40,634			3,664,566	Gas Tax
24183	Boulevard Repairs	88,000		88,000				
24184	Bridge Structure Preventative Maintenance - Roads	27,400		27,400				
24185	City Owned Entrance Feature Rehabilitation/Replacement	22,200		22,200				

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#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
24186	City Owned Fence Replacement Program	41,000		41,000				
24187	Citywide Ditching Program	149,800		149,800				
24188	Don Mills Storm Channel	21,500		21,500				
24189	Guiderail- Install/Upgrade	216,800		216,800				
24190	Incremental Growth Related Winter Maintenance Vehicles	486,900			486,900			
24191	Localized Repairs - Curb & Sidewalk	1,411,700		1,411,700				
24192	Localized Repairs - Interlock	191,400		191,400				
24193	Localized Repairs - Parking Lots	110,100		110,100				
24194	Parking Lots- Rehabilitation	150,600		150,600				
24195	Retaining Wall Repair Program	78,700		78,700				
24196	Storm Water Retention Pond Maintenance Program	56,200		56,200				
24197	Survey Instrument Upgrade/Replacement	47,800		47,800				
24198	Survey Monument Replacement	41,600		41,600				
TOTAL Operations - Roads		6,846,900	-	2,695,434	486,900	-	3,664,566	
Operations - Parks								
24199	2022 Wind Storm Tree Replacement - Phase 2	142,900		142,900				
24200	AODA Playground Refurbishments - Year 2 of 4	1,474,800					1,474,800	Ramp up Reserve
24201	Boulevard/Park Trees Replacement	893,100		893,100				
24202	Bridge Structure Preventative Maintenance in Parks	27,400		27,400				
24203	City Park Furniture / Amenities	185,700		185,700				
24204	Court Resurfacing/Reconstruction - Bayview Reservoir	177,400		177,400				
24205	Court Resurfacing/Reconstruction/Maintenance	960,000		691,000			269,000	Tennis Clubs
24206	Exercise Equipment and Rubberized Safety Surface	78,000		78,000				
24207	Fence (Backstop and Outfield) Replacement	80,200		80,200				
24208	Fence (Tennis Courts)	96,300		96,300				
24209	Floodlights, Poles & Cross Arms Replacement	789,800		789,800				
24210	Goal Posts Replacement- Pomona Mills Park	8,900		8,900				
24211	Heritage Waste Receptacles	53,800		53,800				
24212	Irrigation Refurbishment or Replacement	34,200		34,200				
24213	Markham Trees for Tomorrow	125,300					125,300	Trees for Tomorrow Reserve
24214	Milliken Mills Park Waterplay Replacement	574,600		574,600				
24215	Mt. Joy Artificial Turf/Grade Beam Replacement	1,010,500		1,010,500				
24216	Pathways Resurfacing	151,300		151,300				
24217	Pickleball Court Lining Project	13,400	13,400					
24218	Playstructure & Safety Surface Replacement	1,347,500					1,347,500	CCBF (Gas Tax)
24219	Relamping & Fixtures Refurbishment	42,500		42,500				
24220	Replace Seasonal Containers	17,900		17,900				
24221	Shade Structure Rehabilitation and/or Replacement	231,900		231,900				
24222	Sportsfield Maintenance & Reconstruction	170,700		170,700				
24223	Stairway Repairs	28,600		28,600				
24224	Talc Cabinet Replacement	7,700		7,700				
TOTAL Operations - Parks		8,724,400	13,400	5,494,400	-	-	3,216,600	
Operations - Fleet								
24225	Autonomous Mowers	181,100			181,100			
24226	Corporate Fleet Growth	10,200			10,200			
24227	Corporate Fleet Refurbishing	41,200		41,200				
24228	Corporate Fleet Replacement - Fire	191,500		191,500				
24229	Corporate Fleet Replacement - Ice Resurfacing Machine	108,600		108,600				
24230	Corporate Fleet Replacement - Non-Fire	2,879,800		2,879,800				
24231	Corporate Fleet Replacement - Waterworks	326,600					326,600	Waterworks Reserve
24232	New Fleet - Parks	96,700			96,700			
24233	New Fleet -By-Law and Regulatory Services	113,000			113,000			
TOTAL Operations - Fleet		3,948,700	-	3,221,100	401,000	-	326,600	
Operations - Utility Inspection & ROW								
24234	German Mills Meadow - Boundary Fence Maintenance	20,400		20,400				
24235	German Mills Meadow - Equipment Maintenance	239,100		239,100				
TOTAL Operations - Utility Inspection & ROW		259,500	-	259,500	-	-	-	

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Environmental Services - Infrastructure								
24236	Bridges and Culverts - Condition Inspection	70,500		70,500				
24237	Streetlights - Miscellaneous Requests	101,900	101,900					
24238	Streetlights - Poles Replacement	134,500		134,500				
24239	Streetlights Underground Cable Replacement	2,146,100		2,146,100				
24240	Structures Minor Rehabilitation (8 structures)	233,500		233,500				
24241	Structures Program-Full-time Staff	154,400		154,400				
24242	Structures Rehabilitation (4 Structures) - Design & Const.	2,367,800					2,367,800	CCBF (Gas Tax)
24243	Structures Replacement (3 Structures) Construction	934,100		934,100				
TOTAL Environmental Services - Infrastructure		6,142,800	101,900	3,673,100	-	-	2,367,800	
Environmental Services - Stormwater								
24244	Don Mills Channel SWM Pond - Construction	8,151,000					8,151,000	SW Fee \$4.89M, DMAF Grant \$3.26M
24245	Oil Grit Separators (OGS) - Inspection and Cleaning	133,800		133,800				
24246	Rain Gauge Replacement	15,400		15,400				
24247	Storm and Sanitary Sewer CCTV Inspection	570,000		200,600			369,400	Waterworks Reserve
24248	Storm Sewer Pipes - Rehabilitation	417,300		417,300				
24249	Storm Sewer Pipes Emergency Repairs	59,500		59,500				
24250	Stormwater Underground Tanks - Condition Inspection	81,400		81,400				
24251	Swan Lake Chemical Treatment	162,000		162,000				
24252	Technology Assessment for Chloride Treatment - Swan Lake	50,900		50,900				
24253	Water Quality Improvements	77,300		77,300				
24254	Water Quality Monitoring at Swan Lake	31,000		31,000				
24255	Wet SWM Pond Cleaning #50 & #71 - Constr. & CA	1,023,600					1,023,600	CCBF (Gas Tax)
24256	Wet SWM Pond Cleaning ID #55 & #60 - Design	114,200		114,200				
TOTAL Environmental Services - Stormwater		10,887,400	-	1,343,400	-	-	9,544,000	
Environmental Services - Waste								
24257	Incremental Growth Related Waste Management Vehicles	108,200			108,200			
TOTAL Environmental Services - Waste		108,200	-	-	108,200	-	-	
Environmental Services - Waterworks								
24258	Acoustic Equipment for Sewer Flushing Optimization	40,100					40,100	Waterworks Reserve
24259	Calvert Pump Station - Immediate Process Improvements	363,300					363,300	Waterworks Reserve
24260	Calvert Pump Station - Immediate Structural Improvements	150,000					150,000	Waterworks Reserve
24261	Cathodic Protection of Ductile Iron Watermains	772,800					772,800	Waterworks Reserve
24262	CI Watermain Rehabilitation - Design	621,000					621,000	Waterworks Reserve
24263	Curb Box Inspection and Replacement Program	477,500					477,500	Waterworks Reserve
24264	District Metered Area (DMA) Equipment Replacement Class 1 (Area 3 & 4)	65,800					65,800	Waterworks Reserve
24265	Infrastructure Data Analyst - Full Time Staff	114,600					114,600	Waterworks Reserve
24266	Sanitary Sewers - Rehabilitation	924,200					924,200	Waterworks Reserve
24267	Sanitary System Assessment	114,200					114,200	Waterworks Reserve
24268	Water Sampling Stations Replacement Program	593,700					593,700	Waterworks Reserve
24269	Watermain Leak Detection Program	35,600					35,600	Waterworks Reserve
TOTAL Environmental Services - Waterworks		4,272,800	-	-	-	-	4,272,800	
TOTAL Community Services		50,109,400	115,300	25,564,534	1,037,200	-	23,392,366	
Corporate Wide								
24270	Cyber Security	574,800		122,800		-	452,000	
TOTAL Corporate Wide		574,800	-	122,800	-	-	452,000	
TOTAL Capital Budget Requests		118,262,700	1,961,070	40,745,512	43,784,028	-	31,772,090	

Culture



2024 PROJECT FUNDING REQUEST FORM

10

Number: 24001

Project Cost: \$248,000

Project Name: Culture Public Art Master Plan Implementation Phase 5 of 5

Commission: Development Services

New Asset/Expansion

Department: Culture

Useful Life: 0 Pre Approval: ☐

Project Mgr: Niamh O'Laoghaire

Category: Annual

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Internal peer review

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

With Council's approval of the Public Art Master Plan and Implementation Plan, funding is now required to implement the plan. This will be a recurring expense for 5-years to meet the objectives of the Master Plan, and the goals of BMFT, all funded by reserves. In 2024 it will fund annually recurring expenses; phase 2 of FAÇADE project at the PanAm Centre; Henderson Bridge murals; and launch of Cornell Rouge National Urban Park Gateway Project.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)			NOTES
	2024	Future Phases	
Cost/Quote:	243,700	0	2024 projects: Annually recurring expenses for maintenance, repair and acquisition for indoor collection \$48,000; Implementation of phase 2 of Façade Project with York U at the Pan Am Centre: \$50,000; Henderson Bridge murals (remove existing, commission and install new ones) \$95,000; Cornell Rouge National urban Park Gateway Artwork Competition \$50,000. Announcing/launching Main Street Unionville Public Art projects \$5,000.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	243,700	0	
HST Impact:	4,289	0	
Total Project Cost:	248,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Carry Forward	248,000	0	0	0	0	0	
TOTAL FUNDING	248,000					0	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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Museum



2024 PROJECT FUNDING REQUEST FORM

13

Number: 24002

Project Cost: \$23,800

Project Name: Museum Maintenance

Commission: Development Services

Department: Museum

Project Mgr: Andrea Carpenter

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 0 Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

General Maintenance upkeep and repair of various Museum assets.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	23,400	0	Annual radio replacement, 2,400, Pavilion floor staining 2,000, Markham Fair Ticket Booth painting, 2,000, Mini Putt metal signage, 7,000, Blacksmith Shop antique coal-fired forge, 10,000.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	23,400	0	
HST Impact:	412	0	
Total Project Cost:	23,800	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Forge	Painting	Radios & Signage	HST	TOTAL	
Operating Funded Life Cycle	23,800	10,000	4,000	9,400	400	23,800	0
TOTAL FUNDING	23,800					23,800	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 23,800
				Amount Incl HST 23,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Theatre



2024 PROJECT FUNDING REQUEST FORM

16

Number: **24003**Project Cost: **\$123,700**Project Name: **Theatre-Building Maintenance**Commission: **Development Services**

Repair/Replace

Department: **Theatre**Useful Life: **20**Pre Approval: ☐Project Mgr: **Andrew Rosenfarb**Category: **Minor**Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐Cost Validation: **Third party estimate**5 ☐ 6 ☐ 7 ☐ 8 ☐Requirement Validation: **Condition assessment**ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project consists of replacement/maintenance of the following; Electrical Infrared Safety Scanning, Floor Scrubber, Café Countertop, Lobby Crowd Control Stanchions, Lobby Holiday Décor, Exterior Landscaping-Removal of Degraded Stone Surround, Backstage Floors & Stairwells Painting, Lobby Ceiling Drywall Repairs & Paint, Auditorium Seating Armrests, Entrance Canopy Structural Metal Sand & Paint & 2 Exterior Door Replacements

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	110,500	0	Amount requested is consistent with 2024 life cycle. Useful life varies depending on item 5-20 years. Floor Scrubber (2013) (\$6,500), Infrared Scan (2022) (\$2,500), Café Countertop (2013) (\$4,500), 15 Lobby Stanchions (2013) (\$4,000), Lobby Holiday Décor (1999) (\$4,000), Landscaping Stone (1985) (\$10,000), Backstage Floor & Stairwell Paint (2015) (\$19,000), Lobby Ceiling Drywall (1985) (\$10,000), Auditorium Seating Armrests (2013) (\$12,000), Canopy Structural Metal Paint (1985) (\$20,000), 2 Exterior Door Replacements (1985) (\$18,000)
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 10	11,050	0	
Sub Total:	121,550	0	
HST Impact:	2,139	0	
Total Project Cost:	123,700	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	123,700	0	0	0	0	0	0
TOTAL FUNDING	123,700					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text" value="410,100"/>
				Amount Incl HST <input type="text" value="123,600"/>
				Year in the study <input type="text" value="2024"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

17

Number: 24004

Project Cost: \$72,900

Project Name: Theatre-Stage & Technical Maintenance

Commission: Development Services

Repair/Replace

Department: Theatre

Useful Life: 10

Pre Approval: ☐

Project Mgr: Andrew Rosenfarb

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Replacement/Maintenance of the following: Clear Com Communication Batteries, Grand Piano Minor Revoicing, Hearing Impaired System, Music Stands, Video Mac Hardware, Rigging Inspections & Repairs, Piano Bench & Upright Piano Castors, Asterra Lighting Fixtures, Circle Lighting Truss, Chauvet Lighting Fixtures.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases	Amount requested is consistent with 2024 lifecycle. There is no expected incremental operating budget impact. Useful life varies from 5-10 years. Clear com batteries (2017) (\$900), Grand Piano Minor ReVoicing (2020) (\$3,000), Hearing Impaired System (2010) (\$15,000), 75 Music Stands (2014) (\$11,000), Video Mac Hardware (2017) (\$3,800), Rigging Inspections & Repairs (2023) (\$4,000), Piano Bench & Upright Piano Castors (2000) (\$4,000), 8 Asterra Lighting Fixtures (2005) (\$12,000), Circle Lighting Truss (2000) (\$6,000), 6 Chauvet Par Lighting Fixtures (2002) (\$5,400)	
Cost/Quote:	65,100	0		
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 10	6,510	0		
Sub Total:	71,610	0		
HST Impact:	1,260	0		
Total Project Cost:	72,900	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget	TOTAL					Future Phases	
Operating Funded Life Cycle	72,900	0	0	0	0	0	0	0
TOTAL FUNDING	72,900					0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 410,100
				Amount Incl HST 72,900
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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Arts Centres



2024 PROJECT FUNDING REQUEST FORM

20

Number: 24005

Project Cost: \$105,800

Project Name: Gallery Building Interior Maintenance and Repairs

Commission: Development Services

Repair/Replace

Department: Arts Centres

Useful Life: 20

Pre Approval: ☐

Project Mgr: Niamh O'Laoghaire

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Visual inspection

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Maintenance of primary event space (the Deacon Room) and mechanical systems (Supply Air Fan; a safety pump; radiation heating covers) to ensure a safe and excellent customer experience appropriate for a city wide asset and cultural attraction, and to continue to attract renters, program participants and the general public.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	103,922	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	103,922	0
HST Impact:	1,829	0
Total Project Cost:	105,800	0

NOTES

The Gallery's main community and event space is the Deacon Room, whose floor is now cracked, pitted and stained. Its flaws are particularly highlighted now that the adjacent lobby floor has been resurfaced. To ensure an excellent experience for renters, program attendees and to facilitate maintenance the floor should be resurfaced like the adjacent lobby \$25,000. HVAC items: Upper Mechanical Room Supply Air Fan-3 \$53,500 contractor quote; Radiation Heating covers in Deacon, Stollery, Paint studio, contractor estimate, \$21,922. New pump in Elevator room: \$3,500 staff estimate

SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget	Floor (+HST)	Fan (+HST)	Heating covers (+HST)	Pump (+HST)		
Operating Funded Life Cycle	105,800	25,450	54,450	22,300	3,600	105,800	0
TOTAL FUNDING	105,800					105,800	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 357,500
				Amount Incl HST 105,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

21

Number: 24006

Project Cost: \$106,800

Project Name: Gallery Courtyard Repairs

Commission: Development Services

Department: Arts Centres

Project Mgr: Niamh O'Laoghaire

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20

Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

The Varley Art Gallery exterior requires major maintenance of courtyard pavers, which have degraded over time. They are in poor repair, a visual blight and Health & Safety hazard. Implementation at this time will align with both the schedule and design of the Main Street Unionville Restructuring and create a seamless look within this important heritage district and tourism destination.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	100,000	0	Repaving of the courtyard and the walkways of the north and west arcades, approximately 2,300 square feet in total, to align with the schedule and design of the Main Street Unionville Restructuring. Project: \$100,000
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 5	5,000	0	
Sub Total:	105,000	0	
HST Impact:	1,848	0	
Total Project Cost:	106,800	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	106,800	0	0	0	0	0	0
TOTAL FUNDING	106,800					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 357,500
				Amount Incl HST 106,800
				Year in the study 2018
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

22

Number: 24007

Project Cost: \$103,300

Project Name: Gallery Masonry Repairs

Commission: Development Services

Repair/Replace

Department: Arts Centres

Useful Life: 20

Pre Approval: ☐

Project Mgr: Michael Ryan

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

The Varley Art Gallery exterior requires maintenance to the building masonry which has degraded over time. It is important to upgrade the masonry, which is delaminating in numerous areas, to ensure the building's integrity and appearance.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	92,300	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 10	9,230	0
Sub Total:	101,530	0
HST Impact:	1,787	0
Total Project Cost:	103,300	0

NOTES

Bricks on the exterior of the Art Gallery are deteriorating significantly through delamination. Now 26 years old, the bricks need to be repaired and the building exterior sealed to ensure integrity of the building fabric and the maintenance of appropriate interior temperatures and relative humidity. \$92,300

SOURCE(S) OF FUNDING (\$)**Components**

Funding Type	Budget	TOTAL	Future Phases
Operating Funded Life Cycle	103,300	0	0
TOTAL FUNDING	103,300	0	0

OPERATING BUDGET IMPACT

Personnel

Non Personnel

Revenues

Expenditures/(Revenues)

\$0

\$0

\$0

\$0

DCA/LIFE CYCLE DETAILS**DCA**

Name

Year

Amount

Amount in Study

Life Cycle

Amount in Study: 357,500

Amount Incl HST 103,300

Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

23

Number: 24008

Project Cost: \$46,800

Project Name: Gallery McKay House Maintenance

Commission: Development Services

Department: Arts Centres

Project Mgr: Niamh O'Laoghaire

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20

Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Visual inspection

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Maintain the interior and exterior of the McKay Art Centre to ensure that it is a safe, attractive and welcoming environment appropriate to a cultural institution in the heart of a major heritage and tourism neighbourhood. Contract an AODA consultant to ensure that a comprehensive, staged roadmap to improve the accessibility infrastructure of an 1850s heritage house and gardens which has numerous barriers to accessibility.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	31,000	0
Internal Charges:	0	0
External Consulting:	15,000	0
Contingency %: 0	0	0
Sub Total:	46,000	0
HST Impact:	810	0
Total Project Cost:	46,800	0

NOTES

Repaint exterior steps railing \$15,000; Refurbish interior staircases basement to main floor and main floor to second floor, replacing low handrails: \$16,000; The building and gardens have accessibility issues: the garden is terraced and there is no ramp to access the various tiers within the garden. There is no accessibility access to the garden from Main Street. There is an accessibility washroom in the basement, but no wheelchair access to it, etc. Consultant \$15,000

SOURCE(S) OF FUNDING (\$)

Funding Type	Components						Future Phases
	Budget					TOTAL	
Operating Funded Life Cycle	46,800	0	0	0	0	0	0
TOTAL FUNDING	46,800					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 56,300
				Amount Incl HST 46,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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Planning



2024 PROJECT FUNDING REQUEST FORM

Number: 24009

Project Cost: \$715,900

Project Name: 2024 Planning & Design Staff

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Planning

Category: Annual

Project Mgr: Giulio Cescato

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

The purpose is to recover salaries of Planning and Urban Design Staff which relate to growth related works.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	A significant amount of time is spent by planners (both development and policy staff) and urban designers on growth related hard infrastructure such as roads, storm water ponds, bridges etc. during the subdivision and secondary plan process and in one-off construction projects such as bridge construction and street re-construction. This project is to recover salaries of existing staff that assist in the delivery of growth related hard infrastructure.
Internal Charges:	715,942	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	715,942	0	
HST Impact:	0	0	
Total Project Cost:	715,900	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
		0	0	0	0	0	0
DCA	715,900	0	0	0	0	0	0
TOTAL FUNDING	715,900				0	0	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA			Amount in	Life Cycle
Name	Year	Amount	Study	
GENERAL GOVERNMENT - Studies - Various Studies	2024	715,900	2,165,000	Amount in Study: <input type="text"/>
TOTAL FUNDING		715,900	2,165,000	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

27

Number: 24010

Project Cost: \$50,400

Project Name: Age Friendly Guideline: Costing Analysis exercise

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Planning

Category: Major

Project Mgr: Abbie Kar

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The Age-Friendly Design Guidelines was approved by Council in November 2022. To respond to Council Direction #4 and #5 from November 8, Staff will form a Working Group to prepare a Request for Proposal and retain a consultant to complete a cost analysis of implementing the "City of Markham – Age-Friendly Design Guidelines" in the public realm. Staff will report back to Development Services Committee upon completion of the cost analysis study (targeting Q4 2024). The study will identify costing for implementing age-friendly design, such as additional benches, washrooms in parks, wider non-standard sidewalk widths, and bicycle repair stations. These elements support city growth and an inclusive and age-friendly community, in particular, for our aging population and young children. In addition, these elements will support current and new city growth and infrastructure decision.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	This is a request for budget to retain a consultant to complete a cost analysis to review the cost impacts of applying age-friendly design measures in public realm to a demonstration site in Markham Centre.
Internal Charges:	0	0	
External Consulting:	45,000	0	
Contingency %: 10	4,500	0	
Sub Total:	49,500	0	
HST Impact:	871	0	
Total Project Cost:	50,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	50,400	0	0	0	0	0	0
TOTAL FUNDING	50,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

GENERAL GOVERNMENT - Studies - Various Studies

2024

50,400

2,165,000

Amount in Study:

Amount Incl HST

Year in the study

TOTAL FUNDING

50,400

2,165,000

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

Number: 24011

Project Cost: \$156,400

Project Name: Biodiversity Strategy

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Planning

Category: Minor

Project Mgr: Patrick Wong

Cost Validation: Recent awards

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

A planned deliverable of the BMFT Strategic Plan 2020-2026 is the development of a wildlife and biodiversity strategy. This study is necessary to create a City-wide action plan to protect biodiversity and to support the many nature-based ecosystem services that the City relies upon including clean air, fresh water, carbon sequestration and resiliency against extreme heat and floods. Due to Bill 23, the City now has taken over primary responsibility for biodiversity and no longer have full access to the technical expertise of the TRCA. This study will provide the scientific analysis and recommendations to protect biodiversity against high development pressures and habitat alteration. This may include updates to Official Plan policies, development standards/guidelines, City environmental programs, partnerships, public outreach and best management practices.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	This project is a specific action in the BMFT Strategic Plan 2020-2026. The public consultation component of the Biodiversity Strategy will support the OP Review policy directions and responds to the new technical responsibilities that have been downloaded to the City as a result of Bill 23.
Internal Charges:	0	0	
External Consulting:	139,725	0	
Contingency %: 10	13,972	0	
Sub Total:	153,697	0	
HST Impact:	2,705	0	
Total Project Cost:	156,400	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Tax	156,400	0	0	0	0	0	0
TOTAL FUNDING	156,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

Number: 24012

Project Cost: \$121,900

Project Name: City-wide Urban Design Guidelines

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Planning

Category: Minor

Project Mgr: Abbie Kar

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The city-wide Urban Design Guidelines (UDG) will adhere and reinforce Markham's Official Plan policies by providing a clear vision and design guidelines for new developments, particularly in light of recent Bill 23's changes to the Planning Act which removed Architectural details and landscape design aesthetics from the scope of site plan control. The Guidelines will help implement the framework of Markham's Official Plan and bolster the City's urban design objectives by providing clear design guidance for the development industry, staff, and the broader community on neighborhood planning, building placement and orientation, height and massing, and the public realm. The UDG provides design guidance for public and private development which will inform infrastructure, servicing, and growth related decisions. The UDG provide design guidance for building placement, massing, and other design aspects related to development to support complete sustainable communities.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	The requirements for the completion of Markham's City-wide Urban Design Guidelines will focus on updating and consolidating several existing draft guideline documents. There will be a series of internal and external stakeholder consultations to inform the outcome of the Guidelines. Upon project completion, Staff will report to Council for endorsement. The budget has been reduced and scoped as Staff will be completing the overall study and retaining an external consultant to peer review and provide additional input as needed.
Internal Charges:	10,000	0	
External Consulting:	100,000	0	
Contingency %: 10	10,000	0	
Sub Total:	120,000	0	
HST Impact:	1,936	0	
Total Project Cost:	121,900	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
		0	0	0	0	0	0
DCA	121,900	0	0	0	0	0	0
TOTAL FUNDING	121,900				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

GENERAL GOVERNMENT - Studies - Various Studies

2024

121,900

2,165,000

Amount in Study:

Amount Incl HST

Year in the study

TOTAL FUNDING

121,900

2,165,000

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

33

Number: 24013

Project Cost: \$30,000

Project Name: Designated Heritage Prop. Grant Prog.-Residential -2024

Studies/Pilot Programs

Commission: Development Services

Useful Life: Pre Approval: ☐

Department: Planning

Category: Major

Project Mgr: Regan Hutcheson

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Grant assistance (50/50) to a maximum of \$5,000/property for restoration work on designated residential properties. Program is proposed to be extended for three years (2023-2025) subject to Council approval later this year

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES
2024	Future Phases		Program was initiated in 2010 for four years (2010-2013) at \$30,000 per year. It was renewed for another three years (2014-2016) and for an additional three years (2017-2019 and 2020-2022) all at \$30,000 per year. Proposal is to extend the Program for 2023-2025 at \$30K per year. Project classified as major due to 2 year timeline granted to property owners.
Cost/Quote:	30,000	0	
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	30,000	0	
HST Impact:	0	0	
Total Project Cost:	30,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Heritage Reserve	30,000	0	0	0	0	0	0
TOTAL FUNDING	30,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

Number: 24014

Project Cost: \$235,100

Project Name: ePLAN Project Dox Workflows and Monitoring Development

Commission: Development Services

New Asset/Expansion

Department: Planning

Useful Life: 0 Pre Approval: ☐

Project Mgr: John Yeh

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☒

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Additional funding is required to update ProjectDox software to implement process changes from Bill 109 and the Lean review and software to monitor timing of development application processes. Project will include modifying 2 existing workflows and developing 13 new workflows. This project requires professional services from consultants, the Project Dox software vendor. The project also involves monitoring timing of development application processes to assess workload and resourcing resulting from Bill 109 and continuous improvement processes implemented.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			2024	Future Phases	NOTES The 2023 approved capital budget for the project is \$100,000 for professional services from the Project Dox vendor and \$100,000 for an external consultant to assist with integration between Project Dox and other City software. Through the 2024 capital budget an additional \$80,000 is requested for professional services, \$80,000 for another consultant to provide integration between Project Dox and other City applications, and \$50,000 for software to monitor timing of development application processes. Development application fees is the funding source.
Cost/Quote:			130,000	0	
Internal Charges:			0	0	
External Consulting:			80,000	0	
Contingency %: 10			21,000	0	
Sub Total:			231,000	0	
HST Impact:			4,066	0	
Total Project Cost:			235,100	0	

<u>SOURCE(S) OF FUNDING (\$)</u>		<u>Components</u>					<u>Future</u>
<u>Funding Type</u>	<u>Budget</u>					<u>TOTAL</u>	<u>Phases</u>
Development Fees	235,100	0	0	0	0	0	0
TOTAL FUNDING	<u><u>235,100</u></u>					<u><u>0</u></u>	<u><u>0</u></u>

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

Number: 24015

Project Cost: \$30,000

Project Name: Heritage Façade Improvements/Sign Replacement - 2024

Studies/Pilot Programs

Commission: Development Services

Useful Life: Pre Approval: ☐

Department: Planning

Category: Major

Project Mgr: Regan Hutcheson

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual grants to commercial property owners in heritage areas to make improvements to facades. Matching grant of up to \$10,000 for non-heritage and up to \$15,000 for heritage buildings. Approval will allow City to continue with the program, as approved by Council.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases	It is recommended that for 2024, the amount be \$30,000 based on eligible grant requests from 2021 (\$42,000) and 2022 (\$43,000). Council awarded \$30,600 in 2021 and \$25,000 in 2022. Requests have increased substantially in last two years. Category is Major as projects can take up to two years to complete and provide grant.	
Cost/Quote:	30,000	0		
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	30,000	0		
HST Impact:	0	0		
Total Project Cost:	30,000	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget	TOTAL					Phases	
Tax	30,000	0	0	0	0	0	0	0
TOTAL FUNDING	30,000	0					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

Number: 24016

Project Cost: \$61,100

Project Name: Markham Centre Secondary Plan

Commission: Development Services

Studies/Pilot Programs

Department: Planning

Useful Life: 0 Pre Approval: ☐

Project Mgr: Stephen Lue

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☒ 4 ☐

Cost Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☒

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

The Markham Official Plan requires preparation of a new Secondary Plan for Markham Centre.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	Additional funds are required to complete the Secondary Plan including additional engagement, policy development and analysis.
Internal Charges:	0	0	
External Consulting:	60,000	0	
Contingency %: 0	0	0	
Sub Total:	60,000	0	
HST Impact:	1,056	0	
Total Project Cost:	61,100	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
DCA		0	0	0	0	0	0
	61,100	0	0	0	0	0	0
TOTAL FUNDING	61,100					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA			Amount in	Life Cycle
Name	Year	Amount	Study	
GENERAL GOVERNMENT - Studies - Various Studies	2024	61,100	2,165,000	Amount in Study: <input type="text"/>
TOTAL FUNDING		61,100	2,165,000	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Funds are included in the studies section of the DC Background Study.



2024 PROJECT FUNDING REQUEST FORM

37

Number: 24017

Project Cost: \$95,100

Project Name: Markham Sustainability Metric: Energy Performance Verif.

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Planning

Category: Major

Project Mgr: TBD

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The purpose of the Energy Performance Verification exercise is to confirm mandatory energy performance standards for buildings aligned with Council's endorsement of a pathway to net zero energy buildings by 2030.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	The study will develop and recommend an approach to verify energy performance of buildings through the development application review and permitting process.
Internal Charges:	0	0	
External Consulting:	85,000	0	
Contingency %: 10	8,500	0	
Sub Total:	93,500	0	
HST Impact:	1,646	0	
Total Project Cost:	95,100	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Future Phases
Development Fees	95,100	0	0	0	0	0	0
TOTAL FUNDING	95,100					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

Number: 24018

Project Cost: \$80,600

Project Name: Markville Secondary Plan (Phase 2 of 2)

Commission: Development Services

Department: Planning

Project Mgr: Duran Wedderburn

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☒
5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Internal peer review

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Markham Official Plan requires preparation of a Secondary Plan be completed for the Markville Key Development Area.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	Additional funds are needed to complete the Markville Secondary Plan Study for additional community engagement, modeling and technical analysis. Furthermore, additional requirements such as public engagement/consultation as a part of the on-going Markville Secondary Plan which will develop the land use policy framework and identify the infrastructure requirements to guide future growth and development.
Internal Charges:	0	0	
External Consulting:	72,000	0	
Contingency %: 10	7,200	0	
Sub Total:	79,200	0	
HST Impact:	1,394	0	
Total Project Cost:	80,600	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
		0	0	0	0	0	0
DCA	80,600	0	0	0	0	0	0
TOTAL FUNDING	80,600				0		0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA			Amount in	Life Cycle
Name	Year	Amount	Study	
GENERAL GOVERNMENT - Studies - Various Studies	2023	80,600	2,165,000	Amount in Study: <input type="text"/>
TOTAL FUNDING		80,600	2,165,000	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

39

Number: 24019

Project Cost: \$254,400

Project Name: Planning for Urban Boundary Expansion Lands

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Planning

Category: Major

Project Mgr: Duran Wedderburn

Cost Validation: Internal peer review

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☒ 6 ☒ 7 ☐ 8 ☐

Requirement Validation:

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The 2022 York Region Official Plan (YROP) expanded the municipal urban boundary for the City of Markham to incorporate new greenfield lands. A planning consultant is required to establish a comprehensive land use policy framework and vision for these lands in accordance with Provincial, Regional, and local policy requirements to ensure the areas are appropriately planned. Including supporting the development and review of privately initiated development applications and technical studies such as Sub-watershed, Transportation, and Master Environmental Servicing Plans.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	
Internal Charges:	0	0	
External Consulting:	250,000	0	
Contingency %: 0	0	0	
Sub Total:	250,000	0	
HST Impact:	4,400	0	
Total Project Cost:	254,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	254,400	0	0	0	0	0	0
TOTAL FUNDING	254,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
GENERAL GOVERNMENT - Studies - Various Studies	2024	254,400	2,165,000	Amount in Study: <input type="text"/>
TOTAL FUNDING		254,400	2,165,000	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Parks Design & Construction



2024 PROJECT FUNDING REQUEST FORM

42

Number: 24020

Project Cost: \$45,800

Project Name: Community Garden Maintenance

Commission: Development Services

Department: Parks Design & Construction

Project Mgr: Tanya Lewinberg

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

General maintenance of city-owned community and allotment gardens to maintain a state of good repair and standing. 100+ families cultivate garden spaces with the City, leading to wear and tear of tools, site infrastructure, and overall landscaping. Annual maintenance required to uphold garden standards, customer service and community engagement. Budget request based on previous year's outsourced maintenance at Kirkham Allotment Garden.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	45,007	0	\$45,800 – gardening tools and maintenance at existing gardens located at Kirkham Community Gardens (120 Kirkham Drive) and Cornell Community Garden (116 Almira Avenue). Can include: infrastructure repairs, tool replacements, landscaping, general upkeep, workshops, community engagement, etc. Staff completes annual assessment of inventory and infrastructure to determine what is needed for the upcoming season. Amount is validated and consistent with the Life Cycle Reserve Study.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	45,007	0	
HST Impact:	792	0	
Total Project Cost:	45,800	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	45,800	0	0	0	0	0	0
TOTAL FUNDING	45,800					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 22,900
				Amount Incl HST 45,800
				Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Updated amount to be reflected in next Life Cycle update



2024 PROJECT FUNDING REQUEST FORM

43

Number: 24021

Project Cost: \$1,172,600

Project Name: Cornell Centre East Parkette - Design & Construction

Commission: Development Services

New Asset/Expansion

Department: Parks Design & Construction

Useful Life: 25 Pre Approval: ☐

Project Mgr: Richard Fournier

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☒ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Other(specify in Notes)

Requirement Validation:

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This Project is to design and construct the 2.84 acre (1.15 ha) park located between Rustle Woods Ave. to the north, Stauffer Cres. to the South, Donald Cousens Pkwy to the East and Cornell Rouge Blvd to the West. Anticipated Park Amenities include a junior/senior playground, shade structures, site furnishings, pathways and associated landscape works.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	940,000	0	Cost per ha is \$1,019,652 (\$1,172,600/1.15/ha) or \$412,887 per acre. Annualized operating cost is \$12,017 (1.15 ha X \$10,450) starting in 2026. Estimated in service Date is Q4 2025. Costs will be included in the Life Cycle Reserve Study at time of park assumption based on updated replacement cost for each amenity
Internal Charges:	84,600	0	
External Consulting:	50,000	0	
Contingency %: 8	79,200	0	
Sub Total:	1,153,800	0	
HST Impact:	18,818	0	
Total Project Cost:	1,172,600	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
DCA	1,172,600	0	0	0	0	0	0
TOTAL FUNDING	1,172,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
PARKS - Cornell Centre East Parkette	2024	1,172,600	1,318,116	Amount in Study: <input type="text"/>
TOTAL FUNDING		1,172,600	1,318,116	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



CORNELL CENTRE EAST PARKETTE

DESIGN & CONSTRUCTION



2024 Budget Request: \$1,172,600

Ward 5

Features:

- Jr./Sr. Playground
- Shade Structures
- Site Furnishings
- Pathways
- Associated Landscape Works



2024 PROJECT FUNDING REQUEST FORM

45

Number: 24022

Project Cost: \$402,400

Project Name: Cornell Centre West Parkette - Design & Construction

Commission: Development Services

New Asset/Expansion

Department: Parks Design & Construction

Useful Life: 25 Pre Approval: ☐

Project Mgr: Richard Fournier

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Other(specify in Notes)

5 ☒ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This Project is to design and construct the 0.45 acre (0.18 ha) parkette located on the Southwest corner of Rustle Woods Ave and Cornell Rouge Blvd. Anticipated Park Amenities include a shade structure, site furnishings, pathways and associated landscape works.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	309,000	0	Cost per ha is \$2,235,555 (\$402,400/0.18 ha) or \$894,222 per acre. Annualized operating cost is \$1,881 (0.18 ha x \$10,450) starting in 2026. Estimated in service date: Q4 2025. Costs will be included in the Life Cycle Reserve Study at time of park assumption based on updated replacement cost for each amenity.
Internal Charges:	27,810	0	
External Consulting:	35,000	0	
Contingency %: 7	24,080	0	
Sub Total:	395,890	0	
HST Impact:	6,478	0	
Total Project Cost:	402,400	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
DCA	402,400	0	0	0	0	0	0
TOTAL FUNDING	402,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
PARKS - Cornell Centre West Parkette	2024	402,400	647,929	Amount in Study: <input type="text"/>
TOTAL FUNDING		402,400	647,929	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

Number: 24023

Project Cost: \$10,300

Project Name: Denison Park Table Tennis

Commission: Development Services

New Asset/Expansion

Department: Parks Design & Construction

Useful Life: 20 Pre Approval: ☐

Project Mgr: Richard Fournier

Category: Annual

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☒

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

To install table tennis in Denison Park with concrete pad below. This request is a result of further resident demand for table tennis in the area, alleviating some of the gymnasium demand for table tennis inside as per the ILMP.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	9,600	0	Request by community to provide amenities in Denison Park. Costs will be included in the Life Cycle Reserve Study at time of project assumption based on updated replacement costs for the amenity
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 5	480	0	
Sub Total:	10,080	0	
HST Impact:	177	0	
Total Project Cost:	10,300	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Future Phases
DCA	10,300	0	0	0	0	0	0
TOTAL FUNDING	10,300					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in Study			Life Cycle
Name	Year	Amount	Study	
Park Development - Community/City-Wide - City-wide Growth Related Capital Program & Delivery	2024	10,300	2,510,170	Amount in Study: <input type="text"/>
TOTAL FUNDING		10,300	2,510,170	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

47

Number: 24024

Project Cost: \$1,153,300

Project Name: Innovation and Songbird Parks - Design & Construction

Commission: Development Services

New Asset/Expansion

Department: Parks Design & Construction

Useful Life: 25 Pre Approval: ☐

Project Mgr: Richard Fournier

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☒

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This Project is to design and construct two parks totalling 3.11 acres (2.27ac +0.84ac) (0.92ha + 0.34ha =1.26 ha) park located between Clegg Rd. to the north, Cedarland Dr. to the South, Warden Ave. to the East and the future Courtyard Ln extension to the west. Anticipated park amenities include a junior/senior playground, shade structures, site furnishings, pathways and associated landscape works.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	970,000	0	Cost per ha is \$915,317(\$1,153,300/1.26ha) or \$370,836per acre. Annualized operating cost is \$13,167 (1.26ha x \$10,450). Estimated in service date: Q2 2025. Costs will be included in the Life Cycle Reserve Study at time of park assumption based on updated replacement cost for each amenity. This is a developer upfronted design and build project.
Internal Charges:	87,300	0	
External Consulting:	0	0	
Contingency %: 8	77,600	0	
Sub Total:	1,134,900	0	
HST Impact:	18,438	0	
Total Project Cost:	1,153,300	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
DCA	1,153,300	0	0	0	0	0	0
TOTAL FUNDING	1,153,300					0	0

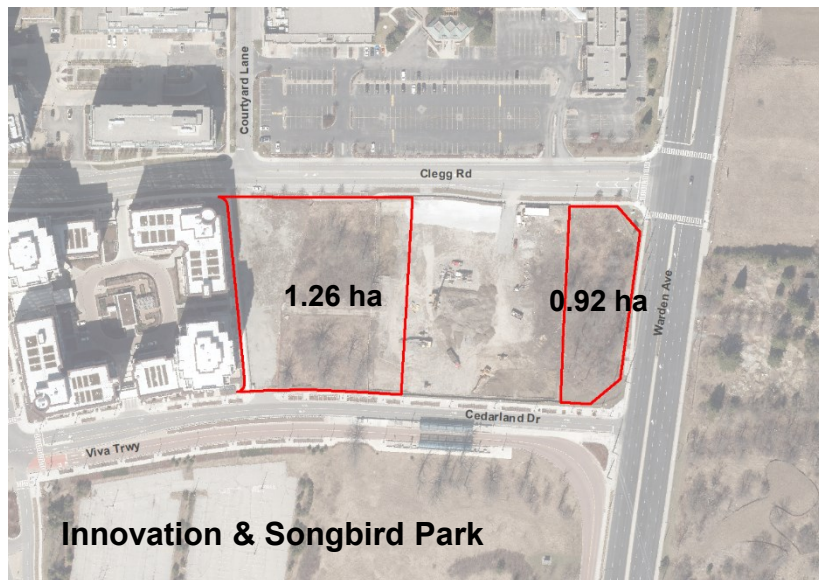
OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
PARKS - Innovation Park	2024	1,153,300	2,372,906	Amount in Study: <input type="text"/>
TOTAL FUNDING		1,153,300	2,372,906	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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INNOVATION & SONGBIRD PARKS DESIGN & CONSTRUCTION



2024 Budget Request: \$1,153,300

Ward 8

Features:

- Jr./Sr. Playground
- Shade Structures
- Site Furnishings
- Pathways
- Associated Landscape Works



2024 PROJECT FUNDING REQUEST FORM

49

Number: 24025

Project Cost: \$387,200

Project Name: James Cochrane Park Phase 2 Expansion - (Des. & Con.)

Commission: Development Services

New Asset/Expansion

Department: Parks Design & Construction

Useful Life: 25 Pre Approval: ☐

Project Mgr: Richard Fournier

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Other(specify in Notes)

5 ☒ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to design and construct the 1.19 acre (0.48ha) phase 2 park expansion of James Cochrane Park located at the Northeast intersection of Rustlewoods Ave. & Rivertree St. Anticipated park amenities include a shade structure, fitness equipment, site furnishings, pathways and associated landscape works

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	310,000	0	Cost per ha is \$806,666 (\$387,200/ 0.48ha) or \$325,378 per acre (\$387,200/ 1.19 ac). Annualized operating cost is \$5,016 (0.48ha x \$10,450) starting in 2026. Estimated in service date Q4 2025. Costs will be included in the Life Cycle Reserve Study at time of park assumption based on updated replacement costs for each amenity.
Internal Charges:	27,900	0	
External Consulting:	20,000	0	
Contingency %: 7	23,100	0	
Sub Total:	381,000	0	
HST Impact:	6,215	0	
Total Project Cost:	387,200	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
DCA	387,200	0	0	0	0	0	0
TOTAL FUNDING	387,200					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in Study			Life Cycle
Name	Year	Amount	Study	
Park Development - Community/City-Wide - City-wide Growth Related Capital Program & Delivery	2024	387,200	2,510,170	Amount in Study: <input type="text"/>
TOTAL FUNDING		387,200	2,510,170	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

50

Number: 24026

Project Cost: \$181,400

Project Name: Park Development Guidelines

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Parks Design & Construction

Category: Major

Project Mgr: Richard Fournier

Cost Validation: Recent awards

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

There is a need to develop a consolidated set of standards, guidelines and specifications related to the design and construction of parks. The park development guidelines will include base park requirements for grading and servicing, define facility sizes and specify standard construction details and specifications for various park elements based on best practices and consultation with city stakeholders. Standardizing and consolidating all of this information into one document will help ensure a consistent standard is applied to parks and will facilitate coordination with external consultants and applicants. Park Development guidelines are growth related as a result of increasing resident demand for parks and facilities within them. Park Development Guidelines are critical to the growing success of standardizing park development in the future.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	The budget was determined based on informal discussions with external consultants as well as budget needs for similar projects undertaken in the past. 65/35 split DCA/Non-DC Growth
Internal Charges:	13,500	0	
External Consulting:	150,000	0	
Contingency %: 10	15,000	0	
Sub Total:	178,500	0	
HST Impact:	2,904	0	
Total Project Cost:	181,400	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
		0	0	0	0	0	0
DCA	117,910	0	0	0	0	0	0
Non-DC Growth	63,490	0	0	0	0	0	0
TOTAL FUNDING	181,400				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Park Development - Community/City-Wide - City-wide
Growth Related Capital Program & Delivery

2024

117,910

2,510,170

Amount in Study:

Amount Incl HST

TOTAL FUNDING

117,910

2,510,170

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

52

Number: 24027

Project Cost: \$122,600

Project Name: Parks Renaissance Planner

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Parks Design & Construction

Category: Annual

Project Mgr: Richard Fournier

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation:

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Expressing Markham's commitment to ongoing development and enhancement of existing parks and open spaces, the Park Renaissance Planner develops capital projects to create new improvements to our existing park inventory, that is ten years or older. The projects are intended to add interest and new features to rejuvenate Markham's older parks. The Park Renaissance Planner designs, and plans all aspects of the projects and oversees their implementation.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	
Internal Charges:	122,600	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	122,600	0	
HST Impact:	0	0	
Total Project Cost:	122,600	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	122,600	0	0	0	0	0	0
TOTAL FUNDING	122,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
Park Development - Community/City-Wide - City-wide Growth Related Capital Program & Delivery	2024	122,600	2,510,170	Amount in Study: <input type="text"/>
TOTAL FUNDING		122,600	2,510,170	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

53

Number: 24028

Project Cost: \$16,400

Project Name: Traffic Control Cabinet Wraps

Commission: Development Services

Repair/Replace

Department: Parks Design & Construction

Useful Life: 10

Pre Approval: ☐

Project Mgr: Richard Fournier

Category: Annual

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Visual inspection

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The main goal of Markham's Public Realm program is to create dynamic, beautiful and sustainable public spaces that reflect diverse social and cultural identity. Projects include enhancements that promote community engagement, beautification and sustainability. The traffic control cabinet program is a response to a built form issue, solved in a creative and engaging way.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)			2024	Future Phases
Cost/Quote:	15,600	0		
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 3	468	0		
Sub Total:	16,068	0		
HST Impact:	283	0		
Total Project Cost:	16,400	0		

NOTES
1) John st & Portfield Cres 2) Denison St & Teddington Ave/Mallory 3) Denison st & Featherstone Ave 4) Elson st & Middlefield Rd 5) Denison st & Townley Ave 6) Courtyard Lane & Hwy 7 7) Main st. Markham & Princess St./James Scott rd 8) John st. & Bishop's Cross Park 2400 John St. 9) Apple Creek blvd & Hollingham Rd./Town Centre blvd 10) Bur Oak Ave & Brunswick Ave 11) Church St. & Country Glen Rd 12) Markham Rd.& Castlemore 13) Markham Rd & Bur Oak ave 14) Bullock Dr.& Centennial C.C. 15) Enterprise blvd. & Rouge Valley Dr. 16) Esna Park & Dr. IBM.

SOURCE(S) OF FUNDING (\$)		Components						Future Phases
Funding Type	Budget	TOTAL						Phases
Operating Funded Life Cycle	16,400	0	0	0	0	0	0	0
TOTAL FUNDING	16,400					0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

54

Number: 24029

Project Cost: \$31,200

Project Name: Tree Planting and Engineered Soil Pilot

Commission: Development Services

Department: Parks Design & Construction

Project Mgr: Richard Fournier

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☒ 4 ☒
5 ☒ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Internal peer review

Requirement Validation: Visual inspection

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Markham's Public Realm is a long term program to create dynamic, beautiful, sustainable public spaces that reflect a diverse social and cultural identity. Project include enhancement that promote community engagement, beautification and sustainability. The Engineered Soil pilot will enhance challenging tree planting sites with Engineered Soil in a variety of conditions.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	29,200	0	Pilot established in coordination with Forestry to identify four problem tree planting sites. Birchmount and Enterprise, Markham and Bur Oak, Rodick and 16th, Milne Dam ceremonial plantings. Engineered soil will be used as an alternative to native soil, with tree planting included in the project. Costs will be included in the Life Cycle Reserve Study at time of project assumption based on updated replacement costs for each tree. Soil will not need to be replaced. Trees already in Tree Keeper. Internal Funding: Landscape Recovery
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 5	1,460	0	
Sub Total:	30,660	0	
HST Impact:	540	0	
Total Project Cost:	31,200	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Other Internal	31,200	0	0	0	0	0	0
TOTAL FUNDING	31,200					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

55

Number: 24030

Project Cost: \$14,400

Project Name: Tree Planting in Grand Cornell and South Unionville Parks

Commission: Development Services

Department: Parks Design & Construction

Project Mgr: Richard Fournier

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☒ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Internal peer review

Requirement Validation: Visual inspection

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To plant trees in existing parks.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	13,500	0	Costs will be included in the Life Cycle Reserve Study at time of project assumption based on updated replacement costs for each tree, will also be added to Tree Keeper. Internal Funding: Landscape Recovery
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 5	675	0	
Sub Total:	14,175	0	
HST Impact:	249	0	
Total Project Cost:	14,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Future Phases
Other Internal	14,400	0	0	0	0	0	0
TOTAL FUNDING	14,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

56

Number: 24031

Project Cost: \$146,900

Project Name: Volleyball in Reesor Park

Commission: Development Services

New Asset/Expansion

Department: Parks Design & Construction

Useful Life: 0 Pre Approval: ☐

Project Mgr: Richard Fournier

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☒

Cost Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Expressing Markham's commitment to ongoing development and enhancement of existing parks, and open spaces, the Park Renaissance Program develops projects to create improvements base on of growth in Markahm and demand for volleyball courts. The program's projects strive to maintain the high standard of quality reflected in Markham's newer parks with a high level of design and visual appeal as it rejuvenates Markham's older parks. Community request for Volleyball to engage youth.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	134,930	0	Project was tendered in 2022, Cost for tender + 2% year over year for inflation. DCA funded (Sand volleyball court including excavation, grading, court installation including, concrete posts for court nets) and \$5864 added to request for tree planitng as screening from landscape recovery account. Costs will be included in the Life Cycle Reserve Study at time of project assumption based on updated replacement costs for the amenity
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 7	9,445	0	
Sub Total:	144,375	0	
HST Impact:	2,541	0	
Total Project Cost:	146,900	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
DCA	141,036	0	0	0	0	0	0
Other Internal	5,864	0	0	0	0	0	0
TOTAL FUNDING	146,900				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
Park Development - Community/City-Wide - City-wide	2024	141,036	2,510,170	Amount in Study: <input type="text"/>
Growth Related Capital Program & Delivery				Amount Incl HST <input type="text"/>
TOTAL FUNDING		141,036	2,510,170	Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Engineering



2024 PROJECT FUNDING REQUEST FORM

59

Number: 24032

Project Cost: \$304,600

Project Name: 407 Transitway Realignment Justification Study

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Fei Yang

Cost Validation: Internal peer review

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐

Requirement Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This study is to formalize the need and justification for the realignment of the 407 Transitway within Markham Centre with the purpose of engaging the Ministry of Transportation to amend the 407 Transitway Environmental Assessment study, which was completed in 2010. The study will develop, based on the emerging Markham Centre Secondary Plan, documentation necessary to support an EA amendment, including but not limited to reviewing context of land use planning change (i.e. Markham Centre Secondary Plan Update), re-visiting the constraints of the proposed 407 Transitway alignment in regards to it passing through the Markham District Energy Plant near Birchmount Road and conducting conceptual design/feasibility assessment and a high level order of magnitude capital cost comparison including the anticipated 50 year operating cost of alignment alternatives. As both the EA-approved and Markham Centre Secondary Plan conceptual alignment will put development on hold for those impacted lands, there is urgency to complete this work so that the EA amendment, if necessary, can be started at early as possible.

1. Markham Council expressed concerns with the recommended alignment of the Transitway, which traverses through the core of Markham Centre.
2. The City undertook an assessment in 2010 indicating that an alternative alignment, generally parallel and on the north side of Highway 407, has a lower cost, could unlock the majority of the core of Markham Centre lands for immediate development unencumbered by the construction requirements of the transitway, and is more conducive to maximize the development potential of this area. See key map beside.
3. The development concept for the Markham Centre Secondary Plan Update Study (the "Update Study") is recommending the above mentioned City's preferred alignment. The Secondary Plan is expected to be complete in 2024.
4. On June 28, 2023, MTO provided the City with the requirements for reopening the 407 Transitway EA. The study is needed to respond each of the requirements.
5. This study is considered time-sensitive as it will provide clarity for future developments.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	0	0
Internal Charges:	24,750	0
External Consulting:	250,000	0
Contingency %: 10	25,000	0
Sub Total:	299,750	0
HST Impact:	4,840	0
Total Project Cost:	304,600	0

NOTES

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
DCA	304,600	0	0	0	0	0	0
TOTAL FUNDING	304,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA**Name****Year****Amount****Amount in
Study****Life Cycle**

Hard - Studies - Trans., Servicing, Enviro., Cycling, Traffic
Calming, Noise, Subwatershed, Erosion Study Update etc.

304,600

18,003,000

Amount in Study:

Amount Incl HST

TOTAL FUNDING

304,600

18,003,000

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

407 Transitway Realignment Justification Study

Markham should be aware of a number of project interdependences related to the Markham Centre:

- Unionville GO Station TOC (Metrolinx)
- Hwy. 407 Transitway (MTO)
- The Greater Golden Horseshoe ("GGH") Plans East-West Cross-Regional Connection. A higher order transit connection across the top of Toronto that would connect existing planned Go Rail, LRT's and subways between Burlington and Oshawa. (Metrolinx)
- Also VIVA (York)

To reopen the Transitway EA/TPAP MTO would need the following:

1. A Provincial need would have to be established and justified to re-visit alignment options previously ruled out, including options on south side of Highway 407 ETR. This could include changes in land-use planning, higher densities, and urban center road network which need to be re-evaluated. Is there new information (eg. density, development plans) which can support consideration of reviewing current TPAP. Is this reflected in the current Secondary Plan proposal. Higher densities will increase demand on all transit facilities servicing Markham Centre, which could greater support the MTO recommended alignment.
2. The decision to undertake the review of the EPR and/or an addendum rests with the proponent
3. The proponent may be requested to "reopen" the TPAP under two conditions:
 - a. Under Section 15 of O. Reg. 231/08 "Changes after statement of completion of transit project assessment process", and,
 - b. Under Section 16 of O. Reg. 231/08 "Review of transit projects not commenced within 10 years".
4. As there is no funding for the Transitway at this time, it would need to be determined if MTO would still be the proponent to undertake the review of the TPAP and document the changes made from the December 2010 EPR. Metrolinx would be the proponent for the Transitway going into Detail Design.
5. An external stakeholder (e.g., Markham) can make a request to MTO to investigate. A full evaluation of the changes, including an assessment of alternatives, environmental impact assessment/mitigation, consultation, etc. would need to occur and be documented as part of the addendum process. In

this case, the proponent would need to review the request and determine its feasibility on the change. If it is agreed upon that the change is warranted, additional justification would need to be provided.

6. This would require two EA addenda (can be done simultaneously); Two EA sections in this area.
7. Take approximately 12-18 months to complete, depending on key factors (field investigations, private property impacts and stakeholder consultations);
8. Freeze all lands within study area from development while Addenda are taking place.
9. Development of a Consultation Plan and notify impacted stakeholders (private property owners, MECP, other agencies of interest (ex. MX, Markham, York Region, YRRTC, 407 ETR, MNRF, TRCA, etc.);
10. Consultation would include newspaper notifications, mailed notifications to property owners within 30m of new alignment, impacted agencies/stakeholders, impacted Indigenous communities, publication of Addendum on project website.
11. Once all stakeholders have agreed to changes, process involves a 30-day public review period followed by a 35-day Minister decision period.

A study to further assess the feasibility of the alignment proposed by Markham, which follows the 407ETR on the north side would help to provide rationale to consider reopening the TPAP, and consider this option. The following would need to be addressed. This alignment was reviewed and was not taken forward as part of the original EA/TPAP due to the following:

- Would require large bridges/structures, to cross over 407ETR, over GO rail line and cross Kennedy Road to the East, which would be costly. This was not considered in the MRC review. How this will be resolved needs to be investigated.
- Crossing the Kennedy Rd. interchange is a major concern. This may potentially require one large structure which would cross over 407ETR, over GO Rail, over Kennedy Road and interchanges and finally back over 407ETR.
- The MTO preferred tunnel alignment meets requirements from a vertical alignment perspective. The Markham proposed alignment would be at a higher grade, does it work from a Transit Hub perspective.

- Moving the Transitway away from the other services and away from a central location in Markham Center to attract walk in ridership, will have a major impact on Transitway ridership. This would have a large impact on Mobility to and from Markham Centre. The expense of crossing 407ETR with Transitway was justified in light of a single location transit hub, preferably in the heart of Markham Centre which supports MTO's Transit Supportive Guidelines
- Does the decentralized hub preferred by Markham meet Metrolinx and provincial recommended transit guidelines. Is VIVA in agreement with a proposed shift in their alignment into the Urban Centre. Consensus is required by all agencies regarding approach.

It should be noted the current recommended TPAP alignment met the following objectives:

- A 407 Transitway Station and mobility hub in the optimum location to serve both residential and commercial land uses in the eastern half of Markham Centre including proposed community amenities;
- Good connectivity to the other transit services using the hub, i.e., GO Stouffville Line Station and the YRT/Viva bus terminal;
- A 407 Transitway Station location that maximizes the benefits of the investment in capital works to cross Highway 407 twice and penetrate Markham Centre lands;
- Adequate access to/from the surface road network for transitway BRT vehicles;
- Alignment geometry compatible with future road network options between the point where the transitway enters Markham Centre lands and the Kennedy Road crossing;
- Sufficient tangent adjacent to the station to accommodate a potential rail crossover if facility is converted to LRT;
- Avoiding, if practical, impact on existing YMCA property and minimizing constraints on future development both east and west of the GO Line.;
- Provision of a feasible and cost effective crossing of the Kennedy Road Interchange.

407 Transit way Realignment





2024 PROJECT FUNDING REQUEST FORM

65

Number: 24033

Project Cost: \$410,600

Project Name: Apple Creek Blvd Road Safety Improvements (Design & CA)

New Asset/Expansion

Commission: Development Services

Useful Life: 15 Pre Approval: ☐

Department: Engineering

Category: Minor

Project Mgr: Manzora Nero

Cost Validation: Other(specify in Notes)

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☐ 4 ☐

Requirement Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Following completion of a comprehensive safety review of the corridor in 2023, this project is intended to improve safety on Apple Creek Boulevard. Currently, Apple Creek is a 4-lane major collector road, with no left-turn lanes at several intersections/driveways, limited sightline visibility at several locations, and a lack of cycling amenities. This project involves retaining an engineering consultant to undertake the detailed design of the conceptual plan identified through the safety review of the corridor, completed in 2023. Design will consist of a "road diet", including civil works required at select locations, and other safety improvements. Public consultation will also be conducted. Once detailed design is approved, consultant will also be required to conduct the CA during the course of the construction phase.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	0	1,250,000
Internal Charges:	33,363	123,750
External Consulting:	337,000	0
Contingency %: 10	33,700	125,000
Sub Total:	404,063	1,498,750
HST Impact:	6,524	24,200
Total Project Cost:	410,600	1,523,000

NOTES

Cost Validation: Estimate based on a per kilometer cost of the 2018 John Street MUP detailed design, and considers inflation impacts. A budget will be submitted for 2025 to implement the finalized design. Budget estimate is noted under "future phase". This request includes full time CA & SI.

SOURCE(S) OF FUNDING (\$)

Funding Type	Components						Future Phases
	Budget				TOTAL		
DCA	266,890	0	0	0	0	0	989,950
Non-DC Growth	71,855	0	0	0	0	0	266,525
Other Internal	71,855	0	0	0	0	0	266,525
TOTAL FUNDING	410,600				0		1,523,000

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Hard - Special Projects - City-wide Street Safety and Traffic
Calming, various locations

266,890

3,964,174

Amount in Study:

Amount Incl HST

TOTAL FUNDING

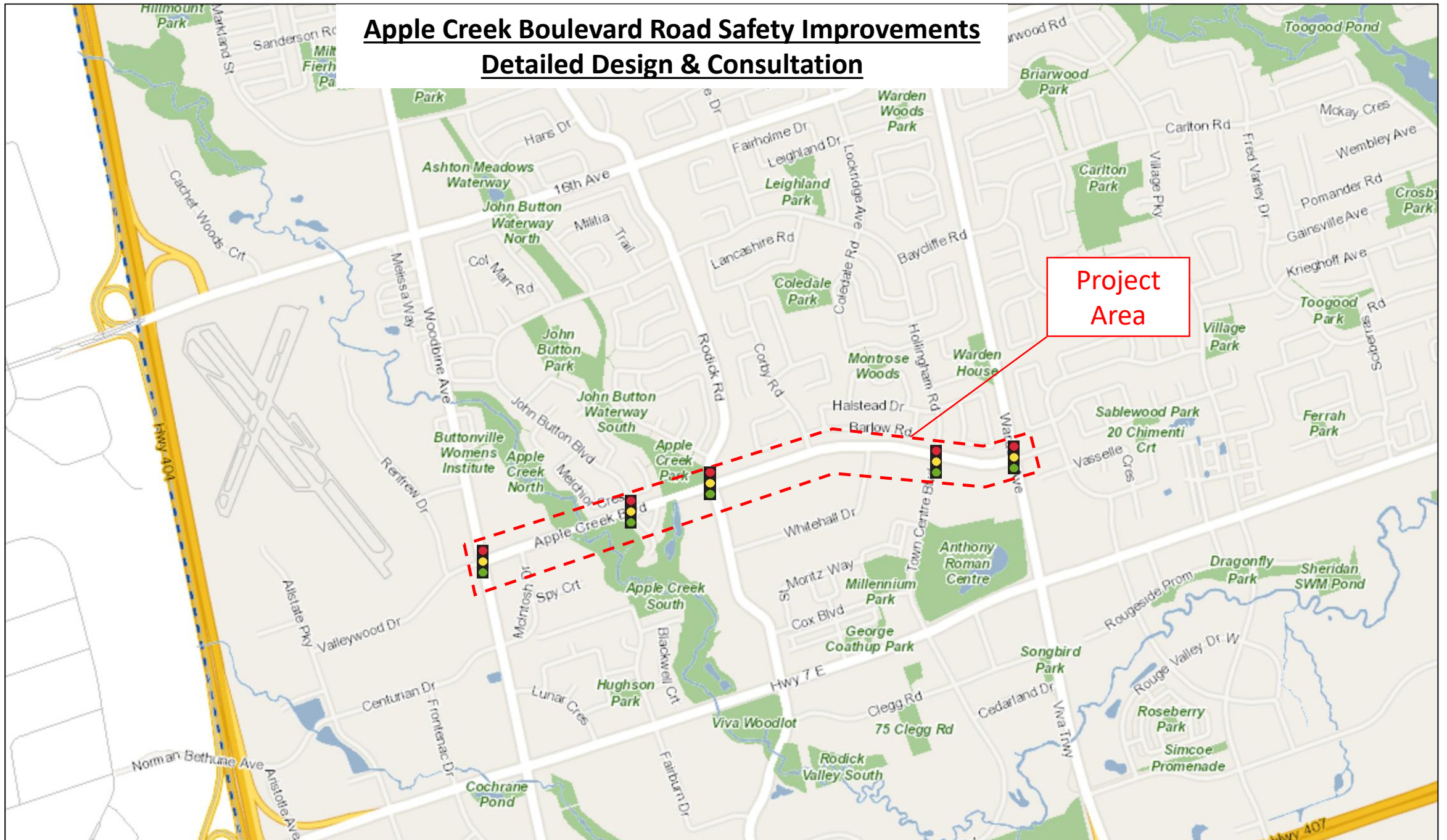
266,890

3,964,174

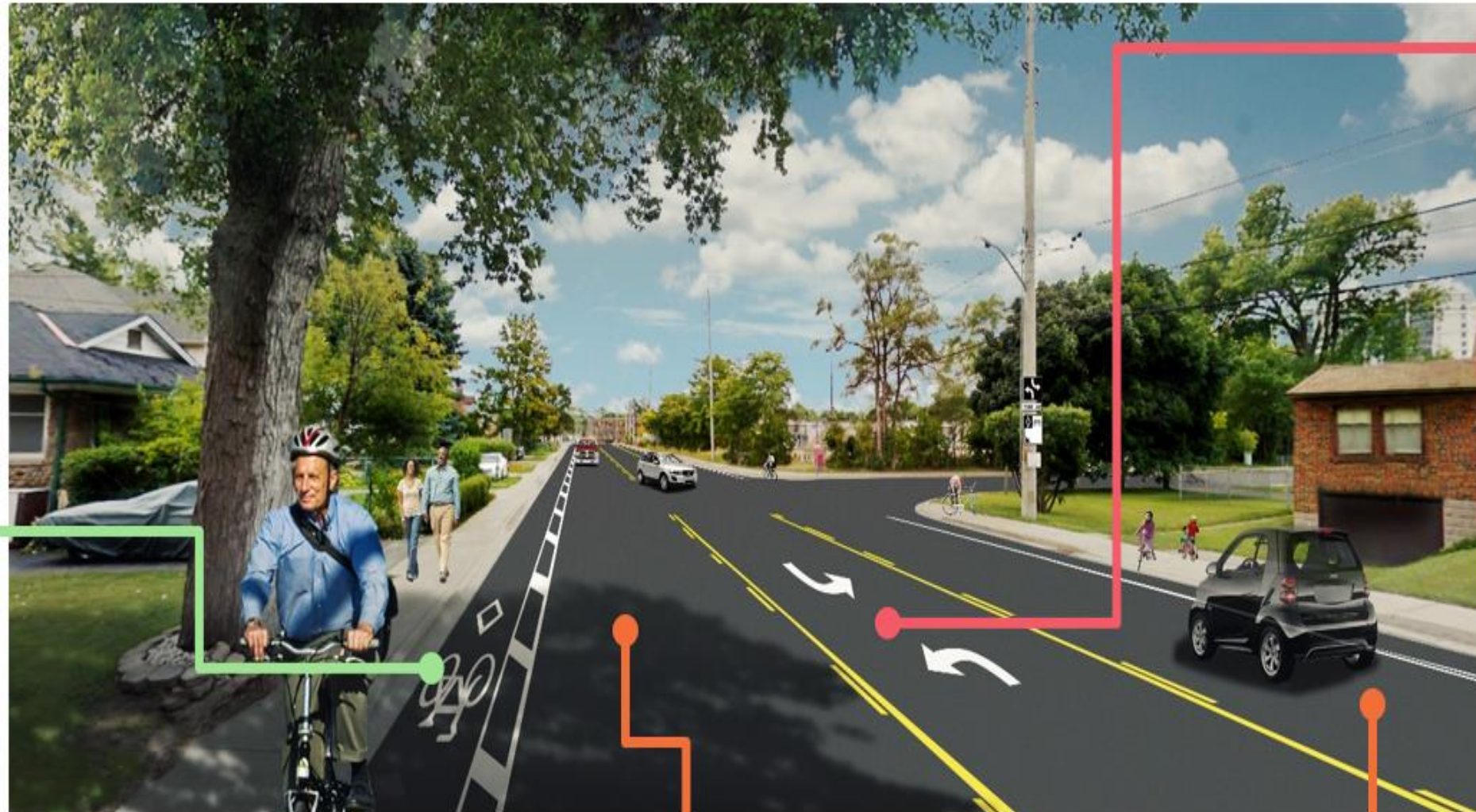
Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Apple Creek Boulevard Road Safety Improvements Detailed Design & Consultation



2024 Apple Creek Blvd Road Diet Design (Conceptual)



Buffered
Bicycle
Lane in
each
direction

Two-way left
turn lane

Single travel lane in each direction



2024 PROJECT FUNDING REQUEST FORM

69

Number: 24034

Project Cost: \$28,000

Project Name: Cycling and Pedestrian Advisory Committee

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Annual

Project Mgr: Fion Ho

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

CPAC was established in September 2003, as per the direction of the Transportation Committee. In the Terms of Reference, the specific duties of CPAC are to include, but not limited, the following: (i) Advising staff of various departments and Council on the design, development and delivery of cycling and pedestrian policies, programs and facilities to promote and enhance cycling and walking; (ii) Compiling research and statistics on cycling and pedestrian issues; (iii) Working with local neighborhoods by collecting distributing information related to cycling and walking; (iv) Promoting an increased public awareness of cycling and walking as environmental forms of transportation; (v) Assisting in fundraising opportunities; (vi) Discussing and resolving any issues between cyclist and pedestrians; (vii) Assisting in the integration of bicycle and pedestrian facilities into significant development proposals as they rise.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	25,000	0	10% funded from DCA 90% funded from Non-DC Growth
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 10	2,500	0	
Sub Total:	27,500	0	
HST Impact:	484	0	
Total Project Cost:	28,000	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	2,800	0	0	0	0	0	0
Non-DC Growth	25,200	0	0	0	0	0	0
TOTAL FUNDING	28,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA**Name****Year****Amount****Amount in
Study****Life Cycle**Hard - Special Projects - Bike Lanes on Collector / Arterial
Roads

2,800

3,690,232

Amount in Study:

Amount Incl HST

Year in the study

TOTAL FUNDING

2,800

3,690,232

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

71

Number: 24035

Project Cost: \$28,761,200

Project Name: Elgin Mills -Woodbine to Warden Ave (Property)

Commission: Development Services

New Asset/Expansion

Department: Engineering

Useful Life: 0 Pre Approval: ☐

Project Mgr: Marina Riad

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☐ 4 ☐

Cost Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This budget request is for the Property Acquisition requirements for Elgin Mills Phase 1, from Woodbine Ave to Warden Ave. The Budget request also includes fees for external consultant to start the negotiation with the property owners and to acquire the properties. The Elgin Mills Class EA Study identified the need to widen Elgin Mills from Woodbine Avenue to McCowan Road from 2 lane rural cross section to 4 lane urban cross section with 4.0 m Active Transportation Facilities. The EA has been completed in Jan 2024 with Detail design to commence in April 2024, and be completed by May 2026. Property requirements and utility relocation for this project was identified during the EA process. Construction is anticipated to start in 2026. The proposed budget does not include any expropriation cost. If required, staff will prepare a separate report to Council.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	25,243,261	0
Internal Charges:	504,865	0
External Consulting:	0	0
Contingency %: 10	2,524,326	0
Sub Total:	28,272,452	0
HST Impact:	488,710	0
Total Project Cost:	28,761,200	0

NOTES

As per the current anticipated design schedule, we are expecting 60% design by fall 2024, at which point Real Property will begin the negotiation with affected property owners. Real Property have been advised of the project and the required properties. As per conversation with Real Property, land acquisition can take up to 12 months from the date of start of negotiation (60% date), while expropriation can take more than 18 months.

SOURCE(S) OF FUNDING (\$)

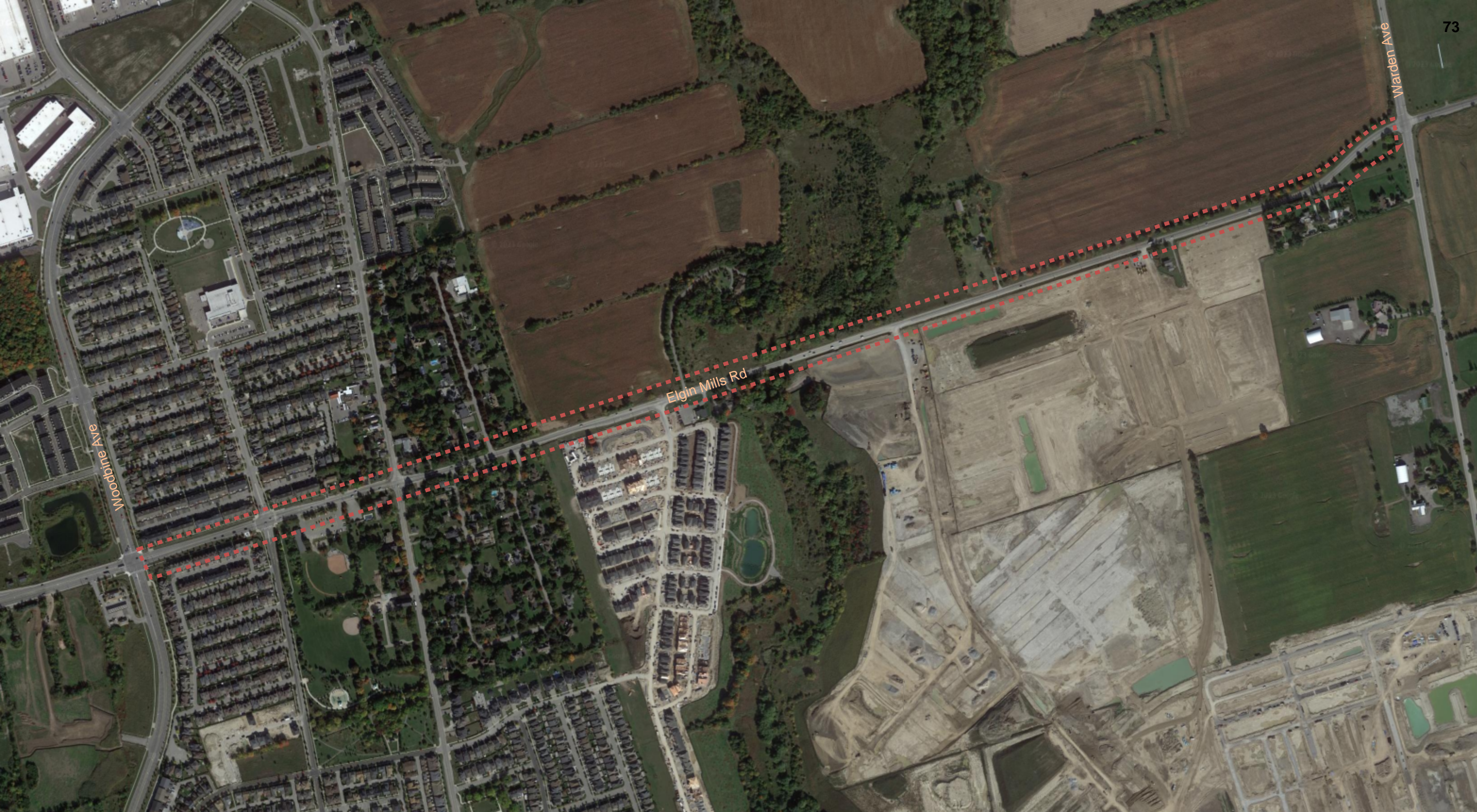
Funding Type	Components						Future Phases
	Budget					TOTAL	
DCA	28,761,200	0	0	0	0	0	0
TOTAL FUNDING	28,761,200					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

<u>DCA</u>				<u>Life Cycle</u>	
Name	Year	Amount	Amount in Study		
Hard - Properties Acquisition - Roads & Structures - Elgin Mills Rd	2024	28,761,200	6,150,973	Amount in Study:	<input type="text"/>
				Amount Incl HST	<input type="text"/>
TOTAL FUNDING		<u>28,761,200</u>	<u>6,150,973</u>	Year in the study	<input type="text"/>

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



Elgin Mills Rd

Woodbine Ave

Warden Ave



2024 PROJECT FUNDING REQUEST FORM

74

Number: 24036

Project Cost: \$546,200

Project Name: Engineering Staff Salary Recovery

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Annual

Project Mgr: Ali Hasan

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Cost recovery for engineering staff on projects related to Region of York or Metrolinx projects or other Jurisdictions. The list of projects is attached with this budget form.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	Staff salary recovery equivalent to 3 FTE staff
Internal Charges:	546,195	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	546,195	0	
HST Impact:	0	0	
Total Project Cost:	546,200	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	546,200	0	0	0	0	0	0
TOTAL FUNDING	546,200					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
Hard - Studies - Trans., Servicing, Enviro., Cycling, Traffic Calming, Noise, Subwatershed, Erosion Study Update etc.		546,200	18,003,000	Amount in Study: <input type="text"/>
TOTAL FUNDING		546,200	18,003,000	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

75

Number: 24037

Project Cost: \$73,100

Project Name: Enterprise Blvd. @ Rouge Valley Dr. Pedestrian Crossing

Commission: Development Services

New Asset/Expansion

Department: Engineering

Useful Life: 30 Pre Approval: ☐

Project Mgr: Manzora Nero

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Project scope includes the design and implementation of a signalized pedestrian crossing of the VIVA bus rapidway at the northwest corner of the subject intersection. Recent residential development at the NW quadrant and construction of a new sidewalk has triggered this requirement. Intersection is currently signalized, but there is no pedestrian crossing of the rapidway at the NW quadrant, requiring pedestrians to cross the rapidway illegally and creating a pedestrian safety issue. Project is anticipated to be completed by end of 2024.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

<u>PROJECT COSTS (\$)</u>	<u>2024</u>	<u>Future Phases</u>
Cost/Quote:	60,000	0
Internal Charges:	5,940	0
External Consulting:	0	0
Contingency %: 10	6,000	0
Sub Total:	71,940	0
HST Impact:	1,162	0
Total Project Cost:	73,100	0

NOTES

As the bus rapidway is a York Region asset and the traffic signals are maintained by the Region on the City's behalf, there will be a cost sharing agreement established between the two agencies. York Region is developing terms of the agreement, so cost sharing requirements are not known at this time. Work includes detailed design, signal pole/sign adjustments, installation of new pedestrian signals, new push buttons, new sidewalk ramps, tactile plates, painted crosswalk and adjustments to manholes, to facilitate this new crossing.

SOURCE(S) OF FUNDING (\$)**Components**

<u>Funding Type</u>	<u>Budget</u>	<u>TOTAL</u>	<u>Future Phases</u>
DCA	73,100	0	0
TOTAL FUNDING	73,100	0	0

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS**DCA****Name****Year****Amount****Amount in Study****Life Cycle**

Hard - Intersection - City-wide Intersection Improvements

73,100

1,685,774

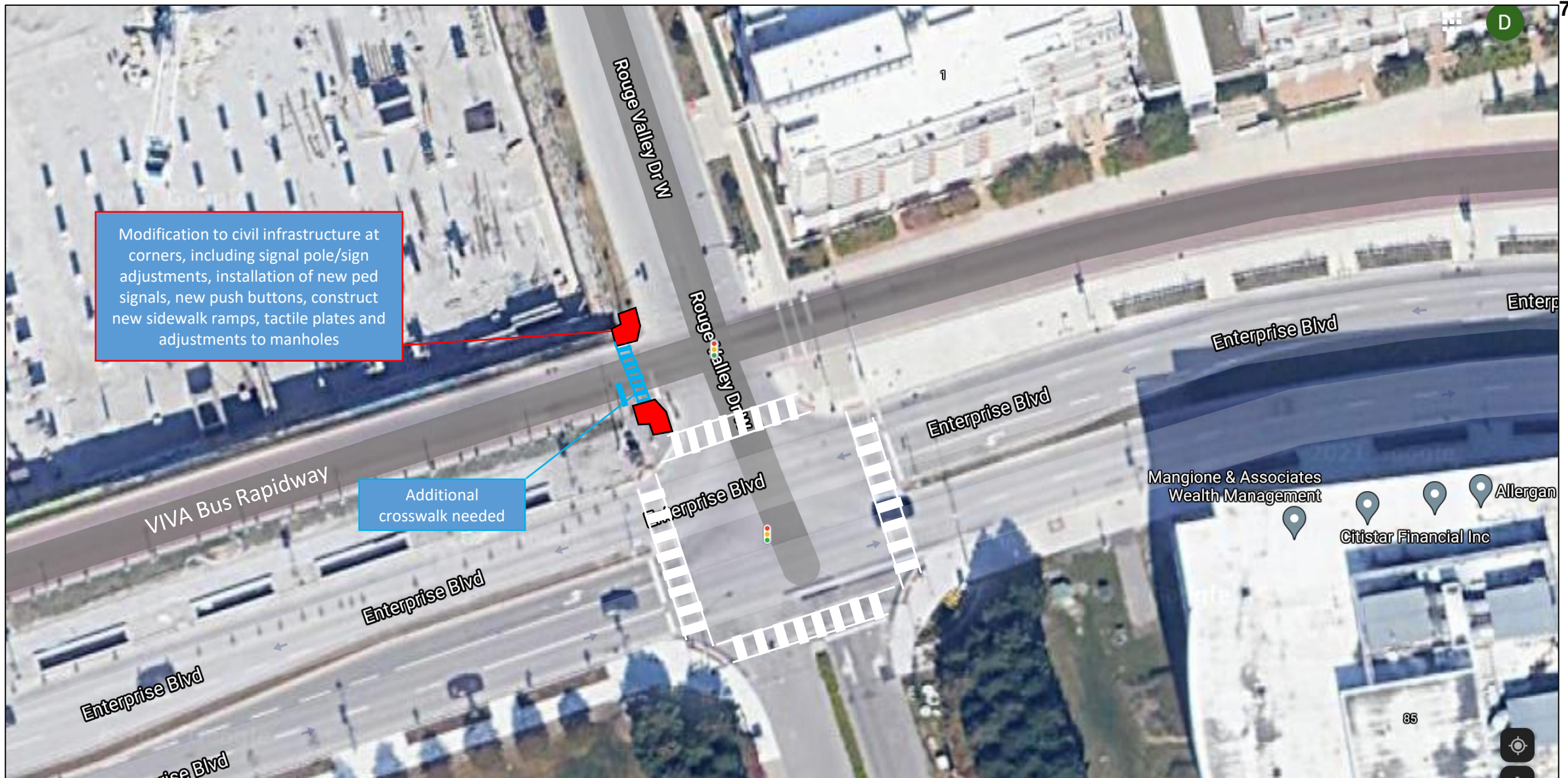
Amount in Study: **TOTAL FUNDING**

73,100

1,685,774

Amount Incl HST Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



Enterprise Blvd @ Rouge Valley Dr. W.
Pedestrian Crossing of Rapidway



2024 PROJECT FUNDING REQUEST FORM

Number: 24271

Project Cost: \$962,500

Project Name: Main Street Markham Reconst. & Sanit. Sewer Upgrade Des.

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Alice Kam

Cost Validation: Other(specify in Notes)

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☒
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

A Class Environmental Assessment (Class EA) for Main Street Markham from Highway 407 to the future Donald Cousens Parkway was completed in 2010. Recommended improvements as part of the Class EA study were already designed and implemented in the past 10+ years along majority of Main Street Markham, with the exception of the stretch between 16th Avenue and Bullock Drive. This project involves retaining an engineering consultant to undertake the detailed design of the Main Street Markham improvements along this "remaining stretch". Scope of design will include pavement reconstruction, streetlighting, streetscaping, traffic signals, as well as replacement of watermain, storm sewer and sanitary sewer.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	To be funded from:
Internal Charges:	78,210	0	DC – 20%
External Consulting:	790,000	0	Life Cycle – 80%
Contingency %: 10	79,000	0	The breakdown of the funding source is preliminary and will be finalized once the detailed design work is completed.
Sub Total:	947,210	0	
HST Impact:	15,294	0	
Total Project Cost:	962,500	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
DCA	192,500	0	0	0	0	0	0
Operating Funded Life Cycle	770,000	0	0	0	0	0	0
TOTAL FUNDING	962,500					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Hard - Roads - City-wide Miscellaneous

2022

192,500

4,432,413

Amount in Study:

TOTAL FUNDING

192,500

4,432,413

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



16th Avenue

68

Fincham Ave

**Main Street Markham
Project Limit**

Raymerville Dr

Parkway Ave

Bullock Drive



2024 PROJECT FUNDING REQUEST FORM

80

Number: 24038

Project Cost: \$1,279,300

Project Name: Markham Center Trails Phase 4 Design & CA

Commission: Development Services

New Asset/Expansion

Department: Engineering

Useful Life: 0 Pre Approval: ☐

Project Mgr: Lily Li

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☐ 4 ☐

Cost Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Design of Markham Centre Trails Phase 4 from Apple Creek to Highway 7, approximately 1600m in length. The design will include in-water work and extensive consultation with external agencies, including the TRCA, due to two proposed bridges over the Rouge River.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

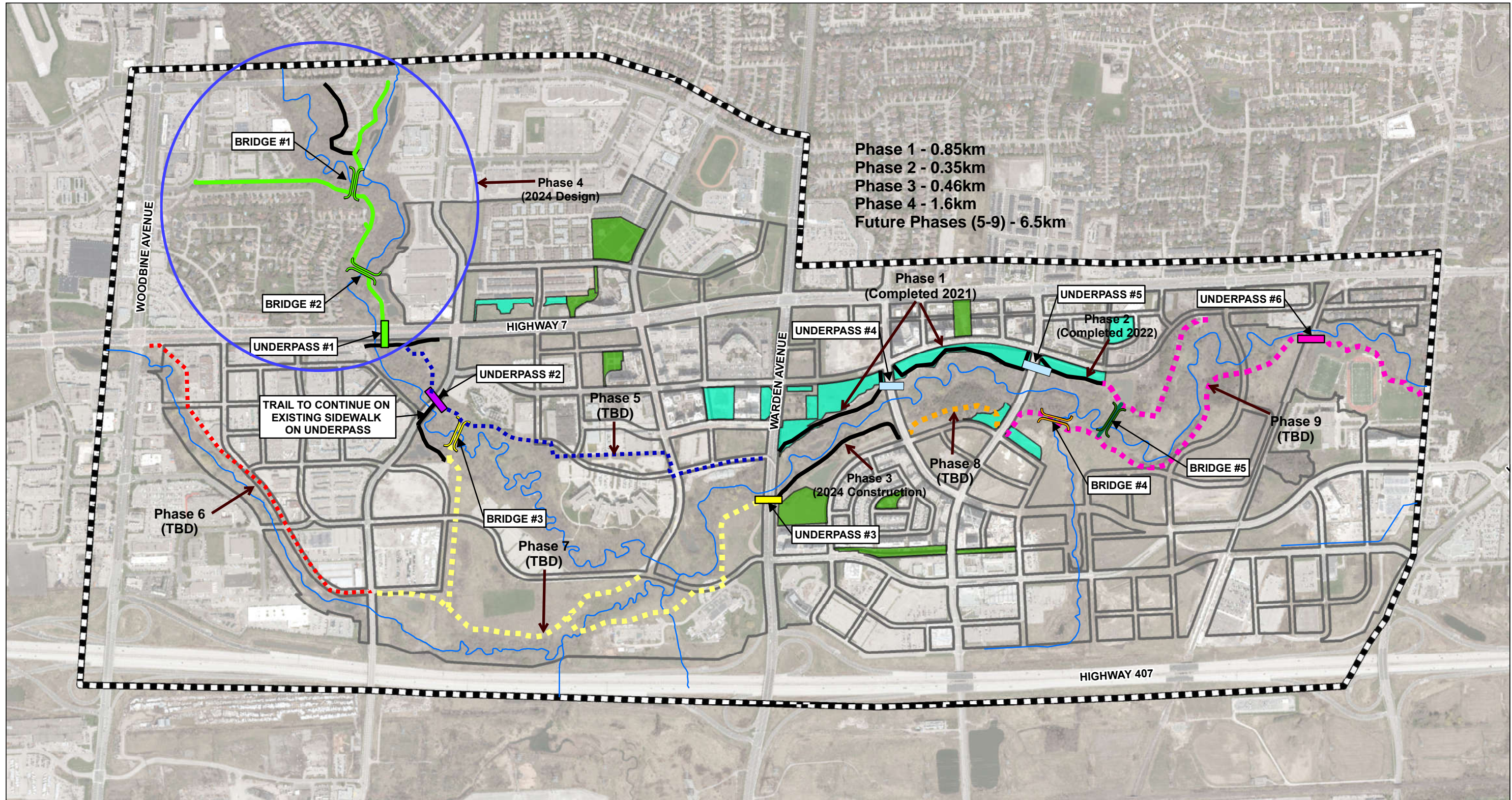
PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	4,500,000	The budget was derived based on recently awarded design consultant fees for trail projects of similar size and scope. The design to commence in July 2024 and to be completed by Dec 2025. This budget includes Design and CA & SI. 65% funded from DCA 35% funded from Project #22328
Internal Charges:	103,950	445,500	
External Consulting:	1,050,000	0	
Contingency %: 10	105,000	450,000	
Sub Total:	1,258,950	5,395,500	
HST Impact:	20,328	87,120	
Total Project Cost:	1,279,300	5,482,600	

SOURCE(S) OF FUNDING (\$)		Components						Future Phases
Funding Type	Budget	TOTAL						Phases
DCA	831,546	0	0	0	0	0	0	3,563,690
Other Internal	447,754	0	0	0	0	0	0	1,918,910
TOTAL FUNDING	1,279,300					0	0	5,482,600

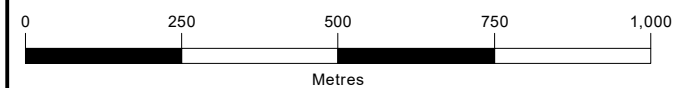
OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
Park Development - Community/City-Wide - Markham Centre Trails	2024	831,546	518,325	Amount in Study: <input type="text"/>
TOTAL FUNDING		831,546	518,325	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



Datum: North American 1983 CSRS
Coord. System: NAD 1983 CSRS UTM Zone 17N
Projection: Transverse Mercator
Central Meridian: 81°0'0.00"W
False Easting: 500,000m False Northing: 0m
Page Orientation: -16.5° Scale Factor: 0.99960



Watercourse
Concept Road Layout*
Existing/Approved Trail

Secured Future Park
Existing Park
Study Area

*As proposed in the Markham Centre Secondary Plan Development Concept, and is subject to change



Client

CITY OF MARKHAM

Figure Title
MARKHAM CENTER TRAIL MASTER PLAN
PROPOSED TRAIL ROUTE
ALTERNATIVE 2

Drawn	Checked	Date	Figure No.
HN	TR	2023/05/24	6-2
Scale		Project No.	
H 1:12,000		300050254	



2024 PROJECT FUNDING REQUEST FORM

82

Number: 24039

Project Cost: \$1,403,600

Project Name: Markham Centre Trails Phase 3 - Construction &CA

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Lily li

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Construction of Markham Centre Trails Phase 3 on the south side of the Rouge River from Warden Avenue to Verdale Crossing, approximately 400m in length. This request includes construction, contract administration and inspections.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

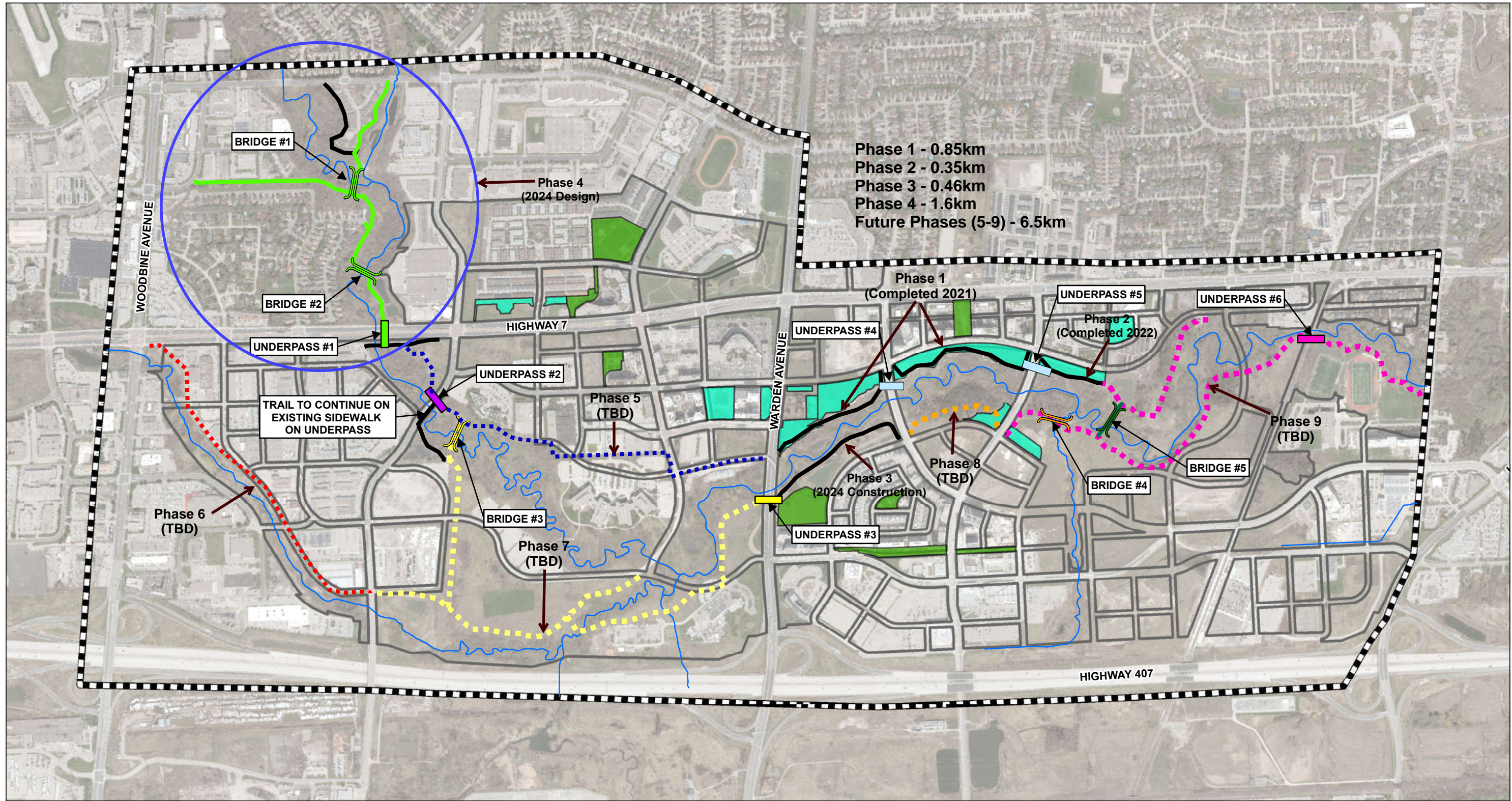
PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	960,000	0	Design is at 60% and to be completed by January 2024. The Construction tender to be issued in April 2024, construction to commence in August 2024 and to be completed by Dec 2024. The RFP for CA&SI to be issued in April 2024. Carry forward from account # 23102 65% funded from DCA and 35% funded from project 22328
Internal Charges:	114,048	0	
External Consulting:	192,000	0	
Contingency %: 10	115,200	0	
Sub Total:	1,381,248	0	
HST Impact:	22,303	0	
Total Project Cost:	1,403,600	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Carry Forward	916,800	0	0	0	0	0	0
DCA	316,420	0	0	0	0	0	0
Other Internal	170,380	0	0	0	0	0	0
TOTAL FUNDING	1,403,600				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

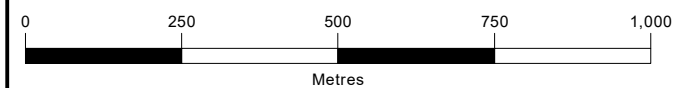
DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
Park Development - Community/City-Wide - Markham Centre Trails	2024	316,420	518,325	Amount in Study: <input type="text"/>
TOTAL FUNDING		316,420	518,325	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



Phase 1 - 0.85km
Phase 2 - 0.35km
Phase 3 - 0.46km
Phase 4 - 1.6km
Future Phases (5-9) - 6.5km

Datum: North American 1983 CSRS
Coord. System: NAD 1983 CSRS UTM Zone 17N
Projection: Transverse Mercator
Central Meridian: 81°0'0.00"W
False Easting: 500,000m False Northing: 0m
Page Orientation: -16.5° Scale Factor: 0.99960



Watercourse
Concept Road Layout*
Existing/Approved Trail

Secured Future Park
Existing Park
Study Area

*As proposed in the Markham Centre Secondary Plan Development Concept, and is subject to change



Client

CITY OF MARKHAM

Figure Title
MARKHAM CENTER TRAIL MASTER PLAN
PROPOSED TRAIL ROUTE
ALTERNATIVE 2

Drawn	Checked	Date	Figure No.
HN	TR	2023/05/24	6-2
Scale		Project No.	
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2024 PROJECT FUNDING REQUEST FORM

84

Number: 24040

Project Cost: \$22,400

Project Name: Markham Cycles

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Annual

Project Mgr: Fion Ho

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This program is to support, promote and encourage active transportation in Markham through community outreach and education. Through a partnership with The Centre for Active Transportation, the activities of this community bike hub provide a gathering place for residents and newcomers to explore and experience cycling in terms of equipment, maintenance needs, cycling safety and other basic cycling needs. In addition, initiatives such as Markham Cycles are recommended in the Active Transportation Master Plan to encourage cycling for short trips and cycling access to promote greater use of public transit.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	20,000	0	Markham Cycles has transitioned from The Centre for Active Transportation (TCAT) to Centre for Immigrant and Community Services (CICS) to continue providing service to Markham communities. The contribution from Markham will remain at \$20K. With 2 bike hub locations now (Milliken Mills and Centennial Community Centers), the operating costs are higher and the City share of the budget has increased by \$5K. 10% DC and 90% Non-DC Growth.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 10	2,000	0	
Sub Total:	22,000	0	
HST Impact:	387	0	
Total Project Cost:	22,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Phases
DCA	2,240	0	0	0	0	0	0
Non-DC Growth	20,160	0	0	0	0	0	0
TOTAL FUNDING	22,400				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in		Life Cycle
Name	Year	Amount Study	
Hard - Special Projects - Bike Lanes on Collector / Arterial Roads		2,240 3,690,232	Amount in Study: <input type="text"/>
TOTAL FUNDING		2,240 3,690,232	Amount Incl HST <input type="text"/>
			Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:			
<div></div>			

Markham Cycles Program Summary 2022-2023

Project Objective:

Markham Cycles is a community program with the goal of increasing cycling in Markham by removing barriers and building a cycling community.

Background:

Launched in July 2019, the Markham Cycles program was founded and led by The Centre for Active Transportation (TCAT) at Clean Air Partnership, a registered charity. Starting in 2024, it will be led by the Centre for Immigrant and Community Services (CICS), and long time Markham Cycles program partner.

With the first bike hub placed at the Milliken Mills Community Centre, the program included a number of activities such as bike loan, DIY bike repair, refurbishment of donated bikes, group rides and workshop for all ages. These activities are offered to residents at no charge. Markham Cycles also supports numerous community programs and events with the City of Markham, the Cycling & Pedestrian Advisory Committee, the Centre for Immigrant and Community Services, Markham Public Library, York Region District School Board and York Region.

In 2022, a second bike hub location was established at the Centennial Community Centre.

Program Benefits

1. **ACTIVE MARKHAM:** Increased physical activity facilitated through guided group rides
2. **GREENER MARKHAM:** Reduced driving and participants learned more about climate action
3. **EMPOWERED YOUTH:** 500+ youth engaged in the program, and 70+ were trained as mechanic assistants
4. **BIKES FOR ALL:** residents have more access to bikes and tools
5. **SUPPORT FOR CHANGE:** participants were supported to adopt cycling, more people feel confident and comfortable riding bikes.
6. **SKILLED MARKHAM:** residents were trained as mechanic assistants and cycling educators.



Programs & Metrics

The table below provides a summary of the programs offered by Markham Cycles, and participation statistics since 2019.

It is important to highlight that since the Covid-19 pandemic in early 2020, it has prompted increase in cycling. It also presented some challenges for community programming. Due to public health restrictions and closure of Milliken Mills Community Centre and Library, the 2020 and 2021 program were altered to continue provide cycling programming at limited capacity.

Community Programs	2019	2020	2021	2022	2023
Drop-In Bike Repair Session	Milliken Mills C.C.	Enterprise Blvd. & Saturdays in Park	Open Street & Saturdays in Park & Bike Hubs	Open Street & Bike Hubs	Markham Cycles Day & Bike Hubs
Workshops/ Webinar	• In-Person	• Online	• Online	• Hybrid	• In-Person
Guided Community Rides	•	X	X	•	•
Learn to Ride Sessions	•	X	X	X	X
Bike Loan (partnership with Markham Public Library)	•	X	X	•	•
Community Outreach	•	•	•	•	•
Bike Rescue & Donation	•	•	X	•	•

Program	Metrics	2019	2020	2021	2022	2023*
DIY Bike Repair Session/Pop-up Bike Booths	Number of sessions	32	17	10	32	7
	Number of visitors	321	627	122	406	141
	Number of bicycle repairs	193	340	45	449	117
Workshops and Webinars	Number of workshop	10	9	28	5	1
	Number of workshop attendees	84	780	973	65	20

Guided Community Rides	Number of community rides held	12	x	19	12	3
	Number of ride participants	164	x	142	115	40
Learn to Ride	Number of sessions	5	x	X	X	X
	Number of participants	41	x	X	X	X
Bike Loan Program	Number of bike loaned	135	x	304	392	99
School Programs	Number of sessions	10	x	9	7	4
	Number of participants (school booths)	483	x	172	181	90
	Number of participants (assemblies)	x	x	x	x	1500
Markham Cycles More	Number of participants	X	182	X	X	X
	Number of Submission	X	544	X	X	X
Bike Rescue	Number of bike fixed	5	82	84	90	27
Community Outreach (i.e. City events, Farmers Market, York Region Repair Café)	Number of sessions	14	x	31	11	2
	Number of participants	224	x	317	234	75
Overall Program Participation	Number of bike fixed	216	422	601	765	242
	Number of participants	1336	1407	1431	1558	1909
	Number of volunteers hours	400.5	452	457	800	155

* As of June 22, 2023.

Program Highlights of 2022 & 2023:

Markham Cycles continued to provide its core services to Markham residents as we continued to navigate through the changing Public Health guidelines around COVID-19 pandemic in 2022. And in 2023, the programming has expanded as restrictions have lifted and that many of the City programs and events have been re-instated. Here is a list of key achievements of the 2022/223 program:

- Continue the operations of two Bike Hubs (Milliken Mills C.C. & Centennial C.C.)
- Community bike booths at Markham Open Street, CICS, Markham Cycling Day and other City events
- Pop-up bicycle education and repair booth at 12 elementary schools during the 2022/2023 school year
- Provided support for the 2022 School Street Pilot at John McCrae P.S.
- Bike loan program offered at Markham Village Library
- “Earn Your Bike” program for newcomer youth at CICS
- Refurbished donated bicycles with volunteers
- Developed new Recycle to Ride program with York Region’s Circular Economy Initiative Fund to expand Bike Rescue program
- Convened more than 10 community bike hub operators from across Ontario to discuss best practices for supporting cycling culture
- On track to one again grow year over year overall program participation in 2023

Programming for 2024:

The Markham Cycles program will be transitioned and managed by the Centre for Immigrants and Community Services in 2024. The core services are anticipated to remain, and that the programming will continue to serve Markham communities. In 2024, Markham Cycles will continue:

- Operation of two community bike hubs at Milliken Mills and Centennial Community Centre
- Support Active School Travel and School Streets Pilot with YRDSB
- Opportunities to expand e-bike and pedal assist bikes in our fleet
- Opportunities to expand bike loan program at other library branches.





2024 PROJECT FUNDING REQUEST FORM

89

Number: 24041

Project Cost: \$16,800

Project Name: Markham Cycling Day Event

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Annual

Project Mgr: Fion Ho

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Requirement Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

The Annual Markham Cycling Day event is a major GTA cycling event and the largest in York Region, attracting participants from across the GTA. It includes events for children and cycling group rides of different distances. It is led by the Cycling and Pedestrian Advisory Committee with staff support. CPAC also helps to organize volunteers necessary to prepare and run the event.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

<u>PROJECT COSTS (\$)</u>	<u>2024</u>	<u>Future Phases</u>
Cost/Quote:	15,000	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 10	1,500	0
Sub Total:	16,500	0
HST Impact:	290	0
Total Project Cost:	16,800	0

NOTES

The project has a bigger budget with contribution from Markham \$15K and the rest will be funded from sponsorship. The event has moved to June to align with Bike Month and relocated to Markham Centre (Aviva Parking Lot). Due to growing demand and overall costs increase due to inflation, an increase budget of \$5k is added to the 2024 budget. 10% from DCA and 90% from Non-DC Growth.

SOURCE(S) OF FUNDING (\$)**Components**

<u>Funding Type</u>	<u>Budget</u>						<u>TOTAL</u>	<u>Future Phases</u>
DCA	1,680	0	0	0	0	0	0	0
Non-DC Growth	15,120	0	0	0	0	0	0	0
TOTAL FUNDING	16,800						0	0

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS**DCA****Name****Year****Amount****Amount in Study****Life Cycle**

Hard - Special Projects - Bike Lanes on Collector / Arterial Roads

1,680

3,690,232

Amount in Study: Amount Incl HST Year in the study **TOTAL FUNDING**

1,680

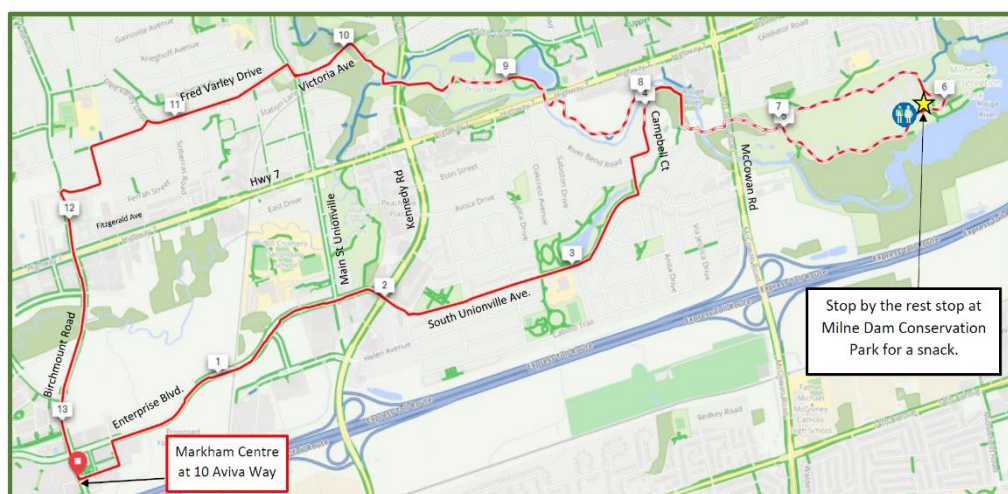
3,690,232

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Markham Cycling Day 2023: Event Overview

In 2023, the annual Markham Cycling Day returned as an in-person event since the COVID-19 Pandemic. The event was held on Sunday, June 13th, 2023, at Markham Centre (Aviva Parking Lot) from 8 AM to 1 PM. This signature cycling event included **3 Tour de Markham community rides** at 12km (family-friendly), 30km and 60km that welcomed cyclists with various cycling experiences, abilities and comfort levels.

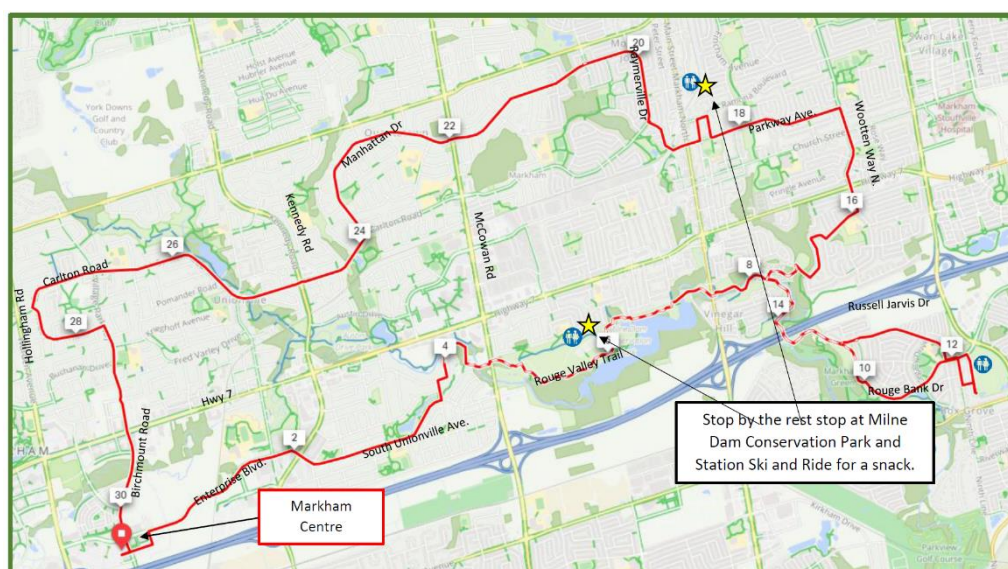
The 3 guided community rides took participants through various Markham landmarks, parks & trails and existing cycling facilities. This includes Markham Centre, Rouge Valley Trail, Aaniin Community Centre, John St. MUP, Lake-to-Lake Cycling Route and more. The 3 route maps are shown below.



12 KM Tour Route

Route Highlights:

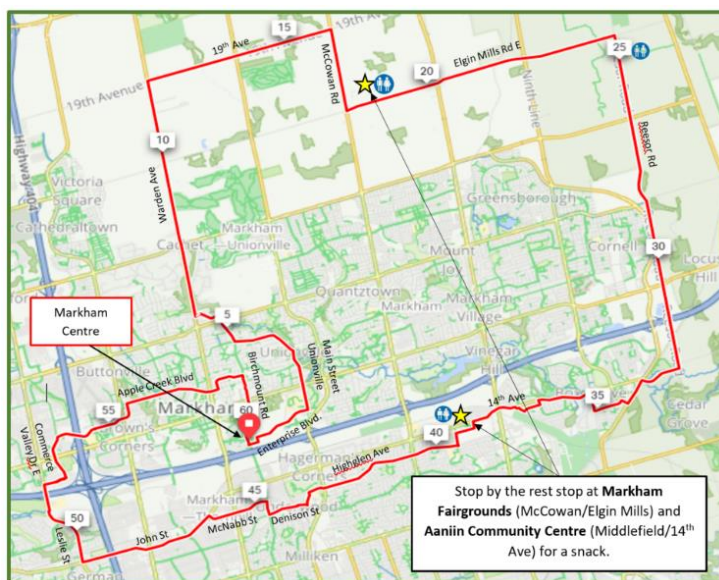
- Markham Centre
- Rouge Valley Trail
- Milne Dam Conservation Park
- Main Street Unionville



30 KM Tour Route

Route Highlights:

- Markham Centre
- Rouge Valley Trail
- Milne Dam Conservation Park
- Boxgrove Community Park



60 KM Tour Route

Route Highlights:

- Markham Centre
- Markham Fairground
- Aaniin Community Centre
- John Street MUP
- Lake to Lake Cycling Route
- Highway 404 Flyover



Another key feature of the event was the popular **Bicycles Races for Children ages 3 to 10** that took place at the main event site. Participants, who were assigned to individual race groups, engaged in a fun and safe bike course around the parking lot for a chance to win a gold, silver or bronze medal.



Markham Cycling Day event was supported by a number of local sponsors, community partners and various City of Markham departments who provided entertainment, refreshment, interactive games, bike repair services and more. With over 2000 participants in attendance (and sold-out registration), the event was a great success attracting many residents from and outside of Markham. Taken place in June, which coincided with BIKE MONTH, the event continues to promote and raise awareness of cycling in Markham.





2024 PROJECT FUNDING REQUEST FORM

93

Number: 24042

Project Cost: \$335,000

Project Name: Markham School Zone Safety Guideline

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Fion Ho

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project involves retaining a consultant to develop School Zone Safety Guidelines for the City. Building upon findings from the Active School Travel pilot, this study will evaluate and develop standard policies & procedures on various engineering measures targeting improved school zone safety and active school travel. Engineering measures include enhanced pavement markings, signage, parking and stopping restrictions, school crossing guards, pedestrian cross-overs (PXOs), in-road flexible signs and speed radar display boards. The goal is to have a consistent application of these measures at elementary and/or high school zones across the City. In addition, the study scope will include a data-driven annual multi-year implementation program to apply the measures across the City. Consultation with the public and key stakeholders, such as York Region District School Board, York Catholic School Board, and York Region, will be conducted to inform the development of the guidelines.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	0	0
Internal Charges:	27,225	0
External Consulting:	275,000	0
Contingency %: 10	27,500	0
Sub Total:	329,725	0
HST Impact:	5,324	0
Total Project Cost:	335,000	0

NOTES

Cost Validation: Based on similar citywide transportation studies, such as Active Transportation Master Plan and Citywide Parking Strategy.

Requirement Validation: development of School Zone Safety Guideline was part of the May 2023 Council approval of the "Active School Travel (AST) Pilot Results & Next Steps".

Study to commence in Q1 2024 and be completed by Q3 2025. 20% funded from DCA and 80% funded from Non-DC Growth.

SOURCE(S) OF FUNDING (\$)**Components**

Funding Type	Budget	TOTAL					Future Phases
DCA	67,000	0	0	0	0	0	0
Other Internal	268,000	0	0	0	0	0	0
TOTAL FUNDING	335,000				0	0	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Hard - Studies - Trans., Servicing, Enviro., Cycling, Traffic
Calming, Noise, Subwatershed, Erosion Study Update etc.

67,000

18,003,000

Amount in Study:

Amount Incl HST

TOTAL FUNDING

67,000

18,003,000

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

95

Number: 24043

Project Cost: \$441,900

Project Name: McCowan Road Culvert Replacement

Commission: Development Services

Repair/Replace

Department: Engineering

Useful Life: 0 Pre Approval: ☐

Project Mgr: TBD

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☒ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

In late 2013, the City acquired the lands legally described as part of Lot 28, Concession 6, Parcel ID 1067100 (the "Subject Property"), which is located west of McCowan Road, and approximately one (1) km north of the intersection of Elgin Mills Road and McCowan Road (Former Watson Farm Land). The estimated Regional storm event floodline (the "Floodline") within the vicinity of the Subject Property (estimated by the Toronto and Region Conservation Authority ("TRCA") traverses through the middle section of the Subject Property dissecting it almost into two (2) parts. Adjacent two (2) properties to the north of the Subject Property, owned by a owner affiliated with Fieldgate Developments, are also impacted by the Floodline. Development Services Committee meeting, dated May 25, 2020, authorized staff to work in collaboration with the Fieldgate to carry out the technical studies and detailed design of a new, enlarged culvert to replace the existing culvert located on McCowan Road, in order to reduce the amount of flooding within the City and the Fieldgate properties upstream of the culvert. Fieldgate is responsible to retain consultants to complete the technical studies, including detailed design and construction of the project, fulfilling the TRCA, Region of York and other agencies' requirements for both the City and Fieldgate lands. City staff will oversee the work of Fieldgate's consultant and share cost on a percentage basis of the overall benefits. Based on the preliminary estimate of the overall benefits to the City and Fieldgate lands, the City's share is 17.5% of the total project cost. The cost sharing percentages for the project could be changed subject to the completion of the detailed design. Based on a recent discussion with SCS, design will start later this year and finalize early next year. Construction is to begin summer of 2024 and should be completed by the end of 2024 if there are no delays. This was supposed to start this year but got delayed by Fieldgate. Staff plan to return to Council in the fall 2023 to update them with the new timeline. Cost is based on the Region of York review and comments provided on the estimated cost prepared by Fieldgate's consultant, SCS Consulting Group.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

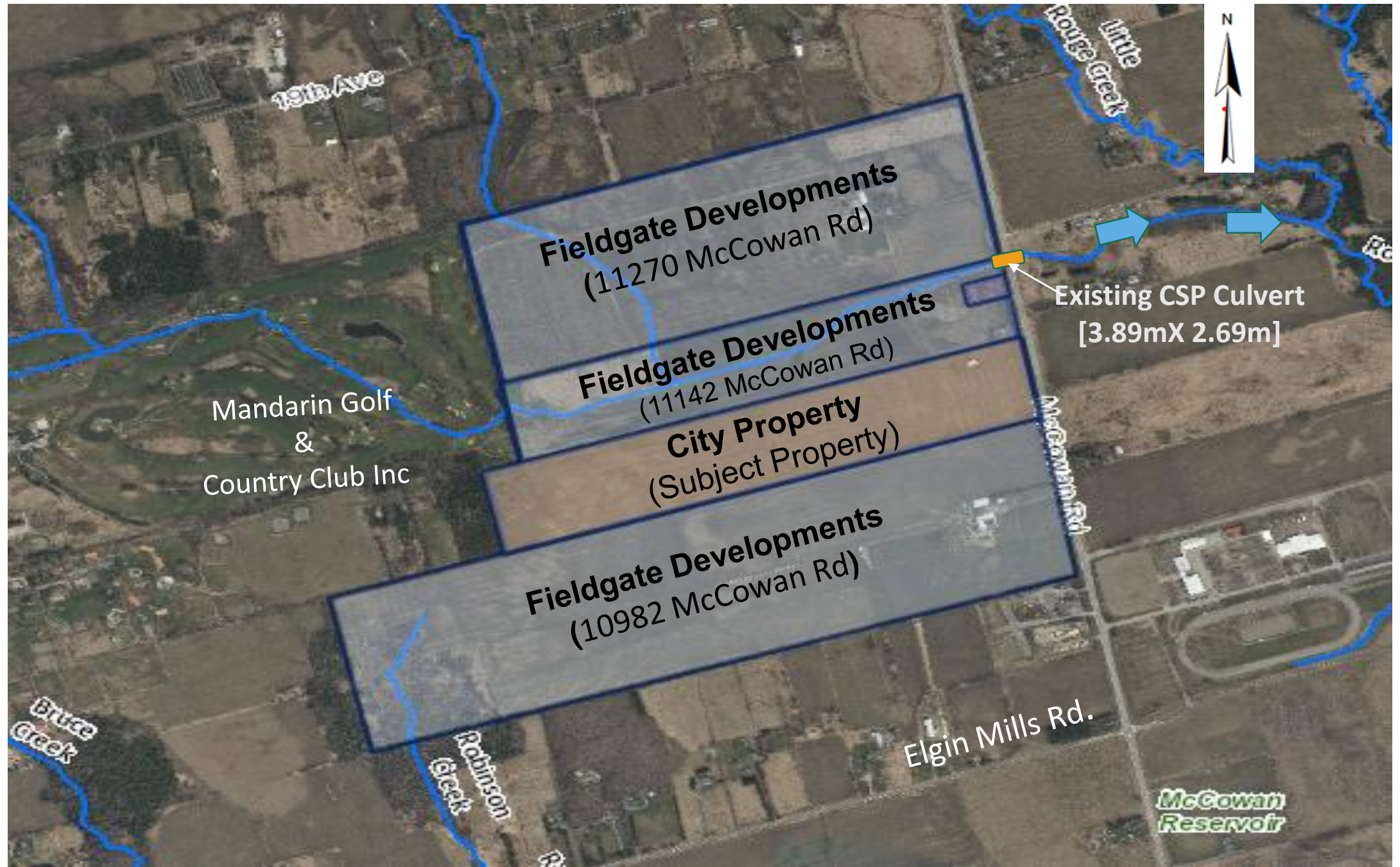
PROJECT COSTS (\$)			NOTES
2024	Future Phases		
Cost/Quote:	300,056	0	The estimated total cost is \$2,147,880. This will be cost-shared with Fieldgate based on the cost-sharing agreement and Council report; City's share is not significant. The Region of York will contribute \$433,275.00. The rest of \$1,714,605 will be shared between the City (17.5%) and Fieldgate (82.5%). So, the City's share is \$300,056.00. A contingency of \$90k (approx. 30%) is required since this is a construction project and the cost may change due to uncontrollable factors. The other internal is Land Acquisition reserve.
Internal Charges:	45,008	0	
External Consulting:	0	0	
Contingency %: 30	90,017	0	
Sub Total:	435,081	0	
HST Impact:	6,865	0	
Total Project Cost:	441,900	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Other Internal	441,900	0	0	0	0	0	0
TOTAL FUNDING	441,900					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

Attachment 'A' – Location Map





2024 PROJECT FUNDING REQUEST FORM

97

Number: 24044

Project Cost: \$365,500

Project Name: Mount Joy Creek Realignment Class EA

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Soran Sito

Cost Validation: Internal peer review

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☒
5 ☒ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The Mount Joy Secondary Plan, which is near completion, recommends realigning a portion of Mount Joy Creek mainly to alleviate table land flooding to support future land development and improve the natural Greenway system within the area. The City needs to get started with this required Class EA in 2024 to facilitate the realignment construction and the remediation/removal of the table land flooding.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	This EA fall under Schedule "B". Typically, a Schedule "B" EA could take up 18 to 24 months. Assuming it starts in early 2024, subject to budget approval, the Class EA should be completed before the end of 2025.
Internal Charges:	29,700	0	
External Consulting:	300,000	0	
Contingency %: 10	30,000	0	
Sub Total:	359,700	0	
HST Impact:	5,808	0	
Total Project Cost:	365,500	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	365,500	0	0	0	0	0	0
TOTAL FUNDING	365,500					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
Hard - Studies - Trans., Servicing, Enviro., Cycling, Traffic Calming, Noise, Subwatershed, Erosion Study Update etc.		365,500	18,003,000	Amount in Study: <input type="text"/>
TOTAL FUNDING		365,500	18,003,000	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				





2024 PROJECT FUNDING REQUEST FORM

99

Number: 24045

Project Cost: \$103,600

Project Name: National Active School Streets Initiative

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Fion Ho

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

8 80 Cities is working in collaboration with partners from across the country to develop an application to the Public Health Agency of Canada's Healthy Canadian and Communities Fund to accelerate the implementation of School Streets in communities from coast to coast. Markham was invited to participate in the proposal for the National Active School Street Initiative as a Pilot community. School Street aims to create a car-free environment in front of the school at the start and end of the day to prioritize safe, active travel conditions for children. If the City is successful in being selected as a community partner, the City will be provided with up to \$42,500 of funding to enable our participants to establish a National Community of Practice and support two pilot events, with one event per year per location. The project is broken down into 5 phases and will span between 2024 and 2027. Should the City not be selected for funding from this Federal funding program, this project will not proceed unless another third party funding can be secured.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	Cost Validation: Based on the previous School Street event with four days of road closure at John McCrae Public School. As part of the National Active School Street Initiative, the pilot community will host two School Streets with a target duration of one month per event. The total operating cost for these two pilot School Streets is approx. \$85,000. (50% split between the City (20% DCA/80% Non DC Growth) and Public Health Agency of Canada). Requirement Validation: This is an expansion of the school streets pilot as part of the Active School Travel Program.
Internal Charges:	8,415	0	
External Consulting:	85,000	0	
Contingency %: 10	8,500	0	
Sub Total:	101,915	0	
HST Impact:	1,646	0	
Total Project Cost:	103,600	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
DCA	10,360	0	0	0	0	0	0
Non-DC Growth	41,440	0	0	0	0	0	0
Other External	51,800	0	0	0	0	0	0
TOTAL FUNDING	103,600				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Hard - Studies - Trans., Servicing, Enviro., Cycling, Traffic
Calming, Noise, Subwatershed, Erosion Study Update etc.

10,360

18,003,000

Amount in Study:

Amount Incl HST

TOTAL FUNDING

10,360

18,003,000

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

101

Number: 24046

Project Cost: \$890,100

Project Name: New Traffic Signals (Construction)

Commission: Development Services

New Asset/Expansion

Department: Engineering

Useful Life: 0 Pre Approval: ☐

Project Mgr: Manzora Nero

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☒

Cost Validation: Other(specify in Notes)

5 ☒ 6 ☒ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Construction for new traffic signals at the following two intersections: (1) Bur Oak @ Williamson and (2) Bur Oak @ Country Ridge/Fred McLaren. The intersection work will also include civil works to incorporate design elements as per the Accessibility for Ontarians with Disabilities Act (AODA). Traffic signals are recommended by staff in order to improve intersection safety and operations, and accommodate future growth needs. Detailed design to be commence in June 2024 and to be completed December 2024.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	These intersections meet the Provincial criteria to warrant traffic signals. Total costs specified in the DCA Study is identified for each intersection, listed under "Intersection Improvements": Bur Oak/Williamson (Future Signalized Intersections (4) at Greensborough); and Bur Oak @ Country Ridge/Fred McLaren (Future Signalized Intersections (7) at Wismer). Tender to be issued by December 2024, Construction to commence in April 2025 and to be completed by Sept 2025.
Internal Charges:	72,330	0	
External Consulting:	730,609	0	
Contingency %: 10	73,061	0	
Sub Total:	876,000	0	
HST Impact:	14,145	0	
Total Project Cost:	890,100	0	

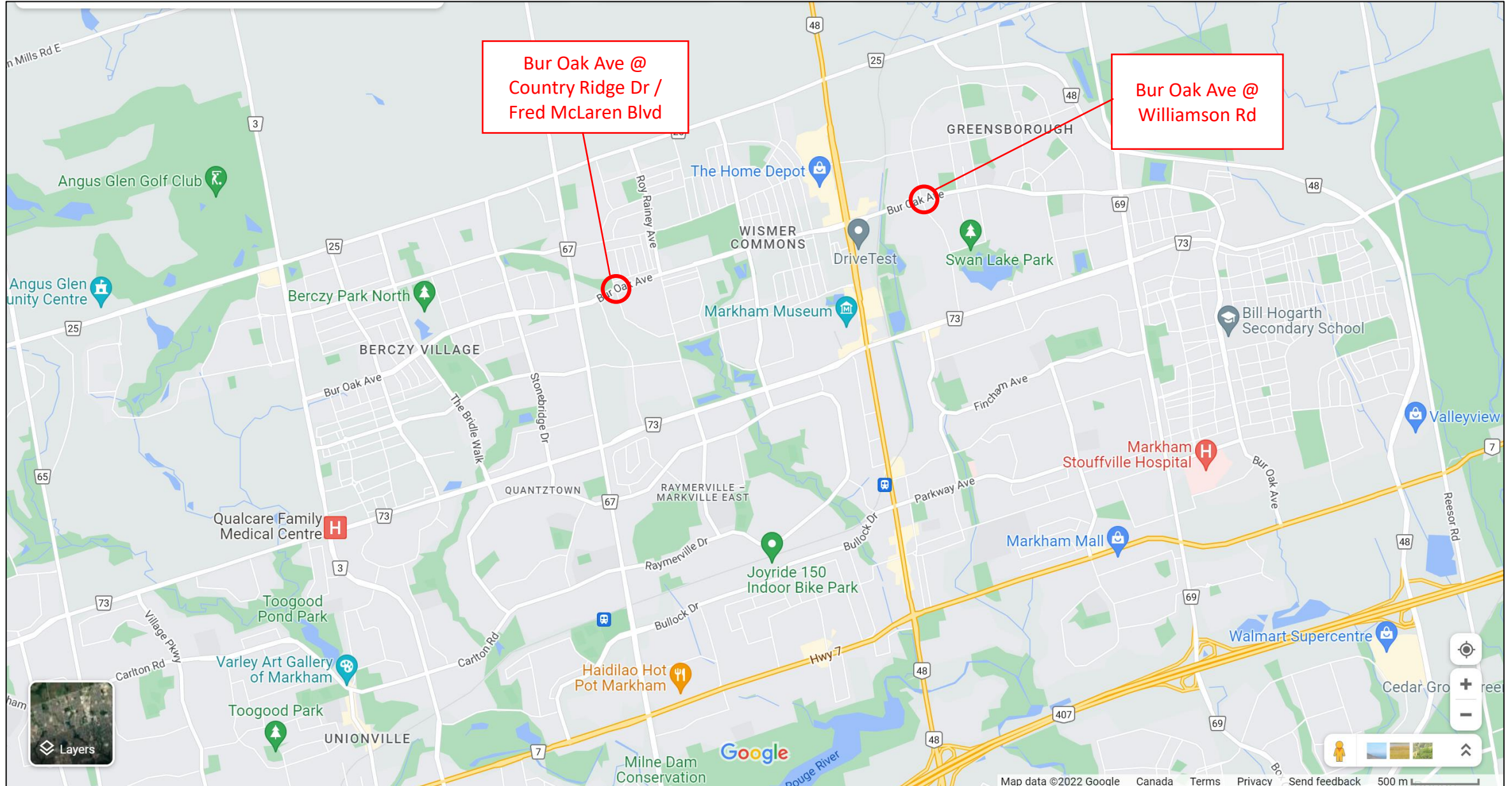
SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	890,100	0	0	0	0	0	0
TOTAL FUNDING	890,100					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
Hard - Intersection - Future Signalized Intersections (4)		442,330	1,352,219	Amount in Study: <input type="text"/>
Hard - Intersection - Future Signalized Intersections (2)		447,770	685,110	Amount Incl HST <input type="text"/>
TOTAL FUNDING		890,100	2,037,329	Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

2024 New Traffic Signals (Construction)





2024 PROJECT FUNDING REQUEST FORM

103

Number: 24047

Project Cost: \$158,400

Project Name: New Traffic Signals (Design & Construction Administration)

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Minor

Project Mgr: Manzora Nero

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Other(specify in Notes)

5 ☒ 6 ☒ 7 ☒ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Design and construction administration costs for new traffic signals at the following three intersections: (1) Bur Oak @ Donald Sim, (2) Bur Oak @ Emery Hill/Hillwood and (3) Kirkham @ New Delhi. These intersections meet the MTO criteria to warrant traffic signals and are therefore recommended by staff in order improve intersection safety, operations and accommodate future growth needs. The intersection will also include civil works to incorporate design elements as per the Accessibility for Ontarians with Disabilities Act (AODA). Design is to be completed in 2024; budget request for construction to be submitted for 2025.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	0	900,000
Internal Charges:	12,870	89,100
External Consulting:	130,000	0
Contingency %: 10	13,000	90,000
Sub Total:	155,870	1,079,100
HST Impact:	2,517	17,424
Total Project Cost:	158,400	1,096,500

NOTES

Total costs specified in the DCA Study is identified as follows for each intersection, listed under "Intersection Improvements": Bur Oak/Emery Hill/Hillwood (Future Signalized Intersections (5) at Berczy); Bur Oak @ Donald Sim (City-wide Intersection Pedestrian Signal); and Kirkham @ New Delhi (City-wide Intersection Improvements). Project is 100% funded through DC Study.

SOURCE(S) OF FUNDING (\$)**Components**

Funding Type	Budget						TOTAL	Future Phases
DCA	158,400	0	0	0	0	0	0	1,096,500
TOTAL FUNDING	158,400						0	1,096,500

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Hard - Intersection - Future Signalized Intersections (5)		52,800	1,685,774
Hard - Intersection - City-wide Interesection Pedestrian Signal (Lump Sum) - 10		52,800	2,300,217
Hard - Intersection - City-wide Intersection Improvements		52,800	1,685,774
TOTAL FUNDING		<u>158,400</u>	<u>5,671,765</u>

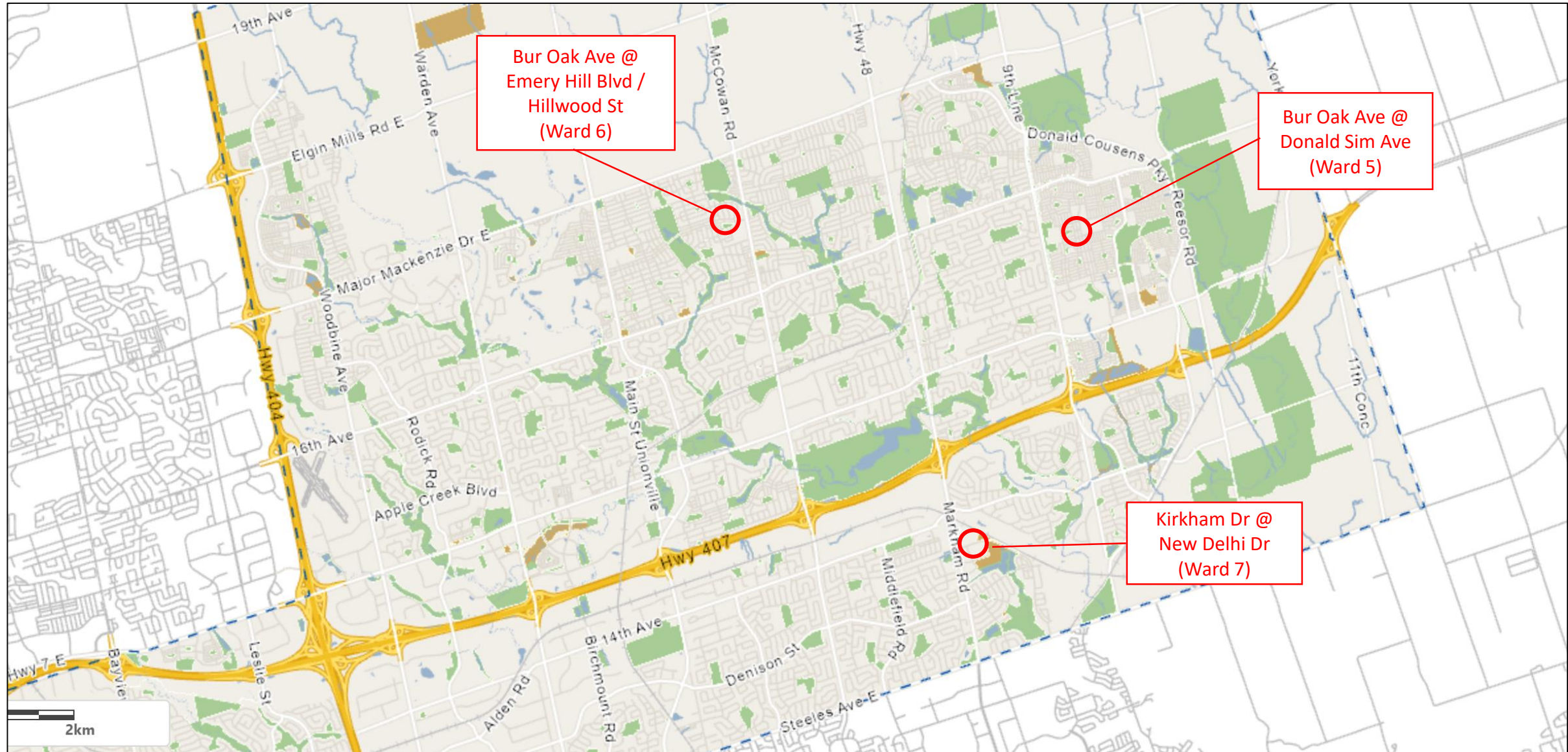
Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2024 New Traffic Signals (Design)





2024 PROJECT FUNDING REQUEST FORM

106

Number: 24048

Project Cost: \$347,200

Project Name: Pedestrian Cross-Over (PXO) Design & Construction

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Annual

Project Mgr: Manzora Nero

Cost Validation: Other(specify in Notes)

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

The objective of this project is to prepare a detailed design and construct a formal pedestrian crossover (PXO) at Village Parkway north of Wentworth Court. This location meets the Provincial warrant criteria for the implementation of a PXO. Project includes feasibility review of appropriate PXO treatment, photometric review of streetlights, electrical design for streetlights and PXO equipment, pavement marking and signage recommendations, arborist review of impacted trees, necessary civil work required to comply with the AODA, development of project tender specifications and detailed construction cost estimate.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

<u>PROJECT COSTS (\$)</u>	<u>2024</u>	<u>Future Phases</u>
Cost/Quote:	125,000	0
Internal Charges:	28,215	0
External Consulting:	160,000	0
Contingency %: 10	28,500	0
Sub Total:	341,715	0
HST Impact:	5,518	0
Total Project Cost:	347,200	0

NOTES

Project costs include detailed design (\$25k) and associated full time contract administration (\$80k) and site inspection (\$55k), and (\$125k) for construction. Design anticipated to commence in April 2024 and completed by July 2024. The Construction to commence in Sept 2024 and to be completed by Jun 2025.

SOURCE(S) OF FUNDING (\$)**Components**

<u>Funding Type</u>	<u>Budget</u>	<u>TOTAL</u>					<u>Future Phases</u>
DCA	225,680	0	0	0	0	0	0
Non-DC Growth	60,760	0	0	0	0	0	0
Other Internal	60,760	0	0	0	0	0	0
TOTAL FUNDING	347,200				0	0	0

<u>OPERATING BUDGET IMPACT</u>	<u>Personnel</u>	<u>Non Personnel</u>	<u>Revenues</u>	<u>Expenditures/(Revenues)</u>
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Hard - Special Projects - City-wide Street Safety and Traffic
Calming, various locations

225,680

3,964,174

Amount in Study:

Amount Incl HST

TOTAL FUNDING

225,680

3,964,174

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

108

Number: 24049

Project Cost: \$1,679,000

Project Name: Residential Infill Service Connections

Commission: Development Services

New Asset/Expansion

Department: Engineering

Useful Life: 0 Pre Approval: ☐

Project Mgr: Norman Li

Category: Annual

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

The installation of new water, sanitary, and storm service connections are required when homeowners apply for residential infill permits, and when upgrades or repairs are required to the existing service connections in accordance with the City's sewer use by-law. On average the City processes approximately 100 requests for new service connections per year.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

<u>PROJECT COSTS (\$)</u>	<u>2024</u>	<u>Future Phases</u>
Cost/Quote:	1,500,000	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 10	150,000	0
Sub Total:	1,650,000	0
HST Impact:	29,040	0
Total Project Cost:	1,679,000	0

NOTES

The installation of new water, sanitary, and storm connections are required during most new residential infill home construction projects since most of these projects are larger than the existing homes. The condition of the existing service connections are assessed during the permit application process and are typically deemed to be either too small or in need of replacement. The budgeted amount is fully recoverable from homeowners/builder on infill developments.

SOURCE(S) OF FUNDING (\$)**Components**

<u>Funding Type</u>	<u>Budget</u>						<u>TOTAL</u>	<u>Future Phases</u>
Other External	1,679,000	0	0	0	0	0	0	0
TOTAL FUNDING	1,679,000						0	0

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS**DCA**

Name

Year

Amount

Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

109

Number: 24051

Project Cost: \$335,000

Project Name: Rouge Valley Trails Phase 4B Property Acquisition

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Lily Li

Cost Validation: Other(specify in Notes)

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☒ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Property acquisition and occupation agreements required for the Rouge Valley Trail Phase 4B Project within private and crown lands. This budget request is for the Property Acquisition as well as to initiate the property acquisition work (i.e. ESA, legal agreements, etc.). The proposed budget does not include any expropriation cost. If required, staff will prepare a separate report to Council.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	275,000	3,900,000	Design is at 30% and to be completed by September 2024. Staff has initiated the property acquisition discussion with the Landowners. Property Acquisition requests typically takes 12-18 months. Information regarding the approximate area/limit of lands that will be required to facilitate the construction of the project have been provided to Real Property. Future Phases is a high level cost estimate for construction which is anticipated for mid-2025. This is the final phase to be constructed as a part of the Rouge valley trail system.
Internal Charges:	27,225	416,988	
External Consulting:	0	312,000	
Contingency %: 10	27,500	421,200	
Sub Total:	329,725	5,050,188	
HST Impact:	5,324	81,544	
Total Project Cost:	335,000	5,131,700	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	335,000	0	0	0	0	0	5,131,700
TOTAL FUNDING	335,000					0	5,131,700

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
Hard - Properties Acquisition - Roads & Structures - City-wide Land Acquisition (Roads)		335,000	9,419,250	Amount in Study: <input type="text"/>
TOTAL FUNDING		335,000	9,419,250	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Markham Rouge Valley Trail

Completed Sections			
2013/2014	3.1km	3 ped bridges	
2016/2017	3.5km	3 ped bridges	
2017/2018	1.5km	3 ped bridges	
2019/2020	1.0km	1 ped bridge	
Phase 4B	2.0km	1 ped bridges	

LEGEND

Parks

River

Shopping Precinct

School

GO Station

Existing Multi-Use Paths

Completed Trail

Future Trail

New Entry Node

Underpass

ENTRY NODE 3-3

LIMESTONE TRAIL (500M)

ASPHALT TRAIL (80M)

LIMESTONE TRAIL (740M)

BOARDWALK 3-3

ENTRY NODE 3-4

LIMESTONE TRAIL (220M)

BRIDGE 3-5

LIMESTONE TRAIL (670M)

RETAINING WALL 3-3

PEDESTRIAN CROSSING

ENTRY NODE 3-3

LIMESTONE TRAIL (500M)

ASPHALT TRAIL (80M)

LIMESTONE TRAIL (740M)

BOARDWALK 3-3

ENTRY NODE 3-4

LIMESTONE TRAIL (220M)

BRIDGE 3-5

LIMESTONE TRAIL (670M)

RETAINING WALL 3-3

PEDESTRIAN CROSSING

Date: Revised March 23, 2021



2024 PROJECT FUNDING REQUEST FORM

111

Number: 24052

Project Cost: \$4,505,500

Project Name: Sidewalk Program (Construction)

Commission: Development Services

New Asset/Expansion

Department: Engineering

Useful Life: 0 Pre Approval: ☐

Project Mgr: Dereje Tafesse

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

To complete the construction of new sidewalk in various areas within the City to provide pedestrian access and link to the City sidewalk network. The design of these section will be completed by December 2023. The list of locations in attached with this budget form.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

<u>PROJECT COSTS (\$)</u>	<u>2024</u>	<u>Future Phases</u>
Cost/Quote:	3,314,000	0
Internal Charges:	366,102	0
External Consulting:	384,000	0
Contingency %: 10	369,800	0
Sub Total:	4,433,902	0
HST Impact:	71,593	0
Total Project Cost:	4,505,500	0

NOTES

Tender to be released in Apr 2024 and construction be completed by December 2025. Community consultation has been completed. The estimated construction cost is derived from consultant estimates and staff input. Estimated total length of sidewalk 4.8km. Utility relocation is part of this request. 65% funded from DCA, 17.5% funded from Non-DC Growth and 17.5% funded from CBC.

SOURCE(S) OF FUNDING (\$)**Components**

<u>Funding Type</u>	<u>Budget</u>						<u>TOTAL</u>	<u>Future Phases</u>
DCA	2,928,576	0	0	0	0	0	0	0
Non-DC Growth	788,462	0	0	0	0	0	0	0
Other Internal	788,462	0	0	0	0	0	0	0
TOTAL FUNDING	4,505,500						0	0

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
\$0	\$37,975	\$0	\$37,975

DCA/LIFE CYCLE DETAILS**DCA****Name****Year****Amount****Amount in Study****Life Cycle**

Amount in Study:

Hard - Sidewalks - Sidewalk Gapping Program

2,928,576

22,421,418

Amount Incl HST

TOTAL FUNDING

2,928,576

22,421,418

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

List of Sidewalk (Construction) Locations

#	Road Section	Ward	Length (m)
1	Cochrane Dr. (Perth Ave to Cochrane Dr)	8	1650
2	Commerce Valley Dr W (Leslie Ave to Hwy 7)	8	650
3	14th Ave (100m west of Markham Rd to Markham Rd)	7	100
4	Carlton Rd (Warden Ave to Braitewaite Rd)	3	460
5	Heritage Rd (McCowan to Laidlaw)	4	585
6	McIntosh Dr (Woodbine Ave to Apple Creek Dr)	2	440
7	Rivera Dr (Rodick to 14th Ave)	8	900



2024 PROJECT FUNDING REQUEST FORM

113

Number: 24053

Project Cost: \$76,300

Project Name: Smart Commute Markham-Richmond Hill

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Annual

Project Mgr: Fion Ho

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Markham is a founding member and funding partner of Smart Commute Markham-Richmond Hill. Other funding partners include the York Region and the City of Richmond Hill. Smart Commute Markham-Richmond Hill offers services and programs to local employers and their employees to reduce the use of private cars in commuting to and from work. Alternative modes include carpooling, transit incentives, cycling, telework, emergency ride home program and more.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	75,000	0	This is an annual program that relies on all three funding partners contributing our mutually agreed-upon share for the annual operation of Smart Commute Markham-Richmond Hill.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	75,000	0	
HST Impact:	1,320	0	
Total Project Cost:	76,300	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	76,300	0	0	0	0	0	0
TOTAL FUNDING	76,300					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
Hard - Special Projects - Travel Demand Management		76,300	3,396,182	Amount in Study: <input type="text"/>
TOTAL FUNDING		76,300	3,396,182	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Anticipated work plan for 2024 (requested by City of Markham)*

**To be finalized with York Region and City of Markham & Richmond Hill*

1. TDM resources plan for community and Smart Commute workplaces:

- Custom workplace commute guide (on-going by request) – delivered to SCMRH workplaces featuring commuter related resources including: nearby transit stops, bike infrastructure connecting to the premise, carpool programs, and sustainable commuting amenities and end of facility / services available;
- Telework Webinar Series (on-going by request) – aims to deliver resources and information on telework tips and best practices, creating a home office and how to stay active while teleworking;
- SmartCommute.ca Champions How-To Guide – a guide targeted towards SCMRH Workplace Champions to assist them with navigating the SmartCommute.ca App. Topics will cover ridematching, Emergency Ride Home module and back-end administrative functions of the app.

2. TDM Programs and other activities:

- Personalized Travel Planning – route planning session (in-person or virtual) to provide assistance for commuters/ employees using the SmartCommute.ca App to explore non-SOV commuting options;
- SmartCommute.ca App Demo – provide an in-person or virtual demonstration of the App which offers an advanced online platform to help commuters explore alternative commute options, trip planning, ride-matching, take part in commuter contests and track their sustainable impact;
- Cycling 101 Webinar Series – encourages cycling in the community, participation in Bike to Work Day, and promotion of the Bike Month Challenge;
- Carpool Speed Mingling – facilitates ride matching (in-person or virtual) among participants using the SmartCommute.ca App to explore potential ride sharing;
- Transit webinar – highlights transit safety, new transit routes, new transit infrastructure in York Region and multi-modal options;
- “Beyond Steps” Summer/Fall Step Challenge – a custom workplace / community step challenge which provides support including: online step challenges, custom maps to explore and learn about local walking trails and aims to encourage active transportation in the community;
- Comprehensive Workplace Travel Survey – determines effective strategies to develop custom TDM programs for SCMRH workplaces (included in the enhanced services). The survey helps to understand where workplace employees are traveling from, how willing they are to try alternative modes of travel and the kinds of support and incentives they may need to change their travel behaviour;

3. Annual events/campaigns:

- Spring into Cycling (May) – cycling photo contest aimed towards workplace employees and the Markham and Richmond Hill communities. Participants are encouraged to ride their bike to work, recreation or errands for a chance to win prizes;
- Bike to Work Day (early June - TBD) – in-person cycling group ride partnered with local workplaces to kickstart Bike Month in June. This event is workplace focused and aims to promote cycling to and from work, exploring local municipalities, bike infrastructure and mobility hubs. The campaign will be under review to be greenlit based on SCMRH sponsors and partners;
- Bike Day (early June - TBD) – a collaboration with York Region, York Region TMAs and local municipalities to run a contest to encourage biking in the community to kick off Bike Month. Tabling at local municipalities / Region offices to provide support (cycling maps, bike-related swag) to employees who like to learn more about local cycling infrastructure;
- SmartTrips Summer Challenge (Aug) – a multi-modal photo contest for employees and residents of Markham and Richmond Hill to partake in. Participants are encouraged to try various modes of sustainable transportation within Markham or Richmond Hill for a chance to win prizes;
- Walktober (Oct) – a walking challenge utilizing the SmartCommute.ca App to track walking trips made throughout the month of October. Workplace employees and the Markham and Richmond Hill communities will be invited to take part and challenge themselves to walk to their destinations for work, recreation or errands;
- Regional Smart Commute campaigns: Winter Commute Month (Feb), Bike to Work Day (May), Bike Month (June - Cycle TO), Smart Commute Month (Sept);

4. Community / School based TDM:

- Active School Travel - collaborate with the City of Markham, City of Richmond Hill, YRDSB, YRCDSB, YRPH and Regional SC TMAs to promote and deliver programming for Active School Travel pilots;
- Work with CPAC (COM) / CEEP (RH) to promote cycling in the community;
- On-going partnerships with municipalities, land developers and property management corporations to deliver TDM services for new / existing developments and relocation projects for implementing TDM measures to mitigate and reduce SOV and parking demand.

5. TDM Recruitment:

- Collaboration with York Region and other TMAs to plan a Smart Commute roadshow to promote Smart Commute TDM programs and services to prospective workplaces and to re-engage previous Smart Commute workplaces. The roadshow will deliver York Region Smart Commute brochures, schedule tabling events, sustainable travel resource distribution and working with local partners (e.g. bike shop, York Region Transit, etc.) for outreaches at workplaces and the wider community, Smart Commute.ca App demos, transit promotion and bike safety checks;
- Continue providing TDM consultation to land developers/property management companies to fulfill municipalities' TDM requirements for development applications.

6. SmartCommute.ca App

The SmartCommute.ca App (www.smartcommute.ca) is an online platform and mobile app that allows users to:

- Find a carpool match
- Plan and track your carpool, transit, walking and cycling trips
- Join a network of GTHA commuters through your workplace or organization
- Take advantage of program benefits including workplace travel support

SCMRH estimates the following for 2024:

- 60 - 80 new members to register*
- 300 - 400 sustainable trip logs*

*Estimates are based on 2023 data collected from the SmartCommute.ca App.

7. Carpool Parking Pass Program (CPPP)

The CPPP provides a platform for Smart Commute workplaces to monitor carpool usage, collect data and track impact of carpooling. The program helps workplaces mitigate parking issues and assists employees with exploring workplace travel alternatives.

This program is often requested by new developments seeking to fulfill the City's TDM requirements to implement carpool parking for their clients.

Due to COVID-19, the CPPP has slowly been re-introduced to existing workplaces starting 2023 as employees are returning to the office.

SCMRH estimates the following for 2024:

- 8 – 16 new users or renewals*
- 4 – 8 newly formed or renewed carpool groups*

*Estimates are based on 2023 CPPP data with consideration for COVID-19.

8. Communications Planned for 2024

Mode of Communication	Frequency/number of postings
E-newsletter – direct workplace employees and community	Quarterly (Winter, Spring, Summer and Fall) to 1,836 SCMRH subscribers
Facebook, Twitter, Instagram and YouTube posts	3 - 4 posts per week 2 videos per year
Commuter-related blog posts	20 - 30 posts per year
Website updates (campaigns, webinars, blogs, etc.)	On-going updates per year
Advisory committee meetings or updates (provides feedback and guidance on TDM programming)	Quarterly



2024 PROJECT FUNDING REQUEST FORM

118

Number: 24054

Project Cost: \$243,700

Project Name: South Unionville Ave Pavement Marking & Signage

Commission: Development Services

Repair/Replace

Department: Engineering

Useful Life: 0

Pre Approval: ☐

Project Mgr: Justin Chin

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Visual inspection

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Project scope includes the implementation of improved pavement markings and signage on South Unionville Avenue. Existing configuration of pavement markings, including the on-road bicycle lanes and parking lay-bys, is sub-standard and presents a risk to road user safety. This project will implement the finalized pavement marking and signage plan that was developed in 2023, including improved bike lane alignment and separation (painted) from the adjacent travel lanes and lay-by parking, where road width can accommodate.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

<u>PROJECT COSTS (\$)</u>	<u>2024</u>	<u>Future Phases</u>
Cost/Quote:	200,000	0
Internal Charges:	19,800	0
External Consulting:	0	0
Contingency %: 10	20,000	0
Sub Total:	239,800	0
HST Impact:	3,872	0
Total Project Cost:	243,700	0

NOTES

Revised pavement marking and signage plan to be completed by summer 2023. Project cost validated by referencing recent tenders of a similar scope. Funding is 20% DC and 80% Non DC Growth.

SOURCE(S) OF FUNDING (\$)**Components**

<u>Funding Type</u>	<u>Budget</u>	<u>TOTAL</u>					<u>Future Phases</u>
DCA	48,740	0	0	0	0	0	0
Non-DC Growth	194,960	0	0	0	0	0	0
TOTAL FUNDING	243,700				0	0	0

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS**DCA****Name****Year****Amount****Amount in Study****Life Cycle**

Hard - Studies - Trans., Servicing, Enviro., Cycling, Traffic Calming, Noise, Subwatershed, Erosion Study Update etc.

48,740 18,003,000

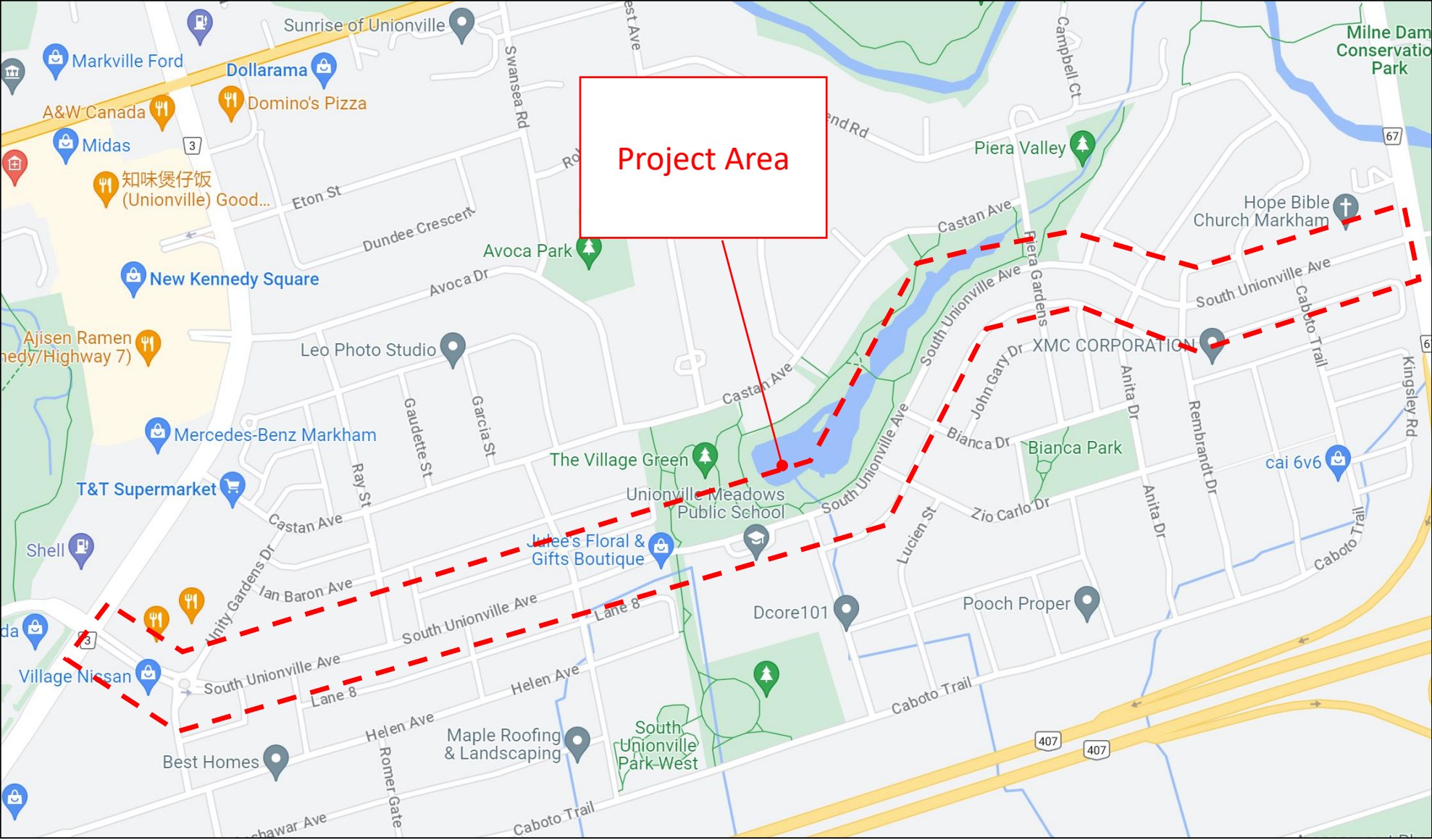
Amount in Study: **TOTAL FUNDING**

48,740 18,003,000

Amount Incl HST Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

South Unionville Ave Pavement Marking & Signage Improvements





2024 PROJECT FUNDING REQUEST FORM

120

Number: 24055

Project Cost: \$75,100

Project Name: Streetlighting Peer Review

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: David Huynh

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Peer review of the streetlighting plan includes verification of photometric analysis using computer software (AGI32) on each submission, when designing or retrofitting model shows sign of deficiency (minor incompliance) that it does not meet the City of Markham streetlighting design standard. Peer review provides Subject-Matter-Expert (SME) recommendation to the City reviewer staff on the direction to take, on each street lighting submission case-by-case basis.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	The review and approval of streetlighting design package for the new development applications, or package in request for acceptance/ assumption, is in reliance upon the professional skill and ability of the Applicant's Engineer. When peer review is required due to minor incompliance in design or in retrofitting, the cost for peer review is 100% recoverable from the Applicant's payment for engineering reviewing fee. Note: \$5,500 was part of 2023 capital in-year additions.
Internal Charges:	0	0	
External Consulting:	67,086	0	
Contingency %: 10	6,709	0	
Sub Total:	73,795	0	
HST Impact:	1,299	0	
Total Project Cost:	75,100	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	Future Phases
Other External	75,100	0	0	0	0	0	0
TOTAL FUNDING	75,100					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

121

Number: 24056

Project Cost: \$94,700

Project Name: SWM Guidelines Update

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Minor

Project Mgr: Abdullah Hossain

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

The City's SWM Guidelines is outdated and almost 7 years old (2016). Many important changes in SWM has occurred since the last update including underground SWM facilities, CLI ECA by MECP, LIDs, hydrology and hydraulic modeling requirements by the TRCA, Bill 23, etc. This update is important to guide future developments in Markham with updated criteria and guidelines. This Update and current SWM guidelines supports all of the development and growth in Markham. This update is required because of the following two important items:

- 1- Engineering standards and criteria for underground SWM facilities which is becoming more needed for new development and support growth,
- 2- The Consolidated Environmental Compliance (CLI ECA) by MECP is revamping the whole process for submission of environmental applications including SWM facility design and monitoring requirements and standards and this need to be incorporated in the updated SWM guideline.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	0	0
Internal Charges:	7,697	0
External Consulting:	77,750	0
Contingency %: 10	7,775	0
Sub Total:	93,222	0
HST Impact:	1,505	0
Total Project Cost:	94,700	0

NOTES

The plan is to start this update as early as possible in 2024, subject to budget approval by early 2024. The project will need 2 years to complete, so it should be finalized by the end of 2025, assuming no delays or issues.

SOURCE(S) OF FUNDING (\$)**Components**

Funding Type	Budget	TOTAL					Future Phases
DCA	94,700	0	0	0	0	0	0
TOTAL FUNDING	94,700				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Hard - Studies - Trans., Servicing, Enviro., Cycling, Traffic
Calming, Noise, Subwatershed, Erosion Study Update etc.

94,700

18,003,000

Amount in Study:

Amount Incl HST

TOTAL FUNDING

94,700

18,003,000

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

123

Number: 24057

Project Cost: \$426,500

Project Name: Traffic Assets Replacement

Commission: Development Services

Repair/Replace

Department: Engineering

Useful Life: 5

Pre Approval: ☐

Project Mgr: Alina Zhang

Category: Annual

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Internal peer review

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Replacement of existing Traffic Assets, as identified in the Traffic Life Cycle Reserve Study and in-field conditions assessment. Project includes replacement of various traffic signal system components and speed monitoring equipment. List of affected locations and respective assets to be replaced is attached. Project to be tendered summer 2024, with project to be completed by end of 2024 construction season.

Based on 2023 life cycle update (expected life of assets vary between 5- 30 years) and condition assessment.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	381,000	0	Work includes: audible pedestrian push buttons and CCU's at 8 intersections (\$96.2k); traffic controller cabinets at 2 intersections (\$54k), cabinet wraps at 2 intersections (\$2k), LED replacements at 4 intersections (\$20.2k); emergency pre-emption detectors at 12 intersections (\$38.7k) & detector cards at 12 intersections (\$50.4k); a flasher controller at 1 intersection (\$1k); vehicular pole assemblies at 2 intersections (\$33.6k); speed radar boards (\$52.5k); signal heads at 2 intersections (\$25k) and solar panels (\$7.4k). Cabinet wraps for traffic controller cabinets to be funded and completed by Operations.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 10	38,100	0	
Sub Total:	419,100	0	
HST Impact:	7,376	0	
Total Project Cost:	426,500	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	426,500	0	0	0	0	0	0
TOTAL FUNDING	426,500					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 546,200
				Amount Incl HST 426,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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Asset to Replace	Intersection
APS CCU	Birchmount Rd. & Denison St.
	Bur Oak Ave. & Mingay Ave.
	Main St. Markham - approx. 60m north of Wilson St.(Mid-block ped. signal)
	Main St.Markham & Centre St.
	Main St.Markham & Robinson St.
	Rodick Rd. & 14th Ave.
	South Town Centre Blvd & Cedarland Drive
	South Town Centre Blvd & Clegg Road
APS Station	Birchmount Rd. & Denison St.
	Bur Oak Ave. & Mingay Ave.
	Main St. Markham - approx. 60m north of Wilson St.(Mid-block ped. signal)
	Main St.Markham & Centre St.
	Main St.Markham & Robinson St.
	Rodick Rd. & 14th Ave.
	South Town Centre Blvd & Cedarland Drive
	South Town Centre Blvd & Clegg Road
Controller	Denison St. & Middlefield Rd
	Denison St. & Townley Ave.
Detector Card	Apple Creek Blvd. & Hollingham Rd./Town Centre Blvd.
	Apple Creek Blvd. & John Button Blvd.
	Bur Oak Ave. & Mingay Ave.
	Denison St. & Middlefield Rd
	Denison St. & Old Kennedy Rd./Fresno Crt.
	Denison St. & Victoria Park Ave.
	John St. & Steelcase Rd.
	Main St.Markham & Centre St.
	Main St.Markham & Princess St./James Scott Rd.
	Rodick Rd. & 14th Ave.
	South Town Centre Blvd & Cedarland Drive
	South Town Centre Blvd & Clegg Road
Flasher Controller	Esna Park Dr. & IBM - PXO
LED Indications	Birchmount Rd. & Aviva Way
	Church St. & Country Glen Rd.
	Main St Markham & Bullock Dr
	Rodick Rd. & Miller Ave.
Pole Assembly - Pedestrian	Denison St.& Coxworth Ave.
Pole Assembly - Vehicle	Denison St. & Clayton Dr.
	Denison St.& Coxworth Ave.
	Main St & Ramona Blvd
	Main St Markham & Bullock Dr
Pre-emption Detector	Apple Creek Blvd. & Hollingham Rd./Town Centre Blvd.
	Apple Creek Blvd. & John Button Blvd.
	Bullock Dr. & Snider Dr.
	Bur Oak Ave. & Mingay Ave.
	Denison St. & Middlefield Rd
	Denison St. & Old Kennedy Rd./Fresno Crt.
	Denison St. & Victoria Park Ave.
	John St. & Steelcase Rd.
	Main St.Markham & Princess St./James Scott Rd.
	Rodick Rd. & 14th Ave.
	South Town Centre Blvd & Cedarland Drive
	South Town Centre Blvd & Clegg Road
Signal Heads	Birchmount Rd.& McNabb St./Micro Ct.
	Denison St. & Gorvette Rd./Milliken Meadows Dr.
Speed Radar Boards & Solar Panels	7 sets (locations vary)



2024 PROJECT FUNDING REQUEST FORM

125

Number: 24058

Project Cost: \$57,000

Project Name: Traffic Operational Improvements

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Annual

Project Mgr: David Porretta

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project accommodates initiatives and requests that arise throughout the year from staff, residents or Council to improve traffic operations and safety for all users of the City's transportation network. Improvements include sign and traffic control devices, pavement markings for roadways and cycling facilities, and minor concrete and asphalt civil works to address and/or enhance pedestrian and cyclist safety. These requirements are required as a result of growth within the community.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	50,904	0	Budget request includes traffic control signs/devices/equipment (\$20k); road/cycling pavement markings (\$15k), minor concrete/asphalt civil works (\$15k). Funding for this project will be funded from 65% DCA, 17.5% Non-DC Growth and 17.5% CBC.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 10	5,090	0	
Sub Total:	55,994	0	
HST Impact:	985	0	
Total Project Cost:	57,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
DCA	37,050	0	0	0	0	0	0
Non-DC Growth	9,975	0	0	0	0	0	0
Other Internal	9,975	0	0	0	0	0	0
TOTAL FUNDING	57,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Hard - Special Projects - City-wide Street Safety and Traffic
Calming, various locations

37,050

3,964,174

Amount in Study:

Amount Incl HST

TOTAL FUNDING

37,050

3,964,174

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

127

Number: 24059

Project Cost: \$393,500

Project Name: Yorktech extension (Rodick Rd. to Warden Ave) EA

Commission: Development Services

New Asset/Expansion

Department: Engineering

Useful Life: 0 Pre Approval: ☐

Project Mgr: Nehal Azmy

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Other(specify in Notes)

5 ☐ 6 ☒ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

The work to complete the Yorktech Rd Extension EA study, in order to proceed to Detail Design. The Yorktech extension is vital to the overall transportation network required to accommodate the anticipated growth in Markham Centre. The EA will also include the feasibility review of the alignment of the Markham Centre Trail within the Rouge River, between Rodick Road and Warden Avenue.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

<u>PROJECT COSTS (\$)</u>	<u>2024</u>	<u>Future Phases</u>
Cost/Quote:	0	0
Internal Charges:	31,977	0
External Consulting:	323,000	0
Contingency %: 10	32,300	0
Sub Total:	387,277	0
HST Impact:	6,253	0
Total Project Cost:	393,500	0

NOTES

The Yorktech Extension EA Study was put on hold until the completion of the Markham Centre Secondary Plan to confirm the needs and justification of the road extension.
The EA work to commence in July 2024 and to be filed by end of March 2025

SOURCE(S) OF FUNDING (\$)**Components**

<u>Funding Type</u>	<u>Budget</u>	<u>TOTAL</u>	<u>Future Phases</u>
DCA	393,500	0	0
TOTAL FUNDING	393,500	0	

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS**DCA****Name****Year****Amount****Amount in Study****Life Cycle**

Amount in Study:

Amount Incl HST

Year in the study

Hard - Roads - Yorktech Extension

2023

393,500

8,712,103

TOTAL FUNDING

393,500

8,712,103

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



Fire & Emergency Services



2024 PROJECT FUNDING REQUEST FORM

131

Number: 24060

Project Cost: \$32,300

Project Name: Fire Hose Replacement

Commission: CAO, Legal, HR & Fire

Department: Fire & Emergency Services

Project Mgr: Chris Nearing/Matt Keay

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 7 Pre Approval: ☐

Category: Annual

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual replacement and purchase of firefighting hose to ensure sufficient inventory of essential equipment required in maintaining current service levels. Regular replacement of hose inventory is in accordance with NFPA hose testing standards.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024	Future Phases	NOTES Purchases occur on a 7-year replacement cycle. All fire hose is replaced at year 7, unless it fails testing earlier. At year 7 the hose is placed in spare inventory for 3 years and decomissioned at year 10 (a strategy similar to bunker gear). This strategy will allow us to plan for a replacement schedule not based solely on testing. Having a robust hose inventory will allow us to test, decontaminate, train and be more resilient to supply chain pressures. Annual program also allows for additional anticipated failures due to updated NFPA standards requiring higher test pressures than in the past; a proactive inventory will minimize service impacts.
Cost/Quote:	31,700		0		
Internal Charges:	0		0		
External Consulting:	0		0		
Contingency %: 0	0		0		
Sub Total:	31,700		0		
HST Impact:	558		0		
Total Project Cost:	32,300		0		

SOURCE(S) OF FUNDING (\$)		Components					Future
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	32,300	0	0	0	0	0	0
TOTAL FUNDING	32,300	0					0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 64,500
				Amount Incl HST 64,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
\$32,200 has been removed and accelerated as part of the 2023 in-year capital additions to ensure sufficient funding for replacements in Q1 2024				



2024 PROJECT FUNDING REQUEST FORM

132

Number: 24061

Project Cost: \$79,100

Project Name: Firefighting Tools & Equipment Replacement

Commission: CAO, Legal, HR & Fire

Department: Fire & Emergency Services

Project Mgr: Chris Nearing/Matt Keay

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 1 Pre Approval: ☐

Category: Annual

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Annual replacement and purchase of firefighting tools & equipment. Examples include but are not limited to the following: ladders, nozzles, hand tools, water rescue equipment, ropes, fire extinguishers, hydraulic rescue tools, oxygen equipment, air cylinders, SCBA masks & breathing valves, portable pumps, electric & gas operated saws, cribbing, portable radios, medical bags, fans, thermal camera & related equipment, laser temperature probes, travel restraint and lock out kits.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	77,732	0	Purchases occur due to condition assessment/legislative requirements/circumstances. Because of the nature of the department activities, equipment may require purchase/replacement due to damage and condition, beyond economical repair or technological change. Amount is consistent with the Life Cycle Reserve Study update. This project funding meets the current needs of the Fire Department and keeps all tools and equipment in a good state of operational order.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	77,732	0	
HST Impact:	1,368	0	
Total Project Cost:	79,100	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	79,100	0	0	0	0	0	0
TOTAL FUNDING	79,100					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 105,500
				Amount Incl HST 105,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
\$26,400 has been removed and accelerated as part of the 2023 in-year capital additions to ensure sufficient funding in Q1 2024				



2024 PROJECT FUNDING REQUEST FORM

133

Number: 24062

Project Cost: \$11,400

Project Name: Hazardous Materials Replacement

Commission: CAO, Legal, HR & Fire

Department: Fire & Emergency Services

Project Mgr: Chris Nearing/Matt Keay

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of 1 photo ionization detector MSA Sirius, 3 hydrogen cyanide detectors and 1 ammonia single gas detector due to expiration of their useful life.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024	Future Phases
Cost/Quote:			11,200	0
Internal Charges:			0	0
External Consulting:			0	0
Contingency %: 0			0	0
Sub Total:			11,200	0
HST Impact:			197	0
Total Project Cost:			11,400	0

NOTES
Project cost is based on a recent quote for 1 photo ionization detector @ unit price of \$7,136, 3 HCN (hydrogen cyanide detectors) @ unit price of \$1,066 and 1 ammonia single gas detector @ unit price of \$1,066. Total project cost is \$11,400.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Ion Detector	HCN Detectors	Ammonia Single Gas Detector	TOTAL		
Operating Funded Life Cycle	11,400	7,136	3,198	1,066	0	11,400	0
TOTAL FUNDING	11,400					11,400	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 11,400
				Amount Incl HST 11,400
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

134

Number: 24063

Project Cost: \$87,100

Project Name: Radio Repeaters and Bone Mic Headsets Replacement

Commission: CAO, Legal, HR & Fire

Department: Fire & Emergency Services

Project Mgr: Chris Nearing/Matt Keay

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of 2 portable radio repeaters (to boost radio transmission signals inside structures) and and 3 bone mic headsets used for firefighter radio communications during emergency incidents.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024	Future Phases
Cost/Quote:			85,600	0
Internal Charges:			0	0
External Consulting:			0	0
Contingency %: 0			0	0
Sub Total:			85,600	0
HST Impact:			1,507	0
Total Project Cost:			87,100	0

NOTES
With the development of more high rise buildings, radio communications can be diminished (caused by building construction and materials blocking radio transmissions). In order to maintain communications with crews inside, portable radio repeaters are required to boost transmission signals. Project cost is based on a recent quote of 2 units x \$42,294.50/unit = \$84,589 for the radio repeaters and 3 units x \$837/unit = \$2,511 for the bone mic headsets.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Radio Repeaters	Bone Mic Headsets			TOTAL	
Operating Funded Life Cycle	87,100	84,589	2,511	0	0	87,100	0
TOTAL FUNDING	87,100					87,100	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 87,100
				Amount Incl HST 87,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

135

Number: 24064

Project Cost: \$115,700

Project Name: Replacement of Equipment due to Staff Retirements

Commission: CAO, Legal, HR & Fire

Department: Fire & Emergency Services

Project Mgr: Chris Nearing/Matt Keay

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 1 Pre Approval: ☒

Category: Annual

Cost Validation: Third party estimate

Requirement Validation: Legislative compliance

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Purchase of personal protective clothing, uniforms and equipment for each recruit following the retirement of a firefighter. Legislation: OH&S 25.(2)(h) An employer shall take every precaution reasonable in the circumstances for the protection of a worker. Section 21 Guidance Notes, Section 4 in its entirety outlines standards for personal protective equipment and practices to protect firefighters. NFPA 1971 Standard on Protective Ensembles for Structural Firefighting, establishes minimal levels of protection from thermal, physical, environmental and blood-borne pathogens.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024	Future Phases	NOTES The average cost of personal protective clothing, uniforms and equipment (minus bunker gear which has been accelerated to obtain 2023 contract pricing) is \$7,783 per firefighter based on 2023 quotes. Forecasted recruits for 2024 = 12 @ \$7,783 = \$93,400. Forecasted promotion of Captains for 2024 = 4 @ \$3,716 = \$14,864 and promotion of Battalion Chiefs for 2024 = 1 @ \$7,436 = \$7,436. Some retiree equipment is repurposed as spare.
Cost/Quote:			113,684	0	
Internal Charges:			0	0	
External Consulting:			0	0	
Contingency %: 0			0	0	
Sub Total:			113,684	0	
HST Impact:			2,001	0	
Total Project Cost:			115,700	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	New Recruits	Captains and BC			TOTAL	
Operating Funded Life Cycle	115,700	93,400	22,300	0	0	115,700	0
TOTAL FUNDING	115,700					115,700	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
				Amount in Study: 136,900
				Amount Incl HST 136,900
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Bunker gear replacement totalling \$21,215 has been removed and accelerated as part of the 2023 in-year capital additions to secure 2023 contract pricing.				



2024 PROJECT FUNDING REQUEST FORM

136

Number: 24065

Project Cost: \$10,200

Project Name: Rescue Equipment Replacement

Commission: CAO, Legal, HR & Fire

Department: Fire & Emergency Services

Project Mgr: Chris Nearing/Matt Keay

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of 2 ice commander suits, 1 arizona vortex tripod due to expiration of their useful life.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	10,050	0	Project cost is based on unit price of \$1,195 x 2 units = \$2,390 for the ice commander suits, \$7,810 x 1 unit = \$7,810 for the arizona vortex tripod. The amounts and units are consistent with the 2023 Life Cycle Reserve Study. Useful life for equipment: ice commander suit = 5 years, arizona vortex tripod = 5 years.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	10,050	0	
HST Impact:	177	0	
Total Project Cost:	10,200	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	ice commander suits	arizona vortex tripod			TOTAL	
Operating Funded Life Cycle	10,200	2,390	7,810	0	0	10,200	
TOTAL FUNDING	10,200					10,200	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 46,400
				Amount Incl HST 46,400
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

\$36,200 has been removed and accelerated as part of the 2023 in-year capital additions (\$12,067 x 3 Thermal Image Cameras = \$36,200, replaced every 10 years)



2024 PROJECT FUNDING REQUEST FORM

137

Number: 24066

Project Cost: \$152,600

Project Name: Technical Rescue Program - Trench

Commission: CAO, Legal, HR & Fire

Department: Fire & Emergency Services

Project Mgr: Chris Nearing/Matt Keay

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 5 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Legislative compliance

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

MFES currently has a squad team trained and equipped in a variety of technical rescue specialties. Whereas in 2023, the squad team was trained in crane rescue, this phase is for trench training, in order to safely and effectively respond to emergencies involving trench collapse (including equipping firefighters with the necessary struts and shoring to stabilize a trench collapse).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	150,000	0	This specialty training will be delivered by an outside agency to a total of 16 staff for \$1,400/pp (\$22,400 total) and will require the purchase of lumber, struts and shoring equipment for a total of \$130,200.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	150,000	0	
HST Impact:	2,640	0	
Total Project Cost:	152,600	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Training	Equipment			TOTAL	
Tax	152,600	22,400	130,200	0	0	152,600	0
TOTAL FUNDING	152,600					152,600	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

138

Number: 24067

Project Cost: \$366,300

Project Name: Vehicle/Industrial Extrication Modernization

Commission: CAO, Legal, HR & Fire

Department: Fire & Emergency Services

Project Mgr: Matt Keay

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 5 Pre Approval: ☐

Category: Minor

Cost Validation: ☐

Requirement Validation: ☐

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

A redeployment of extrication capabilities supported by modern equipment and new training based on new vehicle technology per NFPA Standard 1006 (Technical Rescue), which outlines the technical competencies for vehicle and industrial equipment extrication at the technician level. Current Auto Ex program based on legacy equipment which addresses traditional small passenger vehicles. New equipment and dynamic deployment will substantially increase capabilities and expand rescue to industrial equipment and heavy vehicles.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	360,000	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	360,000	0
HST Impact:	6,336	0
Total Project Cost:	366,300	0

NOTES

This equipment project will provide the new tools to meet NFPA Standard 1006, while also creating different levels of apparatus capability which will meet deployment needs while controlling cost of redundant equipment. Redeployment plan includes two technician equipped apparatus (equipment package approx \$100,000/aparatus) and four "operations plus" apparatus at \$40,000/apparatus. There will be an increase in Life Cycle to support this equipment, which will be partially offset by the removal of legacy equipment currently identified in the Life Cycle.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	366,300	0	0	0	0	0	0
TOTAL FUNDING	366,300					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
AutoX legacy equipment (fixed and mobile kits) are accounted for in the Life Cycle for a total amount of \$1.2M over 27 years. The legacy equipment inventoried in the Life Cycle will be replaced by the assets requested under this project as part of the next Life Cycle Reserve Study update. Department is requesting the acceleration of \$366k from the \$1.2M in the Life Cycle Reserve. Inventory, costs, and cycle factors will be updated as part of the next Life Cycle Reserve Study update.				

IT Services



2024 PROJECT FUNDING REQUEST FORM

141

Number: 24068

Project Cost: \$805,900

Project Name: ITS - Finance System Modernization

Commission: Corporate Services

Department: ITS

Project Mgr: Ned Sirry

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 8 Pre Approval: ☐

Category: Major

Cost Validation: Other(specify in Notes)

Requirement Validation: Multiple(specify)

ITS Involved Project: Is ITS Consulted? ☒**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Placeholder required to address the need for a Financial system Modernization. The current Financial system (Cayenta) is two versions out of date and the current version will no longer be supported by mid-2024. Placeholder will enable staff to evaluate potential alternatives while ensuring funding is available for a minimal viable product. Supporting presentation will detail the alternatives.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	620,000	1,644,000	Capital estimate is a placeholder while more in depth conversations to take place with potential solution providers to receive high level cost estimates. Added in external consulting needs for requirements processing. It is critical that a decision is made in mid-2024 regardless of the direction (i.e. upgrade or replacement). Future phases will apply should the City proceed with an upgrade and our high level estimates are subject to change. Should we proceed with an upgrade, the future phase could be partially funded with existing budgets. With respect to OpEx impacts, the provisions are based estimated cost of replacement or moving to a SaaS based solution.
Internal Charges:	0	0	
External Consulting:	100,000	0	
Contingency %: 10	72,000	164,400	
Sub Total:	792,000	1,808,400	
HST Impact:	13,939	31,828	
Total Project Cost:	805,900	1,840,200	

SOURCE(S) OF FUNDING (\$)		Components						Future Phases
Funding Type	Budget	TOTAL						Future Phases
Operating Funded Life Cycle	338,490	0	0	0	0	0	0	937,075
Other Internal	0	0	0	0	0	0	0	234,055
Tax	467,410	0	0	0	0	0	0	0
TOTAL FUNDING	805,900					0	0	1,840,200

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$500,000	\$0	\$500,000

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

The funding will be drawn directly from the Life Cycle Reserve and will be reflected as part of the annual Life Cycle Reserve study.



Financial System Modernization

Sumon Acharjee, CIO
Joseph Silva, Treasurer
9-11-23



City of Markham Digital Enterprise House

ERP

Cayenta and ADP Workforce Now

EAM
Lucity

Water Billing
TBD

Program
Registration
Xplor
Recreation

Tax
TXM
(Oracle)

Ticketing
AMPS
Gtechna

Geospatial
Data
ESRI
ARCGIS

Permit/
Planning
Amanda
ProjectDox

Employee Productivity

M365

CRM

ACR

Portal

Websphere → Aquia (Drupal)



ERP - *New Emerging Concerns

- Cayenta has served the City for many years, We are currently on v7.9 however we are now 2 full versions behind (latest is now 9.2) and require upgrades to maintain support. The new versions is a complete overhaul of the platform and will be a large change for users (akin to a new implementation for testing)
 - Total backend (OpenText to Cognos)
 - Front end change (Client Server to Web)
 - Recommended database change from Oracle to SQL
- Background:
 - Previous upgrades focused on like-for-like functionality; we have not updated to the current best practice
 - We cannot deploy Windows 11 for Cayenta Users (Current Windows out of support within 2 year)
 - We recently had 1 week of down-time for invoices as Cayenta had to get support from OpenText
 - Much longer turnaround time/expense for integrations – Adding complexity to our platform efforts
 - G/L Structure to account for current and future needs
 - A/P –Co Enable EFT, Improve Approval Efficiency/Automation
 - Budgeting – Better integration
 - Eliminate multiple sources of information and de-risk continuity of organizational knowledge consistency
 - Challenge with Payroll/Cycles/Complexity (Address Org Configurations)
 - Challenge with recent platform adoptions/workaround (Lucity, xPlor,...)



Need to make Finance System Platform Decision

- Current Cayenta Version is now approaching “High Risk” for support and the longest we can keep running in 2 years. Given the 2 year window we should action as follows: Vet Options, Continue with Cayenta or New ERP Platform.
- Need a decision within before end of Q2 to mitigate risk of our core Platform.

Upgrade Cayenta, (Keep the Lights Running)

- We are working on pricing/options of upgrade. Based on the latest estimates with the vendor we expect costs for the upgrade to be \$805K to \$1.2M one-time.
- Time to upgrade (12-18 months)
- Factors – Need to re-implement/modernize functionality
- Lack of wide-scale support of Cayenta for our digital foundations
- Large Change Management Effort for Finance and Business Users
- Does not address AP Automation, Efficiency Opportunities until after the upgrade (18 months)

Move to a modern Cloud ERP Platform - Finance

- approx. \$2.35M (Benchmark less than half of a full ERP investment)
- Time to Implement 9-12 Months
- Factors aligning to best practice (vs reimplement Cayenta based practices. Some high level benefits:
 - Increased efficiency, though reduction in manual processing and reliance on access databases/spreadsheets check
 - Single source of “truth” with actionable analytics and transactions in the same system leading to deeper insights into costs, capital projects, expenses, program effectiveness, etc.
 - Quicker adoption of modern best practices in AP/GL/Budget etc with added benefit as software changes (no longer worry about version upgrades)
- Large Change Management Effort for Finance and Business Unit Users
- Creates nimbleness for a growing City



Recommendation

- Approve Capital Allocation of \$805,900 for 2024 with Future Years to be determined and currently estimated to be \$1,840,200.
 - Finance and ITS Leadership will work with vendors to review both options, business case, feasibility and determine the course of an upgrade or replacement of system.
 - This decision needs to be determined no later than June 1st 2024.
 - If it is a Cayenta Upgrade – The Capital portion for 2024 should facilitate a “like for like” upgrade to proceed immediately thereafter.
 - If it is a replacement, then move forward for Platform Selection and Implementation Partner selection (in two phases) in late 2024, Capital Portion should be enough to award Platform Selection.



2024 PROJECT FUNDING REQUEST FORM

147

Number: 24069

Project Cost: \$75,000

Project Name: ITS - Tour App

Commission: Corporate Services

Department: ITS

Project Mgr: Elton Chong / Andrea Carpenter

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 0 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

We seek to launch an app or mobile website that will serve audiences for Markham Museum, Varley Art Gallery, and other City-wide experiences such as Public Art, local tours and trails. There will be three primary digital engagement channels: 1) Mobile first engagement: either a single mobile guide across the city and alternatively, siloed mobile guides for each of the three participating entities: Markham Museum, Varley Art Gallery, and other City of Markham tourism. These mobile first experiences will offer tourists and local residents self-guided tours, scavenger hunt challenges, and way-finding. 2) Virtual learning: Markham Museum will deploy "edukits" to accompany exhibitions and serve teachers and students pre and post educational program visit. 3) Online exhibitions: online exhibitions will be available to Markham Museum and Varley Art Gallery to serve audiences onsite and offsite, archive closed exhibitions, and highlight current collection stories.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	73,700	0	Axiell Culture Connect is a known solution and is a current supplier of MimsyXG. Estimates are based on quote provided by them. The Varley Foundation has secured \$10,000.00 to put towards this project.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	73,700	0	
HST Impact:	1,297	0	
Total Project Cost:	75,000	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	75,000				TOTAL	
Other External	10,000	0	0	0	0	0	0
Other Internal	20,000	0	0	0	0	0	0
Tax	45,000	0	0	0	0	0	0
TOTAL FUNDING	75,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$75,000	\$0	\$75,000

DCA/LIFE CYCLE DETAILS



2024 PROJECT FUNDING REQUEST FORM

148

Number: 24070

Project Cost: \$87,900

Project Name: Museum Wifi

Commission: Corporate Services

Department: ITS

Project Mgr: Elton Chong / Andrea Carpenter

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 6 Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☒**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Expand our public Wi-Fi network out into the Museum site. Museum only currently has indoor wifi in four buildings - Mt. Joy, John Lunau Centre, Church and Transportation. Project will enhance visitor engagement, increase digital interactivity, allow accessible self-guided tours, increase educational resources for programs and allow visitors to access event info. It will also increase appeal to potential renters and allow for the expansion of rental & program offerings. This aligns with our commitment to inclusivity, connectivity, and forward-thinking, while honouring our historical heritage.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	82,250	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 5	4,112	0
Sub Total:	86,362	0
HST Impact:	1,520	0
Total Project Cost:	87,900	0

NOTES

Upgrade plan and cost estimate provided by City ITS Departement. The project will require access points X 8, 12 port managed network switches X 2, Wifi development X 7, 1km 12 strand single/multi mode fibre X 1, and Fibre Building costs X 1.

SOURCE(S) OF FUNDING (\$)

Funding Type	Budget	Components					TOTAL	Future Phases
Tax	87,900	0	0	0	0	0	0	0
TOTAL FUNDING	87,900						0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$25,000	\$0	\$25,000

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

149

Number: 24071

Project Cost: \$50,900

Project Name: Library - Scheduling Software

Commission: Corporate Services

Department: ITS

Project Mgr: Catherine Biss

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☒

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Scheduling software will facilitate the seamless scheduling of MPL staff across 8 current service locations, which are open to the public 7 days per week (65.5 hrs). The workforce includes full-time, part-time & casual staff working shifts of varying lengths & in compliance with three Collective Agreements. Scheduling software will manage public service staff at all levels, ensuring efficiency & consistency in scheduling practices & the effectiveness of both the biweekly rotation schedule (master schedule) & daily department schedules that prescribe the deployment of staff. Scheduling technology will permit MPL to maximize the use of its low staffing resources to better meet customer demands. Will also ensure more efficient & effective schedules across all departments. Will improve customer service by enabling supervisors & managers to better concentrate on coaching & developing front line staff. Currently, schedules are being done via Excel - this has proven to be a very inefficient solution given the complex nature of Library scheduling as described above.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	50,000	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	50,000	0
HST Impact:	880	0
Total Project Cost:	50,900	0

NOTES

ITS has provided an estimate of \$50K for the Library scheduling solution. A portion of this will be used for implementation of the software and includes the Year 1 subscription cost to the service. The annual subscription (\$20K) for Year 2 & subsequent years will then be paid from the operating budget.

SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget	Software	Subscription Yr1				
Other Internal	50,900	30,900	20,000	0	0	50,900	0
TOTAL FUNDING	50,900					50,900	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$20,000	\$0	\$20,000

DCA/LIFE CYCLE DETAILS



2024 PROJECT FUNDING REQUEST FORM

150

Number: 24072

Project Cost: \$20,400

Project Name: ITS - Auto CAD License or replacement

Commission: Corporate Services

Repair/Replace

Department: ITS

Useful Life: 5 Pre Approval: ☐

Project Mgr: Matt Miller

Category: Annual

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☒

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Need to look at either alternate vendors for CAD solution or account for the move of AutoCAD to a user based licensing model.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	20,000	0	\$20K increased expected in capital plus ongoing Opex of \$20K (less current Opex - TBD)
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	20,000	0	
HST Impact:	352	0	
Total Project Cost:	20,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Future Phases
Tax	20,400	0	0	0	0	0	0
TOTAL FUNDING	20,400	0	0	0	0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$20,000	\$0	\$20,000

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

151

Number: 24073

Project Cost: \$53,400

Project Name: ITS - Cell Boosters (Community Centres)

Commission: Corporate Services

Department: ITS

Project Mgr: Sugun Rao

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 5 Pre Approval: ☐

Category: Minor

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☒**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Require capital to provide hardware needed to ensure cell traffic in community centres where coverage is weak in enhanced for a better staff and citizen experience. This will also enhance the ability for the community centres to provide a safe environment for our citizens.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	50,000	0	Capex - \$50k
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 5	2,500	0	
Sub Total:	52,500	0	
HST Impact:	924	0	
Total Project Cost:	53,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Tax	53,400	0	0	0	0	0	0
TOTAL FUNDING	53,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

152

Number: 24075

Project Cost: \$26,700

Project Name: ITS - Cloud Storage Backup

Commission: Corporate Services

New Asset/Expansion

Department: ITS

Useful Life: 5 Pre Approval: ☐

Project Mgr: Sugun Rao

Category: Annual

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☒

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Require capital to expand the storage array to account for the added traffic in the cloud, primarily related to M365 implementation and future growth.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	25,000	0	\$25k in capital to implement - plus \$100K annually in Opex to license and maintain.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 5	1,250	0	
Sub Total:	26,250	0	
HST Impact:	462	0	
Total Project Cost:	26,700	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	26,700	0	0	0	0	0	0
TOTAL FUNDING	26,700					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$100,000	\$0	\$100,000

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

153

Number: 24076

Project Cost: \$2,238,700

Project Name: ITS - Corporate CRM Systems Implementation

Commission: Corporate Services

Department: ITS

Project Mgr: Ned Sirry

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 8 Pre Approval: ☐

Category: Major

Cost Validation: Other(specify in Notes)

Requirement Validation: Multiple(specify)

ITS Involved Project: Is ITS Consulted? ☒**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

With the disengagement of our previous CRM vendor, a new solution platform will be chosen and remaining capital from that project will be used to cover cost of the platform. The larger expense will be the implementation, configuration, integration, training etc. needs of a new platform. CXM strategy workshops are underway and more definitive estimate will be determined after a platform is chosen. This is an placeholder and estimated cost need for a SI (System Implementer). In addition, the Opex required is reflective of the anticipated ongoing licensing, maintenance and support model needed for the new platform.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	2,000,000	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 10	200,000	0
Sub Total:	2,200,000	0
HST Impact:	38,720	0
Total Project Cost:	2,238,700	0

NOTES

This is in support of the Markham Digital Strategy as well as the result of our current platform ACR (Active Citizen Request) being end of life and unsupported.

SOURCE(S) OF FUNDING (\$)**Components**

Funding Type	Budget	TOTAL	Future Phases
Operating Funded Life Cycle	2,238,700	0	0
TOTAL FUNDING	2,238,700	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$147,245	\$300,000	\$0	\$447,245

DCA/LIFE CYCLE DETAILS**DCA**

Name

Year

Amount

Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Supplemental Support Document – CRM Capital Request

To further support the CRM capital request, the following factors were considered in the request:

- Capital estimates leverage the knowledge gained during the previous RFP process and selection of a CRM platform
- To improve the decision making required in selecting a robust platform moving forward, a CX strategy was developed in consultation with a consulting agency via a multi-day guided workshop involving stakeholders from multiple BU's
- After selection of a platform, to implement a solution of this nature a systems implementation partner will need to be chosen. The systems implementation partner will work collaboratively with the City in the following areas of consideration:
 - Discovery sessions
 - Architectural design
 - Process mapping
 - Configuration of features and modules
 - Development of Customizations
 - Application integrations
 - Data migrations
 - Unit and user acceptance testing (iterative)
 - Training
 - Maintenance plans
 - Updates and upgrades
- Further to the above point as a result of the previous work accomplished we will have the ability leverage the thorough documentation previously captured including workflows, processes, integration needs, test cases. While this may not factor into facilitating a reduced cost, we do expect that this will support the reduced time to implement a solution once a platform and SI partner are chosen.
- For the reason above, it is not anticipated that further consulting dollars in the form of a contractor or otherwise will be required for this capital request

Using the information noted above, the following estimates can be derived:

Capital Justification:

Category:	Notes:	Estimated Total Cost:
Platform Cost	Based on previous RFP experience	\$700,000
Systems Implementation	Based on previous RFP experience	\$1,300,000
Contingency	10% of Capital Request	\$200,000
Total		\$2,200,000
HST Impact	1.7%	\$37,400
Estimated Grand Total		\$2,237,400



2024 PROJECT FUNDING REQUEST FORM

155

Number: 24077

Project Cost: \$98,700

Project Name: ITS - ESRI Enterprise License

Commission: Corporate Services

Department: ITS

Project Mgr: Matt Miller

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Annual

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☒**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

ESRI is moving to an Enterprise Licence Model to account for more detailed work being done with ESRI mapping applications. This application is required to support the mapping of City assets. The incremental increase is expected to be \$97,000 (exclusive of HST).

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	97,000	0	There is a budget of \$103,000 based on the current number of usersfor ESRI. The enterprise licence cost is \$200,000 and this willallow for additional users as required (i.e., new charge is not basedon number of users). An incremental increase of \$97,000 is required in 2024 for Capital Expense and a subsequent annual incremental Operating Expense of \$97,000 beginning in 2025 for the annual Enterprise Licence (excluding HST).
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	97,000	0	
HST Impact:	1,707	0	
Total Project Cost:	98,700	0	

SOURCE(S) OF FUNDING (\$)		Components						Future Phases
Funding Type	Budget	TOTAL						Phases
Building Fees	26,320	0	0	0	0	0	0	0
Development Fees	26,320	0	0	0	0	0	0	0
Tax	19,740	0	0	0	0	0	0	0
Waterworks	26,320	0	0	0	0	0	0	0
TOTAL FUNDING	98,700					0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$98,700	\$0	\$98,700

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

157

Number: 24078

Project Cost: \$341,900

Project Name: ITS - Existing Portal Infrastructure Extension

Commission: Corporate Services

Department: ITS

Project Mgr: Rob Cole

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 1 Pre Approval: ☐

Category: Minor

Cost Validation:

Requirement Validation:

ITS Involved Project: Is ITS Consulted? ☒**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Our existing portal is managed on infrastructure at Compugen. The current contract for support and use of this infrastructure ends in April 2024. The replacement project is currently in the development phase and is due to be completed by the end of 2024. To accommodate the continued support for the current platform while Drupal is being implemented, we will require additional funding.

BUILDING MARKHAM'S FUTURE TOGETHER:

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	336,000	0	Extension of existing infrastructure for 9 months - April 1st - Dec 31st, 2024. Estimate is based on current costs (\$90K/quarter + \$66K one-time support = \$336K pre-tax). Actual quote will be available in Q1-2024.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	336,000	0	
HST Impact:	5,914	0	
Total Project Cost:	341,900	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Building Fees	20,514	0	0	0	0	0	0
Development Fees	27,352	0	0	0	0	0	0
Operating Funded Life Cycle	273,520	0	0	0	0	0	0
Waterworks	20,514	0	0	0	0	0	0
TOTAL FUNDING	341,900					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

159

Number: 24079

Project Cost: \$55,600

Project Name: ITS - Front Desk

Commission: Corporate Services

Department: ITS

Project Mgr: Robert Cole

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 5 Pre Approval: ☒

Category: Annual

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☒**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Front Desk software allows visitors to register an appointment to meet with City staff at our Civic Centre entrances. As part of our Customer Service strategy, this software will reduce wait times at our various service counters, and allow citizens to view peak periods and set appointments with City staff.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	50,000	0	This is a SaaS based software with hardware to implement in our Civic Centre Entrances to receive visitors. Future phases include the rollout of additional kiosks @ \$6K/kiosk. Support and Maintenance approx. \$30K/year.
Internal Charges:	0	0	
External Consulting:	2,000	0	
Contingency %: 5	2,600	0	
Sub Total:	54,600	0	
HST Impact:	961	0	
Total Project Cost:	55,600	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	0				TOTAL	Future Phases
		0	0	0	0	0	0
Other Internal	55,600	0	0	0	0	0	
TOTAL FUNDING	55,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$30,000	\$0	\$30,000

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

160

Number: 24080

Project Cost: \$254,400

Project Name: ITS - IT Consultants 2024

Commission: Corporate Services

Department: ITS

Project Mgr: Robert Cole

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 1 Pre Approval: ☐

Category: Annual

Cost Validation: Internal peer review

Requirement Validation:

ITS Involved Project: Is ITS Consulted? ☒**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

With various initiatives going on, ITS needs to supplement the team to assist in these project. This will require the services of an Enterprise Architect, Solution Developers, QA and Cyber Security resources.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	250,000	0	In 2024, the ITS workload will be beyond its current capacity, with various high profile projects being started. ITS requires additional resources to support these projects, including Solution Architecture, Development and QA resources. In addition, with the various initiatives going on in the Cyber Security area, the continuation of our existing cyber security resources is required.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	250,000	0	
HST Impact:	4,400	0	
Total Project Cost:	254,400	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Building Fees	16,960	0	0	0	0	0	0
Development Fees	16,960	0	0	0	0	0	0
Tax	203,520	0	0	0	0	0	0
Waterworks	16,960	0	0	0	0	0	0
TOTAL FUNDING	254,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

162

Number: 24081

Project Cost: \$479,300

Project Name: ITS - Life Cycle Asset Replacement

Commission: Corporate Services

Department: ITS

Project Mgr: Sugun Rao

Ward(s):

Repair/Replace

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation:

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace IT hardware and software assets that are due for replacement based on condition assessment. Some of the assets have been discontinued by Manufacturer and replacement is required in order to avoid any service interruptions.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	471,000	0	The request includes replacement of the following aging hardware, 1. Library Public Media Lab equipment 2. Two Servers for HCI environment. 3. Smartphones Replacement and 4. Internal Recovery for 3 staffs have been included in the Citywide Staff Salary Reovery project. For details, see supporting document.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	471,000	0	
HST Impact:	8,290	0	
Total Project Cost:	479,300	0	

SOURCE(S) OF FUNDING (\$)		Components						Future Phases
Funding Type	Budget	TOTAL						Phases
Building Fees	24,720	0	0	0	0	0	0	0
Development Fees	32,952	0	0	0	0	0	0	0
Operating Funded Life Cycle	396,900	0	0	0	0	0	0	0
Waterworks	24,728	0	0	0	0	0	0	0
TOTAL FUNDING	479,300					0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$52,776	\$0	\$52,776

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Amount in Study:

1,183,300

Amount Incl HST

396,900

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

DETAILS FOR CAPITAL PROJECT IT LIFECYCLE ASSET REPLACEMENT

Item	Source of Funding						
	Quantity	Total Costs	Life Cycle	Water Works	Building	Engineering	Planning
2024 IT Lifecycle Asset replacement							
1 Library Media Lab equipment Replacement <i>Replacement of aging Public Media Lab equipment's</i>		\$66,000	\$66,000	\$0	\$0	\$0	\$0
2 HPE Server <i>HPE servers and required licenses to provide additional computing power on our Hyper Converge environment.</i>	2	\$75,000	\$60,000	\$4,500	\$4,500	\$3,000	\$3,000
3 City Wide Smartphone Replacement <i>Lifecycle replacement of 20% of corporate smartphones. Mainly due to wear and tear related issues such as degrading battery life.</i>	150	\$30,000	\$24,000	\$1,800	\$1,800	\$1,200	\$1,200
4 Internal Charges - 3 Staff for Project Resources <i>This resource is required in order to implement IT Capital Projects</i>	3	\$ 300,000	240,000	18,000	18,000	12,000	12,000
Total		\$471,000	\$390,000	\$24,300	\$24,300	\$16,200	\$16,200
HST Impact	1.76%	\$8,290	\$6,864	\$428	\$428	\$285	\$285
Total with HST Impact		\$479,290	\$396,864	\$24,728	\$24,728	\$16,485	\$16,485



2024 PROJECT FUNDING REQUEST FORM

165

Number: 24082

Project Cost: \$534,200

Project Name: ITS - Portal/Mobile Part 2

Commission: Corporate Services

Department: ITS

Project Mgr: Rob Cole

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 5 Pre Approval: ☐

Category: Major

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☒

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Needed funding for Portal Phase 2 which will be to ensure an omni-channel experience for the citizens of Markham, including enhancements to the Portal, additional mobile capabilities, chatbots, social media expansion etc.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	Capex and Opex TBD - cost estimates not yet available - this is a placeholder Capital DB submission. Primarily consulting/development costs to expand portal to develop online access functions for citizens.
Internal Charges:	0	0	
External Consulting:	500,000	0	
Contingency %: 5	25,000	0	
Sub Total:	525,000	0	
HST Impact:	9,240	0	
Total Project Cost:	534,200	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Tax	534,200	0	0	0	0	0	0
TOTAL FUNDING	534,200					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Finance



2024 PROJECT FUNDING REQUEST FORM

168

Number: 24083

Project Cost: \$54,200

Project Name: Insurance Risk Management Software Implementation

Commission: Corporate Services

Department: Finance

Project Mgr: Jeff Madeley

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 0 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☒**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project will see the implementation of a risk management software called ClearRisk that will provide claims, incident, vendor, and fleet management process efficiencies and streamline the risk management process. This would be a clear improvement as the software provides analytics and insights as well as automates tasks that are currently being done manually. The software will also be used by external stakeholders which will improve data integrity/accuracy and compliance.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	53,250	0	Project cost for 2024 includes the implementation of the software (\$18,750) and subscription fee (\$34,500). Note that this project will induce an an annual operating cost for the software subscription beginning in 2025, with an estimated contract escalation of 5% per year.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	53,250	0	
HST Impact:	937	0	
Total Project Cost:	54,200	0	

SOURCE(S) OF FUNDING (\$)		Components						Future Phases
Funding Type	Budget	TOTAL						Phases
Tax	54,200	0	0	0	0	0	0	0
TOTAL FUNDING	54,200						0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$36,863	\$0	\$36,863

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

169

Number: 24084

Project Cost: \$1,025,100

Project Name: Internal Project Management

Commission: Corporate Services

Department: Finance

Project Mgr: Kevin Ross/Graham Seaman

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category:

Cost Validation:

Requirement Validation:

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Project to allocate internal resource costs to Development Charges associated with the administration and procurement management aspects of capital growth. The project represents 90% of the total costs and the remaining 10% will be funded from the operating budget.

BUILDING MARKHAM'S FUTURE TOGETHER:

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	Requirement validation: Internal resource costs of 10 staff associated with capital growth (development charges) projects.
Internal Charges:	1,025,076	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	1,025,076	0	
HST Impact:	0	0	
Total Project Cost:	1,025,100	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
DCA	1,025,100	0	0	0	0	0	0
TOTAL FUNDING	1,025,100					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Legislative Services



2024 PROJECT FUNDING REQUEST FORM

172

Number: **24085**Project Cost: **\$21,000**Project Name: **eScribe Board Manager Plus**Commission: Corporate ServicesDepartment: Legislative ServicesProject Mgr: Martha Pettit

Ward(s):

New Asset/Expansion

Useful Life: 0 Pre Approval: ☐Category: MinorCost Validation: Third party estimateRequirement Validation: Legislative complianceITS Involved Project: Is ITS Consulted? ☒**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Currently Legislative Services utilizes eScribe for Council and Committee meetings. This request is for the setup and service fees for eScribe Board Manager Plus. This product will support greater organization of records for 30+ citizen advisory committees, several foundations and various boards. The module has features that support our goals of efficiency and maintaining accurate records of our citizen appointees. We will be working with our partners in IT for implementation. Currently, Legislative Services is utilizing an outdated Access database.

Board Manager Plus and Annual Subscription Fee: \$ 17,069

One-Time Setup:

Board Manager Setup \$ 2,983

Board Manager Application Form Setup \$ 559

Total One-Time Setup Fees \$ 3,542 + \$17,069 = \$20611

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES Note that this project will induce an operating cost related to the subscription of \$17,369 (including HST) annually beginning in 2025. Annual subscription will not increase regardless of number of users or expected to change based on volume/growth.
Cost/Quote:	20,611	0	
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	20,611	0	
HST Impact:	363	0	
Total Project Cost:	21,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Tax	21,000	0	0	0	0	0	0
TOTAL FUNDING	21,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$17,369	\$0	\$17,369

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Sustainability & Asset Management



2024 PROJECT FUNDING REQUEST FORM

175

Number: 24086

Project Cost: \$128,200

Project Name: 600 Village Parkway - Parking Lot Paving

Commission: Corporate Services

Department: Sustainability and Asset Management

Project Mgr: Renee England

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This shared parking lot serves Carlton Park which includes the Unionville Tennis courts, a soccer field, and a baseball diamond. There is a shared use agreement in place with the Unionville Presbyterian Church. This parking lot has not been repaired or replaced since its construction in the 1980's. The asphalt is past its lifecycle and in very poor condition. Staff have assessed the condition and recommend replacement.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	114,546	0	The Unionville Presbyterian Church is responsible for their proportionate share of the costs for this project. The exact cost split will be determined at a later date.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 10	11,455	0	
Sub Total:	126,001	0	
HST Impact:	2,218	0	
Total Project Cost:	128,200	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	98,870	0	0	0	0	0	0
Other External	29,330	0	0	0	0	0	0
TOTAL FUNDING	128,200				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

This property has not been added to the Operations Parking Lot Life Cycle. Staff was unaware of the shared use agreement with the Unionville Presbyterian Church. Staff was unable to add this property to the Life Cycle for 2024. It will be added to the 2025 Life Cycle and repeated as necessary over the 25 years.



2024 PROJECT FUNDING REQUEST FORM

176

Number: 24087

Project Cost: \$158,400

Project Name: 8100 Warden Facility Repair and/or Replacement Projects

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 25

Pre Approval: ☐

Project Mgr: Jason Ramsaran

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Internal peer review

5 ☐ 6 ☐ 7 ☐ 8 ☒

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Program includes various life cycle works to maintain the 8100 Warden Facility in a state of good repair and in alignment to the Asset Management Plan/ Policy.

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PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	155,680	0	\$20,000 - Painting various areas (2007-2011)
Internal Charges:	0	0	\$8,060 - Emergency lights (2013-2014)
External Consulting:	0	0	\$28,340 - Mechanical and Life safety equipment (1982-2014)
Contingency %: 0	0	0	\$102,000 - Consultant review (Electrical consulting and washroom designs)
Sub Total:	155,680	0	Project includes internal charges.
HST Impact:	2,740	0	Amount is validated and consistent with the Life Cycle Reserve Study, and based on the prior year annual condition assessment and cost estimation.
Total Project Cost:	158,400	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Painting	Emergency lights	Mechanical and Life safety	Consultant	TOTAL	
Operating Funded Life Cycle	158,400	20,000	8,060	28,340	102,000	158,400	0
TOTAL FUNDING	158,400					158,400	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 280,000
				Amount Incl HST 158,400
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

177

Number: 24088

Project Cost: \$117,300

Project Name: Accessibility Retrofit Program

Commission: Corporate Services

Department: Sustainability and Asset Management

Project Mgr: Dana Honsberger

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 10 Pre Approval: ☐

Category: Annual

Cost Validation: Internal peer review

Requirement Validation: Legislative compliance

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Ongoing program to comply with the City's accessibility and AODA guidelines. Items for repair and/or replacement in the budget year were determined in 2023, as part of the annual condition assessment in preparation for 2024 budget.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	115,271	0				
Internal Charges:	0	0				
External Consulting:	0	0				
Contingency %: 0	0	0				
Sub Total:	115,271	0				
HST Impact:	2,029	0				
Total Project Cost:	117,300	0				

NOTES
\$127,511 - IASR Parking Lot Reviews and modifications, Civic Centre braille signage on washroom doors, updated signage at all interior accessible routes including entrances and exits and ramp for outdoor washrooms, Lawn Bowling Club accessibility upgrades, and Fire Stations accessibility upgrades.
Project includes internal charges.

Amount is validated and consistent with the Life Cycle Reserve Study, and based on the prior year annual assessment and cost estimation.

SOURCE(S) OF FUNDING (\$)			Components				Future Phases	
Funding Type	Budget	Accessibility Support	TOTAL				Future Phases	
Operating Funded Life Cycle	117,300	117,300	0	0	0	117,300	0	
TOTAL FUNDING	117,300					117,300	0	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$174,045	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 129,500
				Amount Incl HST 117,300
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

178

Number: 24089

Project Cost: \$160,000

Project Name: Angus Glen C.C. East Entrance Wall Repair

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 25

Pre Approval: ☐

Project Mgr: Colby Brygidyr / Scott Hill

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: External peer review

5 ☐ 6 ☒ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The exterior wall located by the East entrance at Angus Glen C.C has been weeping water and degrading the masonry cladding. This project will identify issues through destructive testing (removal of masonry, flashing). Repairs that can be completed will. Should bigger issues arise we will identify and plan for repairs accordingly.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	157,200	0	The East wall adjacent to the East entrance into Angus Glen C.C. is original and was built in 2003. A condition assessment has indicated that the exterior wall by the East entrance of the Angus Glen C.C. has cracks throughout the mortar joints that run from the ground upward towards the roof. A thermal scan conducted in 2023 also identified an area on the same wall above the overhang displaying signs of heat loss and possible water pooling behind the veneer. This project will investigate and address repairs to the wall. The amount requested is consistent with recent quote.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	157,200	0	
HST Impact:	2,767	0	
Total Project Cost:	160,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	160,000	160,000	0	0	0	160,000	0
TOTAL FUNDING	160,000					160,000	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,724,200
				Amount Incl HST 200,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
\$40,000 of consultant cost was part of the 2023 in-year capital additions.				



2024 PROJECT FUNDING REQUEST FORM

179

Number: 24090

Project Cost: \$270,000

Project Name: Angus Glen C.C. Library Window Replacement

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 25

Pre Approval: ☐

Project Mgr: Michael Ryan / Scott Hill

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☒ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace three (3) built out monitors on the roof assembly above the library. The three monitors form a window system that are situated above the library entrance and provide natural light into the library. The existing monitors are leaking due to failed sealants. This replacement will prevent costly repairs associated with potential water damage to the interior of the library.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	248,000	0	The library windows/monitors above the roof of the library are original and were installed in 2003. Windows typically have a useful life of 25 years, however a condition assessment indicated that the window system/curtain wall and associated roofing components in the area needs to be replaced. The cost of the project is consistent with recent quote. Project includes internal charges.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 7	17,360	0	
Sub Total:	265,360	0	
HST Impact:	4,670	0	
Total Project Cost:	270,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	270,000	270,000	0	0	0	270,000	0
TOTAL FUNDING	270,000					270,000	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,724,200
				Amount Incl HST 300,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
\$30,000 of consultant cost was part of the 2023 in-year capital additions.				



2024 PROJECT FUNDING REQUEST FORM

180

Number: 24091

Project Cost: \$1,044,400

Project Name: Building Automation Systems Replacement Program

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 25

Pre Approval: ☐

Project Mgr: Aaron Cheung

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Multiple(specify)

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This is funding for Design and Replacement work for Building Automation Systems (BAS) in 7 City facilities. Design work consists of engineering consultant services to audit building systems, prepare updated control replacement scope for tender packages, and contract administration and commissioning. Replacement work consists of new BAS based on tender package. The work is to migrate facilities on the old central BAS platform that is sunsetting (discontinuation of parts and software update), to the new central BAS. This project is a continuation of the 2023 BAS Replacement Program. Forecasted utility costs savings are \$40k starting in 2025, additional \$27k starting in 2026, and \$67k starting in 2027. Amount is validated and consistent with the Life Cycle Reserve Study.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	933,036	0	\$990,700 – Construction for FS93 (\$132,800), FS99 (\$117,300), Armadale CC (\$110,400), Varley Art Gallery (\$216,700), Markham Village Library (\$255,000), Museum Collections Bldg (\$158,500). \$53,700 – Design/consulting for Cornell Community Centre. Design and tender package in 2024 and replacement in 2025. Estimate costs based on third party quotations obtained in 2022, replacement costs in last 5 years and internal peer review. Project includes internal charges.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 10	93,304	0	
Sub Total:	1,026,340	0	
HST Impact:	18,064	0	
Total Project Cost:	1,044,400	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Construction	Design/Consulting			TOTAL	
	0	0	0	0	0	0	0
Operating Funded Life Cycle	1,044,400	990,700	53,700	0	0	1,044,400	0
TOTAL FUNDING	1,044,400					1,044,400	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$40,000	-\$40,000

DCA/LIFE CYCLE DETAILS

<u>DCA</u>			<u>Amount in</u>	<u>Life Cycle</u>
<u>Name</u>	<u>Year</u>	<u>Amount</u>	<u>Study</u>	
				Amount in Study: 1,170,300
				Amount Incl HST 1,044,400
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

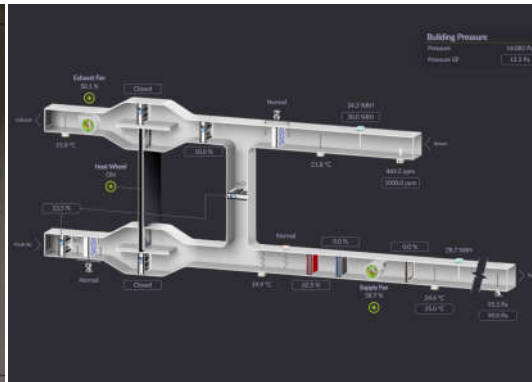
This is a continuation of a new program. The variance (excess LC) will be corrected/updated in next reserve study update.



BUILDING MARKHAM'S FUTURE TOGETHER 2024 - 2027 Strategic Plan



Building Automation Systems (BAS) Replacement Program (2024)



Graham Seaman, Director, Sustainability & Asset Management
Aaron Cheung, BAS Coordinator
Sustainability & Asset Management
January 2024



BUILDING MARKHAM'S FUTURE TOGETHER 2024 - 2027 Strategic Plan



Purpose

To seek approval to proceed with the second year of the Building Automation System (BAS) replacement program, leveraging lifecycle and external funding, focused on keeping building climate control systems functional, cyber secured, and continue progress towards the Net Zero / Carbon reduction initiative.

1. **BAS Replacement of 6 facilities in 2024**

**(Armada CC, Fire Station 93, Fire Station 99, Museum Collections, Markham Village Library, Varley Art Gallery)*

2. **Design and tender package of Cornell CC in 2024, for replacement in 2025**

Capital Budget Requests total \$1,044,400, with external grant funding of at least \$55,000 to offset capital costs.

Forecasted **utility cost savings are \$40,000 starting in 2025 and an additional \$27,000 starting in 2026** as a result of these projects (at least \$1M of utility cost savings over a 20 year lifespan). The new BAS has improved accessibility and functionality, leading to service enhancements to staff and the public. Modernization of the BAS provides a safe and secure environment by reducing risks such as phasing out obsolete unsupported components, reduce cybersecurity vulnerabilities, and alignment with industry best practices.



BUILDING MARKHAM'S FUTURE TOGETHER 2024 - 2027 Strategic Plan



Current Progress

BAS Replacement Program (2023) – Project # 23142	
Completed (April 2023)	Budget Approval
Completed (July 2023)	Retain BAS Project Manager
In Progress Q1 2024 to Q4 2024	Engineering Consultant RFP for Audit+Design Tender Package for 6 facilities: <i>Armada CC, Fire Station 93, Fire Station 99, Museum Collections Bldg., Markham Village Library, Varley Gallery</i>
In Progress Q1 2024 to Q3 2024	Retain Engineering Consultant for 8100 Warden replacement Contract and Admin (Design package finished)
Next Q1 2024 to Q3 2024	8100 Warden BAS replacement tender
BAS Replacement Program (2024) – This Capital Request	
	Budget Approval
	Retain Engineering Consultant for replacement Contract and Admin for 6 facilities: <i>Armada CC, Fire Station 93, Fire Station 99, Museum Collections Bldg., Markham Village Library, Varley Gallery</i>
	BAS replacement tender for the 6 facilities
	Engineering Consultant RFP for Audit+Design Tender Package for Cornell CC



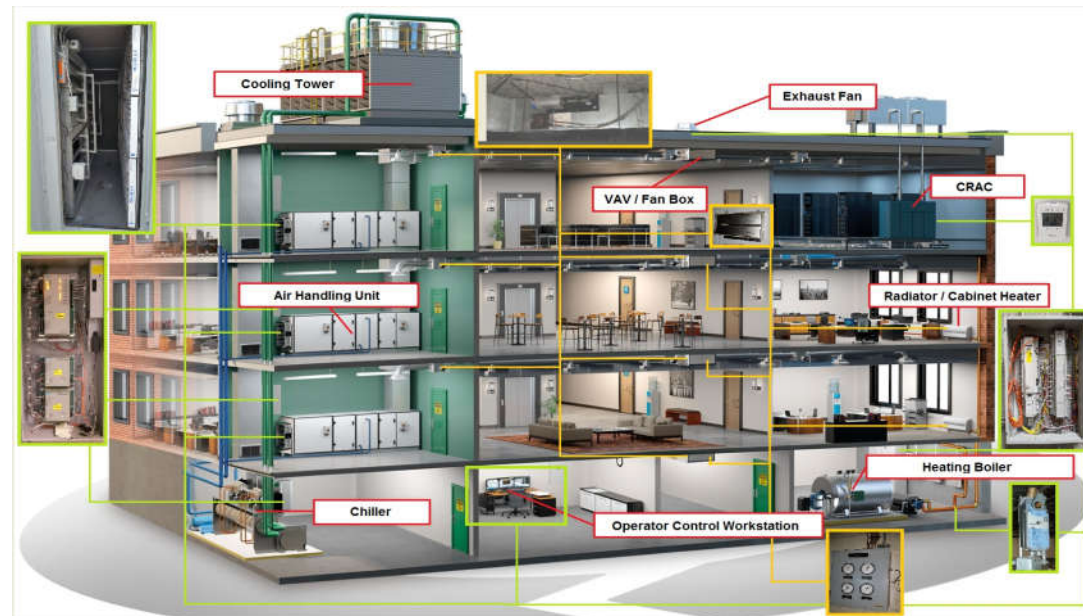
BUILDING MARKHAM'S FUTURE TOGETHER 2024 - 2027 Strategic Plan



Background

A Building Automation System (BAS) is a management system comprising of an array of software and hardware components, that connects and consolidates building service equipment (i.e. HVAC or Heating Ventilation & Air Conditioning) and automates their function as defined by the building owner such as temperature levels and operation schedules. This enhances occupant well-being through comfort and indoor climate quality, and achieve efficiencies on facility operations through visibility on equipment performance and energy use by reducing excessive runtimes or overlaps.

Example composition of a BAS
in a commercial or office facility,
and controlled building equipment





BUILDING MARKHAM'S FUTURE TOGETHER 2024 - 2027 Strategic Plan



Background, Benefits, and Outcomes

2014 ~ 2016 – Opportunity for optimization identified

- Conducted 'HVAC Centralization Study': It is recommended, enhances efficiency, reduces redundancy by BAS centralization of disparate HVAC control systems to a common platform
- Established "Control Centre" environment with a resource to manage & restructure BAS portfolio

2016 ~ 2017 – Established models and standards

- Centralizing BAS initiative transitioned to 'Corporate BAS' (aka 'CBAS') program
- Restored and/or implemented **remote accessibility to 7+ facilities**, repairs and emergency whole BAS replacements mitigated
- Established the **Corporate BAS Design Standard**, used ever since for BAS replacements and retrofits
- Utilized the model of 'Investigation > Audit > Implementation of recommendations > Commissioning' in each BAS replacement project

2018 ~ 2022 – Ready to scale up

- New BAS platform has brought enhanced functionality, accessibility, more user friendly experience for facility staff, leading to better service levels, and overall value
 - Allows for customizable operations and live changes to cater to building use changes i.e. Demand Response load shedding exercises, vaccine clinics, renovations type capital projects
 - In partnership with Recreation and S&AM, pandemic building curtailments in 2020 and 2021 yielded \$5 million energy savings, achieved by combination of BAS user induced actions, and physical equipment disabling by staff on site
- **BAS replacements through Lifecycle** (To-Date done: **7 replacements, 1 retrofit**. City has 20 sites with BAS, 3 left to replace after 2026). Experience and successes achieved through past incremental replacements, now ready for larger volume rollout.



BUILDING MARKHAM'S FUTURE TOGETHER 2024 - 2027 Strategic Plan



Why Should We Do This?

1) City's old central BAS platform has reached end of life, such as obsolete software and discontinuation of hardware controllers

- The OS (operating system) of ITS' BAS hosting server also has reached end of life. If approved, timing of recommended BAS replacements will coincide with ITS server upgrades/migration
- To address Cyber Security concerns with legacy platforms, especially "crown jewels" assets such as BAS that monitor and control buildings
 - It is recommended to upgrade/migrate such platforms to stay ahead of unforeseen risks (hacking, viruses, possible impacts to building damage and energy use)

2) The replacements align with the direction of the Corporate Energy Management Plan (CEMP, see Section 6.2 BAS)

- Benefits of a standardized common platform in centralized environment, staff resource optimization/efficiencies gained
- Reduce digital friction (new BAS are easier to access and more user friendly), reduce gap oversights (BAS provides better monitoring leading to better energy management efforts)



BUILDING MARKHAM'S FUTURE TOGETHER 2024 - 2027 Strategic Plan



Why Should We Do this?

3) Recognition of past successes

- First project implemented under City's Corporate BAS Design Standards (Milliken Mills BAS) awarded IESO Most Innovative Project 2018
- 2018 NRCan Energy Star award Markham Civic Centre, first municipality in Canada to receive award
- Efficiencies and savings gained from recent HVAC equipment and BAS replacement project at Flato Theatre received the ClimateWise Building Challenge "Top Ranked Municipal Buildings Award"
- Received 2022 Mayor's Megawatt Challenge Recognition of Excellence Awards on operational initiatives/measures through use of BAS and operational awareness for energy reduction during pandemic



4) BAS energy saving strategy

- A properly controlled and commissioned system will result in occupant comfort and energy efficiencies
- All previous replacements have achieved energy saving targets
- BAS projects qualify for grants and incentive funding support over the next few years (FCM, Enbridge, SaveOnEnergy/IESO) Est \$55k minimum.



Supporting Rationale

5) CBAS activities align with 'Digital Markham' initiative Activity: "Establish an operating model for the new technologies"

Activity: "Roll out new smart infrastructure and operationalize new processes to enhance automation"

Outcome: "An environment that is simpler and more responsive to business needs"

- City's past and on-going BAS projects demonstrates use of Intelligent Smart Building Technology. Utilization of interconnected sensors, dashboards, network connectivity, and generation of data to enhance facilities operations
- New BAS platforms reduces "digital friction" or processes and steps needed for accessibility



BUILDING MARKHAM'S FUTURE TOGETHER 2024 - 2027 Strategic Plan



Summary

Staff recommends proceeding with the Building Automation System (BAS) replacement program, as it will simultaneously mitigate risks as well as advance corporate initiatives.

1. BAS Replacement for 6 facilities in 2024 (Design work commencing Q1 2024, estimate completion Q3 2024)

**(Armada CC, Fire Station 93, Fire Station 99, Museum Collections, Markham Village Library, Varley Art Gallery)*

2. Begin the design and tender package of Cornell CC in 2024, for replacement in 2025

The work continues enhancement of facilities services and support for Departments such as Recreation and Culture. It reduces the landscape of redundant applications and associated service and resource requests to ITS. Modernizing legacy and end of support systems operating “crown jewel” assets aligns with Cyber Security best practices, and minimizes service disruption risks to City’s flagship facilities.

No action would increase the likelihood of building service interruptions, impacts to occupant comfort and health, and difficulty in maintaining energy savings. Spending would still occur in scenarios where legacy systems need to be repaired and/or upgraded to maintain compatibility and functionality to adhere to modern requirements.



BUILDING MARKHAM'S FUTURE TOGETHER
2024 - 2027 Strategic Plan



Appendix



Cost Breakdown

1. \$990,500: BAS replacement for 6 facilities below
 1. Armadale CC (\$110,400)
 2. Fire Station 93 (\$132,600)
 3. Fire station 99 (\$117,300)
 4. Museum Collections Bldg. (\$158,500)
 5. Markham Village Library (\$255,000)
 6. Varley Art Gallery (\$216,700)
2. \$53,900: design, audit, and tender package of Cornell CC



2024 PROJECT FUNDING REQUEST FORM

193

Number: 24092

Project Cost: \$57,800

Project Name: Building Envelope/Structural Review

Studies/Pilot Programs

Commission: Corporate Services

Useful Life: 10 Pre Approval: ☐

Department: Sustainability and Asset Management

Category: Minor

Project Mgr: Michael Ryan

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project budget is requested once every two years to review the overall building envelope (roofs, exterior cladding) and structure to ensure the safe condition and maintenance of the buildings. The review will be performed by a Building Science Consultant for an estimated 10 to 20 buildings every two years. This program is a comprehensive review of the building envelope and exterior components, to minimize City's risk associated with structural failure in buildings.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases		
Cost/Quote:	56,781	0	\$57,800 - Building Envelope/Structural Review of buildings List of buildings may change to meet on demand needs.	
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	56,781	0		
HST Impact:	999	0		
Total Project Cost:	57,800	0	Amount requested is consistent with 2023 Life Cycle Reserve Study update.	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Review				TOTAL	
Operating Funded Life Cycle	57,800	57,800	0	0	0	57,800	0
TOTAL FUNDING	57,800					57,800	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 57,800
				Amount Incl HST 57,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

194

Number: 24093

Project Cost: \$329,300

Project Name: Centennial C.C. HVAC Replacement

Commission: Corporate Services

Department: Sustainability and Asset Management

Project Mgr: Luke Hilts / Amanda Martin

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Major

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace four (4) gas fired rooftop units with four (4) packaged heat pump rooftop units that will connect to the heating loop at Centennial C.C. The four (4) rooftop HVAC supply heating and air conditioning to the gymnasium, squash courts and fitness space. Centennial C.C. has been identified as a Net Zero facility and has completed an audit identifying key equipment to replace over the next 5 years. To help achieve the City's Net Zero targets, the proposed HVACs will be upgraded from gas-fired units to air or water-source heat pump units that aim to reduce greenhouse gas (GHG) emissions.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases		
Cost/Quote:	274,600	0	The existing (4) gas fire rooftop units were installed in 2009. A condition assessment of the HVACs indicate that replacement is warranted. The replacement consist of new duct work for the updating HVAC system. The amount requested is consistent with recent quote. The City applied to Infrastructure Canada to fund 80% of project costs; however, equipment has reached end of life and project needs to proceed regardless of if external funding is approved.	
Internal Charges:	21,932	0		
External Consulting:	0	0		
Contingency %: 10	27,460	0		
Sub Total:	323,992	0		
HST Impact:	5,316	0		
Total Project Cost:	329,300	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	329,300	0	0	0	0	0	0
TOTAL FUNDING	329,300					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
				Amount in Study: 1,760,100
				Amount Incl HST 360,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

195

Number: 24094

Project Cost: \$1,740,000

Project Name: Civic Centre Repair and/or Replacement Projects

Commission: Corporate Services

Department: Sustainability and Asset Management

Project Mgr: Jason Ramsaran

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Major

Cost Validation: Published guidelines

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Program includes various life cycle works to maintain the Civic Centre Facility in a state of good repair and in alignment to the Asset Management Plan/Policy.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	1,709,876	0	\$247,200 - Misc items including walls, fixtures, chairs, ceiling and railings
Internal Charges:	0	0	\$1,151,100 - Replace all 5 elevators including cabs & cylinders
External Consulting:	0	0	\$331,500 - Consultant review (Exterior light review, Garage Ramp Design, Garage Roof, Washroom Design)
Contingency %: 0	0	0	\$10,200 - Washroom tiles grouting (1990-2010)
Sub Total:	1,709,876	0	Project includes internal charges.
HST Impact:	30,094	0	Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.
Total Project Cost:	1,740,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Repairs	Elevators	Consultant Review	Grouting	TOTAL	
Operating Funded Life Cycle	1,740,000	247,200	1,151,100	331,500	10,200	1,740,000	0
TOTAL FUNDING	1,740,000					1,740,000	0





OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,872,600
				Amount Incl HST 1,740,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Civic Centre 2024 Budget Request Backup Pictures


Civic Centre - Painting

	
<p>Ramp hand railing – railing in poor condition, need to repaint to prevent rusting and expensive replacement</p>	<p>Procurement - Leak has been addressed but requires wall repair, patch work and repainting</p>
	
<p>York Room – refresh paint due to wall damage and wear.</p>	<p>LL NW Elevator Lobby - refresh paint due to wear.</p>

Civic Centre - Ceiling Repair

	
<p>Mayor's Office</p>	

Civic Centre – Interior Lighting

	
<p>Can lighting – upgrade light fixture and change to LED.</p>	

Civic Centre – Furniture

Council Chamber – chairs are up for replacement. Several chairs show wear on armrest/seating surface, broken hydraulic mechanisms

Civic Centre – Elevators 1,2,3,4,5

Elevators – all existing elevators are old, failing more frequently and many parts are not available for repair

Civic Centre – Exterior Light Review, Consultant

	
<p>Exterior lights – bollard lights are broken at the base and existing lights are obsolete (no replacements parts available)</p>	<p>Exterior lights - review as most of the lights are leaning and no replacements available</p>

Civic Centre – Garage Ramp Design, Consultant

Garage Ramp – current fix was a temporary measure to address immediate needs. Long term repair and remediation required



Garage Ramp

Civic Centre – Garage Roof, Consultant

Garage Roof

Civic Centre – Washrooms, Grouting and Consultant

	
<p>Washrooms – consultant required to prepare detailed design and construction. 2023 consultant to perform feasibility study only.</p>	<p>Washrooms</p>



2024 PROJECT FUNDING REQUEST FORM

202

Number: 24095

Project Cost: \$200,000

Project Name: Cornell C.C. Exhaust Fan and Overhead Doors Project

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 20

Pre Approval: ☐

Project Mgr: Colby Brygidyr / Luke Hiltz

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Internal peer review

5 ☒ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to finalize necessary replacements resulting from the 2023 Cornell Pool Tunnel Investigation and Repair project. In consultation with Sustainability and Asset Management, it was recommended to install additional exhaust fans and overhead doors that will create additional preventative measures aimed at reducing moisture in the pool tunnel and subsequent deterioration of pipe anchors and struts holding the pool drain line. The installation of the exhaust fan and the overhead doors will occur in the basement corridor pool mechanical room at Cornell C.C.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases	As per consultant and internal peer review, an exhaust fan and overhead doors are required as part of the basement corridor pool mechanical room at Cornell C.C. The amount requested is consistent with an internal peer review conducted by Sustainability and Asset Management. Project includes internal charges.	
Cost/Quote:	196,500	0		
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	196,500	0		
HST Impact:	3,458	0		
Total Project Cost:	200,000	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget	TOTAL					Future Phases	
Operating Funded Life Cycle	200,000	0	0	0	0	0	0	0
TOTAL FUNDING	200,000					0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
				Amount in Study: 834,400
				Amount Incl HST 200,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

203

Number: 24096

Project Cost: \$262,600

Project Name: Corporate Accommodations

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 15

Pre Approval: ☐

Project Mgr: Renee England /Imran Hyat

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Internal peer review

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Citywide space planning program optimizes workspaces to enhance productivity and health and wellness for City Departments.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	258,100	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	258,100	0
HST Impact:	4,543	0
Total Project Cost:	262,600	0

NOTES

\$262,600 - Citywide space planning and office changes. Adaptation of office spaces based on post-COVID business model.

Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.

SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget	Citywide Space Planning Program					
Operating Funded Life Cycle	262,600	262,600	0	0	0	262,600	0
TOTAL FUNDING	262,600					262,600	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 262,600
				Amount Incl HST 262,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

204

Number: 24097

Project Cost: \$279,800

Project Name: Corporate Asset Management

Commission: Corporate Services

Studies/Pilot Programs

Department: Sustainability and Asset Management

Useful Life: 0 Pre Approval: ☐

Project Mgr: Denny Boskovski

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Legislative compliance

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Consulting services to develop and draft the City's regulatory asset management plan and financial strategy due on July 1, 2025. This is necessary to satisfy the City's requirements under O. Reg. 588/17, and; to continue the receipt of funds from the Canada Community Building Fund (formerly Gas Tax), and; to qualify for future grant fund opportunities, and will address most of the Auditor General's requirements.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	This project will develop the frameworks for: outcome-based levels of service, and; performance management framework, and; a risk management framework. The 2025 Asset Management Plan and Financial Strategy will compile, develop, document and draft the State of Infrastructure, current levels of service and resulting asset performance. It will also assess: risks, sustainability and climate change adaptation, impact of growth and proposed levels of service. Financial requirements and a financial strategy will be developed to inform sustainable and appropriate levels of service.
Internal Charges:	0	0	
External Consulting:	250,000	0	
Contingency %: 10	25,000	0	
Sub Total:	275,000	0	
HST Impact:	4,840	0	
Total Project Cost:	279,800	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Condition Assessment Framework & Lucity Integration	TOTAL				
Operating Funded Life Cycle	72,748	72,748	0	0	0	72,748	0
Waterworks	207,052	207,052	0	0	0	207,052	0
TOTAL FUNDING	279,800				279,800		0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text" value="2024"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

205

Number: 24098

Project Cost: \$359,000

Project Name: Corporate Security Operations & System Upgrades

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 7

Pre Approval: ☐

Project Mgr: Eric Lizotte

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Internal peer review

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Legislative compliance

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Funding required to complete various corporate security upgrades at various City Facilities, in order to meet requirements under Bill 168, Occupational Health and Safety Amendment Act (Violence and Harassment in the Workplace). This program includes security audits, access control, CCTV, gates, policy protocol and procedure development and training.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	352,830	0	\$359,000 – City Wide Corporate Security replacements and enhancements.
Internal Charges:	0	0	Project Scope may be adjusted to meet/comply with the overall corporate security policy, standards, guidelines and goals. Staff are expecting an increasing trend in security expenditures based on procurement prices.
External Consulting:	0	0	Project includes internal charges.
Contingency %: 0	0	0	Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.
Sub Total:	352,830	0	
HST Impact:	6,210	0	
Total Project Cost:	359,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Citywide Security training				TOTAL	
Operating Funded Life Cycle	359,000	359,000	0	0	0	359,000	0
TOTAL FUNDING	359,000					359,000	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 634,500
				Amount Incl HST 359,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

206

Number: 24099

Project Cost: \$10,200

Project Name: Designated Substances Management

Commission: Corporate Services

Department: Sustainability and Asset Management

Project Mgr: Vicky Chan

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 2

Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project includes review of identified Asbestos Containing Materials (ACMs) at 18 City owned facilities and update existing Asbestos Management Plans. This program will also include management (including testing, analysis, planning and abatement) of any other designated substances at City facilities and training for facility staff on Asbestos management. Ontario Regulation 278/05 (Designated Substance - Asbestos on construction projects and in buildings and repair operations) requires all building owners to have ongoing Asbestos Management programs at facilities where Asbestos Containing Materials (ACMs) are identified. Project supports PSAB 3280 Asset Retirement Obligation reporting through managing/abating designated substances in City facilities.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases		
Cost/Quote:	10,024	0	\$10,200 - Designated Substance Management to maintain a healthy and safe environment within City owned facilities.	
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	10,024	0		
HST Impact:	176	0		
Total Project Cost:	10,200	0		
			Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Designated Substances Management				TOTAL	
Operating Funded Life Cycle	10,200	10,200	0	0	0	10,200	0
TOTAL FUNDING	10,200					10,200	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

208

Number: 24100

Project Cost: \$132,300

Project Name: Facility Energy Management Program

Studies/Pilot Programs

Commission: Corporate Services

Useful Life: 15 Pre Approval: ☐

Department: Sustainability and Asset Management

Category: Major

Project Mgr: Amanda Martin

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Legislative compliance

5 ☐ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Funding to support citywide energy conservation & net-zero initiatives as well as operational service & improvements to building systems. Support encompasses facility retrofits, awareness & training programs, feasibility studies, technical & operational support, and building systems planning, standardization, and optimization, all adhering to the Corporate Energy Management Plan and Corporate Building Automation System Design Standards. This project also supports new incentive applications (at least \$245k planned) for net-zero and BAS projects, and other related services including measurement, verification, and reporting of energy/GHG/cost-savings, inclusive of projects identified in previous (2022/2023) net-zero capital budget requests (Project #'s 22064, 23145, and 23164 with incentives of over \$5.8M secured in principle and greater than \$7M utility cost savings forecasted over a 30-year term).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	130,000	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	130,000	0
HST Impact:	2,288	0
Total Project Cost:	132,300	0

NOTES

Project includes internal charges. The 18-time award-winning Facility Energy Management program provides additional intangible benefits through improving operational excellence, measurement and verification services, grant application support, and developing and sharing best practices. The program supports Council endorsed goal to achieve net-zero by 2050 as dictated by Municipal Energy Plan (MEP) and Corporate Energy Management Plan (CEMP), which is legislated through O.Reg 25/23. Source: Markham Energy Conservation Office (MECO).

SOURCE(S) OF FUNDING (\$)**Components**

<u>Funding Type</u>	<u>Budget</u>	<u>Energy Conservation Projects</u>	<u>TOTAL</u>	<u>Future Phases</u>
Other Internal	132,300	132,300	0	0
TOTAL FUNDING	132,300		132,300	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

210

Number: 24101

Project Cost: \$327,600

Project Name: Fire Facilities Repair and/or Replacement Projects

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 15

Pre Approval: ☐

Project Mgr: Jason Vasilaki

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Published guidelines

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Program includes various life cycle works to maintain the fire facilities in a state of good repair and in alignment to the Asset Management Plan/Policy. Funding request is based on historical budgets, life cycle database and trending of capital expenditure.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES
	2024	Future Phases	
Cost/Quote:	321,944	0	\$57,320 - FS 91 & 92 caulking, painting, fixtures, electrical, mechanical \$179,500 - FS 94, 95 & 96 flooring, millwork, caulking, electrical, mechanical \$70,380 - FS 97, 98 HVAC \$20,400 - Furniture, Fixtures & Equipment replacements (1984-2021) Project includes internal charges. Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	321,944	0	
HST Impact:	5,666	0	
Total Project Cost:	327,600	0	

SOURCE(S) OF FUNDING (\$)

Funding Type	Budget	Components					Future Phases
		FS 91 & 92	FS 94, 95 & 96	FS 97 & 98	Furniture Replacement Program	TOTAL	
Operating Funded Life Cycle	327,600	57,320	179,500	70,380	20,400	327,600	0
TOTAL FUNDING	327,600					327,600	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 395,500
				Amount Incl HST 327,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

211

Number: 24102

Project Cost: \$30,600

Project Name: Fire Systems Maintenance at Various City Facilities

Commission: Corporate Services

Department: Sustainability and Asset Management

Project Mgr: Dana Honsberger

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 1 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Maintenance of Fire & Sprinkler systems at various City facilities that is outside of the annual maintenance program. This maintenance is legislated under Ontario Fire Code (OFC). Annual maintenance through operating budget includes items such as fire/smoke sensor testing, extinguisher inspection, fire pump inspection, etc. Items under this program include non-annual tasks (tasks that are required to happen every 3 years, or 5 years or 15 years) such as dry/wet systems piping obstruction inspection, standpipe hydrostatic test, etc.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases		
Cost/Quote:	30,071	0	\$30,600 - Fire system maintenance across all locations. Project includes internal charges.	
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	30,071	0		
HST Impact:	529	0		
Total Project Cost:	30,600	0		
			Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Fire System Maintenance				TOTAL	
Operating Funded Life Cycle	30,600	30,600	0	0	0	30,600	0
TOTAL FUNDING	30,600					30,600	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 39,800
				Amount Incl HST 30,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

212

Number: 24103

Project Cost: \$168,100

Project Name: Library Facilities Repair and/or Replacement Projects

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 10

Pre Approval: ☐

Project Mgr: Jason Vasilaki

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Internal peer review

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Program includes various life cycle works to maintain the library facilities in a state of good repair and in alignment to the Asset Management Plan/Policy.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	165,193	0				
Internal Charges:	0	0				
External Consulting:	0	0				
Contingency %: 0	0	0				
Sub Total:	165,193	0				
HST Impact:	2,907	0				
Total Project Cost:	168,100	0				

NOTES
\$35,500 - Markham Village Library - metal siding, painting, pressure clean walls, basement furnishing
\$8,670 - Thornhill Village Library - painting
\$123,930 - Unionville Library - painting & HVAC (1983-2019)
Project includes internal charges.

Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Markham Library	Thornhill Village Library	Unionville Library	TOTAL		
Operating Funded Life Cycle	168,100	35,500	8,670	123,930	0	168,100	0
TOTAL FUNDING	168,100					168,100	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 245,200
				Amount Incl HST 168,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

213

Number: 24104

Project Cost: \$52,200

Project Name: Municipal Building Backflow Prevention - Annual Testing

Commission: Corporate Services

Department: Sustainability and Asset Management

Project Mgr: Jason Vasilaki

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 1 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Legislative compliance

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Testing of all backflow devices within Markham facilities must be completed, annually as outlined in By-law 2007-142.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	51,297	0				
Internal Charges:	0	0				
External Consulting:	0	0				
Contingency %: 0	0	0				
Sub Total:	51,297	0				
HST Impact:	903	0				
Total Project Cost:	52,200	0				

NOTES
\$52,200 - Testing all backflow devices installed within Markham facilities

Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget	Testing				TOTAL		
Operating Funded Life Cycle	52,200	52,200	0	0	0	52,200	0	
TOTAL FUNDING	52,200					52,200	0	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 52,200
				Amount Incl HST 52,200
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

214

Number: 24105

Project Cost: \$41,100

Project Name: Municipal Building Backflow Prevention Survey

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 5

Pre Approval: ☐

Project Mgr: Jason Vasilaki

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Legislative compliance

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Survey and testing of water backflow devices for City facilities to align with City's backflow prevention By-law 2007-142.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	40,389	0	Survey of all facilities for backflow devices must be done once every 5 years, last survey was in 2019. Testing of all installed backflow devices must be done every year.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	40,389	0	
HST Impact:	711	0	
Total Project Cost:	41,100	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Survey				TOTAL	
Operating Funded Life Cycle	41,100	41,100	0	0	0	41,100	0
TOTAL FUNDING	41,100					41,100	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 41,100
				Amount Incl HST 41,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

215

Number: 24106

Project Cost: \$347,200

Project Name: Museum - Various Buildings

Commission: Corporate Services

Department: Sustainability and Asset Management

Project Mgr: Vicky Chan / Andrea Carpenter

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Internal peer review

Requirement Validation: Visual inspection

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Building maintenance of selected buildings to maintain good repair of all Museum structures, based on condition inspection.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)			NOTES
	2024	Future Phases	
Cost/Quote:	341,150	0	\$20,320 - Annual pest management program \$20,980 - Reception Centre & HVAC replacement design \$305,900 - General includes Bandstand, Baptist Church, Burkholder Carriage Building and House, Hoover House, Jigger Shed, Mini train & Mount Joy School house. Project includes internal charges. Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	341,150	0	
HST Impact:	6,004	0	
Total Project Cost:	347,200	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Reception	Pest Control	General	TOTAL		
Operating Funded Life Cycle	347,200	20,980	20,320	305,900	0	347,200	0
TOTAL FUNDING	347,200					347,200	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 347,500
				Amount Incl HST 347,200
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

216

Number: 24107

Project Cost: \$830,900

Project Name: Operations & Parks Facilities Repair/Replacement Projects

Repair/Replace

Commission: Corporate Services

Useful Life: 15 Pre Approval: ☐

Department: Sustainability and Asset Management

Category: Major

Project Mgr: Dana Honsberger

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Visual inspection

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various life cycle works to maintain the Operations Facilities which includes operations admin buildings, park washrooms, yards and shops in a state of good repair and in alignment to the Asset Management Plan/Policy. Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	816,539	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	816,539	0
HST Impact:	14,371	0
Total Project Cost:	830,900	0

NOTES

\$187,750 - Answell Park, Central Park Shop, East Operations Yard salt building: interlock floor millwork, painting, walls, door, heating, consultant, foundation repairs/replacement/drainage. (1992-2022)
\$150,960 - Greenhouse, Milne Park washroom/shop, Toogood Pond Pavilion, West Park Shop: structural, painting, equipment, heating, wall, ventilation, consultant (2009-2019)
\$492,200 - 555 Miller/main bldg/sign shop - envelope, painting, grading, electrical, control, HVAC, equipment, consultant (1980-2019) Project includes internal charges.

SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget	Answell Park etc	Greenhouse, Milne Park washroom etc	555 Miller/main bldg/sign shop			
Operating Funded Life Cycle	830,900	187,750	150,960	492,200	0	830,910	0
TOTAL FUNDING	830,900					830,910	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,084,500
				Amount Incl HST 830,900
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Operations Facilities Life Cycle Repair/Replacement 2024 Budget Backup Pictures



Central Park Shop – kitchen cabinet and countertop replacement (past life cycle). Cabinets are starting to peel and door hinges are failing.



Central Park Shop – water heater replacement (past life cycle)

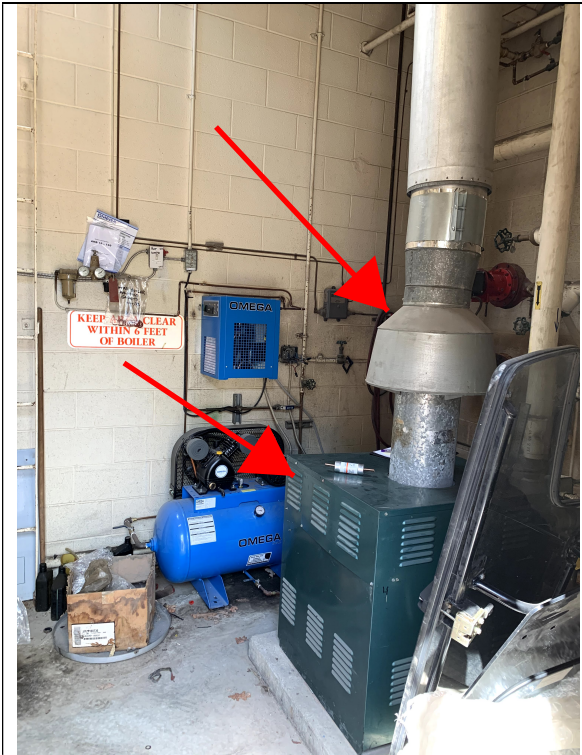


West Park Shop – damaged dry wall repairs & painting throughout (past life cycle)

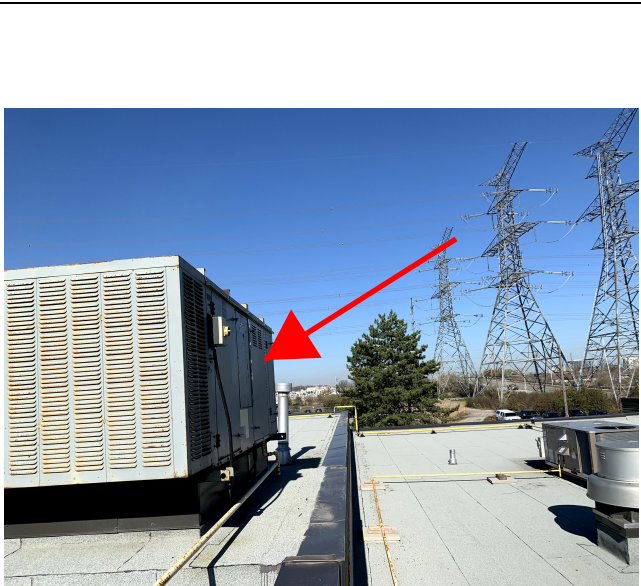


Milne Park Pavilion – painting throughout public washrooms (past life cycle)

Miller Works Yard- Main Building



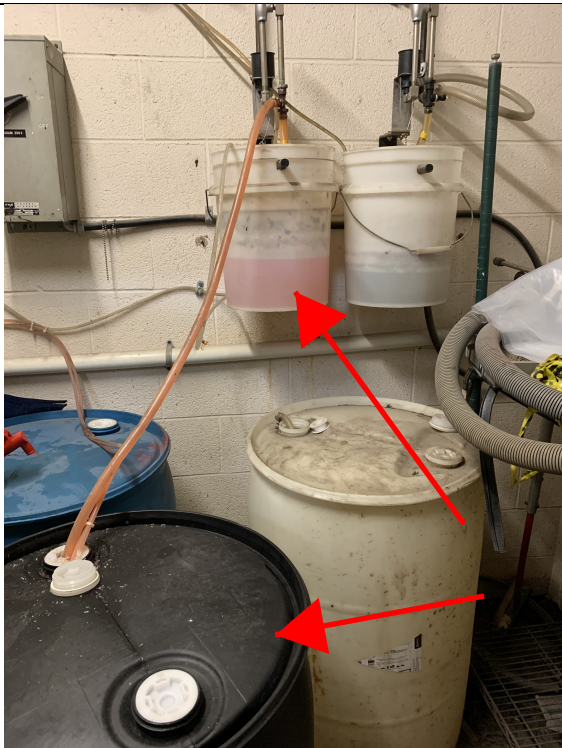
Boiler Replacement (past life cycle)



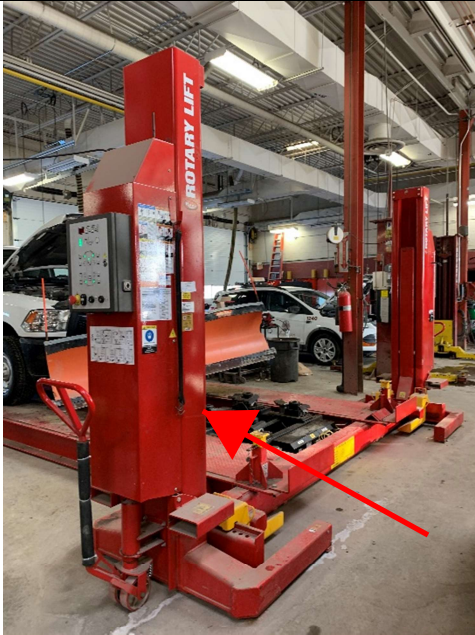
Roof top HVAC unit Replacements (past life cycle)



Roof top exhaust fans (past life cycle)



Vehicle wash cleaning fluid mixing equipment (past life cycle)



Hoist replacement (past life cycle)



Painting Throughout Maintenance & Wash Bays (past life cycle)



Damaged door Replacement (past life cycle)



Annswell Park – Sinking Interlocking requires repair around well building (past life cycle)



Toogood Pond Pavilion – assessment of deck structure



2024 PROJECT FUNDING REQUEST FORM

221

Number: 24108

Project Cost: \$25,000

Project Name: Other Facilities Repair and/or Replacement Projects

Repair/Replace

Commission: Corporate Services

Useful Life: 10

Pre Approval: ☐

Department: Sustainability and Asset Management

Category: Major

Project Mgr: Khwaja Waker

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Requirement Validation: Visual inspection

5 ☐ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Program includes various life cycle works to maintain smaller facilities in a state of good repair and in alignment to the Asset Management Plan/Policy.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases		
Cost/Quote:	24,558	0	\$15,300 - Daniels-Fairty House framing and foundation (1970-1974)	
Internal Charges:	0	0	\$9,700 - 7181 Reesor Road - architectural and envelope work (2008-2013)	
External Consulting:	0	0	Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.	
Contingency %: 0	0	0		
Sub Total:	24,558	0		
HST Impact:	432	0		
Total Project Cost:	25,000	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Fairty House	7181 Reesor rd		TOTAL		
		0	0	0	0	0	0
Operating Funded Life Cycle	25,000	15,300	9,700	0	0	25,000	0
TOTAL FUNDING	25,000					25,000	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 25,000
				Amount Incl HST 25,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

222

Number: 24109

Project Cost: \$43,100

Project Name: Parking Lot Light Replacement

Commission: Corporate Services

Department: Sustainability and Asset Management

Project Mgr: Khwaja Waker

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 25 Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This work allows for replacement of the parking lot light poles focusing on underground wiring and fixture at City owned properties. Poles for replacement are identified through another program (Parking Lot light poles/fixtures Inspection) that occurs every 5 years to meet illumination standards for safety and liability. Poles and fixtures are audited once every 5 years to identify the poles/fixtures to be replaced through this program. Replacement fixtures will be LED and dark sky compliant.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024	Future Phases	NOTES \$43,100 - Citywide parking lot light replacement Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.
Cost/Quote:			42,400	0	
Internal Charges:			0	0	
External Consulting:			0	0	
Contingency %: 0			0	0	
Sub Total:			42,400	0	
HST Impact:			746	0	
Total Project Cost:			43,100	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	All Locations				TOTAL	
Operating Funded Life Cycle	43,100	43,100	0	0	0	43,100	0
TOTAL FUNDING	43,100					43,100	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 59,400
				Amount Incl HST 54,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
\$11,000 of consultant cost was part of the 2023 in-year capital additions.				



2024 PROJECT FUNDING REQUEST FORM

223

Number: 24110

Project Cost: \$40,800

Project Name: Recycling Depots Repair and/or Replacement Projects

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 7

Pre Approval: ☐

Project Mgr: Khwaja Waker

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Internal peer review

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various life cycle works to maintain the recycling depots in a state of good repair and in alignment to the Asset Management Plan/Policy.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	40,094	0				
Internal Charges:	0	0				
External Consulting:	0	0				
Contingency %: 0	0	0				
Sub Total:	40,094	0				
HST Impact:	706	0				
Total Project Cost:	40,800	0				

NOTES
\$40,800 - Milliken Mills Recycling Depot (1970)

Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.

SOURCE(S) OF FUNDING (\$)			Components				Future Phases	
Funding Type	Budget	Milliken Mills RD				TOTAL		
Operating Funded Life Cycle	40,800	40,800	0	0	0	40,800	0	
TOTAL FUNDING	40,800					40,800	0	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 40,800
				Amount Incl HST 40,800
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

224

Number: 24111

Project Cost: \$163,200

Project Name: Roofing Maintenance and Repair

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 1

Pre Approval: ☐

Project Mgr: Michael Ryan

Category: Annual

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Internal peer review

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Project scope includes annual routine maintenance and on demand roof repairs at all City of Markham facilities. Maintenance and repair helps ensure maximum utility or life of our roof systems.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	160,377			0		0
Internal Charges:	0			0		0
External Consulting:	0			0		0
Contingency %: 0	0			0		0
Sub Total:	160,377			0		0
HST Impact:	2,823			0		0
Total Project Cost:	163,200			0		0

NOTES
\$163,200 - Roofing Maintenance and Repair

Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.

SOURCE(S) OF FUNDING (\$)			Components				Future Phases	
Funding Type	Budget	Annual Maintenance	TOTAL				Phases	
Operating Funded Life Cycle	163,200	163,200	0	0	0	163,200	0	
TOTAL FUNDING	163,200					163,200	0	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 163,200
				Amount Incl HST 163,200
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

225

Number: 24112

Project Cost: \$813,800

Project Name: Roofing Replacement Projects

Commission: Corporate Services

Department: Sustainability and Asset Management

Project Mgr: Michael Ryan

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20

Pre Approval: ☐

Category: Major

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project includes roofing and accessories replacement works at various locations throughout the City to ensure a state of good repair and in alignment to the Asset Management Plan/Policy. Roofs for replacement in the budget year will be determined in the previous year, upon completion of annual condition assessment. Funding request is based on historical budgets, Life Cycle database and trending. Condition assessment completed 2021, over a year ago, and as a result may be subject to change.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	799,700	0	\$129,080 - Elson Miles - Farm House, Pingle House, Millenium Park Washrooms & Museum Locust Hill Station - Chimney, shingles & accessories (1936-2012)
Internal Charges:	0	0	\$46,290 - Museum Hoover House, Blacksmith Shop & Harness Shop - Chimney, shingles & accessories (1865-2011)
External Consulting:	0	0	\$638,430 - Rouge River C.C., Thornhill C.C. & Unionville Library - skylight, built-up roof replacement, modified bitumen & skylight (1975-2006)
Contingency %: 0	0	0	Amount is consistent with the 2023 Life Cycle Reserve Study update. Project includes internal charges.
Sub Total:	799,700	0	
HST Impact:	14,075	0	
Total Project Cost:	813,800	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Elson Mills, Pingle House, Millenium Park & Museum	Museum Hoover, Blacksmith & Harness	Rouge River, Thornhill & Unionville	TOTAL		
Operating Funded Life Cycle	813,800	129,080	46,290	638,430	0	813,800	0
TOTAL FUNDING	813,800					813,800	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

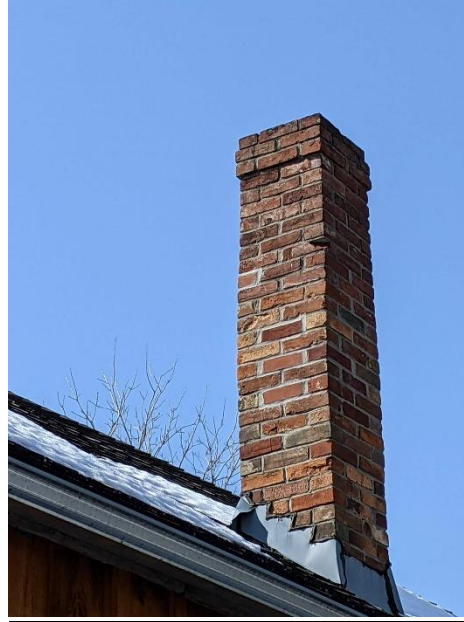
DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,019,600
				Amount Incl HST 873,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
\$60,000 of consultant cost was part of the 2023 in-year capital additions.				

2024 Budget Request Back-up Pictures

Museum Blacksmith Shop – Roofing



Museum Blacksmith Shop: Spalling of the brick and missing mortar joints.



Museum Blacksmith Shop: Spalling of the brick and missing mortar joints.



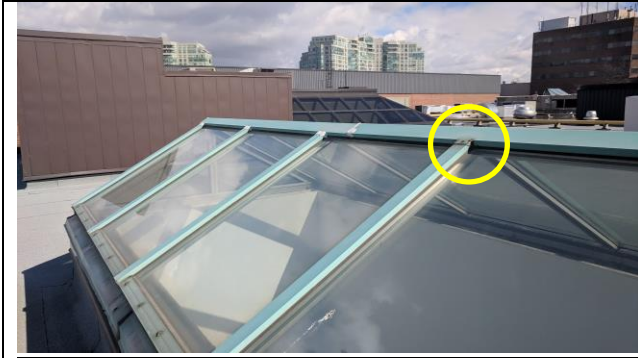
Locust Hill Station: Severely deteriorated chimney.



Elson Miles Chimney- Spalled bricks and cracked mortar joints.

	
<p>Pingle House: Leaking at Chimney as stated in consultant report. Localized repairs needed to address the leaks.</p>	<p>Museum Harness Shop: Spalling and mortar joints missing at the chimney.</p>

Thornhill Community Centre – Roof Replacement



Thornhill Community Centre: Skylight replacement, currently leaking at this location. Sealant in poor condition as shown above.



Thornhill Community Centre: Sealant degradation at the metal to glass and metal to metal joints at another skylight.



Thornhill Community Centre: Blueberries on the roof, indicates theage of the roof.



Thornhill C.C. : Vegetation growth due to ponding water.

Rouge River Community Centre – Roof Replacement



Rouge River Community Centre: Leaking at building interior in the hall area.



Rouge River Community Centre: Exposed felts on the roof and areas with wet insulation which was identified during thermography.



Rouge River Community Centre: General shot of the roof, numerous areas of wet insulation noted on the roof.



Rouge River Community Centre: Another wet area identified on the roof after roof thermography was completed.

Millenium Park Washrooms – Roof Replacement



Millenium Park Washrooms: General view of Roof



Millenium Park Washroom: Shingle deterioration at the Roof Hip.



Millenium Park Washrooms: Portion of a shingle found on the ground adjacent to the building.

Locust Hills Station – Roof Replacement



Locust Hills Station: Asphalt Shingles in poor shape and there have been reports of leakage.






Locust Hills Station: Asphalt shingles in poor condition.



Locust Hills Station: Asphalt shingles that have fallen off the roof. This roof has recently been tarped.

Hoover House – Roof Replacement

	
Hoover House: Cedar shingles on the roof are in poor condition.	Hoover House: Cedar shingles falling off the roof.
	
Hoover House: Cedar shingles have been collected which have fallen off the roof. This roof has recently been tarped.	



2024 PROJECT FUNDING REQUEST FORM

233

Number: 24113

Project Cost: \$1,577,700

Project Name: Salary Recoveries for Staff

Studies/Pilot Programs

Commission: Corporate Services

Useful Life: 1 Pre Approval: ☐

Department: Sustainability and Asset Management

Category: Major

Project Mgr: Renee England

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Cost recovery for Sustainability & Asset Management staff on Capital projects. The list of projects are as follows: Accessibility, Building Condition Audit, Corporate Security operations and system upgrades, Civic Centre, 8100 Warden, Fire facilities, Fire systems maintenance, Facility Energy Management Program (FEMP), BAS Replacement program, Library facilities, Museum - various buildings, Operation facilities, Roofing replacement, Angus Glen C.C. Window Replacement, Cornell C.C. Exhaust Fan and Overhead Doors Project.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	0	0
Internal Charges:	1,577,732	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	1,577,732	0
HST Impact:	0	0
Total Project Cost:	1,577,700	0

NOTES

The request is based on staff with varying percentage of time allocated to work on various projects.

Amount is validated and consistent with the 2023 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING (\$)**Components**

Funding Type	Budget	Salary Recovery	TOTAL	Future Phases
Operating Funded Life Cycle	1,382,400	1,382,400	0	0
Other Internal	195,300	195,332	0	0
TOTAL FUNDING	1,577,700		1,577,732	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 8,789,000
				Amount Incl HST 1,382,400
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

2024 Capital Budget Internal Charges
(Prepared: May 18, 2023)
List below excludes capital administration fees charged in Engineering and Design

								Funding Source				Total		
Department	2024 Project Name	FT/ Contract	# of Yrs	Existing / New	Position Title	First	Last	Tax	Life Cycle	Development Charges	Other	Other Funding Description	Internal Charges	Project Request (w/o Internal Charge + HST Impact)
SAM	8100 Warden	Contract	1	Existing	Project Manager				30,500			Asset Management	30,500	249,500
SAM	Accessibility Retrofit Program	Contract	1	Existing	Project Manager				12,200			Asset Management	12,200	117,300
SAM	BAS Replacement Program	Contract	1	Existing	Project Manager				177,300			Asset Management	177,300	993,000
SAM	Building Condition Audit - FTE	Full Time	1	Existing	Manager, Facility Maintenance							Asset Management		
SAM	Building Condition Audit - FTE	Full Time	1	Existing	Facility Engineer				250,600			Asset Management	250,600	-
SAM	Building Condition Audit - FTE	Contract	1	New	Facility Engineer							Asset Management	-	
SAM	Civic Centre	Contract	1	Existing	Project Manager				132,600			Asset Management	132,600	1,740,000
SAM	Corporate Security Operations & System Upgrades	Contract	1	Existing	Manager, Corporate Security							Asset Management		
SAM	Corporate Security Operations & System Upgrades	Contract	1	Existing	Coordinator, Corporate Security				275,500			Asset Management	275,500	359,000
SAM	Fire Facilities Repair and/or Replacement Projects	Full Time	1	Existing	Project Manager				68,000			Asset Management	68,000	327,500
SAM	Fire System Maintenance at Various Facilities	Contract	1	Existing	Project Manager				9,200			Asset Management	9,200	30,600
SAM	Library Facilities Repair and/or Replacement Projects	Full Time	1	Existing	Project Manager				77,100			Markham library	77,100	168,100
SAM	Museum - Various Buildings	Contract	1	Existing	Project Manager				35,000			Culture LC	35,000	340,600
SAM	Operations Facilities Repair and/or Replacement Projects	Contract	1	Existing	Project Manager				132,600				132,600	951,900
SAM	Roofing Replacement Projects	Full Time	1	Existing	Facility Engineer				145,800			Roofing Projects	145,800	873,800
SAM	Angus Glen C.C. Library Window Replacement	Contract	1	Existing	Project Manager				20,000				20,000	280,000
SAM	Cornell C.C. Exhaust Fan and Overhead Doors Project	Contract	1	Existing	Project Manager				16,000				16,000	184,000
SAM	Facility Energy Management Program	Contract	2	Existing	Energy & GHG Analyst				-		195,332	MECO	195,332	130,000
Grand Total								-	1,382,400	-	195,332		\$ 1,577,732	\$ 6,495,800



2024 PROJECT FUNDING REQUEST FORM

235

Number: 24114

Project Cost: \$79,600

Project Name: Satellite Community Centre Repair and/or Replacement

Repair/Replace

Commission: Corporate Services

Useful Life: 15

Pre Approval: ☐

Department: Sustainability and Asset Management

Category: Minor

Project Mgr: Khwaja Waker

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Condition assessment

5 ☐ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Program includes various life cycle works to maintain the satellite community centres in a state of good repair and in alignment to the Asset Management Plan/Policy.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases		
Cost/Quote:	78,223	0	\$71,400 - German Mills - basement framing (1874)	
Internal Charges:	0	0	\$8,200 - Markham Train Station - Heritage style doors (2015)	
External Consulting:	0	0	Amount is validated and consistent with the Life Cycle Reserve Study and based on the prior year annual condition assessment and cost estimation.	
Contingency %: 0	0	0		
Sub Total:	78,223	0		
HST Impact:	1,377	0		
Total Project Cost:	79,600	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	German Mills	Markham Train			TOTAL	
		0	0	0	0	0	0
Operating Funded Life Cycle	79,600	71,400	8,200	0	0	79,600	0
TOTAL FUNDING	79,600					79,600	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 79,600
				Amount Incl HST 79,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

236

Number: 24115

Project Cost: \$27,500

Project Name: Tennis Clubhouse Repair and/or Replacement Projects

Commission: Corporate Services

Repair/Replace

Department: Sustainability and Asset Management

Useful Life: 10

Pre Approval: ☐

Project Mgr: Khwaja Waker

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various Life Cycle works to maintain the Tennis Clubhouses in a state of good repair and in alignment to the Asset Management Plan/ Policy. Funding request is based on historical budgets, life cycle database and trending. Budget request is subject to change, based on condition assessment in previous year. Amount requested is consistent with 2023 Life Cycle Reserve Study update.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	27,024	0				
Internal Charges:	0	0				
External Consulting:	0	0				
Contingency %: 0	0	0				
Sub Total:	27,024	0				
HST Impact:	476	0				
Total Project Cost:	27,500	0				

NOTES
\$6,100 - Armadale Tennis Club storage rooms (2005)
\$6,100 - Pomona Valley Tennis Club cabinets (2005)
\$15,300 - Unionville Tennis Club vinyl sliding & electrical panel (1993)
As Tennis Club Policy, 50% of the costs to be funded by respective club.. Tennis clubhouse repair and/or replacement will proceed subject to satisfactory club finance review. Amount is consistent with the 2023 Life Cycle Reserve Study update. Items for repair or/and replacement in the Budget year will be determined in the previous year, upon completion of annual condition assessment.

SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget	Armadale Tennis Club	Pomona Valley Tennis Club	Unionville Tennis			
Operating Funded Life Cycle	13,750	3,050	3,050	7,650	0	13,750	0
Other External	13,750	3,050	3,050	7,650	0	13,750	0
TOTAL FUNDING	27,500					27,500	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 27,500
				Amount Incl HST 13,700
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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Recreation Services



2024 PROJECT FUNDING REQUEST FORM

239

Number: 24116

Project Cost: \$21,000

Project Name: Aaniin C.C. Dance Studio Wall Refurbishment

Commission: Community Services

Department: Recreation Services

Project Mgr: Ryan Hanna

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☒ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to remove an existing wall that separates the Dance Studio and Aerobic Studio at Aaniin C.C. The Dance Studio and Aerobic Studio are adjacent to each other. Since the opening of Aaniin C.C., demand for fitness programs and dance instructional programs has been high. However, the size of the existing rooms is unable to accommodate the needs and demands from the community. As such, this project is to remove the existing wall between the Aerobic Studio and Dance Studio, increasing its existing size, which will then accommodate large program sizes to meet community needs.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases	The existing wall is original and was constructed in 2017. The purpose of removing the existing wall is to expand and merge the two rooms into a larger space that will accommodate community demand for programs which are revenue generating. A larger space will allow staff the capability to increase program sizes. The amount requested is consistent with recent quote.	
Cost/Quote:	20,600	0		
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	20,600	0		
HST Impact:	363	0		
Total Project Cost:	21,000	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					
Operating Funded Life Cycle	21,000	21,000	0	0	0	21,000	0
TOTAL FUNDING	21,000					21,000	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
				Amount in Study: 195,700
				Amount Incl HST 21,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

240

Number: 24117

Project Cost: \$534,000

Project Name: Angus Glen C.C. Door Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Scott Hill

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☒ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace 56 interior and exterior doors and associated hardware throughout Angus Glen C.C. Doors provide security and a safety requirement. All replacement doors are fire rated. The work includes labour to remove and dispose of the existing doors, supply and installation of new doors and new door hardware.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	445,000	0
Internal Charges:	0	0
External Consulting:	40,900	0
Contingency %: 8	38,872	0
Sub Total:	524,772	0
HST Impact:	9,236	0
Total Project Cost:	534,000	0

NOTES

The existing 56 doors are original and were installed in 2003. A condition assessment of all doors and associated hardware indicates that replacement is warranted. All labour and materials are included. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)

Funding Type	Budget	Components					TOTAL	Future Phases
Operating Funded Life Cycle	534,000	0	0	0	0	0	0	0
TOTAL FUNDING	534,000						0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,724,200
				Amount Incl HST 534,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Angus Glen CC Door Replacement

- Doors replacement project consist of replacing 56 interior and exterior doors and all hardware on doors
- Doors have a life cycle of 20 years. Based on condition assessment of existing doors and associated hardware, the doors require replacement
- Doors within Angus Glen CC have deteriorated. Pictures in next slide show dents, cracked doors, doors in the pool environment that have severe corrosion, etc.
- Doors must meet Fire Code requirements and are all fire-rated doors.





2024 PROJECT FUNDING REQUEST FORM

243

Number: 24118

Project Cost: \$314,700

Project Name: Angus Glen C.C. Exterior Entrance Interlock Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Scott Hill

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☒ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the existing exterior interlock walkway on the South side of the Angus Glen C.C. To maintain the safety of the community, it is important that entrances and walkways are accessible and are in good condition. The work includes; material, labour and all other trades required for the work.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	262,250	0
Internal Charges:	0	0
External Consulting:	24,100	0
Contingency %: 8	22,908	0
Sub Total:	309,258	0
HST Impact:	5,443	0
Total Project Cost:	314,700	0

NOTES

The walkway is original and was installed in 2003. Based on condition assessment, the existing walkways warrants replacement. All interlock pavers will be replaced with concrete as per City standards. Cost per sq ft of concrete including labour is \$31.72, and 8,267 sq ft has been identified to be replaced. \$31.72 x 8,267 sq ft = \$262,229. The amount requested is consistent with recent award.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	314,700	0	0	0	0	0	0
TOTAL FUNDING	314,700				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,724,200
				Amount Incl HST 314,700
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

244

Number: 24119

Project Cost: \$56,000

Project Name: Angus Glen C.C. Heat Exchanger Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Scott Hill

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☒ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the existing heat exchanger for the main pool at Angus Glen C.C. The heat exchanger is a fundamental component in the operation of a pool. The heat exchanger is used to maintain consistent water temperatures for users on a daily basis.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)		2024	Future Phases
Cost/Quote:		46,667	0
Internal Charges:		0	0
External Consulting:		4,767	0
Contingency %: 7		3,600	0
Sub Total:		55,034	0
HST Impact:		969	0
Total Project Cost:		56,000	0

NOTES

The existing heat exchanger is original and was installed in 2004. Based on the condition assessment of the unit, replacement is warranted. This project will include the removal of the existing unit, supply and installation of a new heat exchanger. The work includes labour and materials. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	56,000	0	0	0	0	0	0
TOTAL FUNDING	56,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,724,200
				Amount Incl HST 56,000
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

245

Number: 24120

Project Cost: \$66,100

Project Name: Angus Glen C.C. Lighting Panel Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Scott Hill

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☒ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing Douglas Lighting Control System at the Angus Glen C.C. The existing system is now obsolete with limited or no access to replacement parts for the lighting relay panels. The existing system is integrated with the building automation system (BAS) with adjustable schedules for lighting requirements. The lighting control system allows a central access point to all lighting units across Angus Glen C.C. The replacement system will consist of the same BAS integration.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES
	2024	Future Phases	
Cost/Quote:	55,143	0	The lighting panel at Angus Glen C.C. is original and was installed in 2003. This project is to replace the existing lighting control system as the existing lighting control system is now obsolete, replacement parts are difficult to find for necessary repairs. The amount requested is consistent with recent quote.
Internal Charges:	0	0	
External Consulting:	5,047	0	
Contingency %: 8	4,815	0	
Sub Total:	65,005	0	
HST Impact:	1,144	0	
Total Project Cost:	66,100	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					
Operating Funded Life Cycle	66,100	0	0	0	0	0	0
TOTAL FUNDING	66,100	0					0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,724,200
				Amount Incl HST 66,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

246

Number: 24121

Project Cost: \$183,400

Project Name: Angus Glen C.C. Pool Drytron Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Scott Hill

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☒ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the drycooler within the pool at Angus Glen C.C. The pool drycooler is located on the roof above the pool and is a critical mechanical component of pool operations. The pool drycooler cools the glycol for the pool air conditioning and dehumidification unit. The unit is necessary in a wet pool environment to help keep air dry to reduce mold.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	152,767	0
Internal Charges:	0	0
External Consulting:	15,700	0
Contingency %: 7	11,793	0
Sub Total:	180,260	0
HST Impact:	3,173	0
Total Project Cost:	183,400	0

NOTES

The existing pool drycooler is original and was installed in 2004. A condition assessment completed on the asset indicates replacement is warranted. The drycooler is used to remove heat from the glycol used for pool dehumidification and air conditioning. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)

Funding Type	Budget	Components					TOTAL	Future Phases
Operating Funded Life Cycle	183,400	0	0	0	0	0	0	0
TOTAL FUNDING	183,400						0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,724,200
				Amount Incl HST 183,400
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

247

Number: 24122

Project Cost: \$48,000

Project Name: Angus Glen Tennis Centre Exit Blocks Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Scott Hill

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☒ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 25 Pre Approval: ☐

Category: Minor

Cost Validation: External peer review

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to mitigate continued water leakage experienced at Angus Glen Tennis Centre by replacing blocks near emergency exits along the East and West walls at Angus Glen Tennis Centre. In 2022, an external consultant conducted a water test and identified the cause of external water leaks stemming from the through-wall flashing not being terminated at the swing door jambs. The report recommended that the through-wall flashing at the swing doors be exposed for the end dams within the blocks and the blocks be replaced, the metal flashing joints will then be properly sealed with an approved sealant. Cost of the project consist of all labour and material.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	40,000	0
Internal Charges:	0	0
External Consulting:	3,700	0
Contingency %: 8	3,496	0
Sub Total:	47,196	0
HST Impact:	831	0
Total Project Cost:	48,000	0

NOTES

The block walls near emergency exits at Angus Glen Tennis Centre are original and were built in 2011. Based on condition assessment made by an engineer consultant, the blocks surrounding emergency exits indicate replacement is necessary. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)

Funding Type	Components						Future Phases
	Budget				TOTAL		
Operating Funded Life Cycle	48,000	0	0	0	0	0	0
TOTAL FUNDING	48,000				0		0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,724,200
				Amount Incl HST 48,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

248

Number: 24123

Project Cost: \$22,000

Project Name: Angus Glen Tennis Centre Fire Alarm System Replacement

Repair/Replace

Commission: Community Services

Useful Life: 19 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Scott Hill

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Condition assessment

5 ☐ 6 ☒ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the existing fire prevention system at the Angus Glen Tennis Centre. The fire prevention system is legislative equipment and is in place to ensure life safety support features are functional and supportive throughout the facility. The fire alarm system being replaced includes one (1) annunciator panel, 12 pull stations, four (4) smoke detectors, two (2) heat detectors, 11 input modules, eight (8) horn strokes, two (2) strobes, a supervisor switch, labour and disposal.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	18,350	0	The existing fire system at the Angus Glen Tennis Centre is original and was installed in 2011. Though the useful life is not over, a condition assessment of the current system indicates that replacement is warranted. The existing system is also obsolete, making it difficult to locate parts for replacement when required. The amount requested is consistent with recent quote.
Internal Charges:	0	0	
External Consulting:	1,835	0	
Contingency %: 7	1,413	0	
Sub Total:	21,598	0	
HST Impact:	380	0	
Total Project Cost:	22,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	22,000	0	0	0	0	0	0
TOTAL FUNDING	22,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 1,724,200
				Amount Incl HST 22,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

249

Number: 24124

Project Cost: \$8,000

Project Name: Armadale C.C. Expansion Tank Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Ryan Hanna

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☒

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing expansion tank at Armadale C.C. An expansion tank alleviates the thermal expansion of water as it heats up in the facility's boiler system, which then prevents excessive water pressure. The expansion tank also extends the life of the boiler system.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	7,900	0	The existing expansion tank is original and was installed in 1995. Based on condition assessment of the unit replacement is warranted. Replacement will ensure that water pressure is maintained within the pipes and the facility's boiler system. The amount requested is consistent with recent quote.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	7,900	0	
HST Impact:	139	0	
Total Project Cost:	8,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	8,000	8,000	0	0	0	8,000	0
TOTAL FUNDING	8,000					8,000	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 285,900
				Amount Incl HST 8,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

250

Number: 24125

Project Cost: \$7,700

Project Name: Camp Chimo Flag Pole Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☒ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20

Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace one (1) flag pole by the front entrance entering into Camp Chimo.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	7,600	0	The existing flag pole was installed in 2004. A condition assessment indicates that replacement is warranted. The amount requested is consistent with recent award.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	7,600	0	
HST Impact:	134	0	
Total Project Cost:	7,700	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	7,700	0	0	0	0	0	0
TOTAL FUNDING	7,700					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 7,800
				Amount Incl HST 7,700
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

251

Number: 24126

Project Cost: \$1,113,500

Project Name: Centennial C.C. Arena Pad Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 30 Pre Approval: ☒

Category: Major

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the existing arena pad and header trench system in the arena at Centennial C.C. To support the ice making process, arena refrigerant is distributed to the network of pipes located within the refrigerated cold floor, typically concrete. This movement of refrigerant is accomplished via a set of supply and return headers, which are normally located within an open trench covered by either wood planks or steel. This replacement project will include the concrete pad, the header return and supply piping, the header trench and the underfloor heating.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases		
Cost/Quote:	986,100	0	The existing arena concrete pad and header piping system were installed in 1983. A condition assessment indicates that replacement is warranted. The amount requested is consistent with recent award plus inflation. Arena Pad and Header Pipes = \$1,113,500	
Internal Charges:	0	0		
External Consulting:	56,000	0		
Contingency %: 5	52,105	0		
Sub Total:	1,094,205	0		
HST Impact:	19,258	0		
Total Project Cost:	1,113,500	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Arena Pad	Header Trench	Consultant		TOTAL	
Operating Funded Life Cycle	1,113,500	974,984	81,531	56,985	0	1,113,500	0
TOTAL FUNDING	1,113,500					1,113,500	0

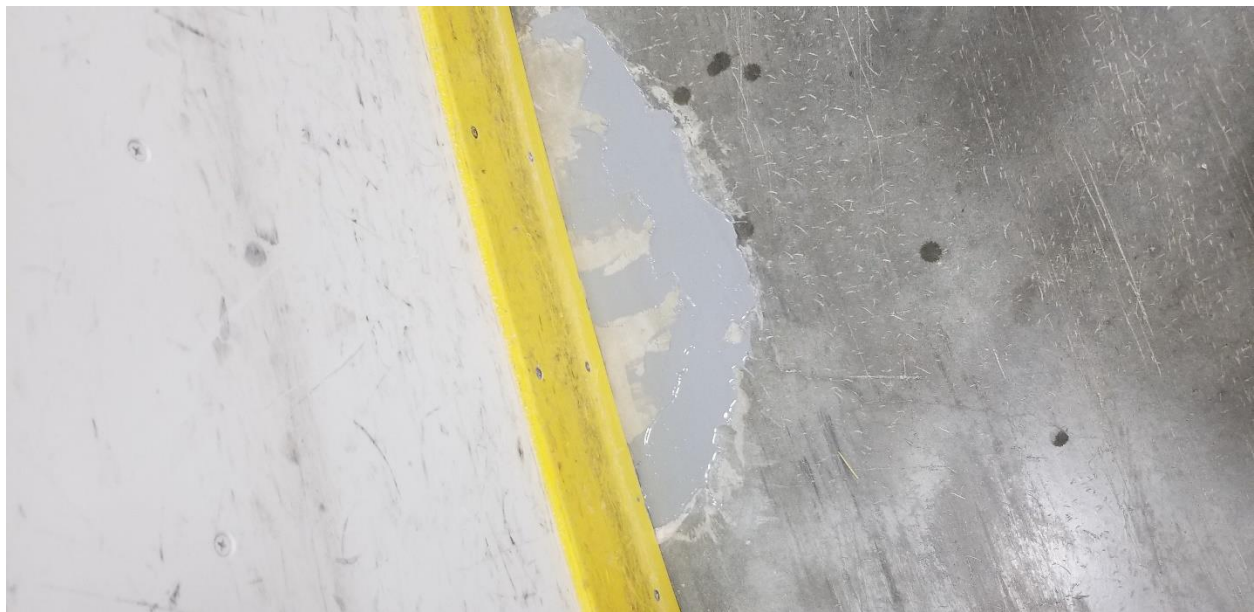
OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 3,166,200
				Amount Incl HST 1,113,500
				Year in the study 2025
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				









2024 PROJECT FUNDING REQUEST FORM

255

Number: 24127

Project Cost: \$84,500

Project Name: Centennial C.C. Arena Washrooms Refurbishment

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 25 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to refurbish (2) two arena washrooms in Centennial C.C. This project has three components.

- 1) To replace existing floor and wall tiles and partitions in the arena washrooms;
- 2) To replace the counters and mirrors and;
- 3) To repaint the existing arena washrooms.

The work includes material, labour and all other trades required for the work.

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PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	68,628	0	The existing arena washrooms were last refurbished in 1999. Based on condition assessment replacement is warranted. The amount requested is consistent with recent quote. Floor Tile (2,240 sq ft x \$9.29 per sq ft) = \$20,806 Wall Tile (2,587 sq ft x \$9.29 per sq ft) = \$24,030 Partitions (10 x \$1,384 per unit) = \$13,841 Counters x 2 = \$9,895 Painting = \$1,262
Internal Charges:	0	0	
External Consulting:	6,862	0	
Contingency %: 10	7,549	0	
Sub Total:	83,039	0	
HST Impact:	1,461	0	
Total Project Cost:	84,500	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Wall & Floor Tiles	Partitions & Counter	Painting	Consultant & Contingency	TOTAL	
Operating Funded Life Cycle	84,500	44,837	23,757	1,262	14,644	84,500	0
TOTAL FUNDING	84,500					84,500	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,760,100
				Amount Incl HST 84,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

256

Number: 24128

Project Cost: \$710,800

Project Name: Centennial C.C. Mechanical Replacement

Repair/Replace

Commission: Community Services

Useful Life: 18

Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Luke Hilts

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐

Requirement Validation: Condition assessment

5 ☐ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace 24 rooftop HVAC units at Centennial C.C. The HVAC units being replaced are heat pumps. Heat pumps are designed to provide both heating and cooling for the community centre. The heat pump replacements are located in the arena lobby, bocce courts, fitness centres, pool training room, pool view deck lobby and the gymnasium. The work includes; material, labour and all other trades required for the work. Centennial C.C. has been identified as a Net Zero facility and has undergone an audit that determines key equipment to replace over the next 5 years. This replacement will follow the recommendations as outlined in the energy audit and will help to achieve the City's Net Zero targets. The proposed heat pumps will be upgarded with high efficiency that aims to reduce greenhouse gas (GHG) emissions.

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PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	610,000	0
Internal Charges:	0	0
External Consulting:	25,000	0
Contingency %: 10	63,500	0
Sub Total:	698,500	0
HST Impact:	12,294	0
Total Project Cost:	710,800	0

NOTES

The HVAC units were last replaced in 2007. Based on condition assessment replacement is warranted. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)**Components**

Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	710,800	0	0	0	0	0	0
TOTAL FUNDING	710,800				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

Amount in
Study

Life Cycle

Amount in Study: 3,166,200

Amount Incl HST 710,800

Year in the study 2025

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

4.23 RTU upgrade - ASHP

Measure description

Existing condition

RTU1-8 are natural gas-fired.

Capital renewal plan

The capital renewal plan for the equipment affected in this measure was obtained from documentation provided by City of Markham and is summarized as follows.

- **Expected life.** 24 years.
- **Renewal schedule.** 2024.
- **Renewal cost.** \$155,000.

Potential action

Upon the end of their useful lives, replace with one-to-one packaged air-source heat pump (ASHP) RTUs with electric resistance supplemental heating.

Utility-savings mechanism

Reduced GHG emissions through fuel-switching natural gas-fired equipment to electrically-powered ground-source heat pumps. Natural gas use will be reduced; electricity use will be increased.

Scope of Implementation

There are currently 8 rooftop units serving various locations within the building. These units are gas fired and will be replaced with equivalent sized air source heat pump units.

- Rooftop units to be replaced with Daikin Rebel Packaged systems.
- Units will be capable of VAV or single zone operation with economizers and variable speed fans.

Maintenance Cost Estimate

- No changes to maintenance cost are expected with this modification.

Project Cost Estimate

Project cost estimates are summarized as follows:

Table 60: Project cost estimate

Line item	Unit	Value
Supply	[\$]	359,000
Install	[\$]	180,000
Electrical	[\$]	30,000
Contingency	[\$]	56,900
Subtotal (Construction)	[\$]	625,900
Engineering Design and Field Review	[\$]	43,813
PM, CM, Commissioning, M&V, Performance Guarantee	[\$]	43,813
Subtotal (Construction + Design + Management)	[\$]	713,526
HST	[\$]	0
Total	[\$]	713,526

Due to impacts of COVID-19, there is significant volatility in market conditions that affect project cost on an ongoing basis. Also, HST is intentionally set to zero.

Utility analysis

Baseline: Heat source of the systems is assumed to be natural gas combustion. Proposed: Heat source of the systems is assumed to be electrically-energized air-source heat pumps.

Analysis results are summarized in the following table.

Table 61: Analysis results summary

Category	Description	Unit	Baseline	Proposed	Reduction	Reduction (%)
Utility use	Electricity use from grid	[kWh/yr]	2,741,614	3,317,353	-575,739	-21.0
	Electricity peak (avg)	[kW]	478	568	-90	-18.8
	Natural gas use	[m3/yr]	348,218	244,862	103,356	29.7
GHG emissions	Electricity GHG emissions	[tCO2e/yr]	89	107	-18	-20.2
	Natural gas GHG emissions	[tCO2e/yr]	665	468	197	29.6
	Carbon offsets	[tCO2e/yr]	0	0	0	-
	Total GHG emissions	[tCO2e/yr]	754	575	179	23.7
Utility cost	Electricity utility cost	[\$/yr]	419,892	508,069	-88,177	-21.0
	Natural gas utility cost	[\$/yr]	72,851	51,228	21,623	29.7
	Federal carbon charge	[\$/yr]	13,302	9,354	3,948	29.7
	Carbon offsets	[\$/yr]	0	0	0	-
	Total utility cost	[\$/yr]	506,045	568,651	-62,606	-12.4
Financial	Capital budget	[\$]	-	155,000	-	-
	Total project cost	[\$]	-	713,526	-	-
	Incremental project cost	[\$]	-	558,526	-	-
	Life cycle cost	[\$]	-	-1,470,899	-	-

The information in the Utility use, GHG emissions, and Utility cost sections are relative to the 2019 energy baseline. For the last Financial section, LCCA analysis is done from 2024-2054. This is to address the inherent inconsistency of wanting to compare energy savings to a past baseline while wanting to estimate the financials of the measure implementation in the future.

4.24 RTU upgrade - GSHP

Measure description

Existing condition

RTU1-8 are natural gas-fired.

Capital renewal plan

The capital renewal plan for the equipment affected in this measure was obtained from documentation provided by City of Markham and is summarized as follows.

- **Expected life.** 24 years.
- **Renewal schedule.** 2024.
- **Renewal cost.** \$155,000.

Potential action

Upon the end of their useful lives, replace with one-to-one packaged water-source heat pump (GSHP) RTUs served by the ground heat exchanger proposed under the measure called Geothermal.

Utility-savings mechanism

Reduced GHG emissions through fuel-switching natural gas-fired equipment to electrically-powered ground-source heat pumps. Natural gas use will be reduced; electricity use will be increased.

Scope of Implementation

There are currently 8 rooftop units serving various locations within the building. These units are gas fired and will be replaced with equivalent sized geothermal heat pump units.

- Rooftop units to be replaced with ClimateMaster TRE roof top heat pumps.

Maintenance Cost Estimate

- No changes to maintenance cost are expected with this modification.

Project Cost Estimate

Project cost estimates are summarized as follows:

Table 62: Project cost estimate

Line item	Unit	Value
Supply	[\$]	210,000
Install	[\$]	280,000
Piping and geothermal connections	[\$]	80,000
Contingency	[\$]	57,000
Subtotal (Construction)	[\$]	627,000
Engineering Design and Field Review	[\$]	43,890
PM, CM, Commissioning, M&V, Performance Guarantee	[\$]	43,890
Subtotal (Construction + Design + Management)	[\$]	714,780
HST	[\$]	0
Total	[\$]	714,780

Due to impacts of COVID-19, there is significant volatility in market conditions that affect project cost on an ongoing basis. Also, HST is intentionally set to zero.

Utility analysis

Baseline: Heat source of the systems is assumed to be natural gas combustion. Proposed: Heat source of the systems is assumed to be electrically-energized ground-source heat pumps.

Analysis results are summarized in the following table.

Table 63: Analysis results summary

Category	Description	Unit	Baseline	Proposed	Reduction	Reduction (%)
Utility use	Electricity use from grid	[kWh/yr]	2,741,614	3,261,620	-520,006	-19.0
	Electricity peak (avg)	[kW]	478	534	-56	-11.7
	Natural gas use	[m3/yr]	348,218	245,689	102,529	29.4
GHG emissions	Electricity GHG emissions	[tCO2e/yr]	89	106	-17	-19.1
	Natural gas GHG emissions	[tCO2e/yr]	665	469	196	29.5
	Carbon offsets	[tCO2e/yr]	0	0	0	-
	Total GHG emissions	[tCO2e/yr]	754	575	179	23.7
Utility cost	Electricity utility cost	[\$/yr]	419,892	499,533	-79,641	-19.0
	Natural gas utility cost	[\$/yr]	72,851	51,401	21,450	29.4
	Federal carbon charge	[\$/yr]	13,302	9,385	3,917	29.4
	Carbon offsets	[\$/yr]	0	0	0	-
	Total utility cost	[\$/yr]	506,045	560,320	-54,275	-10.7
Financial	Capital budget	[\$]	-	155,000	-	-
	Total project cost	[\$]	-	714,780	-	-
	Incremental project cost	[\$]	-	559,780	-	-
	Life cycle cost	[\$]	-	-1,236,939	-	-

The information in the Utility use, GHG emissions, and Utility cost sections are relative to the 2019 energy baseline. For the last Financial section, LCCA analysis is done from 2024-2054. This is to address the inherent inconsistency of wanting to compare energy savings to a past baseline while wanting to estimate the financials of the measure implementation in the future.



2024 PROJECT FUNDING REQUEST FORM

262

Number: 24129

Project Cost: \$61,600

Project Name: Centennial C.C. Pool Heat Exchanger Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace two (2) heat exchangers in the men's and women's fitness changeroom at Centennial C.C. The pool heat exchangers are used to maintain pool temperatures and supplies heated water to the whirlpools. The cost consist of labour and material.

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PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	55,000	0	The existing two (2) heat exchangers were installed in 2009. A condition assessment of the pool heat exchangers indicates replacement is warranted. The amount requested is consistent with recent quote.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 10	5,500	0	
Sub Total:	60,500	0	
HST Impact:	1,065	0	
Total Project Cost:	61,600	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	61,600	0	0	0	0	0	0
TOTAL FUNDING	61,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,760,100
				Amount Incl HST 61,600
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

263

Number: 24130

Project Cost: \$23,500

Project Name: Centennial C.C. Pool Maintenance Equipment Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 7 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace one (1) power washer and one (1) pool vacuum. The power washer and pool vacuum are used to maintain cleanliness on the pool deck, changerooms and pool basin within Centennial C.C.

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PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	23,100			0		0
Internal Charges:	0			0		0
External Consulting:	0			0		0
Contingency %: 0	0			0		0
Sub Total:	23,100			0		0
HST Impact:	407			0		0
Total Project Cost:	23,500			0		0

NOTES

The existing power washer and vacuum were purchased in 2017. A condition assessment indicated that replacement is warranted. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Pool Vacuum	Power Washer		TOTAL		
Operating Funded Life Cycle	23,500	7,751	15,749	0	0	23,500	0
TOTAL FUNDING	23,500					23,500	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,760,100
				Amount Incl HST 23,500
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

264

Number: 24131

Project Cost: \$1,250,100

Project Name: Centennial C.C. Refrigeration System Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 25 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace arena refrigeration system consisting of the compressors, chiller and condenser at Centennial C.C. The identified refrigeration equipment work together to create a solid, safe and high-quality ice surface for various ice activities. Centennial C.C. has been identified as a Net Zero facility and has undergone a study that will transform its key refrigeration equipment such that the new system helps to achieve the City's Net Zero targets.

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PROJECT COSTS (\$)			NOTES	
	2024	Future Phases	The existing three (3) compressors, two (2) condensers, chiller and header pipes were last replaced in 1999 and are all past their useful life. Based on condition assessment as part of CIMCO's annual assessment report, replacement is warranted. Recreation is currently undergoing an arena refrigeration study that will determine the appropriate refrigerant to use as part of this replacement project. The amount requested is consistent with recent quote.	
Cost/Quote:	1,120,000	0		
Internal Charges:	0	0		
External Consulting:	50,000	0		
Contingency %: 5	58,500	0		
Sub Total:	1,228,500	0		
HST Impact:	21,622	0		
Total Project Cost:	1,250,100	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Compressors	Chiller	Condenser	Brine Cooler	TOTAL	
Operating Funded Life Cycle	1,250,100	450,000	300,000	218,100	282,000	1,250,100	0
TOTAL FUNDING	1,250,100					1,250,100	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 3,166,200
				Amount Incl HST 1,250,100
				Year in the study 2025
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Table 7: Refrigeration compressor summary (*continued*)

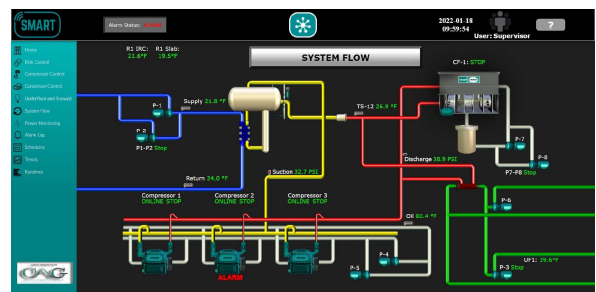
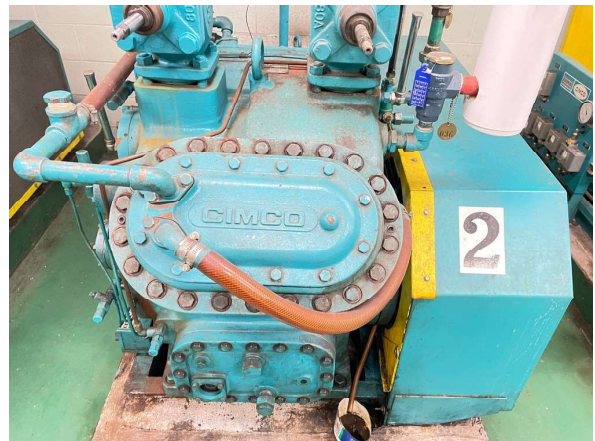
Tag	Serves	Utility	Output
COMP3	Ice cooling	Electricity	50.0
CH1	Ice cooling brine chiller	-	-

Refrigeration plant Refrigeration for rink ice cooling is provided by an ammonia refrigeration plant. The plant consists of three compressors. The discharge of the compressors combine into a hot gas header. The hot gas header flows through an evaporative fluid cooler (EC1) to reject heat. A branch off the hot gas header flows through an ammonia-to-glycol heat exchanger (HX1) to recover heat; the recovered heat serves both under-slab heating and snow-melt. After being cooled, the ammonia is expanded to a low pressure. Cold, low-pressure liquid ammonia flows through an ammonia-to-glycol heat exchanger to cool the glycol (and the ammonia is evaporated in this process). The cold glycol circulates through a concrete slab below the ice pad to cool the ice. Cold refrigerant gas returns to the suction of the compressors to complete the refrigeration cycle.

Compressor jackets are cooled via a glycol loop, which runs between the compressors and EC1. Cooling water is circulated between a water storage tank (T1) and the evaporative fluid cooler (EC1).

The refrigeration plant is controlled as follows.

- Three temperature sensors are used to monitor ice temperature (Infrared, slab and glycol return). These sensors are prioritized in the order presented as to the reading used for control, in the event of error.
- The refrigeration system is controlled to maintain ice temperature setpoint.
- Ice temperature setpoint is presently set on a weekly schedule: 22 F (during day, games) and 23 F (during night).
- Cooling glycol pumps turn ON when the ice goes above setpoint; OFF when setpoint is achieved.
- Compressors are staged ON and OFF based on suction pressure setpoint (no compressor speed controls).
- The heat rejection system is controlled to maintain discharge pressure below a floating setpoint.
- The floating discharge pressure setpoint is determined based on wet bulb temperature with the intent of minimizing compressor energy use.
- The glycol heat rejection system is staged in the following order to maintain the floating discharge pressure setpoint.
- Glycol circulation pumps turn ON; fluid cooler fans turn ON; basin water circulation pumps turn ON.



RTU8 RTU8 is a 100% OA, constant volume packaged rooftop unit with natural gas-fired heating and DX cooling that provides ventilation, heating and cooling to the women's fitness centre change rooms. The operating schedule is likely to match that of the space operation (e.g. ON at 6 AM, OFF at midnight, daily), though this is not confirmed due to issues with the BAS head-end server.



HP1-HP22 (Water source heat pumps) HP1-HP22 are water-source heat pumps (WSHPs), which provide space heating and cooling throughout the non-rink spaces. Ventilation air from ERV1-ERV3 is ducted into the return of the WSHPs. Each WSHP is controlled by its own thermostat located in the space it serves. WSHP fans are single-speed and are believed cycle ON and OFF to maintain space temperature setpoint (some units appeared to be in 'auto' mode on the BAS).



AHU1 and Munters (Pool HVAC) AHU1 is a constant volume, mixed air unit with hot water heating coils and no cooling that serves the pool space. AHU1 has two OA intakes: one is for direct outside air, the second is from the discharge of the Munters unit, located on the roof. The Munters unit contains a desiccant wheel and DX cooling for refrigeration to control humidity. Plain English control sequences obtained from the BAS indicate that the system is used to control to a user-defined space humidity setpoint. The units initially operated on a schedule (approx 6 AM to midnight); existing operation cannot be confirmed due to communication issues with the head-end BAS server. The BAS includes return air temperature (RAT) and humidity (RAH) analog input points, and a supply air temperature (SAT) analog output point. The BAS also includes RAT and RAH setpoints. It is believed that the SAT is controlled based on RAT and RAT setpoint, and that both the mixed air dampers and Munters unit are controlled based on RAH and RAH setpoint. Also, both AHU1 supply and return fans have VFDs, but there are no output points for them in the BAS; they are assumed to be used for balancing only.



4.18 Refg plant upgrade - NH3

Measure description

Existing condition

The refrigeration plant consists of three reciprocating ammonia compressors that stage ON and OFF to maintain suction pressure. Compressors are constant speed. The refrigeration plant includes heat recovery for under-slab heating and snow-melt.

Capital renewal plan

The capital renewal plan for the equipment affected in this measure was obtained from documentation provided by City of Markham and is summarized as follows.

- **Expected life.** 23 years.
- **Renewal schedule.** 2022.
- **Renewal cost.** \$1,221,153.

Potential action

Upgrade refrigeration system to incorporate variable speed screw compressors as a method to improve compressor COP.

Utility-savings mechanism

Reduced refrigeration compressor energy use due to increased average energy-efficiency (COP) of compressors.

Scope of Implementation

This measure considers replacing the existing compressors with high-efficiency screw compressors at the end of their useful lives. Please find a proposal from CIMCO in the Appendix, which provides detail on the proposed solution and project cost estimate.

Project Cost Estimate

Project cost estimates are summarized as follows:

Table 49: Project cost estimate

Line item	Unit	Value
New screw compressors (supply and install)	[\$]	580,000
Other equipment lifecycle renewal (supply and install)	[\$]	890,000
Contingency	[\$]	147,000
Subtotal (Construction)	[\$]	1,617,000
Engineering Design and Field Review	[\$]	113,190
PM, CM, Commissioning, M&V, Performance Guarantee	[\$]	113,190
Subtotal (Construction + Design + Management)	[\$]	1,843,380
HST	[\$]	0
Total	[\$]	1,843,380

Due to impacts of COVID-19, there is significant volatility in market conditions that affect project cost on an ongoing basis. Also, HST is intentionally set to zero.

Utility analysis

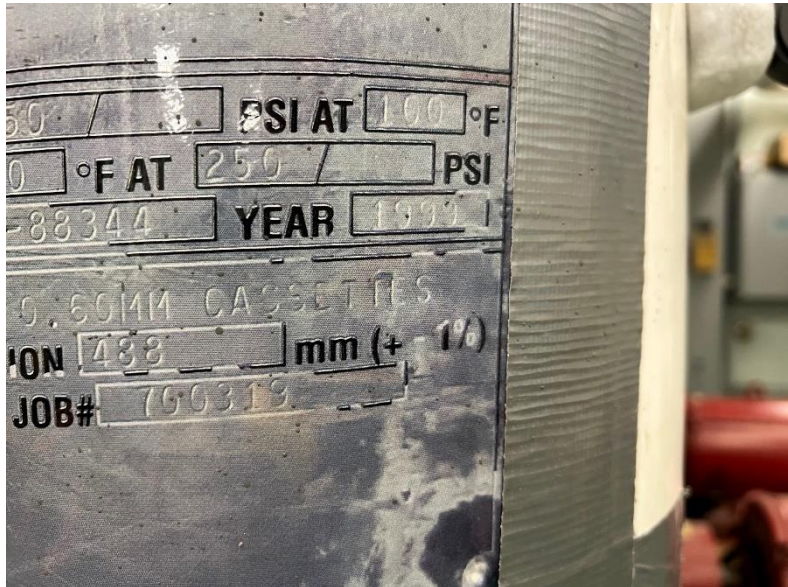
Baseline: Refrigeration plant COP of 2 is assumed. Proposed: Refrigeration plant COP of 2.5 is assumed.

Analysis results are summarized in the following table.

Table 50: Analysis results summary

Category	Description	Unit	Baseline	Proposed	Reduction	Reduction (%)
Utility use	Electricity use from grid	[kWh/yr]	2,741,614	2,620,330	121,284	4.4
	Electricity peak (avg)	[kW]	478	460	18	3.8
	Natural gas use	[m3/yr]	348,218	348,218	0	0.0
GHG emissions	Electricity GHG emissions	[tCO2e/yr]	89	85	4	4.5
	Natural gas GHG emissions	[tCO2e/yr]	665	665	0	0.0
	Carbon offsets	[tCO2e/yr]	0	0	0	-
	Total GHG emissions	[tCO2e/yr]	754	750	4	0.5
Utility cost	Electricity utility cost	[\$/yr]	419,892	401,317	18,575	4.4
	Natural gas utility cost	[\$/yr]	72,851	72,851	0	0.0
	Federal carbon charge	[\$/yr]	13,302	13,302	0	0.0
	Carbon offsets	[\$/yr]	0	0	0	-
	Total utility cost	[\$/yr]	506,045	487,470	18,575	3.7
Financial	Capital budget	[\$]	-	1,221,153	-	-
	Total project cost	[\$]	-	1,843,380	-	-
	Incremental project cost	[\$]	-	622,227	-	-
	Life cycle cost	[\$]	-	-81,560	-	-

The information in the Utility use, GHG emissions, and Utility cost sections are relative to the 2019 energy baseline. For the last Financial section, LCCA analysis is done from 2024-2054. This is to address the inherent inconsistency of wanting to compare energy savings to a past baseline while wanting to estimate the financials of the measure implementation in the future.





2024 PROJECT FUNDING REQUEST FORM

270

Number: 24132

Project Cost: \$8,700

Project Name: Clatworthy Arena Expansion Joint Refurbishment

Commission: Community Services

Department: Recreation Services

Project Mgr: Martin Barrow

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 30

Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to refurbish the existing expansion joints around Clatworthy arena. Exterior brick walls on large buildings are not built in a continuous fashion. During construction, walls are built in sections with vertical joints joining the aforementioned sections. These joints are called expansion joints and allow for small movement (expansion and contraction) of the wall sections. Joints are filled with a foam bead and then caulking to maintain the integrity of the wall system. Over time the caulking and foam will break down due to exposure to the elements, requiring the joints to be refurbished.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	8,550	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	8,550	0
HST Impact:	150	0
Total Project Cost:	8,700	0

NOTES

Existing expansion joints are original and were installed in 1981. The caulking has dried out and has deteriorated. A condition assessment of the joints indicates refurbishment is warranted. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)

Funding Type	Components						Future Phases
	Budget					TOTAL	
Operating Funded Life Cycle	8,700	0	0	0	0	0	0
TOTAL FUNDING	8,700					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 283,700
				Amount Incl HST 8,700
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

271

Number: 24133

Project Cost: \$25,000

Project Name: Clatworthy Arena Front Entrance Concrete Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Martin Barrow

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing exterior front entrance concrete slab at Clatworthy Arena. To maintain the safety of the community, it is important that entrances and walkways are accessible and are in good condition. The work includes; material, labour and all other trades required for the work.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	24,600	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	24,600	0
HST Impact:	433	0
Total Project Cost:	25,000	0

NOTES

The existing concrete at the front entrance is original and was installed in 1981. The concrete has heavily spalled and degraded over years of use. Based on condition assessment, the existing entrance warrants replacement. Cost per sq. ft. of concrete including labour is \$31.72 and 788 sq. ft. has been identified to be replaced. \$31.72 x 788 sq. ft. = \$24,995. The amount requested is consistent with recent award.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	25,000	0	0	0	0	0	0
TOTAL FUNDING	25,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 283,700
				Amount Incl HST 25,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

272

Number: 24134

Project Cost: \$9,600

Project Name: Clatworthy Arena Ice Equipment Replacement

Commission: Community Services

Repair/Replace

Department: Recreation Services

Useful Life: 8

Pre Approval: ☐

Project Mgr: Martin Barrow

Category: Minor

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace one (1) ice edger and one (1) hose reel at Clatworthy Arena. The equipment is used by staff to maintain ice quality and operation.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	9,480	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	9,480	0
HST Impact:	167	0
Total Project Cost:	9,600	0

NOTES

The existing items were purchased in 2016 (Ice Edger) and 1998 (Hose Reel). A condition assessment of the ice equipment indicates replacement is warranted. The amount requested is consistent with recent quotes.

SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget	Ice Edger	Hose Reel				
Operating Funded Life Cycle	9,600	6,600	3,000	0	0	9,600	0
TOTAL FUNDING	9,600					9,600	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 283,700
				Amount Incl HST 9,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

273

Number: 24135

Project Cost: \$222,700

Project Name: Clatworthy Arena Rubber Floor Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Martin Barrow

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace existing rubber flooring in the arena and arena dressing room within Clatworthy Arena. The replacement consists of approximately 12,016 sqft of rubber flooring located in the arena and dressing rooms, players benches and lobby. Rubber flooring is specifically used in arena applications, as it is cut resistant, durable and able to withstand heavy impact.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	198,990	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 10	19,899	0
Sub Total:	218,889	0
HST Impact:	3,852	0
Total Project Cost:	222,700	0

NOTES

Existing rubber flooring is a patchwork of old flooring and were last installed in 2009. A condition assessment of the flooring indicates replacement is warranted. The amount requested is consistent with recent award.

Rubber Flooring costs \$16.56 per sq ft including labour x 12,016 sq ft = \$198,990.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	222,700	0	0	0	0	0	0
TOTAL FUNDING	222,700	0					0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 283,700
				Amount Incl HST 222,700
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

274

Number: 24136

Project Cost: \$12,000

Project Name: Clatworthy Arena Window Refurbishment

Commission: Community Services

Department: Recreation Services

Project Mgr: Martin Barrow

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 30

Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace two (2) security roll up gates used at the snack bar with windows at Clatworthy Arena. In 2019, the unused snack bar at Clatworthy Arena was converted to an office space for staff. The conversion provided the facility team with much needed office space. The unused snack bar has two serving openings that face into the lobby and viewing area. The service openings are closed with a roll down security gate. The conversion from a roll up gate to windows allow users and public to gain better access to staff. It also provides staff oversight and a line of sight into the main lobby area.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)		2024	Future Phases
Cost/Quote:		11,800	0
Internal Charges:		0	0
External Consulting:		0	0
Contingency %: 0		0	0
Sub Total:		11,800	0
HST Impact:		208	0
Total Project Cost:		12,000	0

NOTES
Existing snack bar roll down grates are original to the building (1981). A condition assessment and repurposing of the space warrants replacement and upgrade. Cost includes consulting, structural review, drawings for tender and site visits. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	12,000	0	0	0	0	0	0
TOTAL FUNDING	12,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 283,700
				Amount Incl HST 12,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

275

Number: 24137

Project Cost: \$172,400

Project Name: Cornell C.C. Carpet Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☒ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 10 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the carpet on the second floor of the Library, rehearsal rooms, front office and staff offices at Cornell C.C. Approximately 22,000 sq. ft. of carpeting is to be replaced. Carpet is preferred flooring for library space, because it is water resistant and provides better acoustics.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	154,000	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 10	15,400	0
Sub Total:	169,400	0
HST Impact:	2,981	0
Total Project Cost:	172,400	0

NOTES

The existing carpeting is original and was installed in 2012. A condition assessment indicates that replacement is warranted. The amount requested is consistent with recent quote.

Cost per sq. ft. of carpet plus labour is \$7.00 x 22,000 sq. ft. = \$154,000

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	172,400	0	0	0	0	0	0
TOTAL FUNDING	172,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 834,400
				Amount Incl HST 172,400
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

276

Number: 24138

Project Cost: \$455,700

Project Name: Cornell C.C. Parking Structure Annual Maintenance

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☒ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 1 Pre Approval: ☐

Category: Major

Cost Validation: External peer review

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

An annual program has been established for the maintenance and repair of the parking structure in Cornell C.C. A consultant was used in 2020 to complete a fulsome audit of the parking structure. Within the report, it outlines a 10 year recommendation outlining specific assets to replace in any specific year. In 2024, the report recommends the replacement of the precast wall panels and to continue maintenance in removal of loose overhead concrete. More specifically, the precast panels will overlaid to protect the existing brick from further deterioration.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	407,800	0	A consultant was retained in 2020 and provided a report outlining recommendations in maintaining the parking garage at Cornell C.C. The annual program is to inspect and remove any loose bricks from the precast wall panel and to make any necessary repairs. *This is an annual program and funding is requested each year.
Internal Charges:	40,700	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	448,500	0	
HST Impact:	7,177	0	
Total Project Cost:	455,700	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	455,700	0	0	0	0	0	0
TOTAL FUNDING	455,700					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 1,531,200
				Amount Incl HST 456,400
				Year in the study 2025
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

277

Number: 24139

Project Cost: \$264,100

Project Name: Cornell C.C. Pool Mechanical System Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☒ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 8

Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace various pool mechanical components at Cornell C.C. The project will replace one (1) pool slide pump, one (1) lap pool pump, (2) perimeter heating pumps, one (1) lap pool ultraviolet (UV) sanitizer, one (1) leisure pool UV sanitizer and one (1) therapy pool UV sanitizer. Pool pumps are critical to pool operations and creates the flow of water that allows chemicals to circulate evenly through the pool, which then sanitizes the water effectively and move debris through the circulation system and out of the pool. While the UV pool system utilizes UV light to lower chemical content and eliminate chlorine byproducts, making pools safer, healthier and easier to maintain. Additional UV pools system destroy pathogens that enters water and reduce the need for chemicals.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	235,900	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 10	23,590	0
Sub Total:	259,490	0
HST Impact:	4,567	0
Total Project Cost:	264,100	0

NOTES

The existing pool mechanical systems were installed in 2016. A condition assessment indicated that replacement is warranted. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	UV Systems	Pumps	Contingency	TOTAL		
Operating Funded Life Cycle	264,100	115,948	124,147	24,005	0	264,100	0
TOTAL FUNDING	264,100					264,100	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 834,400
				Amount Incl HST 264,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

278

Number: 24140

Project Cost: \$56,100

Project Name: Crosby C.C. Arena Boards Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Scott Hill

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 14 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the arena dasher boards surrounding the rink at Crosby C.C. The replacement will comprise of approximately 200 ft of arena dasher boards. Arena boards provide a safe environment for arena users.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	50,100	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 10	5,010	0
Sub Total:	55,110	0
HST Impact:	970	0
Total Project Cost:	56,100	0

NOTES

Existing arena boards were replaced in 2010 at Crosby C.C. A condition assessment indicates that replacement is warranted. The amount requested is consistent with recent staff awards plus inflation.

SOURCE(S) OF FUNDING (\$)

		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	56,100	0	0	0	0	0	0
TOTAL FUNDING	56,100					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 179,800
				Amount Incl HST 56,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

279

Number: 24141

Project Cost: \$55,600

Project Name: Crosby C.C. Painting Project

Commission: Community Services

Department: Recreation Services

Project Mgr: Scott Hill

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 10

Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to paint arena block walls, all offices, the Unionville Skating Club's coach's room, the south boardroom, the west lobby area, five (5) arena dressing rooms and the east lobby in Crosby C.C. The upkeep and maintenance of the facility helps to maintain the City's standards.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	54,650	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	54,650	0
HST Impact:	962	0
Total Project Cost:	55,600	0

NOTES

The Crosby C.C. interior spaces were last painted over 10 years ago. Based on a condition assessment, the paint has deteriorated and requires repainting. Cost per sq. ft. of paint including labour is \$3.93 per sq ft, there is 14,152 sq. ft. of space that has been identified to be repainted, \$3.93 x 14,152 sq ft = \$ 55,592. The amount requested is consistent with recent staff award plus inflation.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	55,600	0	0	0	0	0	0
TOTAL FUNDING	55,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 179,800
				Amount Incl HST 55,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

280

Number: 24142

Project Cost: \$64,500

Project Name: Crosby C.C. Windows Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Scott Hill

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 25

Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace 32 window panes and one set of sliding doors at Crosby C.C. The replacement will consist of replacing all window panes, however the existing window frames are in excellent condition and will remain in place.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)		2024	Future Phases
Cost/Quote:		54,864	0
Internal Charges:		0	0
External Consulting:		4,410	0
Contingency %: 7		4,149	0
Sub Total:		63,423	0
HST Impact:		1,116	0
Total Project Cost:		64,500	0

NOTES

The existing window panes at Crosby C.C. are over 25 years old. A condition assessment indicates that replacement is warranted. Some of the windows are original to the renovation in the 1970s. This project will remove and replace existing window glass panes on 32 units, the areas to be completed are Lamplight Room windows, sliding doors located in upper office within Lamplight Room, all windows at the front of the facility, including three windows located in the staff offices and the boardroom. The amount requested is consistent with the recent quote.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	64,500	0	0	0	0	0	0
TOTAL FUNDING	64,500					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 179,800
				Amount Incl HST 64,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

281

Number: **24143**Project Cost: **\$18,500**Project Name: **Heintzman House Basement Carpet Replacement**Commission: Community Services

Repair/Replace

Department: Recreation ServicesUseful Life: 20 Pre Approval: ☐Project Mgr: Martin BarrowCategory: MinorWard(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐Cost Validation: Third party estimate5 ☐ 6 ☐ 7 ☐ 8 ☐Requirement Validation: Condition assessmentITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the carpet on the basement stairs and in the basement community room with vinyl plank flooring at the Heintzman House. The work requires removal of carpet on 19 stairs and to be replaced with approximately 1,017 sq. ft. of new vinyl plank flooring. The carpet replacement work will be done respecting the era of the house.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)		2024	Future Phases
Cost/Quote:		18,200	0
Internal Charges:		0	0
External Consulting:		0	0
Contingency %: 0		0	0
Sub Total:		18,200	0
HST Impact:		320	0
Total Project Cost:		18,500	0

NOTES

Existing carpet flooring was installed in 1990 at Heintzman House. A condition assessment of the flooring indicates replacement is warranted. In basement environments, vinyl plank flooring will be more durable than carpet. The amount requested is consistent with recent quote.

Cost of Vinyl Plank per sq. ft. including removal of material and labour is \$12.64 x 1,107 sq. ft. = \$14,000. Cost per stair including removal of material, installation and labour is \$221.05 x 19 stairs = \$4,200

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	flooring	stairs			TOTAL	
Operating Funded Life Cycle	18,500	14,227	4,273	0	0	18,500	0
TOTAL FUNDING	18,500					18,500	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

<u>DCA</u>			<u>Amount in</u>	<u>Life Cycle</u>
Name	Year	Amount	Study	
				Amount in Study: <input type="text" value="80,700"/>
				Amount Incl HST <input type="text" value="18,500"/>
				Year in the study <input type="text" value="2024"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

282

Number: 24144

Project Cost: \$55,000

Project Name: Heintzman House Front Entrance Stone Refurbishment

Commission: Community Services

Department: Recreation Services

Project Mgr: Martin Barrow

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 40

Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to refurbish the ornamental stonework at the front entrance of the Heintzman House. Work consists of repointing stone stairs, replacing stone caps and repointing existing masonry joints in front wall. The refurbishment work will be done respecting the era of the house.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	49,100	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 10	4,910	0
Sub Total:	54,010	0
HST Impact:	951	0
Total Project Cost:	55,000	0

NOTES

Existing stone features are from 1935 and are in need of refurbishment to maintain the integrity of the stonework. A condition assessment conducted by a historical restoration company during repairs in 2022 determined that the refurbishment is needed. The requested amount is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)

		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	55,000	0	0	0	0	0	0
TOTAL FUNDING	55,000				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 80,700
				Amount Incl HST 55,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

283

Number: 24145

Project Cost: \$14,400

Project Name: Markham Village C.C. Fire Panel Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☒ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 25 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the one (1) fire panel at Markham Village C.C. The fire panel is legislative equipment and is in place to ensure life safety support features are functional and supportive throughout the facility.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases	The existing fire panel was installed in 1999. A condition assessment indicated that replacement is warranted. The amount requested is consistent with recent quote.	
Cost/Quote:	12,300	0		
Internal Charges:	0	0		
External Consulting:	599	0		
Contingency %: 10	1,290	0		
Sub Total:	14,189	0		
HST Impact:	250	0		
Total Project Cost:	14,400	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget	TOTAL					Future Phases	
Operating Funded Life Cycle	14,400	0	0	0	0	0	0	0
TOTAL FUNDING	14,400					0		0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,866,400
				Amount Incl HST 14,400
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

284

Number: 24146

Project Cost: \$279,100

Project Name: Milliken Mills C.C. Ceiling Tile Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Ryan Hanna

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☒

Repair/Replace

Useful Life: 20

Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the existing ceiling tiles in the Library, Lobby Corridor, Office, Storage Room, Meeting Room A & B, Dance Studio and North & South Hall at the Milliken Mills C.C. Ceiling tiles are used to cover unfinished ceilings, which are typically made from exposed concrete or metal beams. Ceiling tiles are designed to resist moisture, provide better access to the space above for maintenance, and are easily removable. Further, their properties enhance sound insulation which supports programs where noise control is important.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	249,300	0	The existing ceiling tiles were installed in 2004. A condition assessment of the tiles indicate replacement is warranted. There are approximately 55,400 sq. ft. of ceiling tiles to be replaced. Cost per sq. ft. including disposal, labour, material, mobile equipment, floor protection and after hours work is \$4.50 per sq. ft. 55,400 sq ft x \$4.50 per sq. ft = \$249,300. The amount requested is consistent with recent quote.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 10	24,930	0	
Sub Total:	274,230	0	
HST Impact:	4,826	0	
Total Project Cost:	279,100	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	279,100	0	0	0	0	0	0
TOTAL FUNDING	279,100					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 383,300
				Amount Incl HST 279,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

285

Number: 24147

Project Cost: \$24,600

Project Name: Milliken Mills C.C. Site Features Phase 1 of 2 - Design

Commission: Community Services

Department: Recreation Services

Project Mgr: Ryan Hanna

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☒

Repair/Replace

Useful Life: 40

Pre Approval: ☐

Category: Major

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to retain a landscape architect to complete a redesign and to replace the existing retaining wall in the East side at Milliken Mills C.C. This project will be completed in two phases. Phase 1 of 2 will include a complete structural review of existing retaining wall, develop new design, create specifications and provide costing for phase 2. The focus of the design is to improve visibility thus increasing safety and to meet AODA Regulations. Phase 2 of 2 will include construction.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	0	385,000
Internal Charges:	0	0
External Consulting:	24,200	0
Contingency %: 0	0	0
Sub Total:	24,200	385,000
HST Impact:	426	6,776
Total Project Cost:	24,600	391,800

NOTES

The east retaining wall and the site features facing the east side of Milliken Mills C.C was originally constructed in 1982. A condition assessment of the site features indicate that a redesign and replacement is necessary to create a more functional environment for users. Through the condition assessment, features show deterioration including cracks and broken concrete. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget						
Operating Funded Life Cycle	24,600	24,600	0	0	0	24,600	391,800
TOTAL FUNDING	24,600					24,600	391,800

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 383,300
				Amount Incl HST 24,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

286

Number: 24148

Project Cost: \$101,000

Project Name: Milliken Mills Soccer Dome LED Lighting Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Ryan Hanna

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☒

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the existing LED Light Stand fixtures with ceiling hung LED fixtures at Milliken Mills Soccer Dome. This replacement will create more space along the sidelines, prevent trip hazards and provide better lighting for participants.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	99,300	0	The existing Light Stand LED fixtures were installed in 2015. A condition assessment indicate that due to the placement and proximity of the fixtures to the field, a relocation and replacement is warranted. Replacement includes: removal of existing fixtures, installation of 20 ceiling hung LED Lights, mobile equipment, patching, electrical wiring and labour. The amount requested is consistent with recent quote.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	99,300	0	
HST Impact:	1,748	0	
Total Project Cost:	101,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	101,000	0	0	0	0	0	0
TOTAL FUNDING	101,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 103,000
				Amount Incl HST 101,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

287

Number: 24149

Project Cost: \$20,900

Project Name: Mount Joy C.C. Arena Heating Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☒ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace five (5) electric space heaters at Mount Joy C.C. The arena heaters provide a comfortable environment for spectators, participants and arena user groups. The primary purpose of arena heating is to regulate the temperature within the facility, ensuring it remains at a suitable level for the activities taking place.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases	The existing electric space heaters were installed in 2009. A condition assessment indicates that replacement is warranted. The amount requested is consistent with recent quote.	
Cost/Quote:	20,500	0		
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	20,500	0		
HST Impact:	361	0		
Total Project Cost:	20,900	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget	TOTAL					Future Phases	
Operating Funded Life Cycle	20,900	0	0	0	0	0	0	0
TOTAL FUNDING	20,900					0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 498,200
				Amount Incl HST 20,900
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

288

Number: 24150

Project Cost: \$61,300

Project Name: Mount Joy C.C. Doors Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☒ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 25 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace four (4) changeroom doors, two (2) storage room doors, one (1) set of vestibule doors and one (1) washroom door at Mount Joy C.C. Doors provide security and is a safety requirement for patrons and for the facility. All replacement doors are fire rated. The work includes labour to remove and dispose of the existing doors, supply and installation of new doors and door hardware.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	60,250	0	The doors were installed in 1999 at Mount Joy C.C. A condition assessment of the doors indicates that replacement is warranted. All labour and materials are included. The amount required is consistent with recent quote.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	60,250	0	
HST Impact:	1,060	0	
Total Project Cost:	61,300	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	61,300	0	0	0	0	0	0
TOTAL FUNDING	61,300					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 498,200
				Amount Incl HST 61,300
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

289

Number: 24151

Project Cost: \$265,800

Project Name: Mount Joy C.C. Indoor Artificial Turf Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☒ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 10 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the indoor artificial soccer turf at Mount Joy C.C. The indoor artificial soccer turf supports community rentals, the Markham Soccer Club and instructional programs and camps.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	230,600	0
Internal Charges:	0	0
External Consulting:	6,822	0
Contingency %: 10	23,742	0
Sub Total:	261,164	0
HST Impact:	4,596	0
Total Project Cost:	265,800	0

NOTES

The existing artificial turf was installed in 2014. A condition assessment indicated that replacement is warranted. The amount requested is consistent with recent quote.
Cost per sq.ft. for artificial turf including removal, material and labour is \$12.40 x 18,586 sq. ft. = \$230,600

SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget	Artificial Turf	Consultant				
Operating Funded Life Cycle	265,800	258,830	6,970	0	0	265,800	0
TOTAL FUNDING	265,800					265,800	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 498,200
				Amount Incl HST 265,800
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

290

Number: 24152

Project Cost: \$20,000

Project Name: Pan Am Centre Aerial Platform Lift Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Edward Migue

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 8 Pre Approval: ☒

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace one (1) Aerial Platform lift for completing high work task at the Pan Am Centre. Aerial platforms are designed to enhance productivity in the workplace. The lightweight construction of an aerial platform allows them to be easily maneuvered, used and transported. The replacement aerial platform is utilized to support setup of events and integral part of pulling out the bleachers in the gymnasium.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES
	2024	Future Phases	
Cost/Quote:	19,700	0	The existing aerial platform at the Pan Am Centre was a shared unit amongst community centres. It was manufactured in 2007 and was transferred to the Pan Am Centre in 2015. A condition assessment of the unit indicates replacement is warranted. The amount requested is consistent with recent award.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	19,700	0	
HST Impact:	347	0	
Total Project Cost:	20,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					
Operating Funded Life Cycle	20,000	0	0	0	0	0	0
TOTAL FUNDING	20,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 193,800
				Amount Incl HST 20,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

291

Number: 24153

Project Cost: \$85,000

Project Name: Pan Am Centre Gymnasium Blinds Replacement

Commission: Community Services

Repair/Replace

Department: Recreation Services

Useful Life: 10

Pre Approval: ☐

Project Mgr: Edward Migue

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the existing manual blinds system in the main gymnasium area at the Markham Pan Am Centre. Blinds used in the gymnasium serve three purposes. The first is to black out the natural light during a high level competition, second is to provide privacy to the user groups and third is to act as an insulation for energy savings.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	83,500	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	83,500	0
HST Impact:	1,470	0
Total Project Cost:	85,000	0

NOTES

The existing blinds are original and were installed in 2014. A condition assessment indicates that replacement is warranted. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)**Components**

Funding Type	Budget	TOTAL	Future Phases
Operating Funded Life Cycle	85,000	0	0
TOTAL FUNDING	85,000	0	0

OPERATING BUDGET IMPACT

Personnel

Non Personnel

Revenues

Expenditures/(Revenues)

\$0

\$0

\$0

\$0

DCA/LIFE CYCLE DETAILS**DCA**

Name

Year

Amount

Amount in Study

Life Cycle

Amount in Study: 193,800

Amount Incl HST 85,000

Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

292

Number: 24154

Project Cost: \$25,000

Project Name: Pan Am Centre Gymnasium Wood Refinishing

Commission: Community Services

Department: Recreation Services

Project Mgr: Edward Migue

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 3

Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to refinish the main gymnasium wood flooring and to restore and polish the surface of the hardwood floors at the Pan Am Centre. Due to excessive usage, the gymnasium wood can be stripped of its existing finishing, resulting in reduced quality of play. Quality of Play is a mandatory requirement for National and Provincial Sport Organizations when evaluating Markham's Pan Am Centre as a potential venue to host games and events. The high level of competition results in a shorter lifespan than traditional gymnasium floors.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases	The gymnasium floors were last refinished in 2021. The gymnasium floors requires refinishing every three (3) years due to excessive usage for sporting and special events. A recent condition assessment on the gymnasium wood indicates that there are multiple worn down areas. The amount requested is consistent with recent quote.	
Cost/Quote:	24,600	0		
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	24,600	0		
HST Impact:	433	0		
Total Project Cost:	25,000	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	25,000	0	0	0	0	0	0
TOTAL FUNDING	25,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 193,800
				Amount Incl HST 25,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

293

Number: 24155

Project Cost: \$20,400

Project Name: Pan Am Centre Pool Equipment Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Edward Migue

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 1 Pre Approval: ☐

Category: Annual

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This annual replacement program is specific in supporting the Pan Am Centre High Performance pool equipment. The 2024 annual program will replace two (2) starting blocks and two (2) touch pads. This project is to replace pool equipment necessary for Markham Pan Am Centre's ability to host national and international swim events.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases		
Cost/Quote:	20,000	0	Based on condition assessment, the identified pool equipment indicates replacement is necessary. The amount requested in consistent with recent quote. Cost per Starting Block is \$4,760 x 2 units = \$9,520 Cost per Touch Pads is \$5,286 x 2 units = \$10,572 Annually, Pan Am Centre hosts 42 swim meets and events. *This is an annual program and funding will be requested each year.	
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	20,000	0		
HST Impact:	352	0		
Total Project Cost:	20,400	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Starting Blocks	Touch Pads		TOTAL		
Operating Funded Life Cycle	20,400	9,658	10,742	0	0	20,400	0
TOTAL FUNDING	20,400					20,400	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 193,800
				Amount Incl HST 20,400
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

294

Number: 24156

Project Cost: \$40,000

Project Name: Pan Am Centre Reception Counter Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Edward Migue

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 10 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the front reception counter area at the Pan Am Centre. The size and location of the current reception counter does not effectively support guests entering the facility for activities and events. As the Pan Am Centre increases ticketed event capacity, this new service desk will act as a box office for ticket sales and processing.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	39,300	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	39,300	0
HST Impact:	692	0
Total Project Cost:	40,000	0

NOTES

The existing reception desk at the Pan Am Centre is original and was built in 2014 specifically designed for the 2015 Pan Am Games. Based on condition assessment and the existing limitations of the existing reception counter, a replacement is warranted. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)

Components							Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	40,000	0	0	0	0	0	0
TOTAL FUNDING	40,000				0		0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 193,800
				Amount Incl HST 40,000
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

295

Number: 24157

Project Cost: \$17,000

Project Name: Pingle House Exterior Painting

Commission: Community Services

Department: Recreation Services

Project Mgr: Scott Hill

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☒ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 10 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to paint the exterior of the Pingle House. Pingle House is a heritage home and painting the exterior will upkeep the house to standards set out by the City and the Heritage Committee.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	16,750	0	The Pingle House was last painted in 2011. A condition assessment has indicated that the exterior paint has deteriorated and that repainting is warranted. The Pingle House is a Heritage Home, the upkeep and maintenance of the home is integral towards maintaining the standards expected by the City and the Heritage committee. Painting will include all wood siding, shutters, eaves, down spouts, soffits, window frames, doors and door frames. Price includes all labour and materials required to complete job. Amount for this project is consistent with recent quote. Cost per sq.ft. of exterior paint is \$8.92 per sq. ft x 1,894 sq ft = \$16,894.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	16,750	0	
HST Impact:	295	0	
Total Project Cost:	17,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	17,000	0	0	0	0	0	0
TOTAL FUNDING	17,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 17,300
				Amount Incl HST 17,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

296

Number: 24158

Project Cost: \$10,700

Project Name: Recreation AED Program Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Portia Lee

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

The 2024 AED annual program will include the replacement of 8 AED kits and 18 AED trainer pads. This project is a city wide annual program.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)		2024	Future Phases
Cost/Quote:		10,500	0
Internal Charges:		0	0
External Consulting:		0	0
Contingency %: 0		0	0
Sub Total:		10,500	0
HST Impact:		185	0
Total Project Cost:		10,700	0

NOTES

There are currently 54 AED units in the City of Markham. The AED units have been used 6 times since 2018. 2008 and 2016 in Centennial C.C., 2010 and 2019 at the Milliken Mills C.C., 2016 and 2018 at Angus Glen C.C. Cost per AED kits are \$675 per unit (\$675 x 8 units = \$5,400) and cost per trainer pads is \$283 per unit (\$283 x 18 = \$5,100). Price is consistent with recent staff award plus inflation. The Life Cycle Reserve Study will be adjusted accordingly in the next update. *This is an annual program and funding will be requested each year.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	AED units	Trainer Pads			TOTAL	
Operating Funded Life Cycle	10,700	5,495	5,205	0	0	10,700	0
TOTAL FUNDING	10,700					10,700	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 15,300
				Amount Incl HST 10,700
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

297

Number: 24159

Project Cost: \$88,300

Project Name: Recreation Aquatics Equipment Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Janice Carroll

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This annual replacement program for aquatics equipment is for nine (9) aquatics facilities (indoor and outdoor).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	86,800	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	86,800	0
HST Impact:	1,528	0
Total Project Cost:	88,300	0

NOTES

The 3 year average spend is \$85,500. Aquatics equipment is used to support programs that are revenue generating. The Life Cycle Reserve Study will be adjusted accordingly in the next update.
*This is an annual program and funding will be requested each year.

SOURCE(S) OF FUNDING (\$)

		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	88,300	0	0	0	0	0	0
TOTAL FUNDING	88,300				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 88,500
				Amount Incl HST 88,300
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

298

Number: 24160

Project Cost: \$50,000

Project Name: Recreation Facility Condition Assessment Project

Studies/Pilot Programs

Commission: Community Services

Useful Life: 5 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Jason Tsien

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Condition assessment

5 ☐ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to complete a facility condition assessment (FCA) and a detailed inspection of all architectural and structural elements found inside community centre and facilities. The intent of the project is to receive a condition assessment on architectural elements (roofs and ceilings) and structural elements (IE: Framing, Foundations, etc.) The FCA for community facilities is a standard practice and helps to identify issues in aging facilities. Early identification of architectural and structural issues allow staff to respond quickly and to avoid costly repairs.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	49,100	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	49,100	0
HST Impact:	864	0
Total Project Cost:	50,000	0

NOTES

This project is to complete an FCA for 10 community centres and is done every 5 years. The FCA is a detailed inspection of the condition of a facility and supports staff in making informed decisions on whether to maintain, repair, or replace defective assets. An FCA on assets allows staff to prioritize each facility for upcoming maintenance, repair or renewal. The amount requested has been peer reviewed by Sustainability and Asset Management and is consistent with recent award.

SOURCE(S) OF FUNDING (\$)**Components**

Funding Type	Budget	TOTAL	Future Phases
Operating Funded Life Cycle	50,000	0	0
TOTAL FUNDING	50,000	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS**DCA**

Name

Year

Amount

Amount in Study

Life Cycle

Amount in Study: 51,000

Amount Incl HST 50,000

Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

299

Number: 24161

Project Cost: \$55,100

Project Name: Recreation Fitness Equipment Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Anthony Ierulli

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This annual replacement program is to replace the fitness equipment and complete Fitness related upgrades that renew and upkeep fitness spaces across City owned facilities. The items being replaced are strength, cardio, and flooring equipment.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases	<p>The formula for replacement of equipment is based on an industry standard that states 8% of gross revenue will represent the replacement value of equipment to service membership. Fitness Revenue in 2022 was \$689,000 when multiplied by the industry standard of 8%, it equates to \$55,100. The formula used is consistent with previous years' budgets.</p> <p>*This is an annual program and funding will be requested each year.</p>	
Cost/Quote:	54,100	0		
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	54,100	0		
HST Impact:	952	0		
Total Project Cost:	55,100	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget	TOTAL						
Operating Funded Life Cycle	55,100	0	0	0	0	0	0	0
TOTAL FUNDING	55,100					0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 56,100
				Amount Incl HST 55,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

300

Number: 24162

Project Cost: \$36,000

Project Name: Recreation Lifeguard Chairs Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts / Ryan Hanna

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 7 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace two (2) mounted lifeguard chairs at Cornell C.C. and two (2) mounted lifeguard chairs at Aaniin C.C. Lifeguard chairs are legislatively required and are considered as safety equipment. The chairs offer lifeguards an unobstructed view of the water and swimmers from an elevated position, allowing lifeguards to maintain and monitor swimmer safety.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	35,400			0		0
Internal Charges:	0			0		0
External Consulting:	0			0		0
Contingency %: 0	0			0		0
Sub Total:	35,400			0		0
HST Impact:	623			0		0
Total Project Cost:	36,000			0		0

NOTES
The existing lifeguard chairs are original at Cornell (2012) and Aaniin (2017). A condition assessment of the units indicate replacement is warranted. The amount requested is consistent with the recent quote.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Cornell CC	Aaniin CC			TOTAL	
Operating Funded Life Cycle	36,000	18,000	18,000	0	0	36,000	0
TOTAL FUNDING	36,000					36,000	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,030,100
				Amount Incl HST 36,000
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

301

Number: 24163

Project Cost: \$25,000

Project Name: Recreation Pool Drain Line Inspection

Studies/Pilot Programs

Commission: Community Services

Useful Life: 1 Pre Approval: ☐

Department: Recreation Services

Category: Annual

Project Mgr: Jason Tsien / Mark Elsenaar

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Requirement Validation: Condition assessment

5 ☐ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This annual project is to complete a pool drain line inspection for all community pools. This inspection examines and assesses drain lines in City swimming pools and spas to ensure that they are functioning properly and free from any blockages or damage. The drain lines in a pool play a crucial role in water circulation and filtration, as they remove debris and water from the pool. Conducting pool drain line inspection will identify potential problems early on, which then allows for timely repairs or maintenance. This ensures efficient operation of the pool and prevents more significant issues from developing.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)		2024	Future Phases
Cost/Quote:		24,600	0
Internal Charges:		0	0
External Consulting:		0	0
Contingency %: 0		0	0
Sub Total:		24,600	0
HST Impact:		433	0
Total Project Cost:		25,000	0

NOTES

The project is to complete a pool drain line inspection for seven (7) indoor and two (2) outdoor pools. The pool drain line inspection consists of 4 steps: 1) a visual examination of visible damage such as cracks, leaks and loose fittings; 2) a pressure test to check for leaks or line weakness; 3) a camera inspection to inspect the interior of the drain lines to identify potential blockages accumulated by debris; and 4) a flow rate assessment to determine if any restrictions need to be addressed.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	25,000	0	0	0	0	0	0
TOTAL FUNDING	25,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 25,500
				Amount Incl HST 25,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

302

Number: 24164

Project Cost: \$75,000

Project Name: Recreation Pool Grouting Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Mark Elsenaar

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual program for the repair of pool grout during pool shut down process.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	73,700	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	73,700	0
HST Impact:	1,297	0
Total Project Cost:	75,000	0

NOTES

The 3 year average spend from the annual pool grouting project is \$73,700. Staff will regROUT during the rotational scheduled pool shutdown period. The amount of work required is determined during pool shutdown when water is drained from the pool. These funds will support the cost of repairing and replacing grout. *This is an annual program and funding will be requested each year.

SOURCE(S) OF FUNDING (\$)

<u>SOURCE(S) OF FUNDING (\$)</u>		<u>Components</u>					<u>Future</u>
<u>Funding Type</u>	<u>Budget</u>					<u>TOTAL</u>	<u>Phases</u>
Operating Funded Life Cycle	75,000	0	0	0	0	0	0
TOTAL FUNDING	<u><u>75,000</u></u>					<u><u>0</u></u>	<u><u>0</u></u>

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 76,500
				Amount Incl HST 75,000
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

303

Number: 24165

Project Cost: \$97,500

Project Name: Recreation Program Equipment Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Kerry Wakefield

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual program to replace City wide program/camp equipment. Items to be replaced under this program include: preschool equipment, mats, badminton and volleyball nets, learn to skate equipment, storage carts for equipment.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	95,800	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	95,800	0
HST Impact:	1,686	0
Total Project Cost:	97,500	0

NOTES

The 3 year average spend from the Annual Programs Equipment is \$97,500. The program equipment being replaced supports programs that are revenue generating.
*This is an annual program and funding is requested each year. The Life Cycle Reserve Study will be adjusted accordingly in the next update.

SOURCE(S) OF FUNDING (\$)

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	97,500	0	0	0	0	0	0
TOTAL FUNDING	97,500					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 145,600
				Amount Incl HST 97,500
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

304

Number: 24166

Project Cost: \$55,100

Project Name: Recreation Tables and Chairs Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Mark Elsenaar

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This annual program is to replace tables and chairs at all city wide recreation facilities.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	54,100	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	54,100	0
HST Impact:	952	0
Total Project Cost:	55,100	0

NOTES

The 3 year average spent on this replacement program is \$54,100. Tables and chairs are equipment used to support revenue generating programs and rentals.
*This is an annual program and funding will be requested each year. The Life Cycle Reserve Study will be adjusted accordingly in the next update.

SOURCE(S) OF FUNDING (\$)

		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	55,100	0	0	0	0	0	0
TOTAL FUNDING	55,100				0		0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 56,200
				Amount Incl HST 55,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

305

Number: 24167

Project Cost: \$41,200

Project Name: Rouge River C.C. Outdoor Pool Interlock Deck Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Ryan Hanna

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☒ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace existing exterior interlocking pavers around the pool deck at Rouge River C.C. To maintain safety of users and staff, interlocking pavers used to access the pool must be in good condition and level to avoid tripping hazards and allow for accessibility. The work includes; material, labour and all other trades required for the work.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	40,500	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	40,500	0
HST Impact:	713	0
Total Project Cost:	41,200	0

NOTES

The existing interlock was installed in 2005. Based on condition assessment, the existing pavers show cracking and significant deterioration where replacement is warranted. All existing interlock pavers will be excavated and disposed, new aggregate will be laid and new pavers will be installed. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)

Funding Type	Budget	Components					TOTAL	Future Phases
Operating Funded Life Cycle	41,200	0	0	0	0	0	0	0
TOTAL FUNDING	41,200						0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 61,100
				Amount Incl HST 41,200
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

306

Number: 24168

Project Cost: \$18,600

Project Name: Rouge River C.C. Wood Floor Refinishing

Commission: Community Services

Department: Recreation Services

Project Mgr: Ryan Hanna

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☒ 8 ☐

Repair/Replace

Useful Life: 7 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to refinish the wooden flooring within the lobby and auditorium at Rouge River C.C. Refinishing the wood extends the life of the existing floor and supports community programming and rentals that are revenue generating.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)		2024	Future Phases
Cost/Quote:		18,300	0
Internal Charges:		0	0
External Consulting:		0	0
Contingency %: 0		0	0
Sub Total:		18,300	0
HST Impact:		322	0
Total Project Cost:		18,600	0

NOTES

The existing floors were last refinished in 2017. The current condition reveals areas where the existing finish has significantly worn down. The dulling of the floors can reduce the life of the wood floors. The work requested consists of screening to abrade, sand the floors and prep for finishing. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	18,600	0	0	0	0	0	0
TOTAL FUNDING	18,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 61,100
				Amount Incl HST 18,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

307

Number: 24169

Project Cost: \$27,000

Project Name: St. Roberts Soccer Dome Painting Project

Commission: Community Services

Department: Recreation Services

Project Mgr: Martin Barrow

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 12 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to paint the interior of the St Roberts Soccer Dome clubhouse. Work will include painting the lobby, washrooms, change rooms, common areas and all doors. Also included is epoxy paint on the washroom floors. The upkeep of the facility helps to maintain City's standards.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)		2024	Future Phases
Cost/Quote:		26,500	0
Internal Charges:		0	0
External Consulting:		0	0
Contingency %: 0		0	0
Sub Total:		26,500	0
HST Impact:		466	0
Total Project Cost:		27,000	0

NOTES

The paint within the St. Roberts Soccer Dome clubhouse are original and was painted in 2011. Some areas inside the soccer clubhouse have been touched up. However, a recent condition assessment determined that the paint has deteriorated and repainting is required. The amount requested is consistent with recent staff award plus inflation.

Cost per sq.ft. of paint including labour is \$3.93 per sq.ft., there is 6,851 sq. ft. of space that has been identified to be repainted. \$3.93 x 6,851 sq. ft. = \$26,924

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	27,000	0	0	0	0	0	0
TOTAL FUNDING	27,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 36,700
				Amount Incl HST 27,000
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

308

Number: 24170

Project Cost: \$9,000

Project Name: St. Roberts Soccer Dome Washroom Counter Replacement

Commission: Community Services

Repair/Replace

Department: Recreation Services

Useful Life: 12

Pre Approval: ☐

Project Mgr: Martin Barrow

Category: Minor

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the existing single basin sinks in the men's and women's lobby washrooms in the soccer dome. Sink and counters are one-piece units.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	8,800	0	Counter tops with sinks are original to the soccer dome and were installed in 2011. A condition assessment indicates that replacement is warranted. The amount requested is consistent with recent quote. Cost per counter top = \$4,400 x 2 countertops = \$8,800
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	8,800	0	
HST Impact:	155	0	
Total Project Cost:	9,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	9,000	0	0	0	0	0	0
TOTAL FUNDING	9,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 36,700
				Amount Incl HST 9,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

309

Number: 24171

Project Cost: \$17,000

Project Name: Thornhill C.C. East Rink Arena Netting Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Martin Barrow

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the safety netting inside the East Rink at Thornhill C.C. Arena netting is used to prevent hockey pucks from leaving the ice surface and is used to prevent spectators injuries. The existing netting is only located on the ends of the rink to protect users of the fitness track. Since the netting was installed, industry standard has changed, where arena netting is now to completely enclose ice rinks.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	16,700	0	The existing netting was installed in 2003. A condition assessment indicates replacement is warranted. This project will involve over 300 feet of netting extending from the top of the arena glass to the ceiling of the arena. The amount requested is consistent with recent quote.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	16,700	0	
HST Impact:	294	0	
Total Project Cost:	17,000	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	17,000	0	0	0	0	0	0
TOTAL FUNDING	17,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 1,086,700
				Amount Incl HST 17,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

310

Number: 24172

Project Cost: \$326,500

Project Name: Thornhill C.C. Fitness Spa Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Martin Barrow

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the existing men's and woman's spas in the fitness centre at Thornhill C.C. The two existing spas are one-piece fiberglass units that were installed during construction and are too large to be removed through any existing doorway. For the same reason, the replacement spas cannot be purchased and installed as the originals, since they cannot be brought into the building in one piece.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases		
Cost/Quote:	291,700	0	Existing spas are original to the fitness expansion in 2005. A condition assessment indicates that replacement of both spa units is warranted. New spas will be built in place concrete units that will then be built and tiled in the existing spa location. Work to include new pumps, motors, filters, fittings and plumbing. The amount requested is consistent with recent quote.	
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 10	29,170	0		
Sub Total:	320,870	0		
HST Impact:	5,647	0		
Total Project Cost:	326,500	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	326,500	0	0	0	0	0	0
TOTAL FUNDING	326,500					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 1,086,700
				Amount Incl HST 326,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

311

Number: 24173

Project Cost: \$6,000

Project Name: Thornhill C.C. Industrial Kitchen Equipment Replacement

Commission: Community Services

Repair/Replace

Department: Recreation Services

Useful Life: 20

Pre Approval: ☐

Project Mgr: Martin Barrow

Category: Minor

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace one (1) industrial convection oven in the main hall kitchen at Thornhill C.C. The convection oven is used by facility bookings, instructional programs and supports programs and services delivered by the Thornhill Seniors Club.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	5,900	0	This project is to replace the existing convection oven in the main hall kitchen at Thornhill C.C. Existing oven was installed in 1995. A condition assessment of the unit indicates replacement is warranted. The oven is used regularly by large events and rentals at Thornhill C.C. This replacement will be able to support city run cooking programs as well as large catered events in which cooking is done onsite. The amount requested is consistent with recent quote.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	5,900	0	
HST Impact:	104	0	
Total Project Cost:	6,000	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	6,000	0	0	0	0	0	0
TOTAL FUNDING	6,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,086,700
				Amount Incl HST 6,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

312

Number: 24174

Project Cost: \$27,000

Project Name: Thornhill C.C. Pro Shop Flooring Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Martin Barrow

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 25 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace the existing tile floor in the former pro shop with a sprung wood floor. In 2022 the existing pro shop vendor closed and vacated its existing space. The space was then determined to be best use for community programs and services. Upgrading the existing tile floor with a sprung wood floor will allow for multipurpose use of the space, whereby multiple user groups can utilize the space for activities and rentals. The work includes material, labour and all other trades required for the work.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases		
Cost/Quote:	26,500	0	Existing tiles flooring were installed in 2001. A condition assessment of the space indicate replacement is warranted. The flooring replacement is being completed ahead of the flooring lifecycle because of a recent opportunity to repurpose the space. There is a approximately 1,350 sq. ft. of flooring being replaced.	
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	26,500	0	Cost of sprung wooden floors plus removal, labour and installation is \$19.66 per sq. ft. x 1,350 sq. ft. = \$26,541	
HST Impact:	466	0		
Total Project Cost:	27,000	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	27,000	0	0	0	0	0	0
TOTAL FUNDING	27,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 1,086,700
				Amount Incl HST 27,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

313

Number: 24175

Project Cost: \$605,000

Project Name: Thornhill C.C. Refrigeration System Replacement

Commission: Community Services

Repair/Replace

Department: Recreation Services

Useful Life: 25

Pre Approval: ☐

Project Mgr: Martin Barrow

Category: Major

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace five (5) arena compressors, header pipes and gaskets on the plate and frame heat exchanger at Thornhill C.C. The identified refrigeration equipment is critical in the refrigeration process for the two ice pads located at the community centre.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	540,500	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 10	54,050	0
Sub Total:	594,550	0
HST Impact:	10,464	0
Total Project Cost:	605,000	0

NOTES

The existing five (5) compressors were last replaced in 2001 and are past their useful life. The header pipes are showing corrosion and it was determined that these should be replaced. The plate and frame gaskets have reached their useful life as determined by the manufacturer. Based on condition assessment on the assets, replacement is warranted. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Compressors	Header Pipes	P&F Gasket	TOTAL		
Operating Funded Life Cycle	605,000	391,776	167,904	45,320	0	605,000	0
TOTAL FUNDING	605,000					605,000	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 1,086,700
				Amount Incl HST 605,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				

Thornhill Refrigeration System Replacement

- Recent condition assessment completed by CIMCO indicates that the condition of the existing compressors are poor and that replacement needs to occur in 2024.
- Staff are completing an Arena Refrigeration System study to determine the safest and most effective refrigerant to use at all facilities across Markham.
- The arena study is currently underway. Its outcome and recommendation will determine the type of refrigerant to utilize for this particular project.
- Staff positioned the refrigeration system to align a full replacement, such that the replacement system can support the City's Net Zero Energy Efficiency goals

CIMCO Condition Assessment

Thornhill Community Centre

Refrigeration Equipment	Model	Estimate Condition	Estimated Age	Photo
Compressor 1	Mycom N8WA 50HP	Poor	22 Years	
Compressor 2	Mycom N8WA 50HP	Poor	22 Years	
Compressor 3	Mycom N6WA 50HP	Poor	22 Years	
Compressor 4	Mycom N6WA 50 HP	Poor	22 Years	
Compressor 5	Mycom N4WA 30 HP	Poor	22 Years	
Electrical Panel	CIMCO	OK	22 Years	
Condenser		OK	7 Years	
Condenser		OK	22 Years	







2024 PROJECT FUNDING REQUEST FORM

317

Number: 24176

Project Cost: \$82,400

Project Name: Thornhill C.C. Windows and Walls Refurbishment

Commission: Community Services

Department: Recreation Services

Project Mgr: Martin Barrow

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 30

Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to refurbish windows and walls at Thornhill C.C. The project has three (3) components:

1. Refurbish the existing expansion joints around the building. Exterior brick walls on large buildings are not built continuously. During construction, walls are built in sections with vertical joints joining the sections. These joints are called expansion joints and allow for small movement (expansion and contraction) of the wall sections. Joints are filled with a foam bead and then caulking to maintain the integrity of the wall system. Over time the caulking and foam will break down due to exposure to the elements, requiring the joints to be refurbished.
2. Add one (1) window to the old pro shop, which will be converted into a community space and staff offices. Adding a window will make the space much more appropriate.
3. Add one (1) window in two existing staff offices. Currently, the offices have no natural light and this project will provide each office with a small window facing outside to allow natural light into the spaces.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	81,000	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	81,000	0
HST Impact:	1,426	0
Total Project Cost:	82,400	0

NOTES

Existing expansion joints were installed in 1975. The caulking has dried out and has deteriorated. A condition assessment of the joints indicates refurbishment is warranted. In addition three (3) windows will be added to the old pro shop that is being converted into community space and to two offices within Thornhill C.C. Cost include consulting costs, tender review, structural review, site visits and necessary drawings to apply for building permits. The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget	Expansion Joint	Windows				
Operating Funded Life Cycle	82,400	24,400	58,000	0	0	82,400	0
TOTAL FUNDING	82,400					82,400	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Amount in Study: 1,086,700

Amount Incl HST 82,400

Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

319

Number: 24177

Project Cost: \$85,800

Project Name: Water St. Seniors Centre Flooring Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☒ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to remove the existing parquet flooring and replace it with sprung gym flooring in the auditorium at the Seniors Centre. The sprung gymnasium flooring will allow the senior centre to program additional services that can support seniors in the community.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	76,650	0	The existing parquet flooring was installed in 2009. A condition assessment indicated that replacement is warranted. The upgrade replacement was done in consultation with the senior's club. The amount requested is consistent with recent quote. Cost per sq. ft. including labour and material is \$19.66 x 3,898 sq. ft. = \$76,650.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 10	7,665	0	
Sub Total:	84,315	0	
HST Impact:	1,484	0	
Total Project Cost:	85,800	0	

SOURCE(S) OF FUNDING (\$)	Components					Future Phases
Funding Type	Budget				TOTAL	
Operating Funded Life Cycle	85,800	0	0	0	0	0
TOTAL FUNDING	85,800				0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 137,700
				Amount Incl HST 85,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

320

Number: 24178

Project Cost: \$39,200

Project Name: Water St. Seniors Centre HVAC and Fans Replacement

Commission: Community Services

Department: Recreation Services

Project Mgr: Luke Hilts

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☒
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20

Pre Approval: ☒

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace three (3) exhaust fans and one (1) 5-ton roof top HVAC unit at the Seniors Centre. The HVAC unit supplies heating and air conditioning to the seniors centre. For this project, the HVAC will be replaced and upgrade with an air source heat pump HVAC unit.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	35,650	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 8	2,852	0
Sub Total:	38,502	0
HST Impact:	678	0
Total Project Cost:	39,200	0

NOTES

The existing (3) exhaust fans and roof top HVAC unit were installed in 2004. A condition assessment indicated that replacement for these assets is warranted. The amount requested is consistent with recent quote.
Cost per exhaust fan is \$5,604 x 3 = \$16,813
Cost of AIHP HVAC is \$22,387

SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget	HVAC	Exhaust Fans				
Operating Funded Life Cycle	39,200	22,387	16,813	0	0	39,200	0
TOTAL FUNDING	39,200					39,200	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 137,700
				Amount Incl HST 39,200
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

321

Number: 24179

Project Cost: \$9,800

Project Name: Water St. Seniors Centre Kitchen Equipment Replacement

Commission: Community Services

Repair/Replace

Department: Recreation Services

Useful Life: 13

Pre Approval: ☐

Project Mgr: Luke Hilts

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☒

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to replace one (1) dishwasher in the kitchen at the Seniors Centre. The dishwasher is utilized on a regular basis by senior club members taking part in programs and services delivered at the Water Street Seniors Centre. The senior centre annually supports approximately 800 senior members.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	8,770	0	The existing dishwasher was installed in 2011. A condition assessment indicated that replacement is warranted. The amount requested is consistent with recent quote.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 10	877	0	
Sub Total:	9,647	0	
HST Impact:	170	0	
Total Project Cost:	9,800	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Dishwasher				TOTAL	
Operating Funded Life Cycle	9,800	9,800	0	0	0	9,800	0
TOTAL FUNDING	9,800					9,800	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 137,700
				Amount Incl HST 9,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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Markham Public Library



2024 PROJECT FUNDING REQUEST FORM

Number: **24180**
Project Name: **Consulting Service for Ward 2 Community Consultation**
Project Cost: **\$41,100**
Commission: Community Services
Studies/Pilot Programs
Department: Markham Public Library
Useful Life: 0 **Pre Approval:** ☐
Project Mgr: Catherine Biss
Category: Minor
Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☐ 4 ☐
Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐
Requirement Validation: Other(specify in Notes)
ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Consultant services to conduct community consultation in Ward 2 to identify constituent needs & priorities for community services & facilities. Implement & advance BMFT Strategic Action 3.2.4 to Implement Integrated Leisure Master Plan for the City of Markham's Parks, Recreation, Culture and Libraries. Advance several ILMP 2019 recommendations, including #64 (to advance the development of a "major" community centre and library by approximately 2026, with a recommended location at the Victoria Square Community Centre site, and #101 (to develop a library branch to serve West Markham (approximately 20,000 to 30,000 ft2) in conjunction with a major community centre. Use of the City-owned Victoria Square site will avoid additional land costs.

The Ward 2 Councilor has indicated that his constituents feel that they are currently under-served re. City services. Ward 2 service gap was recognized in the 2019 ILMP in the context of projected population for the Future Urban Area & was identified as a priority area, i.e. for an additional Community Centre and Library in the northern part of Ward 2. (Angus Glen Community Centre & Library inadequate to fully serve the projected FUA additional residents).

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	40,400	40,400
Contingency %: 0	0	0
Sub Total:	40,400	40,400
HST Impact:	711	711
Total Project Cost:	41,100	41,100

NOTES

Based on 50% of the approved project#20178 Markham Centre Library Phase 1 @\$71.2K (community consultation & a feasibility study), applying 15.25% inflation yields a 2023 estimated cost of \$41K (\$71.2K x 50% plus 15.25%) for community consultation. Subject to approval of phase 1 in 2024 for community consultation, a phase 2 Budget Submission (2025) is proposed for consultant services to conduct a feasibility study & analysis for redevelopment of the current Victoria Square Community Centre site. *Inflation rates are from the Bank of Canada Inflation calculation between 2020-2023 (Source from Statistic Canada).

SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget	Consulting					
DCA	41,100	41,100	0	0	0	41,100	41,100
TOTAL FUNDING	41,100					41,100	41,100

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

326

Number: 24181

Project Cost: \$191,100

Project Name: Library Furniture, Equipment & Shelving Replacement

Commission: Community Services

Department: Markham Public Library

Project Mgr: Catherine Biss

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 10 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To replace furniture/shelving that is broken and/or in poor condition due to heavy ongoing usage in MPL branches. Required to maintain Library facilities & operations. The public library is a high use & valued municipal service that contributes to Markham's reputation as a highly attractive place in which to live, work and study.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	187,800			0		0
Internal Charges:	0			0		0
External Consulting:	0			0		0
Contingency %: 0	0			0		0
Sub Total:	187,800			0		0
HST Impact:	3,305			0		0
Total Project Cost:	191,100			0		0

NOTES
The project will be used for replacement of public-facing loose furniture at various locations. Since 86% of the funding from 2022 & 2023 projects (total \$364K) was spent on replacement of fixed shelving at Milliken Mills branch (\$314K), the regular replacement of the worn/damaged furniture throughout the system was placed on hold. After conducting condition assessmet to update FF&E replacement list, realize there is a bit of a backlog for regular furniture replacement. 3 years' average spend is \$156.9k. This amount is consistent with the 2023 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget	Furniture				TOTAL		
Operating Funded Life Cycle	191,100	191,100	0	0	0	191,100	0	
TOTAL FUNDING	191,100					191,100	0	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 191,100
				Amount Incl HST 191,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Operations - Roads & Survey



2024 PROJECT FUNDING REQUEST FORM

329

Number: 24182

Project Cost: \$3,705,200

Project Name: Asphalt Resurfacing

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Zoyeb Vahora

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☒

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Asphalt resurfacing of roads throughout the City utilizing a pavement management program to select rehabilitation candidates. The overall goal is to maintain an acceptable pavement condition index and user satisfaction by implementing cost effective strategies designed to extend pavement life and reduce overall maintenance costs of the road network. Other work includes interlock, material testing, route and seal, steel, and AC index. Various strategies are utilized on a site specific basis to reach program goals.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	3,601,219	0	Asphalt Resurfacing of approximately 16 km of two and four lane roads. 6 km of two and four lane roads of pavement preservation. All work will be undertaken starting in 2024 There are 2,178 lane km of roads in the City. The 2021 pavement laser condition survey, conducted biannually, identifies 75.7% of the road network as good or better (long term target 80%). AC Index component is \$768K. The 2024 total request amount is \$7.7M of which \$4M was approved by Council in November 2023 relating to the concrete, interlock and asphalt preservation components of the overall project.
Internal Charges:	40,634	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	3,641,853	0	
HST Impact:	63,381	0	
Total Project Cost:	3,705,200	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Gas Tax	3,664,566	0	0	0	0	0	0
Operating Funded Life Cycle	40,634	0	0	0	0	0	0
TOTAL FUNDING	3,705,200					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0




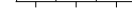
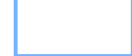
DCA/LIFE CYCLE DETAILS

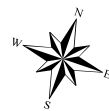
DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 7,705,200
				Amount Incl HST 3,705,200
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
\$4M is being accelerated and has been approved by Council as an in-year 2023 capital project.				

Project	Asphalt Resurfacing
2024 Capital Request	\$3,705,200
Funding Source	Life Cycle Reserve
Description of Program	Asphalt resurfacing of roads throughout the City utilizing a pavement management program to select rehabilitation candidates. The overall goal is to maintain an acceptable pavement condition index and user satisfaction by implementing cost effective strategies designed to extend pavement life and reduce overall maintenance and reconstruction costs of the road network.
Project Rationale	Condition assessment is conducted bi-annually to determine specific locations. This is followed by a detailed visual inspection by Operations staff which verifies the laser condition assessment. Identified in the Life Cycle Reserve Study.
Legislative Requirement	O. Reg. 239/02: Minimum Maintenance Standards for Municipal Highways outlines patrol and maintenance requirement related to roadway infrastructure inclusive of asphalt pavement and sidewalk.
History	n/a
Future Phases	This funding is requested each year.
Total Project Cost	n/a
Related Projects	
Related Maps	
Alignment to the Strategic Plan	Properly paved and well maintained roads help reduce accidents and promotes safe movement of traffic reducing traveling time. Contracts within this program call for reharvesting and recycling of construction materials. Strategies include warm mix designs which lowers emissions and utilizes recycled aggregate.

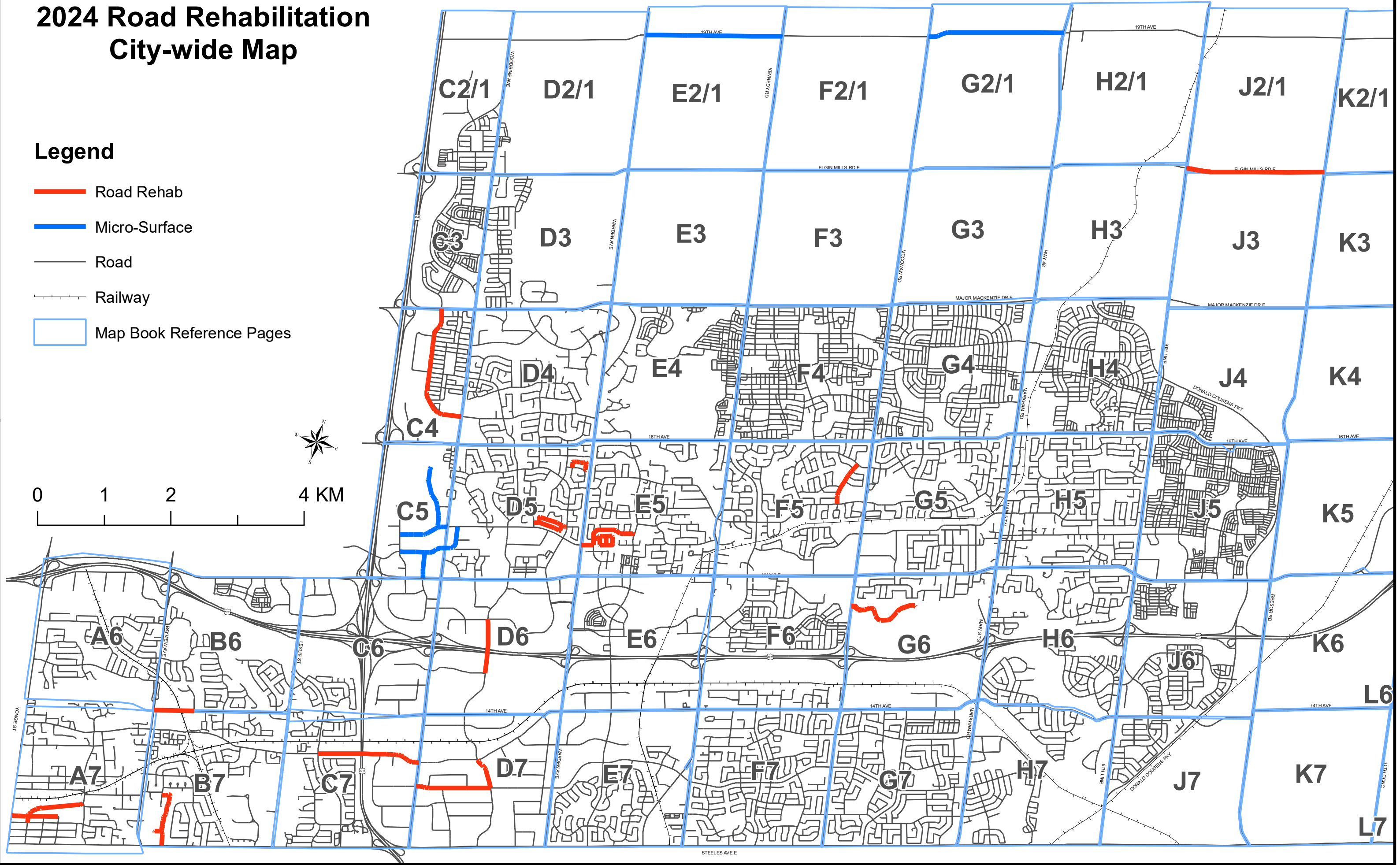
2024 Road Rehabilitation City-wide Map

Legend

-  Road Rehab
-  Micro-Surface
-  Road
-  Railway
-  Map Book Reference Pages



0 1 2 4 KM





2024 PROJECT FUNDING REQUEST FORM

332

Number: 24183

Project Cost: \$88,000

Project Name: Boulevard Repairs

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Taylor Thomson

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 10 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The purpose of this project is to maintain boulevard areas in good condition to minimize hazards for pedestrians. Repairs to boulevards throughout the City are for interlock brick pavers only (does not include concrete, curb or asphalt).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	86,519	0	Locations will be determined by condition assessment to be done in spring 2024. Installation cost is \$37/m2. The budget allows for 2378 SqM to be repaired. This is an annual program. There is no substantial backlog within this program and the boulevards are in a state of good repair. Unit cost is consistent with recent award plus inflation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	86,519	0	
HST Impact:	1,523	0	
Total Project Cost:	88,000	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	88,000	0	0	0	0	0	0
TOTAL FUNDING	88,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 88,000
				Amount Incl HST 88,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

333

Number: 24184

Project Cost: \$27,400

Project Name: Bridge Structure Preventative Maintenance - Roads

Commission: Community Services

Repair/Replace

Department: Operations - Roads & Survey

Useful Life: 30 Pre Approval: ☐

Project Mgr: Taylor Thomson

Category: Annual

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual preventative maintenance of the 27 City owned bridge/culvert structures on an as required basis. Work to be carried out on an as required basis which includes fill and grade bridge approaches, route and seal cracks on bridge decks, concrete sealer application, concrete patches on approach.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	26,900	0	Locations to be determined upon condition assessment. There is no substantial backlog and Bridge structures are in a state of good repair. Operations is responsible for preventative maintenance on bridges/culverts such as minor grading, patching, sealing of bridge approaches and bridge decks, while Environmental Services is responsible for its inspection/rehabilitation and replacement. Amount requested is consistent with the 2023 Life Cycle Reserve Study update.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	26,900	0	
HST Impact:	473	0	
Total Project Cost:	27,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	27,400	0	0	0	0	0	0
TOTAL FUNDING	27,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Life Cycle resides in Environmental Services (\$53,800) and is split 50:50 between Roads and Parks.				



2024 PROJECT FUNDING REQUEST FORM

334

Number: 24185

Project Cost: \$22,200

Project Name: City Owned Entrance Feature Rehabilitation/Replacement

Repair/Replace

Commission: Community Services

Useful Life: 20

Pre Approval: ☐

Department: Operations - Roads & Survey

Category: Annual

Project Mgr: Zoyeb Vahora

Cost Validation: Recent awards

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Maintenance and repair of entrance features based on condition assessment.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	21,825	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	21,825	0
HST Impact:	384	0
Total Project Cost:	22,200	0

NOTES

Location for 2024 is Kennedy Road and Bur Oak Ave . The City owns 144 features, there are 170 known to be located on private property with the remaining 17 of uncertain ownership for a total inventory of 331.

SOURCE(S) OF FUNDING (\$)		Components						Future Phases
Funding Type	Budget	TOTAL						Future Phases
Operating Funded Life Cycle	22,200	0	0	0	0	0	0	0
TOTAL FUNDING	22,200	0						0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 22,200
				Amount Incl HST 22,200
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

335

Number: 24186

Project Cost: \$41,000

Project Name: City Owned Fence Replacement Program

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Taylor Thomson

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 25 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To remove, install/replace and/or repair failing and/or damaged City owned fences, gates, sections, rails and posts throughout the City on City owned properties.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	40,310	0	Specific locations to be determined based on condition assessment in spring 2024. This is an annual program. There is no backlog in this program and the fences are in a state of good repair.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	40,310	0	
HST Impact:	709	0	
Total Project Cost:	41,000	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	41,000	0	0	0	0	0	0
TOTAL FUNDING	41,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 139,500
				Amount Incl HST 41,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

336

Number: 24187

Project Cost: \$149,800

Project Name: Citywide Ditching Program

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Anthony Leocata

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4
5 ☐ 6 ☐ 7 ☐ 8

Repair/Replace

Useful Life: 25 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Annual ditch restoration program. Program is to maintain roadside ditches & culverts which are a critical component of the broader storm drainage system. The program will protect the City's investments in road maintenance and avoid early erosion of Markham's infrastructure. The scope of the project has been increased to now include the testing and disposal of the material. Contractors were previously hauling the material to 555 Miller Ave where Operations had to stockpile, test, and haul the material a second time to the disposal site at a later date. Now the material will be hauled directly from the job site to the disposal site by hired dump trucks, eliminating any double handling and streamlining efficiency.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	147,211	0	The ditching program will be able to maintain up to 4 linear km's per year. Ditch restoration work will be undertaken as part of the annual capital road improvements program and done prior to undertaking road rehab work on roads with rural profiles.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	147,211	0	
HST Impact:	2,591	0	
Total Project Cost:	149,800	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	149,800	0	0	0	0	0	0
TOTAL FUNDING	149,800					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 149,800
				Amount Incl HST 149,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

337

Number: 24188

Project Cost: \$21,500

Project Name: Don Mills Storm Channel

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Steven Dollmaier

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☒

Repair/Replace

Useful Life: 1 Pre Approval: ☐

Category: Annual

Cost Validation:

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Storm channel is located east of Woodbine between Steeles and John Street. Remove overgrowth, vegetation and debris from storm channel to ensure proper storm water conveyance. Program will include periodic clean-up of debris, garbage and excess vegetation found in the channel. It will also include channel maintenance after large storm events, and in response to dumping.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	21,100	0	To support ongoing annual maintenance. 3 yr average is \$8K. This is an annual program. 2 site visits per year in July/Oct. Operations is responsible for minor above ground maintenance on the Don Mills storm channel such as debris and vegetation removal while Environmental Services is responsible for its flood reduction strategies and implementation. Higher funding requested this year for more frequent work which will improve water flow and volume capacity and minimize flooding and breaching of banks.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	21,100	0	
HST Impact:	371	0	
Total Project Cost:	21,500	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	21,500	0	0	0	0	0	0
TOTAL FUNDING	21,500					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Life Cycle resides in Environmental Services.				



2024 PROJECT FUNDING REQUEST FORM

338

Number: 24189

Project Cost: \$216,800

Project Name: Guiderail- Install/Upgrade

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Taylor Thomson

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Install new or upgrade existing guiderail to meet new Provincial Standards and minimize maintenance. Program ensures that the City maintains safe roadways for users.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	213,020	0	182 locations identified in inventory. Guiderails are upgraded to meet standards only when they are due for replacement. There is no substantial backlog in this program. Locations identified for 2024 South of 300 Steelcase (24lm), Old 9th Line (2-9lm & 30lm)), W of 6493 Elgin Mills (2- 50lm &30lm), Robinson St (2-33lm & 9lm)), Robinson Laneway (5lm), 80 Sprucewood (9lm), Green Lane Valley (4- 66lm, 24lm, 69lm, 63lm), and Old 17th Ave (24lm).
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	213,020	0	
HST Impact:	3,749	0	
Total Project Cost:	216,800	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	216,800	0	0	0	0	0	0
TOTAL FUNDING	216,800					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 10,800
				Amount Incl HST 216,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
6 locations are not currently in Life Cycle - 1. Old 9th Line (2) 2. West of 6493 Elgin Mills E (2) 3. Robinson St (2) 4.Robinson Laneway 5.80 Sprucewood 6. Green Lane Valley Southwest and will be added in the next Life Cycle update and 4 were accelerated. Accelerated locations include Green Lane Valley (3) and Old 17th Ave road terminus.				



2024 PROJECT FUNDING REQUEST FORM

339

Number: 24190

Project Cost: \$486,900

Project Name: Incremental Growth Related Winter Maintenance Vehicles

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Alice Lam

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Development Charge (DC) funding for additional growth-related winter maintenance vehicles purchased by contractors. If winter maintenance was done in-house, these vehicles would need to be purchased by the City, so this request is to obtain DC funding to offset a portion of the capital cost included in the winter maintenance paid through Operating accounts.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	486,948	0	The value of the request is based on the percentage of collections allocated to this growth related service, plus 2% annual inflation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	486,948	0	
HST Impact:	0	0	
Total Project Cost:	486,900	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	486,900	0	0	0	0	0	0
TOTAL FUNDING	486,900					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
DCA funding source should be Public Works - Fleet.				



2024 PROJECT FUNDING REQUEST FORM

340

Number: 24191

Project Cost: \$1,411,700

Project Name: Localized Repairs - Curb & Sidewalk

Commission: Community Services

Repair/Replace

Department: Operations - Roads & Survey

Useful Life: 20

Pre Approval: ☐

Project Mgr: Taylor Thomson

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Maintenance repairs to sidewalks, curbs, and catch basins throughout the City as identified by staff. Ensure that deficient sections are repaired to minimize trip and fall incidents and reduce associated liability to the City. The purpose of the concrete curb is to channel storm water into the storm sewer system.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	1,387,300	0	Total km of sidewalk citywide is 1,130km. Specific locations to be determined upon completion of condition assessment in spring 2024. Amount is consistent with the amount in the 2023 Life Cycle Reserve Study Update.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	1,387,300	0	
HST Impact:	24,416	0	
Total Project Cost:	1,411,700	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	1,411,700	0	0	0	0	0	0
TOTAL FUNDING	1,411,700					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 1,411,700
				Amount Incl HST 1,411,700
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Project	Localized Repairs – Curb and Sidewalk
2024 Capital Request	\$1,411,700
Funding Source	Life Cycle Reserve
Description of Program	Maintenance repairs to sidewalks, curbs, multi-use paths (MUP) and catch basins throughout the City as identified by staff through road patrol. Ensure that deficient sections are repaired to minimize trip and fall incidents, ponding/drainage issues, and reduce associated liability to the City. The purpose of conducting repairs to our concrete curbs are to remove damaged sections (hit by vehicles) and to ensure the channelization of storm water into the storm sewer system.
Project Rationale	Addresses minor repair locations of curb, sidewalk, MUP failures in order to reduce the City's liability, protect against claims of negligence and extend the Life Cycle. Identified in the Life Cycle Reserve Study.
Legislative Requirement	O. Reg. 239/02: Minimum Maintenance Standards for Municipal Highways outlines patrol and maintenance requirement related to roadway infrastructure inclusive of asphalt pavement and sidewalk.
History	n/a
Future Phases	This funding is requested each year.
Total Project Cost	n/a
Related Projects	Localized Repairs Concrete/Asphalt, Asphalt Resurfacing
Related Maps	n/a
Alignment to the Strategic Plan	Program ensures roads and boulevards are made safe for all cyclists, pedestrians and vehicular traffic. Program removes hazards, deficiencies, and reduces risk to the City by replacing with new concrete. This program promotes safety, reduces liability and encourages walkability within the community.



2024 PROJECT FUNDING REQUEST FORM

342

Number: 24192

Project Cost: \$191,400

Project Name: Localized Repairs - Interlock

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Taylor Thomson

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Maintenance repairs to hardscape features throughout the City as identified by staff or required as a result of localized asphalt and concrete repairs.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	188,100	0	Specific locations to be determined by condition assessment in spring 2024 or following other construction works.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	188,100	0	
HST Impact:	3,311	0	
Total Project Cost:	191,400	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	191,400	0	0	0	0	0	0
TOTAL FUNDING	191,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 191,400
				Amount Incl HST 191,400
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

343

Number: 24193

Project Cost: \$110,100

Project Name: Localized Repairs - Parking Lots

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Taylor Thomson

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 8 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Ongoing maintenance and repairs of municipal parking lots throughout the City. Includes repairs to concrete and asphalt infrastructure, maintenance holes and catchbasin adjustments and asphalt resurfacing.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	108,200	0	Specific locations to be determined by condition assessment in spring 2024. There is no substantial backlog in this program.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	108,200	0	
HST Impact:	1,904	0	
Total Project Cost:	110,100	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	110,100	0	0	0	0	0	0
TOTAL FUNDING	110,100					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 110,100
				Amount Incl HST 110,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

344

Number: 24194

Project Cost: \$150,600

Project Name: Parking Lots- Rehabilitation

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Zoyeb Vahora

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Complete rehabilitation of selected municipal parking lots throughout the City. Includes removal and replacement of concrete, interlock and asphalt infrastructure, as well as maintenance holes and catch basin adjustments.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	148,039	0	2024 location is Milne Dam. There is no backlog in the program. The parking lots are in a state of good repair. Unit cost is consistent with recent award plus inflation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	148,039	0	
HST Impact:	2,605	0	
Total Project Cost:	150,600	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	150,600	0	0	0	0	0	0
TOTAL FUNDING	150,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 390,500
				Amount Incl HST 150,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Shouldice deferred until 2029				



2024 PROJECT FUNDING REQUEST FORM

345

Number: 24195

Project Cost: \$78,700

Project Name: Retaining Wall Repair Program

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Taylor Thomson

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Repairs to failing retaining walls and other right of way structural assets on City owned property.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	77,300	0	Specific locations to be determined by condition assessment in spring 2024. The retaining walls are in a state of good repair. Amount requested is consistent with the 2023 Life Cycle Reserve Study update.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	77,300	0	
HST Impact:	1,360	0	
Total Project Cost:	78,700	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	78,700	0	0	0	0	0	0
TOTAL FUNDING	78,700					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 78,700
				Amount Incl HST 78,700
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Request is less than LC due to condition assessment and ability to make in house repairs.				



2024 PROJECT FUNDING REQUEST FORM

346

Number: 24196

Project Cost: \$56,200

Project Name: Storm Water Retention Pond Maintenance Program

Commission: Community Services

Repair/Replace

Department: Operations - Roads & Survey

Useful Life: 15

Pre Approval: ☐

Project Mgr: Taylor Thomson

Category: Annual

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Ongoing minor maintenance activities to all storm water management ponds throughout the City. The work includes repairing/replacing grates, headwalls and fences. This maintenance program will include localized repairs of identified deficiencies as reported by 2023 site inspection. Repair defective items identified from the 115 storm water management (SWM) ponds inspected in the fall of 2021.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	55,200	0	Items include repairs to baffle blocks, inlets, backflow preventer, outlets, pipes and retaining walls. This is an annual program. There is no backlog in this program. Roads provide maintenance above the water line while Environmental Services provide rehabilitation below the water line.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	55,200	0	
HST Impact:	972	0	
Total Project Cost:	56,200	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	56,200	0	0	0	0	0	0
TOTAL FUNDING	56,200				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div>Life cycle resides in Environmental Services.</div>				



2024 PROJECT FUNDING REQUEST FORM

347

Number: 24197

Project Cost: \$47,800

Project Name: Survey Instrument Upgrade/Replacement

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Ben Khira

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Acquisition of GPS RTK (Real Time Kinematics) system leverages existing equipment inventory and will provide greater efficiencies by allowing single crew surveying and eliminate redundant stages in the data collection process. Primary survey equipment consists of the following items: Total Station - requires software upgrade; Data Collector - requires software upgrade; Optical/digital level - no repair necessary.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES
	2024	Future Phases	
Cost/Quote:	47,000	0	Expenditures for equipment upgrade and or repair should be done at a 5 year interval. Software included with RTK system will also be compatible for upgrade of existing equipment without additional software purchase. Amount requested is consistent with the 2023 Life Cycle Reserve Study update.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	47,000	0	
HST Impact:	827	0	
Total Project Cost:	47,800	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					
Operating Funded Life Cycle	47,800	0	0	0	0	0	0
TOTAL FUNDING	47,800	0					0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 47,800
				Amount Incl HST 47,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

348

Number: 24198

Project Cost: \$41,600

Project Name: Survey Monument Replacement

Commission: Community Services

Department: Operations - Roads & Survey

Project Mgr: Ben Kihara

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 60 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program to replace damaged survey monuments to maintain integrity of City's survey control network and maintain the assets in a state of good repair. A well developed survey control network will help to achieve an efficient engineering design and construction program and also reduce layout time.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	40,912	0	The survey monument replacement is an annual program to maintain the assets in state of good repair. Total approx. survey monuments in the City is 2,645. Addition through subdivision assumption process approx. 35/year. Replacement plan-Approx. 28 horizontal monument (avg. \$1787/unit) and 2 Benchmarks (avg. \$3000/unit). Unit costs are consistent with recent award plus inflation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	40,912	0	
HST Impact:	720	0	
Total Project Cost:	41,600	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	41,600	0	0	0	0	0	0
TOTAL FUNDING	41,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 41,600
				Amount Incl HST 41,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				

Operations - Parks



2024 PROJECT FUNDING REQUEST FORM

351

Number: 24199

Project Cost: \$142,900

Project Name: 2022 Wind Storm Tree Replacement - Phase 2

Commission: Community Services

Department: Operations - Parks

Project Mgr: Josh Van Kemp

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 50 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The May 2022 windstorm event damaged hundreds of trees Citywide with particular emphasis on Markham Village, Unionville, and Thornhill. As a result of the storm 312 trees were damaged severely and require complete removal and stump grinding to prepare the sites for new tree planting. The trees and stumps are scheduled to be removed in 2023 (Phase 1) and will require tree planting in 2024 (Phase 2).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases	This is a recovery project and is separate from the regular capital tree replacement project. The average cost per tree during the 2023 season is \$450.00 (before HST) to supply, plant & provide a 2-year warranty. 312 tree replacements will be required to meet a minimum 1:1 replacement ratio.	
Cost/Quote:	140,400	0		
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	140,400	0		
HST Impact:	2,471	0		
Total Project Cost:	142,900	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget	TOTAL					Phases	
Operating Funded Life Cycle	142,900	0	0	0	0	0	0	0
TOTAL FUNDING	142,900					0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 143,400
				Amount Incl HST 142,900
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

352

Number: 24200

Project Cost: \$1,474,800

Project Name: AODA Playground Refurbishments - Year 2 of 4

Commission: Community Services

Department: Operations - Parks

Project Mgr: Tanya Lewinberg

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 0 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of safety surfacing along with associated elements to make playgrounds fully accessible and AODA compliant. This 4 year project will address playgrounds currently with sand safety surfacing installed from 2015 and later and will run in parallel to the yearly capital life cycle replacement project for Playstructures & Rubberized Surface Replacement. There are 20 locations in the second year.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	1,449,304	2,624,107	This is a Citywide 4 year program with locations selected based on current accessibility by ward. There is currently a backlog of playgrounds which require refurbishment to be fully AODA complaint by 2025. This project requires removal of sand surfacing and replacement with EWF (Engineered Wood Fibre), in addition to installing drainage, curbs, entrance ramps, and paved pathways to access the playground.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	1,449,304	2,624,107	
HST Impact:	25,508	46,184	
Total Project Cost:	1,474,800	2,670,300	

SOURCE(S) OF FUNDING (\$)		Components						Future Phases
Funding Type	Budget	TOTAL						Future Phases
Ramp Up	1,474,800	0	0	0	0	0	0	2,670,300
TOTAL FUNDING	1,474,800					0	0	2,670,300

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 1,118,700
				Amount Incl HST 1,474,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Life Cycle only includes equipment removal and replacement and assumes that granite sand safety surfacing will be reused. Per the AODA compliance required safety surfacing will be changed to EWF along with associated elements for AODA compliance. External Consulting cost component is being accelerated and budget of \$112K was approved by Council in November 2023.				

Project	AODA Playground Refurbishments
2024 Capital Request	\$1,474,800
Funding Source	Life Cycle Reserve
Description of Program	Replacement of safety surfacing along with associated elements to make playgrounds fully accessible and AODA compliant. This 4 year project will address playgrounds with sand safety surfacing from 2015 forward and will run in parallel to the yearly capital lifecycle replacement project for Playstructures & Rubberized Surface Replacement. There are 17 locations in the first year with a total of 19 playstructures being refurbished in the first year.
Project Rationale	Playground safety surfacing is required to meet AODA guidelines to meet the CSA guidelines (Z614-07 Children's Play spaces and Equipment).
Legislative Requirement	City playground safety surfacing is required to be CSA – Canadian Standards Association CAN/CSA-Z614-07 certified at the time of installation and throughout the useful life. Monthly inspections by certified playground inspectors combined with a yearly third party inspector ensure compliance
History	This project is reflective of AODA requirements for compliant playground surfacing by the end of 2025. Play structures are identified for inspection after 17 years of service with the total number of structures yearly being reflective of growth which occurred 17
Future Phases	\$2,670,300
Total Project Cost	\$5,195,000
Related Projects	n/a
Related Maps	n/a
Alignment to the Strategic Plan	The City provides safe use of outdoor recreation facilities for families which aligns with the guidelines established in the Integrated Leisure Master Plan.

2024 AODA Year 2 of 4

Park	Address	Curb based on 2023 bid results pricing	EWf 2023 pricing	Remove Sand based on 2023 pricing \$19m2	Ramps 2023 pricing	Fences	Pathways \$150m2	Sod	Mobilization and Demobilization	Tree protection - 2023 average	Drainage based on similar pit size from 2023 project	demolition and grading - based on average from 2023	Testing	Project Cost
John Baird Woods	145 Mingay Drive		\$14,053	\$15,000	\$3,600	\$2,000		\$1,500	\$2,000	\$6,000	\$35,200	\$4,388	\$4,000	87,741
Proctor Park (East/ West)	29 Proctor Avenue	\$19,404	\$15,396	\$10,716	\$1,800	\$2,000	\$1,500	\$1,500	\$2,000	\$6,000	\$16,500	\$4,388	\$3,500	84,704
Bayview Reservoir Park	8127 Bayview Avenue	\$10,472	\$9,549	\$6,688	\$1,800	\$2,000	\$15,000	\$1,500	\$2,000	\$5,000	\$25,630	\$4,388	\$3,500	87,527
Drake Park (East/ West)	7925 Bayview Avenue	\$16,940	\$15,533	6841.68	\$1,800	\$2,000		\$1,500	\$2,000	\$4,000	\$16,500	\$4,388	\$3,500	75,003
Duncan Park	265 Bayview Fairways Drive	\$12,012	\$11,908	\$8,303	\$1,800	\$2,000	\$6,750	\$1,500	\$2,000	\$6,000	\$27,500	\$4,388	\$3,500	87,661
Lundy Park	7 Rockingham Court	\$2,310	\$2,180	\$1,520	\$1,800	\$2,000	\$750	\$1,500	\$2,000	\$3,000	\$9,900	\$4,388	\$3,500	34,848
Paddock Park	105 Simonston Boulevard	\$13,090	\$12,044	\$8,398	\$1,800	\$2,000	\$11,200	\$1,500	\$2,000	\$4,000	\$27,500	\$4,388	\$3,500	91,420
Pioneer Park	11 Normark Drive	\$15,554	\$10,942	\$7,638	\$1,800	\$2,000	\$5,400	\$1,500	\$2,000	\$6,000	\$28,050	\$4,388	\$3,500	88,772
Romfield Park	155 Romfield Circuit	\$8,470	\$4,960	\$3,458	\$1,800	\$2,000	\$3,300	\$1,500	\$4,000	\$4,000	\$23,650	\$4,388	\$3,500	65,026
Glencrest Park	82 Ladyslipper Court		\$9,756	\$6,783	\$1,800	\$2,000		\$1,500	\$2,000	\$2,000	\$25,630	\$4,388	\$3,500	59,357
Johnsview Park (North)	27 Porterfield Crescent	\$8,470	\$5,750	\$4,028	\$1,800	\$2,000	\$1,800	\$1,500	\$2,000	\$4,000	\$19,690	\$4,388	\$3,500	58,926
Johnsview Park (South)	27 Porterfield Crescent	\$12,320	\$12,208	\$8,512	\$1,800	\$2,000	\$900	\$1,500	\$2,000	\$4,000	\$28,600	\$4,388	\$3,500	81,728
Pomona Mills Park	200 John Street	\$15,862	\$13,789	\$9,614	\$1,800	\$2,000	\$900	\$1,500	\$2,000	\$4,000	\$16,500	\$4,388	\$3,500	75,853
Bishops Cross Park	2400 John Street	\$20,000	\$14,306	\$9,975	\$1,800	\$2,000	\$600	\$1,500	\$2,000	\$4,000	\$15,400	\$4,388	\$3,500	79,469
Railside Park	26 Coral Harbour Crescent	\$8,470	\$6,513	\$4,541	\$1,800	\$2,000	\$9,000	\$1,500	\$2,000	\$4,000	\$14,850	\$4,388	\$3,500	62,562
Rayneswood Park	4 Rayneswood Crescent	\$11,088	\$5,423	\$3,781	\$1,800	\$2,000	\$4,050	\$1,500	\$2,000	\$6,000	\$14,850	\$4,388	\$3,500	60,380
Royal Orchard Park	110 Royal Orchard Boulevard	\$8,778	\$5,341	\$3,724	\$1,800	\$2,000	\$6,150	\$1,500	\$2,000	\$4,000	\$14,850	\$4,388	\$4,500	59,031
Franklin Carmichael Park	277 Green Lane	\$14,784	\$9,756	\$6,802	\$1,800	\$2,000	\$600	\$1,500	\$2,000	\$6,000	\$25,630	\$4,388	\$4,500	79,760
Green Lane Park (North)	16 Thorne Lane	\$8,624	\$4,796	\$3,344	\$1,800	\$2,000	\$600	\$1,500	\$2,000	\$5,000	\$16,830	\$4,388	\$4,500	55,382
Green Lane Park (South)	16 Thorne Lane	\$10,472	\$9,728	\$6,783	\$1,800	\$2,000	\$600	\$1,500	\$2,000	\$5,000	\$25,630	\$4,388	\$4,253	74,154
		217120	\$193,931	\$136,450	\$37,800	\$40,000	\$69,100	\$30,000	\$42,000	\$92,000	\$428,890	\$87,760	\$74,253	1,449,304
												HST Impact		25,508
												Total Project Cost		1,474,811
												Rounded Off Project Cost		1,474,800

Future Phases

Year 3 2025	\$1,559,599
Year 4 2026	\$1,110,692
	\$2,670,291



2024 PROJECT FUNDING REQUEST FORM

355

Number: 24201

Project Cost: \$893,100

Project Name: Boulevard/Park Trees Replacement

Commission: Community Services

Department: Operations - Parks

Project Mgr: Josh Van Kemp

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 50 Pre Approval: ☒

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Boulevard/Park Tree Replacement planting is an annual program which enables the City to replace approx. 1150 dead, diseased or damaged trees. Average cost per tree during the 2023 season is \$450.00 (pre-tax) to supply, plant & provide a 2-year warranty. The average cost per stump removal for the 2023 season is \$82.00 (pre-tax). Tree watering is bi-weekly, for 10-weeks with a 1-time Fall fertilization. Industry pricing from other municipalities ranges from \$4.00-\$6.00 per watering. 23,000 waterings will be required yearly.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	760,150	0	This is an annual program & funds will be requested each year. Planting 1,150 trees per year maintains a 1:1 ratio of replacement. Three 150-day Forestry Data Collector staff per year for accurate planning & quality control. Tree watering is currently at the discretion of the planting contractor. To ensure trees are watered appropriately, a unit based rate will be used to water each tree during Year 1 & 2 of the warranty period. This will be completed on a 2-week rotation for 10-weeks.
Internal Charges:	119,609	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	879,759	0	
HST Impact:	13,379	0	
Total Project Cost:	893,100	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	893,100	0	0	0	0	0	0
TOTAL FUNDING	893,100					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 773,100
				Amount Incl HST 895,200
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Request is higher than Life Cycle because pricing is based on the most recent tenders and tree watering has been added as a new task to address tree mortality concerns.				

Project	Boulevard/Park Tree Replacement
2024 Capital Request	\$893,100
Funding Source	Life Cycle Reserve
Description of Program	Boulevard/Park replacement tree planting is an annual program to replace dead, diseased or damaged trees with mortality averaging 1150 trees. Cost per tree is approximately \$450 to plant with 2 year warranty and \$82 to grind the stump in preparation for planting. Tree watering is bi-weekly for 10 weeks and range from \$4-\$6 per watering. This funding will be requested yearly to address the previous year tree loss and add replacement canopy working to our goal of 30%.
Project Rationale	The City has a 30% canopy goal and any trees removed require replacement to replace lost canopy and the benefits that trees provide to the community.
Legislative Requirement	While there is no legislative requirement to replace trees Council has approved a target canopy goal.
History	The urban forest grows every year as does the number of trees yearly which require replacement due to normal mortality, wind storm damage, accidents or pest related issues.
Future Phases	Yearly
Total Project Cost	This is an annual project and will be adjusted as required to keep pace with mortality
Related Projects	Trees for Tomorrow
Related Maps	n/a
Alignment to the Strategic Plan	A healthy urban forest is vital to providing a safe and sustainable community



2024 PROJECT FUNDING REQUEST FORM

357

Number: 24202

Project Cost: \$27,400

Project Name: Bridge Structure Preventative Maintenance in Parks

Commission: Community Services

Department: Operations - Parks

Project Mgr: Tyler Burns

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 30 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual preventative maintenance of parks and open space bridges. Locations to be determined based on Spring 2024 condition assessment. Work includes fill and grade bridge approaches, remove and replace wooden decks on pedestrian bridges, railings and curbs.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	26,900	0	This is an annual program and funds will be requested each year. There is no backlog and bridge structures are in a state of good repair. Operations is responsible for preventive minor maintenance on bridges/culverts such as minor grading, patching, sealing of bridge approaches and bridge decks, and siltation removal from culverts, while Environmental Services is responsible for its inspection/rehabilitation and replacement.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	26,900	0	
HST Impact:	473	0	
Total Project Cost:	27,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	27,400	0	0	0	0	0	0
TOTAL FUNDING	27,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/> 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Life cycle resides in Environmental Services (\$53,800) and is split 50% for Roads and 50% for Parks.				



2024 PROJECT FUNDING REQUEST FORM

358

Number: 24203

Project Cost: \$185,700

Project Name: City Park Furniture / Amenities

Commission: Community Services

Department: Operations - Parks

Project Mgr: Matthew Busato

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 10 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This is an annual replacement program to provide for the refurbishment or replacement of City furniture in parks and Civic property such as benches, picnic tables and umbrellas, waste receptacles, bike racks, banner arms, self-watering planters and hanging baskets. Project also includes refurbishment or replacement of existing seasonal waste containers, tree grates and bollards/p gates.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	182,492	0	This is an annual program and funds will be requested each year. There is no substantial backlog and assets are in a state of good repair. Amount requested is consistent with the 2023 Life Cycle Reserve Study. Replacements are based on annual condition assessments at all City parks, trails, greenspace and facilities. Includes benches, waste receptacles/recycling and concrete pads for both, bike racks, planters and hanging baskets, P Gates, picnic table frames and wood/hardware, banner arms, parks information signs and plaques, seasonal decoration (LED trees).
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	182,492	0	
HST Impact:	3,212	0	
Total Project Cost:	185,700	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	185,700	0	0	0	0	0	0
TOTAL FUNDING	185,700					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 185,700
				Amount Incl HST 185,700
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

359

Number: 24204

Project Cost: \$177,400

Project Name: Court Resurfacing/Reconstruction - Bayview Reservoir

Commission: Community Services

Department: Operations - Parks

Project Mgr: Tanya Lewinburg

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 7 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Rebuilding and resurfacing of all Bayview Reservoir tennis courts based on condition assessment.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	174,332	0	The existing three tennis courts at Bayview Reservoir will be rebuilt and the surfacing will be reconfigured to allow for two tennis courts and 4 Pickle Ball courts complete with additional fencing to separate the two disciplines. This project is being accelerated from 2027.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	174,332	0	
HST Impact:	3,068	0	
Total Project Cost:	177,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	177,400	0	0	0	0	0	0
TOTAL FUNDING	177,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

360

Number: 24205

Project Cost: \$960,000

Project Name: Court Resurfacing/Reconstruction/Maintenance

Repair/Replace

Commission: Community Services

Useful Life: 7

Pre Approval: ☐

Department: Operations - Parks

Category: Annual

Project Mgr: Tanya Lewinberg

Cost Validation: Recent awards

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Requirement Validation: Condition assessment

5 ☐ 6 ☐ 7 ☐ 8 ☐

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Repair and resurfacing of basketball, public and club tennis courts based on condition assessment.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	943,411	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	943,411	0
HST Impact:	16,604	0
Total Project Cost:	960,000	0

NOTES

The total cost of resurfacing/rebuilding courts at tennis clubs is shared 50:50 between the tennis club and the City. Tennis club court replacement/rehabilitation will proceed subject to satisfactory club finance review and agreement of the club to undertake repayment. This is an asset based program and is subject to condition assessment. The City contributes to the annual maintenance of the clay courts at Unionville Tennis Club to a maximum of \$3k per court (total of \$9k per year for 3 clay courts).

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Tennis Court	Basketball Court	Clay	Consulting	TOTAL	
Operating Funded Life Cycle	691,000	536,900	145,100	9,000	0	691,000	0
Other External	269,000	269,000	0	0	0	269,000	0
TOTAL FUNDING	960,000					960,000	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 693,000
				Amount Incl HST 691,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				

Project	Court Resurfacing/Reconstruction/Maintenance
2024 Capital Request	\$960,000
Funding Source	Life Cycle Reserve
Description of Program	Rebuilding or resurfacing of basketball, public and club tennis courts based on condition assessment.
Project Rationale	These structures require replacement prior to any failures occurring, based on condition assessment to meet the CSA guidelines (Z614-07 Children's Play spaces and Equipment).
Legislative Requirement	n/a
History	This project is reflective of court surfacing identified in the parks lifecycle and supported by condition assessment. Court surfaces are identified for inspection after 7 years of service with the total number of structures yearly being reflective of growth which occurred in a given year
Future Phases	This funding is requested each year based on lifecycle.
Total Project Cost	n/a
Related Projects	n/a
Related Maps	n/a
Alignment to the Strategic Plan	The City provides safe use of outdoor recreation facilities for families which aligns with the guidelines established in the Integrated Leisure Master Plan.

2024 Court Reconstruction and Resurfacing

Inventory Description	Facility	Rebuild or Resurface	2023 Inflated - Pre-Tax Markham Share	Club Share Pre-Tax	Total Project Cost Pre-Tax	Total Project Cost Inc. HST Impact	Comment
Court Surfacing - Tennis/ Basketball	Armada Park - Basketball #1 (half) - Resurface	Resurface	13,225		13,225	13,458	
Court Surfacing - Tennis/ Basketball	Ashton Meadows - Basketball #1 - Resurface	Resurface	37,395		37,395	38,053	
Court Surfacing - Tennis/ Basketball	Schoolhouse Basketball #1 (Half) - Resurface	Resurface	7,851		7,851	7,989	
Court Surfacing - Tennis/ Basketball	Carlton Park - Tennis #1 - Resurface	Resurface	10,300	10,300	20,600	20,962	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Carlton Park - Tennis #2 - Resurface	Resurface	10,300	10,300	20,600	20,962	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Carlton Park - Tennis #3 - Resurface	Resurface	10,300	10,300	20,600	20,962	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Carlton Park - Tennis #4 - Resurface	Resurface	10,300	10,300	20,600	20,962	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Carlton Park - Tennis #6 (Clay)		3,000		3,000	3,000	Not subject to HST
Court Surfacing - Tennis/ Basketball	Carlton Park - Tennis #5 (Clay)		3,000		3,000	3,000	Not subject to HST
Court Surfacing - Tennis/ Basketball	Carlton Park - Tennis #7 (Clay)		3,000		3,000	3,000	Not subject to HST
Court Surfacing - Tennis/ Basketball	Laura and Alf Weaver Park - Tennis #1 (Resurface)	Resurface	20,600		20,600	20,962	
Court Surfacing - Tennis/ Basketball	Laura and Alf Weaver Park - Tennis #2 (Resurface)	Resurface	20,600		20,600	20,962	
Court Surfacing - Tennis/ Basketball	Milliken Mills Park - Basketball #1 (half) N - Rebuild	Rebuild	32,182		32,182	32,748	
Court Surfacing - Tennis/ Basketball	Pomona Valley - Tennis #1 - Resurface	Resurface	10,300	10,300	20,600	20,962	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Pomona Valley - Tennis #2 - Resurface	Resurface	10,300	10,300	20,600	20,962	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Pomona Valley - Tennis #3 - Resurface	Resurface	10,300	10,300	20,600	20,962	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Pomona Valley - Tennis #4 - Resurface	Resurface	10,300	10,300	20,600	20,962	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Pomona Valley - Tennis #5 - Resurface	Resurface	10,300	10,300	20,600	20,962	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Pomona Valley - Tennis #6 - Resurface	Resurface	10,300	10,300	20,600	20,962	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Ray Street Park - #1 Basketball - Resurface	Resurface	5,722		5,722	5,823	
Court Surfacing - Tennis/ Basketball	Robinson - Tennis #1 - Rebuild	Rebuild	74,389		74,389	75,698	
Court Surfacing - Tennis/ Basketball	Robinson - Tennis #2 - Rebuild	Rebuild	74,389		74,389	75,698	
Court Surfacing - Tennis/ Basketball	Ada Mackenzie - Basketball #1 (full) - Resurface	Resurface	46,240		46,240	47,054	
Court Surfacing - Tennis/ Basketball	Ada Mackenzie - Tennis #1 - Resurface	Resurface	36,622		36,622	37,267	
Court Surfacing - Tennis/ Basketball	Ada Mackenzie - Tennis #2 - Resurface	Resurface	36,622		36,622	37,267	
Court Surfacing - Tennis/ Basketball	Simonston - Tennis #1 - Rebuild	Rebuild	40,342	40,342	80,683	82,103	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Simonston - Tennis #2 - Rebuild	Rebuild	40,342	40,342	80,683	82,103	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Simonston - Tennis #3 - Rebuild	Rebuild	40,342	40,342	80,683	82,103	Pending club consultation and financials
Court Surfacing - Tennis/ Basketball	Simonston - Tennis #4 - Rebuild	Rebuild	40,342	40,342	80,683	82,103	Pending club consultation and financials
	TOTAL		679,201	264,366	943,567	960,015	
	EXTERNAL CONSULTANT (Rebuild- Simonston and Robinson Tennis Courts, Milliken Mills Basketball Courts)				30,221	30,753	
	2023 In Year for Consulting					(30,800)	
	TOTAL PROJECT COST					959,969	
	TOTAL PROJECT COST (ROUNDED OFF)					960,000	

Summary:

Funding (Inc. HST Impact)	Details	Tennis Courts	Basketball Court	Clay Court	Consulting	Total
Lifecycle	Resurface/Rebuild - Public Tennis Courts - Laura and Alf Weaver, Robinson and Ada Mackenzie	267,900				267,900
Lifecycle	Resurface/Rebuild - Basketball Courts - Armadale, Ashton Meadows, Schoolhouse, Milliken Mills, Ray Street and Ada Mackenzie		145,100			145,100
Lifecycle	Clay Court - Unionville TC			9,000		9,000
Lifecycle	External Consulting				30,800	30,800
Lifecycle	Resurface/Rebuild - TC-Carlton, Pomona, Unionville	269,000				269,000
External - Club	Resurface/Rebuild - TC-Carlton, Pomona, Unionville	269,000				269,000
2023 In year for consulting						(30,800)
		805,900	145,100	9,000	30,800	960,000
	TOTAL PROJECT COST					960,000

Cost	943,443
External Consulting	30,221
Total Project Cost - Pre-Tax	973,664
HST Impact	17,136
2023 In year for consulting	(30,800)
Total Project Cost Inc. HST Impact	960,000
TOTAL PROJECT COST (ROUNDED OFF)	960,000



2024 PROJECT FUNDING REQUEST FORM

363

Number: 24206

Project Cost: \$78,000

Project Name: Exercise Equipment and Rubberized Safety Surface

Commission: Community Services

Department: Operations - Parks

Project Mgr: Tanya Lewinburg

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 9 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Adult exercise equipment addresses a need for outdoor movement and exercise for residents over the age of 16 years and comes in many varieties of form and function. With use in some locations similar to play structures outdoor exercise equipment is inspected monthly and audited yearly with condition assessments being performed close to the useful life of 17 years to determine replacement.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	76,690	0				
Internal Charges:	0	0				
External Consulting:	0	0				
Contingency %: 0	0	0				
Sub Total:	76,690	0				
HST Impact:	1,350	0				
Total Project Cost:	78,000	0				

NOTES

This is an asset based program subject to condition assessment of the individual asset close to the useful life. This equipment at Henry White Park was installed in 2015 and will be replaced along with the playground equipment and the related rubberized safety surfacing.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget	Equipment	Rubberized Surface			TOTAL		
Operating Funded Life Cycle	78,000	25,400	52,600	0	0	78,000	0	
TOTAL FUNDING	78,000					78,000	0	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 82,200
				Amount Incl HST 78,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

364

Number: 24207

Project Cost: \$80,200

Project Name: Fence (Backstop and Outfield) Replacement

Repair/Replace

Commission: Community Services

Useful Life: 35 Pre Approval: ☐

Department: Operations - Parks

Category: Minor

Project Mgr: James Bingham

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Backstop fence and outfield fence replacement

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	78,831	0	2024 location: Duncan Park - Major #1 This is the first time these assets are being replaced since original construction. Unit cost is based on original cost of construction plus inflation. This is an annual program and funding will be requested each year for baseball and softball fields' city wide. Project cost vary depending on the number of locations. There is no substantial backlog and assets are in a state of good repair. Funds may be reallocated within the project components. Unit cost is consistent with recent award plus inflation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	78,831	0	
HST Impact:	1,387	0	
Total Project Cost:	80,200	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	80,200	0	0	0	0	0	0
TOTAL FUNDING	80,200					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 80,200
				Amount Incl HST 80,200
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

365

Number: 24208

Project Cost: \$96,300

Project Name: Fence (Tennis Courts)

Commission: Community Services

Department: Operations - Parks

Project Mgr: Tanya Lewinberg

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 35 Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of perimeter fencing of tennis courts helps to protect the playing surfaces from non-court uses while maintaining the limits of play and allowing securement of the courts when not available for users.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024	Future Phases
Cost/Quote:			94,668	0
Internal Charges:			0	0
External Consulting:			0	0
Contingency %: 0			0	0
Sub Total:			94,668	0
HST Impact:			1,666	0
Total Project Cost:			96,300	0

NOTES

This is an asset based program and is subject to condition assessment. The 2024 locations are Simonston Tennis Court 1-4. Unit costs are based on original cost of construction plus inflation. There is no substantial backlog and the fences are in a state of good repair

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	96,300	0	0	0	0	0	0
TOTAL FUNDING	96,300	0					0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 102,500
				Amount Incl HST 96,300
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

366

Number: 24209

Project Cost: \$789,800

Project Name: Floodlights, Poles & Cross Arms Replacement

Commission: Community Services

Department: Operations - Parks

Project Mgr: James Bingham

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 30 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

LED Floodlights, poles and cross arms at parks due for replacement based on condition assessment and to avoid untimely outages. This project includes the repair, removal and disposal of existing poles and floodlights, and supply and installation of new poles, cross arms and floodlights. Locations for 2024 are Ashton Meadows Baseball, Bayview Reservoir Softball and Bishops Cross Soccer.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	754,108	0	This is an asset based lifecycle program and funding will be requested each year. All of the Markham sports fields constructed or retrofitted since 1982 have been equipped with controlled-optic sports floodlights that are designed to control the direct illumination and to reduce the dark sky illumination. Project will be completed during 2023/2024 winter season. This project will be upgraded to LED lights generating annual savings of \$3K. There is no substantial backlog and assets are in a state of good repair.
Internal Charges:	0	0	
External Consulting:	22,000	0	
Contingency %: 0	0	0	
Sub Total:	776,108	0	
HST Impact:	13,660	0	
Total Project Cost:	789,800	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	789,800	0	0	0	0	0	0
TOTAL FUNDING	789,800					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	-\$3,000	\$0	-\$3,000

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 952,200
				Amount Incl HST 789,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
The lights at the 3 tennis courts at Markham Tennis Club are being completed as part of the Tennis Bubble project managed by Asset Management.				

Project	Floodlight Poles and Cross Arms Replacement
2024 Capital Request	\$789,800
Funding Source	Life Cycle Reserve
Description of Program	Replacement of Floodlights and Poles, per condition assessment and consultant review, to meet lighting requirements for safe play.
Project Rationale	These sport field lighting systems are required to meet lighting levels for safe play , any failures could result in user injury and hinder playing performance.
Legislative Requirement	City play structures are required to be CSA – Canadian Standards Association CAN/CSA-Z614-07 certified at the time of installation and throughout their useful life. Annual inspections by certified playground inspectors combined with a yearly third party safety audit ensures compliance.
History	This project is reflective of Floodlights and Poles identified in the parks lifecycle and supported by condition assessment. Flood lights and poles are listed on a 30 year lifecycle. Annual audits are completed and revised by city consultant for review.
Future Phases	This funding is requested each year based on lifecycle.
Total Project Cost	n/a
Related Projects	Re-lamping. Metal halide fixtures have there lenses cleaned, fixtures repaired and bulbs changed every 5 years
Related Maps	n/a
Alignment to the Strategic Plan	The City provides safe use of outdoor illuminated athletic Fields, facilities for users which aligns with the guidelines established in the Integrated Leisure Master Plan.

2024 Floodlights, Poles & Cross Arms Replacement

Facility	Cost
Ashton Meadow Park - Baseball	328,489
Bayview Reservoir - Softball	211,182
Bishops Cross - Soccer	214,437
Total	754,108
Consultant	22,000
TOTAL PRE-TAX	776,108
HST IMPACT	13,660
TOTAL PROJECT COST	789,768
TOTAL PROJECT COST (ROUNDED OFF)	789,800



2024 PROJECT FUNDING REQUEST FORM

369

Number: 24210

Project Cost: \$8,900

Project Name: Goal Posts Replacement- Pomona Mills Park

Commission: Community Services

Department: Operations - Parks

Project Mgr: James Bingham

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 30 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Goal Posts (2 sets) at Pomona Mills Park due for replacement based on life expectancy and condition assessment.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	8,700	0	Life cycle Program. \$4.35K per pair per location. This is an annual program and funding will be requested each year. The replacements are to ensure safety compliance. Unit prices consistent with recent award plus inflation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	8,700	0	
HST Impact:	153	0	
Total Project Cost:	8,900	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	8,900	0	0	0	0	0	0
TOTAL FUNDING	8,900					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 8,900
				Amount Incl HST 8,900
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

370

Number: 24211

Project Cost: \$53,800

Project Name: Heritage Waste Receptacles

Commission: Community Services

Repair/Replace

Department: Operations - Parks

Useful Life: 12

Pre Approval: ☐

Project Mgr: Matt Busato

Category: Annual

Ward(s): CW ☐ 1 ☒ 2 ☒ 3 ☒ 4 ☒

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Site furnishings within the approved heritage districts require heritage approval with different design and materiality than waste receptacles within the greater parks network. Previous approved receptacles have been purchased from a USA supplier and have been a combination of steel and aluminum construction leading to a shorter life cycle. Heritage waste receptacles moving forward will be sourced in Canada with improved materiality and useful life.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024		Future Phases		NOTES
Cost/Quote:	52,890	0					
Internal Charges:	0	0					
External Consulting:	0	0					
Contingency %: 0	0	0					
Sub Total:	52,890	0					
HST Impact:	931	0					
Total Project Cost:	53,800	0					

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget	TOTAL					Phases	
Operating Funded Life Cycle	53,800	0	0	0	0	0	0	0
TOTAL FUNDING	53,800					0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 53,800
				Amount Incl HST 53,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

371

Number: 24212

Project Cost: \$34,200

Project Name: Irrigation Refurbishment or Replacement

Commission: Community Services

Department: Operations - Parks

Project Mgr: James Bingham

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 40 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Irrigation systems requiring replacement and or repairs to maintain athletic fields while committing to water conservation through smart monitoring controllers.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	33,622	0	Aging irrigation systems require replacement of components, heads, nozzels, valves, solinoids, flow valves and conversion of existing timers to hydrowse smart controllers. Aging systems also void any water conservation by operating inadequately. 2024 Locations include The Heintzman House, Highgate Park soccer, Monarch Park soccer, Mount Joy soccer.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	33,622	0	
HST Impact:	592	0	
Total Project Cost:	34,200	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	34,200	0	0	0	0	0	0
TOTAL FUNDING	34,200	0					0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 34,200
				Amount Incl HST 34,200
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 Irrigation Refurbishment

Facility	Cost
The Heintzman House - Rehab	8,964
Highgate Park - Soccer - Rehab	8,661
Monarch Park -Soccer - Rehab	3,839
Mount Joy Park - Soccer - Rehab	12,157
Total	33,622
HST IMPACT	592
TOTAL PROJECT COST	34,213
TOTAL PROJECT COST (ROUNDED OFF)	34,200



2024 PROJECT FUNDING REQUEST FORM

373

Number: 24213

Project Cost: \$125,300

Project Name: Markham Trees for Tomorrow

Commission: Community Services

Department: Operations - Parks

Project Mgr: Matt Busato

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 50 Pre Approval: ☒

Category: Annual

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Initiated in 2007, the program focuses on supporting canopy core initiatives through the engagement of community and corporate volunteers and Non-Government Organizations. The program scope is developed annually based on changing priorities that focus on education to promote and maintain the health and longevity of our urban forest. To date, over 400,000 trees have been planted citywide since the program's inception. This is an annual program and funds will be requested each year.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	84,700	0	Program focus is City tree planting projects that incorporate community engagement and partnership opportunities. 2024 Goals- 1. Tree planting to support to the City's 30% tree canopy goal 2. Continue NGO partnerships such as 10,000 Trees, Tree Canada, Friends of the Rouge and other corporate community engagement projects to promote education and stewardship opportunities. Internal Chargeback for 1 – 150 Day Staff. Funding source is Trees for Tomorrow Reserve. The balance in the Trees For Tomorrow reserve as of October 31, 2023 is \$454,417.
Internal Charges:	39,088	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	123,788	0	
HST Impact:	1,491	0	
Total Project Cost:	125,300	0	

SOURCE(S) OF FUNDING (\$)	Components					Future Phases
Funding Type	Budget				TOTAL	
Other Internal	125,300	0	0	0	0	0
TOTAL FUNDING	125,300				0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

374

Number: 24214

Project Cost: \$574,600

Project Name: Milliken Mills Park Waterplay Replacement

Commission: Community Services

Department: Operations - Parks

Project Mgr: Dean McDermid

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☒

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The Splash Pad at Milliken Mills Park requires replacement based on condition assessment and life expectancy.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	535,970	0	This is an asset based program subject to condition assessment. This splash pad was installed in 2004 and this is the first replacement cycle.
Internal Charges:	0	0	
External Consulting:	28,730	0	
Contingency %: 0	0	0	
Sub Total:	564,700	0	
HST Impact:	9,939	0	
Total Project Cost:	574,600	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	574,600	0	0	0	0	0	0
TOTAL FUNDING	574,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 574,600
				Amount Incl HST 574,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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Project	Milliken Mills Waterplay Replacement
2024 Capital Request	\$574,600
Funding Source	Life Cycle Reserve
Description of Program	The splash pad at Milliken Mills park requires replacement based on condition assessment and life expectancy.
Project Rationale	This is an asset based program subject to condition assessment to replace the existing seasonal splash pad with a new one of equal play value
Legislative Requirement	
History	This splash pad was first installed in 2004 and this is the first time it has been replaced
Future Phases	This funding is requested each year based on lifecycle.
Total Project Cost	\$574,600.00
Related Projects	n/a
Related Maps	n/a
Alignment to the Strategic Plan	The City provides safe use of outdoor recreation facilities for families which aligns with the guidelines established in the Integrated Leisure Master Plan.



2024 PROJECT FUNDING REQUEST FORM

376

Number: 24215

Project Cost: \$1,010,500

Project Name: Mt. Joy Artificial Turf/Grade Beam Replacement

Commission: Community Services

Repair/Replace

Department: Operations - Parks

Useful Life: 10

Pre Approval: ☐

Project Mgr: James Bingham

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Other(specify in Notes)

5 ☒ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The replacement of the artificial turf at Mt. Joy Community Center is scheduled to take place in 2024 and requires a new grade beam to be constructed at the south end of the existing field along with mechanical system relocation. This will separate the year round use field from the full size outdoor field to eliminate uneven wear of the artificial turf fabric on the seasonal field making these stand alone fields.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	913,000	0	The current artificial turf at Mt. Joy is heavily worn in the area where the winter air support structure is erected every year. The existing grade beam will be removed as required and a new beam will be installed at the south end of the field to facilitate year round use of the air support structure without impacting the seasonal use of the field. At the time of the reconfiguration, permanent bleachers will be added to provision the field for competitive league play. Engagement of a consultant/project manager and a structural engineer will be required due to the complexity of this project.
Internal Charges:	0	0	
External Consulting:	80,000	0	
Contingency %: 0	0	0	
Sub Total:	993,000	0	
HST Impact:	17,477	0	
Total Project Cost:	1,010,500	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	1,010,500	0	0	0	0	0	0
TOTAL FUNDING	1,010,500				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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Project	Mt. Joy Artificial Turf/Grade Beam Replacement
2024 Capital Request	\$1,010,500
Funding Source	Life Cycle Reserve
Description of Program	Relocation of grade beam for air support structure to allow year round use of dome while providing a full-size outdoor artificial turf soccer field
Project Rationale	Artificial turf fields are an important component of the City's sports field resources and allow competitive league play outside of regular season dates.
Legislative Requirement	n/a
History	The grade beam is currently located within the full-size soccer field. The use of the air support structure in this configuration is prematurely wearing the artificial turf in that portion of the field resulting in uneven turf not acceptable to league play.
Future Phases	The turf within the air support structure will be separated from the outdoor field as lifecycle and replacement schedules will not align.
Total Project Cost	\$1,010,500.00
Related Projects	Capital project #23220 \$1,140,900 which includes consulting
Related Maps	n/a
Alignment to the Strategic Plan	The City provides safe use of indoor and outdoor recreation facilities for families and user groups which aligns with the guidelines established in the Integrated Leisure Master Plan.



2024 PROJECT FUNDING REQUEST FORM

378

Number: 24216

Project Cost: \$151,300

Project Name: Pathways Resurfacing

Commission: Community Services

Department: Operations - Parks

Project Mgr: Dean McDermid

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Paving and repairs of existing asphalt pathways at various parks and locations. Limestone pathways require additional material to be added and compacted to maintain safe and level surfacing. Locations will be assessed and determined based on condition assessment in spring. Staff will investigate environmental options for future considerations.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	148,681	0	This is an annual program and funds will be requested each year. Locations are subject to condition assessment to be done in spring 2024. Condition assessments are done in early spring when total quantities and materiality of repairs is determined. Asphalt park pathways are assessed for trip edges greater than 2.0cm as outlined in Prov Leg O.Reg. 239/02 for minimum maintenance standards. There is no substantial backlog and the pathways are in a state of good repair.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	148,681	0	
HST Impact:	2,617	0	
Total Project Cost:	151,300	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	151,300	0	0	0	0	0	0
TOTAL FUNDING	151,300					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 151,300
				Amount Incl HST 151,300
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

379

Number: 24217

Project Cost: \$13,400

Project Name: Pickleball Court Lining Project

Commission: Community Services

Department: Operations - Parks

Project Mgr: Jason Tsien/ David Plant

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 7 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is an annual program intended to add pickleball lines to existing tennis courts in community and neighbourhood parks across Markham. The 2024 project will add four (4) sets of pickleball lines to two (2) existing outdoor tennis court facilities. Pickleball is the fastest growing sport in North America with the number of places to play nearly doubling between 2010 and 2016. With increasing levels of participation and demand for additional public outdoor courts, this program aims to meet community needs for additional outdoor pickleball opportunities. Since 2020, the City of Markham have added 24 outdoor pickleball courts.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	12,000	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 10	1,200	0
Sub Total:	13,200	0
HST Impact:	232	0
Total Project Cost:	13,400	0

NOTES

The 2024 capital program will add pickleball lines to public tennis facilities located at South Unionville Park, and Laura and Alf Weaver Park. New pickleball lines painted on existing community public tennis courts will increase and maximize the use of each outdoor tennis facility. This project is a 5 year program, which will allow the City to systematically add pickleball lines to existing public tennis facilities at 16 other park locations. *Funding will be requested each year of the 5 year program.

SOURCE(S) OF FUNDING (\$)

Components						Future Phases
<u>Funding Type</u>	<u>Budget</u>				<u>TOTAL</u>	
Tax	13,400	0	0	0	0	0
TOTAL FUNDING	<u>13,400</u>				<u>0</u>	<u>0</u>

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

380

Number: 24218

Project Cost: \$1,347,500

Project Name: Playstructure & Safety Surface Replacement

Commission: Community Services

Department: Operations - Parks

Project Mgr: Tanya Lewinberg

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 17 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of playground equipment, and safety surfacing as required, to maintain the current standards (CSA – Canadian Standards Association CAN/CSA-Z614-07. Children’s Playspaces and Equipment) and AODA compliance. There are 11 locations to be completed in 2024, which require the removal of the sand surfacing and installation of Engineered Wood Fiber (EWF).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	1,324,211	0	This is an asset based program with all locations subject to condition assessment. Funding changes yearly based on life cycle replacement of specific play structures. There is no backlog of play structure equipment upon completion of the 2024 project and the assets are in a state of good repair. There is a backlog of AODA compliant playground safety surfacing which requires removal and replacement with AODA compliant surfacing (EWF) by 2026 which will be addressed yearly with equipment replacements and a 4 year project starting in 2023.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	1,324,211	0	
HST Impact:	23,306	0	
Total Project Cost:	1,347,500	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Playground Structure	Safety Surface			TOTAL	
Gas Tax	1,347,500	655,800	691,700	0	0	1,347,500	0
TOTAL FUNDING	1,347,500					1,347,500	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 1,452,700
				Amount Incl HST 1,251,900
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Deferred 3 locations to 2025. Components not included in Life Cycle are tree protection (41K), Fences (23.5K), Mobilization/Demobilization (23.5K), Sod (8K), and consulting (67K).				

Project	Playstructure & Rubberized Surface Replacement
2024 Capital Request	\$1,347,500
Funding Source	Life Cycle Reserve
Description of Program	Replacement of playground equipment, and safety surfacing as required, to maintain the current standards (CSA – Canadian Standards Association CAN/CSA-Z614-07. Children's Playspaces and Equipment) and AODA compliance. There are 9 structures to be completed in 2024 with 2 of them having rubberized surfacing and 13 which require the removal of the sand surfacing and installation of Engineered Wood Fiber (EWf).
Project Rationale	These structures require replacement prior to any failures occurring, based on condition assessment to meet the CSA guidelines (Z614-07 Children's Play spaces and Equipment).
Legislative Requirement	City play structures are required to be CSA – Canadian Standards Association CAN/CSA-Z614-07 certified at the time of installation and throughout their useful life. Monthly inspections by certified playground inspectors combined with a yearly third party safety audit ensures compliance.
History	This project is reflective of play structures identified in the parks lifecycle and supported by condition assessment. Play structures are identified for inspection after 17 years of service with the total number of structures yearly being reflective of growth which occurred 17 years previously.
Future Phases	This funding is requested each year based on lifecycle.
Total Project Cost	n/a
Related Projects	Play Structure Rubberized Surface Replacement
Related Maps	n/a
Alignment to the Strategic Plan	The City provides safe use of outdoor recreation facilities for families which aligns with the guidelines established in the Integrated Leisure Master Plan.

2024 PLAYSTRUCTURE AND SAFETY SURFACE REPLACEMENT

Facility	Playground Structure	Playground - Rubberized Surface	Playground - Engineered Wood Fiber	Playground- Curb & Concrete Entrance Ramp	Playground- Drainage & Site Works	Tree Protection	Fences	Mobilization and Demobilization	Sod	TOTAL
Abraham Iredell (1-Senior)	90,093		20,860	5,250	9,510	3,150	2,100	2,100	-	133,063
Colty Corners (1- Senior)	45,047		14,357	2,625	7,558	5,775	2,100	2,100		79,562
Frederick Bagg Park (1-Combined)	61,939		20,080	5,250	9,275	3,150	2,100	2,100		103,894
Frederick Peterson Park (1-Junior)	16,892		10,716	18,467	13,619	4,725	2,100	2,100	1,575	70,194
Roxbury North Unit (1-Senior)	106,986		6,347	18,467	7,756	3,150	2,100	2,100	1,575	148,480
Roxbury Central Unit (2 Swing Bays, with Accessible swing and spring toys)	28,154		8,895	17,609	14,390	3,150	2,100	2,100	1,575	77,974
Sinclair Holden Park (1-Senior)	67,570		26,062	5,250	13,670	6,300	2,100	2,100	1,575	124,627
Robert Grundy Parkette (1-Senior)	50,677		20,912	5,250	9,525	3,150	2,100	2,100	1,575	95,289
Gordon Stollery Park - South		163,029				1,050	2,100	2,100		168,279
Henry White (1-Junior, 1-Senior)	84,462	96,496				3,150	2,100	2,100		188,308
South Unionville Park (1-Senior)	61,939	65,262				3,150	2,100	2,100		134,551
TOTAL PRE-TAX	613,759	324,787	128,230	78,167	85,304	39,900	23,100	23,100	7,875	1,324,221
			TOTAL PRE-TAX							1,324,221
			EXTERNAL CONSULTING							66,211
			TOTAL PRE-TAX, INC. CONSULTING							1,390,432
			HST IMPACT							24,472
			2023 IN YEAR FOR CONSULTING							(67,400)
			TOTAL PROJECT COST							1,347,504
			ROUNDED OFF PROJECT COST							1,347,500

Component	
Playground Structure	624,500
Playground - Safety Surface	723,000
	1,347,500



2024 PROJECT FUNDING REQUEST FORM

383

Number: 24219

Project Cost: \$42,500

Project Name: Relamping & Fixtures Refurbishment

Commission: Community Services

Department: Operations - Parks

Project Mgr: James Bingham

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 10 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

An independent audit of electrical services in municipal parks and sportsfields identifies locations for repair/maintenance of electrical components based on condition assessment. Metal halide lamps have decreased light levels yearly and require relamping to maintain safe light levels for play. Untimely outages may pose potential hazards.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	35,800	0				
Internal Charges:	0	0				
External Consulting:	6,000	0				
Contingency %: 0	0	0				
Sub Total:	41,800	0				
HST Impact:	736	0				
Total Project Cost:	42,500	0				

NOTES

This is an annual program and funds will be requested each year. Locations to be determined. Project scope includes bulb, defective ballast, cables, broken lens replacements. Work to be completed is based on condition assessment by the lighting consultant and is location specific. This is an annual program and funding will be requested each year. The assets are in a state of good repair.

SOURCE(S) OF FUNDING (\$)		Components						Future Phases	
Funding Type	Budget	TOTAL						Future Phases	
Operating Funded Life Cycle	42,500	0	0	0	0	0	0	0	0
TOTAL FUNDING	42,500						0		0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 42,500
				Amount Incl HST 42,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

384

Number: 24220

Project Cost: \$17,900

Project Name: Replace Seasonal Containers

Commission: Community Services

Department: Operations - Parks

Project Mgr: Matt Busato

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 10 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of aging parks receptacles.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	17,614	40,062	This is year 7 of 10. There are approximately 500 seasonal receptacles in parks. Project will replace aging receptacles. This is a multi year project and will be requested each year until completed. Amount requested is consistent with the 2023 Life Cycle Reserve Study update.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	17,614	40,062	
HST Impact:	310	705	
Total Project Cost:	17,900	40,800	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	17,900	0	0	0	0	0	91,500
TOTAL FUNDING	17,900					0	91,500

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 17,900
				Amount Incl HST 17,900
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

385

Number: 24221

Project Cost: \$231,900

Project Name: Shade Structure Rehabilitation and/or Replacement

Commission: Community Services

Department: Operations - Parks

Project Mgr: Tyler Burns

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 35 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Rehabilitation and/or replacement of shade structures (gazebo minor, major and trellis) based on condition assessment. There are 14 locations in 2024.

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PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	227,892	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	227,892	0
HST Impact:	4,011	0
Total Project Cost:	231,900	0

NOTES

This is an asset based program and is subject to condition assessment. There is currently no backlog and the assets are in a state of good repair.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Gasebo Major	Gasebo Minor Rehab	Trellis Rehab	TOTAL		
Operating Funded Life Cycle	231,900	118,800	27,500	85,600	0	231,900	0
TOTAL FUNDING	231,900					231,900	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 490,100
				Amount Incl HST 231,900
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

The following locations are being deferred based on condition assessment: Minor Gazebo - South Unionville Park. Trellis - Caboto Trail Park, Clarence Chant, George Coathup Park, Greensborough Town Centre (2 units), Millennium Park (2 units), Nicholas Miller, Peter Bawden, Sinclair Holden Park, Speight, Wismer (10 units).

2024 Shade Structure Rehabilitation and Replacement (14 Locations)

Inventory Description	Facility	Cost
Gazebo - Major	Millenium - Bandstand - Structural Reports	10,498
Gazebo - Major	Millenium - Bandstand - Main Disconnect	1,441
Gazebo - Major	Millenium - Bandstand -Roof	104,851
Gazebo - Minor (Rehab.)	Unionville Planing Mill	7,521
Gazebo - Minor (Rehab.)	Avida Pond	5,181
Gazebo - Minor (Rehab.)	Monarch Park	8,357
Gazebo - Minor (Rehab.)	Peace Park - 2007	5,952
Trellis (Wood -Rehab)	Wilmot Parkette	6,336
Trellis (Steel -Rehab)	Beaupre Park	11,519
Trellis (Rehab)	Berczy Park North - 2 units	23,039
Trellis (Wood -Rehab)	Blake Lazenby - 2 units	12,671
Trellis (Rehab)	Fairtree Park	12,671
Trellis (Rehab)	John Stegman	11,519
Trellis (Steel - Rehab)	Simonston Park	6,336
	TOTAL PRE-TAX	227,892
	HST IMPACT	4,011
	TOTAL PROJECT COST	231,903
	ROUNDED OFF PROJECT COST	231,900

Summary By Component	
Gazebo-Major	118,800
Gazebo-Minor Rehab	27,500
Trellis -Rehab	85,600
	231,900



2024 PROJECT FUNDING REQUEST FORM

387

Number: 24222

Project Cost: \$170,700

Project Name: Sportsfield Maintenance & Reconstruction

Commission: Community Services

Department: Operations - Parks

Project Mgr: James Bingham

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Annual

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Life cycle program includes top dressing, grass seed, sod, fertilizer, and irrigation upgrades as per contracts. Funds within this project may be reallocated to sportsfield maintenance materials and services that require immediate attention unforeseen at the time of submission such as sodding of damaged fields. Locations to be determined each spring and again at the end of playing season based on inspection.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	167,790	0	This is an annual program and funds will be requested each year. There are 216 sportsfields existing in various parks and schools which consist of baseball diamonds, rugby, soccer, cricket and football fields. The lack of weeds on City fields is due largely to promoting healthy turf through sound cultural practices tailored to each field and based on requirements. This is an annual program and funding will be requested each year. There is no substantial backlog within this program and assets are in a state of good repair. Project cost is based on existing contracts.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	167,790	0	
HST Impact:	2,953	0	
Total Project Cost:	170,700	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	170,700	0	0	0	0	0	0
TOTAL FUNDING	170,700					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 146,300
				Amount Incl HST 170,700
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Ask is more than Life Cycle to fund 2 A lit baseball diamonds and 2 A lit soccer fields at Cornell Park.				



2024 PROJECT FUNDING REQUEST FORM

388

Number: 24223

Project Cost: \$28,600

Project Name: Stairway Repairs

Commission: Community Services

Department: Operations - Parks

Project Mgr: Tyler Burns

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project repairs stairways citywide, based on condition assessment. Stairways offer important access points to valley land, park, parking lots and facilities.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024	Future Phases
Cost/Quote:			28,100	0
Internal Charges:			0	0
External Consulting:			0	0
Contingency %: 0			0	0
Sub Total:			28,100	0
HST Impact:			495	0
Total Project Cost:			28,600	0

NOTES

Specific locations to be determined upon completion of condition assessment in spring 2024. Unit prices consistent with recent award plus inflation.

Amount requested is consistent with the 2023 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	28,600	0	0	0	0	0	0
TOTAL FUNDING	28,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 28,600
				Amount Incl HST 28,600
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

389

Number: 24224

Project Cost: \$7,700

Project Name: Talc Cabinet Replacement

Commission: Community Services

Department: Operations - Parks

Project Mgr: James Bingham

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replace deteriorating metal talc boxes which allows user groups to maintain lines on diamonds during heavy play.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	7,600	0	Replace aging talc cabinets with more ergonomic storage units for user safety. 2024 locations are Berczy Park South Major #1 and Coledale Park Major #1. These units are required to keep equipment and Talc material safe and dry for Baseball permit users.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	7,600	0	
HST Impact:	134	0	
Total Project Cost:	7,700	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	7,700	0	0	0	0	0	0
TOTAL FUNDING	7,700	0	0	0	0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 7,700
				Amount Incl HST 7,700
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
John Button deferred due to condition assessment				

Operations - Fleet



2024 PROJECT FUNDING REQUEST FORM

392

Number: 24225

Project Cost: \$181,100

Project Name: Autonomous Mowers

Commission: Community Services

New Asset/Expansion

Department: Operations - Fleet

Useful Life: 7 Pre Approval: ☐

Project Mgr: Steve Dollmaier/Albert Chan

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To purchase two (2) Autonomous Mowers for a pilot project to be used on City Sport Fields, resulting from the growth of new parks across the City. This request for these mowers aligns with parks growth of fields, with the addition of Celebration Park Cricket Pitch in 2024.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	177,963	0	\$64,950 US per unit; Price generated from the current USD exchange rate \$1.37. Autonomous lawn mower technology is developing quickly and the turf grass industry is anticipating rapid growth in professional applications. These autonomous gas-powered zero turn mowers provide many benefits including: fewer operators required addressing staff recruitment challenges, programmable operation reducing operator error issues and consistent mowing productivity and efficiency. Once an operator defines the cutting boundaries, the unit is programmed, monitored, and controlled remotely by smartphone.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	177,963	0	
HST Impact:	3,132	0	
Total Project Cost:	181,100	0	

SOURCE(S) OF FUNDING (\$)	Components					Future Phases
Funding Type	Budget				TOTAL	
DCA	181,100	0	0	0	0	0
TOTAL FUNDING	181,100				0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$19,726	\$0	\$19,726

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
PUBLIC WORKS - Fleet	2024	181,100	1,004,295	Amount in Study: <input type="text"/>
TOTAL FUNDING		181,100	1,004,295	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

393

Number: 24226

Project Cost: \$10,200

Project Name: Corporate Fleet Growth

Commission: Community Services

Department: Operations - Fleet

Project Mgr: Albert Chan/Steve Dollmaier

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 7 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To purchase growth related Non- Fleet equipment such as push mowers, portable generators, cord trimmers, leaf blowers and other small tools.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	10,000	0	Additional equipment for additional seasonal staff based on growth.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	10,000	0	
HST Impact:	176	0	
Total Project Cost:	10,200	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	10,200	0	0	0	0	0	0
TOTAL FUNDING	10,200					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
PUBLIC WORKS - Fleet	2024	0	1,004,295	Amount in Study: <input type="text"/>
TOTAL FUNDING		0	1,004,295	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

394

Number: 24227

Project Cost: \$41,200

Project Name: Corporate Fleet Refurbishing

Commission: Community Services

Repair/Replace

Department: Operations - Fleet

Useful Life: 3

Pre Approval: ☐

Project Mgr: Albert Chan/Steve Dollmaier

Category: Annual

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Equipment and vehicles require periodic refurbishing, rust proofing and corrosion protection to meet the Ministry of Transportation safety requirements and to ensure life cycle requirements are met. This program helps to mitigate maintenance costs and keeps the equipment in a state of good repair.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	40,537	0	Project includes rust protection, body work and painting. Requirement Validation - condition assessment and legislative compliance. This is an annual program. 3 year average is \$46K. Amount requested is consistent with Life Cycle Reserve Study update.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	40,537	0	
HST Impact:	713	0	
Total Project Cost:	41,200	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	41,200	0	0	0	0	0	0
TOTAL FUNDING	41,200					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 41,200
				Amount Incl HST 41,200
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

395

Number: 24228

Project Cost: \$191,500

Project Name: Corporate Fleet Replacement - Fire

Commission: Community Services

Department: Operations - Fleet

Project Mgr: Matt Keay/Steve Dollmaier

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

2024 Annual Fleet Replacement Program based on the Council adopted Corporate Fleet Policy Guidelines. Life cycle costing targets optimal replacement intervals (ORI) which identifies the most cost effective time period for replacement. All vehicles and equipment contained in this program have reached or surpassed the ORI. User Departments were consulted with respect to the units in this program. Total units for replacement - 4 units

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	188,157	0	Useful life varies from 5 to 10 years based on units types. Requirement validation - Condition assessment, vehicle reliability & down time, & operating costs. Units specified in this replacement program will be purchased with the most recent technology available at time of purchase providing maximized fuel economy with minimal emissions.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	188,157	0	
HST Impact:	3,312	0	
Total Project Cost:	191,500	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	191,500	0	0	0	0	0	0
TOTAL FUNDING	191,500					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 826,900
				Amount Incl HST 191,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
13 units are being deferred for replacement until 2026.				

2024 Corporate Fleet Replacement - Fire

Asset ID	Inventory Description	Mileage (Km)	Usage (Hours)	Category	Model Year	2024 Inflated Cost	Adjustment	Updated 2024 Cost	Comments
9091	DEPUTY CHIEF SUV - 4 x 4	136,242		FIRE-1- Fire	2014	47,039		47,039	Deferred from 2020 to 2024
9092	FIRE CHIEF SUV - 4 x 4	107,103		FIRE-1- Fire	2014	47,039		47,039	Deferred from 2020 to 2024
9093	DEPUTY CHIEF SUV - 4 x 4	156,365		FIRE-1- Fire	2013	47,039		47,039	Deferred from 2020 to 2024
9094	HYBRID 4 DOOR SEDAN	24,639		FIRE-1- Fire	2016	44,190	(44,190)	-	Deferred from 2024 to 2026
9095	HYBRID 4 DOOR SEDAN	85,638		FIRE-1- Fire	2016	44,190	2,849	47,039	
9402	COMPACT VAN	46,424		FIRE-1- Fire	2016	66,064	(66,064)	-	To be replaced in 2024 by Front Wheel Drive SUV - Deferred from 2024 to 2026
9403	COMPACT VAN	39,711		FIRE-1- Fire	2016	66,064	(66,064)	-	To be replaced in 2024 by Front Wheel Drive SUV - Deferred from 2024 to 2026
9404	COMPACT CAR	25,572		FIRE-1- Fire	2016	45,755	(45,755)	-	Deferred from 2024 to 2026
9406	COMPACT CAR	43,189		FIRE-1- Fire	2016	45,755	(45,755)	-	Deferred from 2024 to 2026
9407	COMPACT CAR	34,222		FIRE-1- Fire	2016	45,755	(45,755)	-	Deferred from 2024 to 2026
9408	COMPACT CAR	29,527		FIRE-1- Fire	2016	45,755	(45,755)	-	Deferred from 2024 to 2026
9409	COMPACT CAR	54,239		FIRE-1- Fire	2016	45,755	(45,755)	-	Deferred from 2024 to 2026
9410	COMPACT CAR	29,440		FIRE-1- Fire	2014	45,755	(45,755)	-	Deferred from 2022 to 2026
9411	COMPACT CAR	38,150		FIRE-1- Fire	2014	45,755	(45,755)	-	Deferred from 2022 to 2026
9412	COMPACT CAR	48,830		FIRE-1- Fire	2014	45,755	(45,755)	-	Deferred from 2022 to 2026
9414	COMPACT CAR	59,368		FIRE-1- Fire	2014	45,755	(45,755)	-	Deferred from 2022 to 2026
9803	FIRE MECHANICAL SERVICE FULL SIZE CARGO VAN	36,476		FIRE-1- Fire	2014	39,138	(39,138)	-	Deferred from 2022 to 2026
						Total Pre-Tax	812,562	Total Pre-Tax	188,157
						HST impact	14,301	HST impact	3,312
						Total Project Cost	826,862	Total Project Cost	191,468
						Rounded Off Project Cost	826,900	Rounded Off Project Cost	191,500

ORIGINAL PROJECT COST

No. of Units	Category	Pre-Tax	HST Impact	Project Cost
17	Fire - Licensed	812,562	14,301	826,863
0	Fire Apparatus	-	-	-
		812,562	14,301	826,863
17			Rounded Off - Project Cost	826,900

UPDATED PROJECT COST

No. of Units	Category	Pre-Tax	HST Impact	Project Cost
4	Fire - Licensed	188,157	3,312	191,469
	Fire Apparatus	-	-	-
4			Rounded Off - Project Cost	191,500



2024 PROJECT FUNDING REQUEST FORM

397

Number: 24229

Project Cost: \$108,600

Project Name: Corporate Fleet Replacement - Ice Resurfacing Machine

Repair/Replace

Commission: Community Services

Useful Life: 10 Pre Approval: ☐

Department: Operations - Fleet

Category: Minor

Project Mgr: Albert Chan/Steve Dollmaier

Cost Validation: Other(specify in Notes)

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Condition assessment

5 ☐ 6 ☐ 7 ☐ 8 ☐

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Part of the 2024 Annual Fleet Replacement Program based on the Council adopted Corporate Fleet Policy Guidelines and condition assessment. Life cycle costing targets Optimal Replacement Intervals (ORI) which identifies the most cost effective time period for replacement. All equipment contained in this program have reached or surpassed the ORI. User Departments were consulted with respect to the units in this program. Unit for replacement - 1 ice resurfacing machine at Angus Glen Community Centre.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	106,728	0	Cost Validation- most recent purchase of similar unit type. Requirement validation - vehicle reliability and down time, and operating costs. Pending condition assessment. Replacement model and make may change depending on availability. This program and funding will be requested each year. Unit specified in this replacement program will be purchased with the most recent technology available at time of purchase providing maximized fuel economy with minimal emissions.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	106,728	0	
HST Impact:	1,878	0	
Total Project Cost:	108,600	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	108,600	0	0	0	0	0	0
TOTAL FUNDING	108,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 108,600
				Amount Incl HST 108,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

2024 Corporate Fleet Replacement - Ice Resurfacing Machine

Asset ID	Inventory Description	Facility	2024 Inflated Cost	Comments
	Zamboni 526	Angus Glen	\$ 106,728	Cost for a propane unit preferred by the department; Cost based on Zamboni Company quote
		HST Impact	\$ 1,878	
		Total Project Cost	\$ 108,606	
		Rounded Off Project	108,600	



2024 PROJECT FUNDING REQUEST FORM

399

Number: 24230

Project Cost: \$2,879,800

Project Name: Corporate Fleet Replacement - Non-Fire

Commission: Community Services

Department: Operations - Fleet

Project Mgr: Steve Dollmaier/Albert Chan

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 5 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

2024 Annual Fleet Replacement Program based on the Council adopted Corporate Fleet Policy Guidelines. Life cycle costing targets optimal replacement intervals (ORI) which identifies the most cost effective time period for replacement. All vehicles and equipment contained in this program have reached or surpassed the ORI. User Departments were consulted with respect to the units in this program. Total units - 48.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	2,829,955	0	Useful life varies - 4 to 12 years based on units types. Operations-Non Fleet (\$59k) includes cord trimmers, chainsaws, blowers, etc. Cost Validation- Most recent purchase of similar unit type; Requirement validation - Condition assessment, vehicle reliability & down time, & operating costs. Units specified in this program will be purchased with the most recent technology available at time of purchase providing maximized fuel economy with minimal emissions.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	2,829,955	0	
HST Impact:	49,807	0	
Total Project Cost:	2,879,800	0	

SOURCE(S) OF FUNDING (\$)		Components				Future Phases
Funding Type	Budget	Licensed (25)	Non Licensed (25)	Non Fleet	TOTAL	
Operating Funded Life Cycle	2,879,800	1,996,370	824,463	58,967	0 2,879,800	0
TOTAL FUNDING	2,879,800				2,879,800	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 2,418,700
				Amount Incl HST 2,879,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Additional attachments were added to the LC and 2 Articulated Sidewalk Units are being accelerated with budget being requested in 2023 (\$398,900).				

2024 Corporate Fleet Replacement - Non-Fire

Asset ID	Inventory Description	Mileage (Km)	Usage (Hours)	Facility	Category	Model Year	2024 Inflated Cost	Adjustment	2024 Updated Cost	Comments
1230	FULL SIZE 1500 REG CAB PICK UP 4X2	76,462		OPERATIONS-Licensed	Licensed	2016	47,679	(47,679)	-	Deferred from 2023 to 2024
1231	19,500 GVW FLATBED WITH 9' ARCTIC PLOW	82,364		OPERATIONS-Licensed	Licensed	2016	141,670		141,670	
1233	ONE TON FLATBED GASOLINE	118,183		OPERATIONS-Licensed	Licensed	2016	56,538		56,538	
1237	ONE TON FLATBED GASOLINE	136,825		OPERATIONS-Licensed	Licensed	2016	56,538		56,538	
1238	ONE TON FLATBED GASOLINE	138,814		OPERATIONS-Licensed	Licensed	2016	56,538		56,538	
1239-1	LIFTGATE	-	-	OPERATIONS-Non Licensed	Non Licensed	2009		7,441	7,441	Attachment not included in lifecycle when purchased new vehicle in 2023; Lifecycle to be adjusted on the next update
1241	FULL SIZE REG CAB PICK UP 4X4	177,014		OPERATIONS-Licensed	Licensed	2016	45,749		45,749	
1242	SERVICE BODY SIGN TRUCK C/W POST PULLER	114,628		OPERATIONS-Licensed	Licensed	2016	132,657		132,657	
1244	FULL SIZE REG CAB PICK UP 4X4	129,309		OPERATIONS-Licensed	Licensed	2016	45,749		45,749	
1245	FULL SIZE REG CAB PICK UP 4X4	115,122		OPERATIONS-Licensed	Licensed	2016	45,749		45,749	
1249	FULL SIZE REG CAB PICK UP 4X4	156,419		OPERATIONS-Licensed	Licensed	2016	45,749		45,749	
1274	SINGLE AXLE ALLSEASON DUMP/PLOW/WING	89,621	5,359	OPERATIONS-Licensed	Licensed	2013	298,644		298,644	Original project in 2023 (23020), due to funding shortfall/change in scope re-submitted to 2024.
1274	SINGLE AXLE ALLSEASON DUMP/PLOW/WING - SPECIFICATION CHANGE			OPERATIONS-Licensed	Licensed		125,887		125,887	Specification change from single axle to tandem axle
1436	LOADER BACKHOE		3,860	OPERATIONS-Non Licensed	Non Licensed	2016	279,000		279,000	Original project in 2023 (23232), due to funding shortfall re-submitted to 2024 with updated cost
1961	UTILITY TRAILER 6 X 12 WITH REAR RAMP	-	-	OPERATIONS-Licensed	Licensed	2002	3,588		3,588	Deferred from 2022 to 2024
1974	COLD PLANER	-	-	OPERATIONS-Non Licensed	Non Licensed	2011	29,182		29,182	Deferred from 2023 to 2024
1976	84 " REAR MOUNT SNOWBLOWER SINGLE AUGER	-	-	SIDEWALK-Non Licensed	Non Licensed	2009	8,117		8,117	Deferred from 2021 to 2024
3240	COMPACT CAR	63,213		OPERATIONS / PARKS-Licensed	Licensed	2015	32,746	(32,746)	0	Deferred from 2023 to 2025
3241	COMPACT CAR	55,627		OPERATIONS / PARKS-Licensed	Licensed	2015	32,746	(32,746)	0	Deferred from 2023 to 2025
3320	COMPACT SUV	113,870		OPERATIONS-Licensed	Licensed	2016	66,010		66,010	Updated cost based on dealer's 2023 website(Chrysler Pacifica Hybrid); Corrected the description to a compact SUV from a compact Van
3322-1	SLIDE-IN SPREADER	-	-	OPERATIONS-Non Licensed	Non Licensed	2009		17,500	17,500	Attachment not included in lifecycle when purchased new vehicle in 2023; Lifecycle to be adjusted on the next update
3324-1	SLIDE-IN SPREADER	-	-	OPERATIONS-Non Licensed	Non Licensed	2009		17,500	17,500	Attachment not included in lifecycle when purchased new vehicle in 2023; Lifecycle to be adjusted on the next update
3327-1	LIFTGATE	-	-	OPERATIONS-Non Licensed	Non Licensed	2009		7,441	7,441	Attachment not included in lifecycle when purchased new vehicle in 2023; Lifecycle to be adjusted on the next update
3328-1	LIFTGATE	-	-	OPERATIONS-Non Licensed	Non Licensed	2009		7,441	7,441	Attachment not included in lifecycle when purchased new vehicle in 2023; Lifecycle to be adjusted on the next update
3331	FULL SIZE PICK UP 4X4 WITH 8' ARCTIC PLOW	96,585		OPERATIONS-Licensed	Licensed	2016	67,540		67,540	
3332	CREW CAB DIESEL 9' DUMP	80,980		OPERATIONS-Licensed	Licensed	2014	76,560		76,560	Deferred from 2023 to 2024
3333	CREW CAB DIESEL 9' DUMP	88,386		OPERATIONS-Licensed	Licensed	2016	76,560		76,560	

Asset ID	Inventory Description	Mileage (Km)	Usage (Hours)	Facility	Category	Model Year	2024 Inflated Cost	Adjustment	2024 Updated Cost	Comments
3336-1	SLIDE-IN SPREADER	-	-	OPERATIONS-Non Licensed	Non Licensed	2009		17,500	17,500	Attachment not included in lifecycle when purchased new vehicle in 2023; Lifecycle to be adjusted on the next update
3342-1	SLIDE-IN SPREADER	-	-	OPERATIONS-Non Licensed	Non Licensed	2009		17,500	17,500	Attachment not included in lifecycle when purchased new vehicle in 2023; Lifecycle to be adjusted on the next update
3347	19,500 GVW FLATBED WITH 9' ARCTIC PLOW	80,313		OPERATIONS-Licensed	Licensed	2016	141,670		141,670	
3349	19,500 GVW FLATBED WITH 9' ARCTIC PLOW	101,467		OPERATIONS-Licensed	Licensed	2016	141,670		141,670	
3349-1	SLIDE-IN SPREADER	-	-	OPERATIONS-Non Licensed	Non Licensed	2009		17,500	17,500	Attachment not included in lifecycle needs to be purchased in 2024 to align with vehicle replacement; Lifecycle to be adjusted on the next update
3351	COMPACT SUV			OPERATIONS-Licensed	Licensed	2016	66,599		66,599	
3353-1	TAILGATE SPREADER	-	-	OPERATIONS-Non Licensed	Non Licensed	2009		11,000	11,000	Attachment not included in lifecycle; Lifecycle to be adjusted on the next update
3356	FULL SIZE 3/4 TON PICK UP 4X4			OPERATIONS / PARKS-Licensed	Licensed	2014	76,998		76,998	Deferred from 2022 to 2024
3363	CREW CAB DIESEL 9' DUMP			OPERATIONS-Licensed	Licensed	2016	76,560		76,560	
3375-1	SLIDE-IN SPREADER	-	-	OPERATIONS-Non Licensed	Non Licensed	2009		17,500	17,500	Attachment not included in lifecycle when purchased new vehicle in 2023; Lifecycle to be adjusted on the next update
3914	STUMP GRINDER 25"		20	OPERATIONS-Non Licensed	Non Licensed	2012	49,542	(49,542)	(0)	Deferred from 2023 to 2025
3961	FRONT MOUNT 72" REAR DISCHARGE ROTARY MOWER C/W CAB		542	OPERATIONS-Non Licensed	Non Licensed	2016	41,452		41,452	
4029	3PT HITCH 90" SPORT TINE AERATOR	-	-	OPERATIONS-Non Licensed	Non Licensed	2009	11,154		11,154	
4142	FRONT MOUNT 72" ROTARY MOWER C/W CAB		545	OPERATIONS-Non Licensed	Non Licensed	2010	41,452		41,452	Deferred from 2018 to 2024
4187	SCISSOR LIFT TRAILER	-	-	OPERATIONS / PARKS-Licensed	Licensed	2013	6,484		6,484	Deferred from 2023 to 2024
4207	ZERO TURN 60" SIDE DISCHARGE DIESEL		458	OPERATIONS / PARKS-Non Licensed	Non Licensed	2016	28,408	(28,408)	0	Deferred from 2023 to 2025
4301	UTILITY VEHICLE 4X4 DIESEL		1,477	OPERATIONS / PARKS-Non Licensed	Licensed	2016	15,978		15,978	
4384	ZERO TURN 72" SIDE DISCHARGE DIESEL		1,260	OPERATIONS / PARKS-Non Licensed	Non Licensed	2015	28,408		28,408	
4389	ZERO TURN 60" SIDE DISCHARGE DIESEL		284	OPERATIONS / PARKS-Non Licensed	Non Licensed	2016	28,408	(28,408)	0	Deferred from 2023 to 2025
4444	TOP DRESSER HYDAULIC DRIVE	-	-	OPERATIONS / PARKS-Non Licensed	Non Licensed	2009	29,389		29,389	
4482	ZERO TURN 60" SIDE DISCHARGE DIESEL		280	OPERATIONS-Non Licensed	Non Licensed	2016	28,408	(28,408)	0	Deferred from 2023 to 2025
4498	ZERO TURN 60" SIDE DISCHARGE DIESEL		649	OPERATIONS-Non Licensed	Non Licensed	2016	28,408	(28,408)	0	Deferred from 2023 to 2024
4518	ZERO TURN 60" SIDE DISCHARGE DIESEL		566	OPERATIONS-Non Licensed	Non Licensed	2016	28,408	(28,408)	0	Deferred from 2023 to 2025
4545	FRONT MOUNT 61" 3 WHEEL MOWER		1,104	OPERATIONS-Non Licensed	Non Licensed	2016	11,501		11,501	Deferred from 2020 to 2024
4561	TRACTOR DRIVEN 13' ROTARY MOWER	-	-	OPERATIONS / PARKS-Non Licensed	Non Licensed	2011	16,408		16,408	Deferred from 2021 to 2024
5101	SCISSOR LIFT TRAILER	-	-	OPERATIONS - RECRE-1-Licensed	Licensed	2013	6,484		6,484	Deferred from 2023 to 2024
5120	COMPACT PICK UP	93,953		OPERATIONS-Licensed	Licensed	2016	40,174		40,174	conversion to crew cab
6080	COMPACT PICK UP	162,100		ENFOR LIC-Licensed	Licensed	2016	47,498		47,498	conversion to crew cab
8050	COMPACT PICK UP	32,350		ENGIN-1-Licensed	Licensed	2016	41,366	(41,366)	-	Deferred from 2024 to 2025 conversion to crew cab
8051	COMPACT PICK UP	61,021		ENGIN-1-Licensed	Licensed	2016	41,366	(41,366)	-	Deferred from 2024 to 2025 conversion to crew cab
8052	COMPACT PICK UP	71,790		ENGIN-1-Licensed	Licensed	2016	41,366	(41,366)	-	Deferred from 2024 to 2025 conversion to crew cab

Asset ID	Inventory Description	Mileage (Km)	Usage (Hours)	Facility	Category	Model Year	2024 Inflated Cost	Adjustment	2024 Updated Cost	Comments
8056	COMPACT SUV FWD	28,796		ENGIN-1-Licensed	Licensed	2014	41,300	(41,300)	-	Deferred from 2022 to 2025; conversion to hybrid
8057	COMPACT SUV FWD	38,935	-	ENGIN-1-Licensed	Licensed	2014	41,300	(41,300)	0	Deferred from 2022 to 2025; conversion to hybrid
All	Operation Non Fleet < \$5,000 or Misc	-	-	OPERATIONS- Operation Non Fleet < \$5,000 or Misc	Operation Non Fleet < \$5,000 or Misc	2023	57,910		57,910	
KU-MIL	SUB COMPACT Kubota tractor BX2660	-	-	RECREATION- Non Licensed (Milliken Mills C.C.)	Non Licensed	2009	58,605		58,605	From Recreation; Includes Spreader
KU-ANG	SUB COMPACT Kubota tractor B3000HSDC	-	-	RECREATION- Non Licensed (Angus Glen C.C.)	Non Licensed	2013	58,605		58,605	Accelerate from 2028 to 2024; From Recreation; Includes plow/salter/blower/bucket
KU-COR	SUB COMPACT Kubota tractor BX2660	-	-	RECREATION- Non Licensed (Cornell)	Non Licensed	2012	58,605		58,605	Accelerated from 2027 to 2024; From Recreation; Includes Spreader/Blade/Brush
Total Pre-Tax							3,203,083	Total Pre-Tax - Updated	2,829,955	Total Pre Approval
HST impact							56,374	HST impact	49,807	
Total Project Cost							3,259,457	Total Project Cost - Updated	2,879,762	
Rounded Off Project Cost							3,259,500	Rounded Off Project Cost	2,879,800	

ORIGINAL PROJECT COST

No. of Units	Category	Pre-Tax	HST Impact	Project Cost
33	Licensed	2,281,712	40,158	2,321,870
19	Non Licensed	863,461	15,197	878,658
	Operations Non-Fleet <\$5,000 or Misc	57,910	1,019	58,929
		3,203,083	56,374	3,259,457
52			Rounded Off Project Cost	3,259,500

UPDATED PROJECT COST

No. of Units	Category	Pre-Tax	HST Impact	Project Cost
25	Licensed	1,961,842	34,528	1,996,370
23	Non Licensed	810,203	14,260	824,463
	Operations Non-Fleet <\$5,000 or Misc	57,910	1,019	58,929
		2,829,955	49,807	2,879,762
48			Rounded Off - Project Cost	2,879,800



2024 PROJECT FUNDING REQUEST FORM

403

Number: 24231

Project Cost: \$326,600

Project Name: Corporate Fleet Replacement - Waterworks

Commission: Community Services

Repair/Replace

Department: Operations - Fleet

Useful Life: 8

Pre Approval: ☒

Project Mgr: Steve Dollmaier/Edgar Tovilla

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Part of the Annual Fleet Replacement Program based on the Council adopted Corporate Fleet policy guidelines. Life Cycle costing targets Optimal Replacement Intervals (ORI) which identifies the most cost effective time period for replacement. All vehicles and equipment (5 units) contained in this program have reached or surpassed the ORI. This request will be funded through the Waterworks Reserve.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	320,955	0	5 units - Requirement Validation - meeting the approved replacement criteria, pending condition assessment. All units in this request will be purchased with the most recent technology available at time of purchase providing maximum fuel economy with minimal emissions.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	320,955	0	
HST Impact:	5,649	0	
Total Project Cost:	326,600	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Licensed (3)	Non Fleet	Non Licensed (2)	TOTAL		
Waterworks	326,600	201,700	2,300	122,600	0	326,600	0
TOTAL FUNDING	326,600					326,600	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 725,500
				Amount Incl HST 326,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

2024 Waterworks Fleet Replacement

Asset ID	Inventory Description	Mileage (Km)	Usage (Hours)	Facility	Model Year	2024 Inflated Pre-Tax	Adjustment	2024 Updated Cost	Comments
2167	FULL SIZE CARGO VAN	56,421		WATER- Licensed	2016	66,079	(66,079)	-	Deferred from 2024 to 2025
2168	FULL SIZE CARGO VAN	73,442		WATER- Licensed	2016	66,079		66,079	Current safety recall on the drive train - parts are not available to do the repair Framebolt issues Parts to do any repairs not available
2172	FULL SIZE CARGO VAN	84,777		WATER- Licensed	2016	66,079		66,079	
2176	FULL SIZE CARGO VAN	69,581		WATER- Licensed	2016	66,079	(66,079)	-	Deferred from 2024 to 2025
2177	FULL SIZE CARGO VAN	102,933		WATER- Licensed	2016	66,079		66,079	
2179	FULL SIZE CARGO VAN	63,818		WATER- Licensed	2016	66,079	(66,079)	-	Deferred from 2024 to 2025
2181	COMPACT VAN	61,154		WATER- Licensed	2014	63,868	(63,868)	-	Deferred from 2024 to 2025
2182	COMPACT VAN	60,441		WATER- Licensed	2014	63,868	(63,868)	-	Deferred from 2024 to 2025
2190	FULL SIZE CARGO VAN	59,741		WATER- Licensed	2016	66,079	(66,079)	-	Deferred from 2024 to 2025
2245	PORTABLE DIESEL GENERATOR 35 KV		NA	WATER- Non Licensed (Tools & Equip)	2008	67,907		67,907	Deferred from 2021 to 2024
2246	FORKLIFT PROPANE POWERED		943	WATER- Non Licensed (Tools & Equip)	2010	52,540		52,540	Deferred from 2022 to 2024;
	Waterworks Non Fleet < \$5,000 or Misc			WATER - Waterworks Non Fleet < \$5,000 or Misc	2022	2,271		2,271	
						713,007	(392,052)	320,955	
					Total Pre-Tax	713,007	Total Pre-Tax - Updated	320,955	
					HST impact	12,549	HST impact	5,649	
					Total Project Cost	725,555	Total Project Cost - Updated	326,604	
					Rounded Off Project Cost	725,600	Rounded Off Project Cost	326,600	

ORIGINAL PROJECT COST

No. of Units	Category	Pre-Tax	HST Impact	Project Cost
9	Licensed	590,289	10,389	600,678
2	Non Licensed (Tools & Equipment)	120,447	2,120	122,567
	Waterworks Non Fleet < \$5,000 or Misc	2,271	40	2,311
		713,007	12,549	725,556
11			Rounded Off - Project Cost	725,600

UPDATED PROJECT COST

No. of Units	Category	Pre-Tax	HST Impact	Project Cost
3	Licensed	198,237	3,489	201,726
2	Non Licensed (Tools & Equipment)	120,447	2,120	122,567
	Waterworks Non Fleet < \$5,000 or Misc	2,271	40	2,311
		320,955	5,649	326,604
5			Rounded Off - Project Cost	326,600



2024 PROJECT FUNDING REQUEST FORM

405

Number: 24232

Project Cost: \$96,700

Project Name: New Fleet - Parks

Commission: Community Services

Department: Operations - Fleet

Project Mgr: Steve Dollmaier/David Plant

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 8 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Supply & delivery of (1) One 3/4 Ton Pickup Truck and (2) Two Tandem Axle Dump Trailers

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	95,000	0	3/4 Ton Pickup - One new Parks General Maintenance employee hire as part of the 2023 Budget Approval. This employee provides monthly inspections and repairs to parks playgrounds and requires a dedicated vehicle equipped with tools and materials. (2) Tandem Axle Dump Trailers - These have two sets of axles that allow the trailer to carry more weight and to be more stable at high speeds and on highways. The larger capacity means more room for hauling equipment from site to site instead of driving the equipment on the road which causes damage and break downs. Currently we only have 3 Tandem Axle Trailers in the entire Fleet.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	95,000	0	
HST Impact:	1,672	0	
Total Project Cost:	96,700	0	

<u>SOURCE(S) OF FUNDING (\$)</u>		<u>Components</u>				<u>Future Phases</u>	
<u>Funding Type</u>	<u>Budget</u>	<u>Pick up</u>	<u>Dump Trailers</u>			<u>TOTAL</u>	
DCA	96,700	76,300	20,400	0	0	96,700	0
TOTAL FUNDING	<u><u>96,700</u></u>					<u><u>96,700</u></u>	<u><u>0</u></u>

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$13,600	\$0	\$13,600

DCA/LIFE CYCLE DETAILS

DCA	Amount in			Life Cycle
Name	Year	Amount	Study	
PUBLIC WORKS - Fleet	2024	257,500	1,004,295	Amount in Study: <input type="text"/>
TOTAL FUNDING		257,500	1,004,295	Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

2024 New Fleet - Parks

		Pre-Tax Amount	Useful Life
3/4 Pick-Up Truck (1 unit)			
Amount	Per unit - Pre- Tax \$74,000 + \$1,000 (Markhamizing)	75,000	8
Tandem Axle Dump Trailers with landscaper option, battery tender, sides, tie down hooks (2 units)			
	Per unit - Pre- Tax \$10,000 each + no Markhamizing	20,000	10
	Total Pre-Tax	95,000	
	HST Impact	1,672	
	Total Inc. HST Impact	96,672	
	Total Project Cost - Rounded Off	\$ 96,700	
Funding Source: DCA			
Operating Impact (Annual)	Gas	4,000	
	Parts	4,500	
	External Vehicle Maintenance	3,000	
	407 Charges	1,500	
	License	275	
	Budget for AVL	325	
	Total Operating Impact (Annual)	\$ 13,600	



2024 PROJECT FUNDING REQUEST FORM

407

Number: 24233

Project Cost: \$113,000

Project Name: New Fleet -By-Law and Regulatory Services

Commission: Community Services

Department: Operations - Fleet

Project Mgr: Albert Chan/Steve Dollmaier

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 7 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Supply & delivery of (2) PHEV SUVs.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	111,000	0	2 PHEV SUVs - As approved in the 2023 Budget three (3) MLEO. The By-law & Regulatory Services Officers require 2 fleet vehicles that will provide them the ability to perform their daily patrols and enforce City of Markham by-laws.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	111,000	0	
HST Impact:	1,954	0	
Total Project Cost:	113,000	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	113,000	0	0	0	0	0	0
TOTAL FUNDING	113,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$20,400	\$0	\$20,400

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

2024 New Fleet - By -Law and Regulatory Service

		Pre-Tax Amount	Useful Life
SUV (2 units) - Same as By-Law			
Amount	Per - Unit Pre- Tax \$54,000 + \$1,500 (Markhamizing)	111,000	8
Funding Source:	DCA		
	Total Pre-Tax	111,000	
	HST Impact	1,954	
	Total Inc. HST Impact	112,954	
	Total Project Cost - Rounded Off	\$ 113,000	
Operating Impact (Annual)			
	Gas	7,000	
	Parts	3,000	
	External Vehicle Maintenance	6,000	
	407 Charges	3,500	
	License	250	
	Budget for AVL	650	
	Total Operating Impact (Annual)	\$ 20,400	

Operations - Utility Inspection & ROW



2024 PROJECT FUNDING REQUEST FORM

411

Number: 24234

Project Cost: \$20,400

Project Name: German Mills Meadow - Boundary Fence Maintenance

Commission: Community Services

Department: Operations - Utility & ROW

Project Mgr: Negar Mahmoudi

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Visual inspection

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

The Closed Sabiston landfill (German Mills Meadow) natural settlement and grade level changes at the north and west perimeter of the landfill area impact the boundary fence condition abutting residential properties. The City is responsible for maintenance of the boundary fence ensuring its stability and safety. (Reference: Council Report, dated Oct.31,2016 - German Mills Meadow and Natural Habitat - Additional Maintenance near north-west side of the Meadow along the property line)

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	20,000	0	This project is for the maintenance of the chain link fences at the north and west property boundary of German Mills Meadow to ensure safety and stability for abutting residential properties. The maintenance program is required every two years. The fence replacement program needs to be added to the life cycle as a separate item for German Mills Meadow- Boundary Fence Replacement as part of future LC study updates.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	20,000	0	
HST Impact:	352	0	
Total Project Cost:	20,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	20,400	0	0	0	0	0	0
TOTAL FUNDING	20,400				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div>This fence replacement program will be added to LC in the next update</div>				



2024 PROJECT FUNDING REQUEST FORM

412

Number: 24235

Project Cost: \$239,100

Project Name: German Mills Meadow - Equipment Maintenance

Commission: Community Services

Department: Operations - Utility & ROW

Project Mgr: Negar Mahmoudi

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 2 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Repairs to components of the gas collection and environmental monitoring systems at the German Mills Meadow and Natural Habitat to ensure that the appropriate protection is provided to the abutting residential properties and German Mills Creek.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	195,000	0	This project is for the maintenance of the equipment that performs the monitoring. In 2024 the gas collection system and drainage needs to be upgraded. A consultant will be hired to inspect and assess the monitoring equipment and recommend rehabilitation work that is required. Consulting is 25% of rehabilitation works. This program is required every two years.
Internal Charges:	0	0	
External Consulting:	40,000	0	
Contingency %: 0	0	0	
Sub Total:	235,000	0	
HST Impact:	4,136	0	
Total Project Cost:	239,100	0	

SOURCE(S) OF FUNDING (\$)	Components					TOTAL	Future Phases
Funding Type	Budget	Equip Maintenance	Gas Collection/Drainage				
Operating Funded Life Cycle	239,100	119,100	120,000	0	0	239,100	0
TOTAL FUNDING	239,100					239,100	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 119,300
				Amount Incl HST 239,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Request is more than LC due to the need to upgrade part of the gas collection system at the blower house.				

Environmental Services - Infrastructure



2024 PROJECT FUNDING REQUEST FORM

415

Number: 24236

Project Cost: \$70,500

Project Name: Bridges and Culverts - Condition Inspection

Studies/Pilot Programs

Commission: Community Services

Useful Life: 0 Pre Approval: ☐

Department: ES - Infrastructure

Category: Minor

Project Mgr: Hossein Sharif

Cost Validation: Recent awards

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Legislative compliance

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Hire a consultant to inspect vehicular bridges (11), pedestrian bridges (35), culverts (70) and boardwalks (10) as mandated by Public Transportation and Highway Act - Regulation 104/97 to ensure public safety. A total of 126 structures will be inspected out of 365 in 2024. This program ensures inspections take place within the regulated timelines.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	This is an annual program. There is no backlog and structures are in a state of good repair. Operations is responsible for preventative maintenance on bridges/culverts such as minor grading, patching, sealing of approaches and decks, and siltation removal from culverts, while Environmental Services is responsible for its inspection, rehabilitation and replacement. Unit cost is consistent with recent award plus inflation. Amount requested is consistent with 2023 Life Cycle Reserve Study Update.
Internal Charges:	0	0	
External Consulting:	69,300	0	
Contingency %: 0	0	0	
Sub Total:	69,300	0	
HST Impact:	1,220	0	
Total Project Cost:	70,500	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	70,500	0	0	0	0	0	0
TOTAL FUNDING	70,500					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 70,500
				Amount Incl HST 70,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

416

Number: 24237

Project Cost: \$101,900

Project Name: Streetlights - Miscellaneous Requests

Commission: Community Services

New Asset/Expansion

Department: ES - Infrastructure

Useful Life: 60 Pre Approval: ☐

Project Mgr: Michael Manserra

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Based on photometric analysis and evaluation against lighting level standards IES -RP8-14 (Illuminating Engineering Society) by Staff, the City will install new streetlights at the locations, where lighting is deficient. Note that the lighting levels requirement varies depending on road type and pedestrian activity.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	100,100	0	This is an annual program. Streetlights requests from the residents are reviewed for justification and are implemented to improve lighting levels in older areas. 3 year average: \$92K Locations will be prioritized based on photometric analysis and this budget request is to install approx. 15-18 new poles with LED fixtures. Unit cost is consistent with recent award plus inflation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	100,100	0	
HST Impact:	1,762	0	
Total Project Cost:	101,900	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Tax	101,900	0	0	0	0	0	0
TOTAL FUNDING	101,900					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

417

Number: 24238

Project Cost: \$134,500

Project Name: Streetlights - Poles Replacement

Commission: Community Services

Repair/Replace

Department: ES - Infrastructure

Useful Life: 60

Pre Approval: ☐

Project Mgr: Michael Manserra

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Program to replace/repair deteriorated streetlight poles identified through 2023 streetlight poles condition inspection and internal inspection.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	132,200	0	This is an annual program. City's current inventory is 25,647 poles. Based on the age of streetlight poles, staff estimates the following as part of this request: • <input type="checkbox"/> 25-30 pole replacements • <input type="checkbox"/> 0-20 minor pole rehabilitation work The above quantity is based on the results of the streetlight pole condition inspection project in 2023. Unit cost is consistent with previous award plus inflation. Amount requested is consistent with 2023 Life Cycle Reserve Study Update.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	132,200	0	
HST Impact:	2,327	0	
Total Project Cost:	134,500	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	134,500	0	0	0	0	0	0
TOTAL FUNDING	134,500					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 134,500
				Amount Incl HST 134,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

418

Number: 24239

Project Cost: \$2,146,100

Project Name: Streetlights Underground Cable Replacement

Commission: Community Services

Department: ES - Infrastructure

Project Mgr: Michael Manserra

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☒

Repair/Replace

Useful Life: 55 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Replacement of 15 km underground streetlight cables in older areas based on condition assessment. Location map attached.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

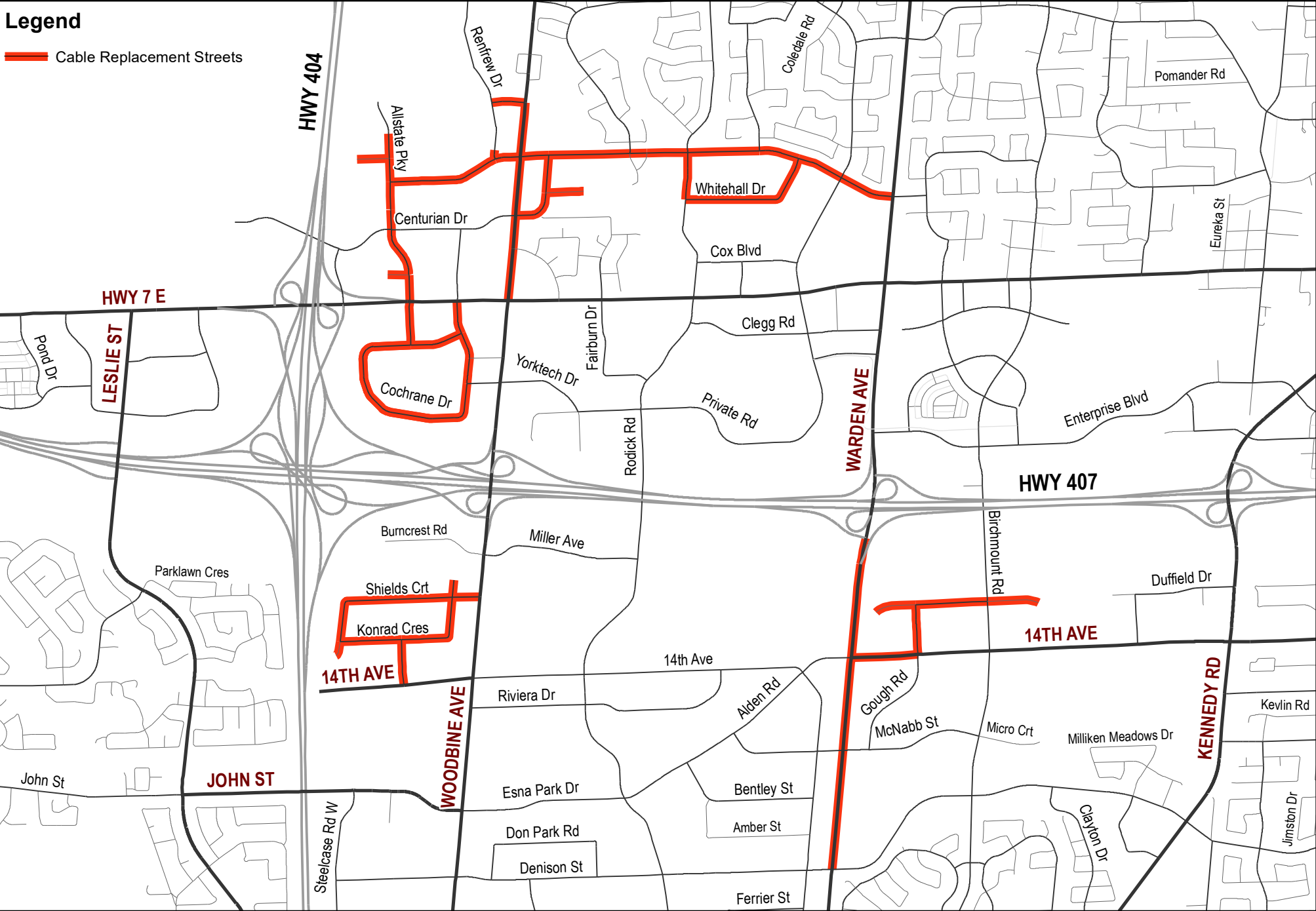
PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	1,843,670	0	The service life of existing streetlight underground cable is estimated to be 55 years. Approximately, 6.5% of underground cables have been replaced to date. 100 km of streetlight cable was inspected in 2020. The recommendation from this condition inspection report was to replace 24 km cable within next 5 years. - 15 km will be replaced through this budget request - 9 km will be replaced in 2025 & 2026. Unit cost is consistent with recent award plus inflation.
Internal Charges:	0	0	
External Consulting:	265,330	0	
Contingency %: 0	0	0	
Sub Total:	2,109,000	0	
HST Impact:	37,118	0	
Total Project Cost:	2,146,100	0	

SOURCE(S) OF FUNDING (\$)		Components				Future Phases	
Funding Type	Budget	Design + CA	Construction		TOTAL		
Operating Funded Life Cycle	2,146,100	270,000	1,876,100	0	0	2,146,100	0
TOTAL FUNDING	2,146,100					2,146,100	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 2,146,100
				Amount Incl HST 2,146,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				





2024 PROJECT FUNDING REQUEST FORM

420

Number: 24240

Project Cost: \$233,500

Project Name: Structures Minor Rehabilitation (8 structures)

Repair/Replace

Commission: Community Services

Useful Life: 15

Pre Approval: ☐

Department: ES - Infrastructure

Category: Major

Project Mgr: Hossein Sharif

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☒ 2 ☒ 3 ☐ 4 ☐

Requirement Validation: Condition assessment

5 ☐ 6 ☒ 7 ☒ 8 ☒

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project involves the minor rehabilitation right of 7 culverts (C004, C26A, C038, C086, C090, C106, C137) and 1 pedestrian bridge (P057). Refer to attached map for location.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	229,500	0	This project involves the minor rehabilitation of 8 structures. Amount requested is consistent with 2023 Life Cycle Reserve study update.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	229,500	0	
HST Impact:	4,039	0	
Total Project Cost:	233,500	0	

SOURCE(S) OF FUNDING (\$)	Components					Future Phases
Funding Type	Budget	Construction			TOTAL	
Operating Funded Life Cycle	233,500	233,500	0	0	233,500	0
TOTAL FUNDING	233,500				233,500	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 233,500
				Amount Incl HST 233,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

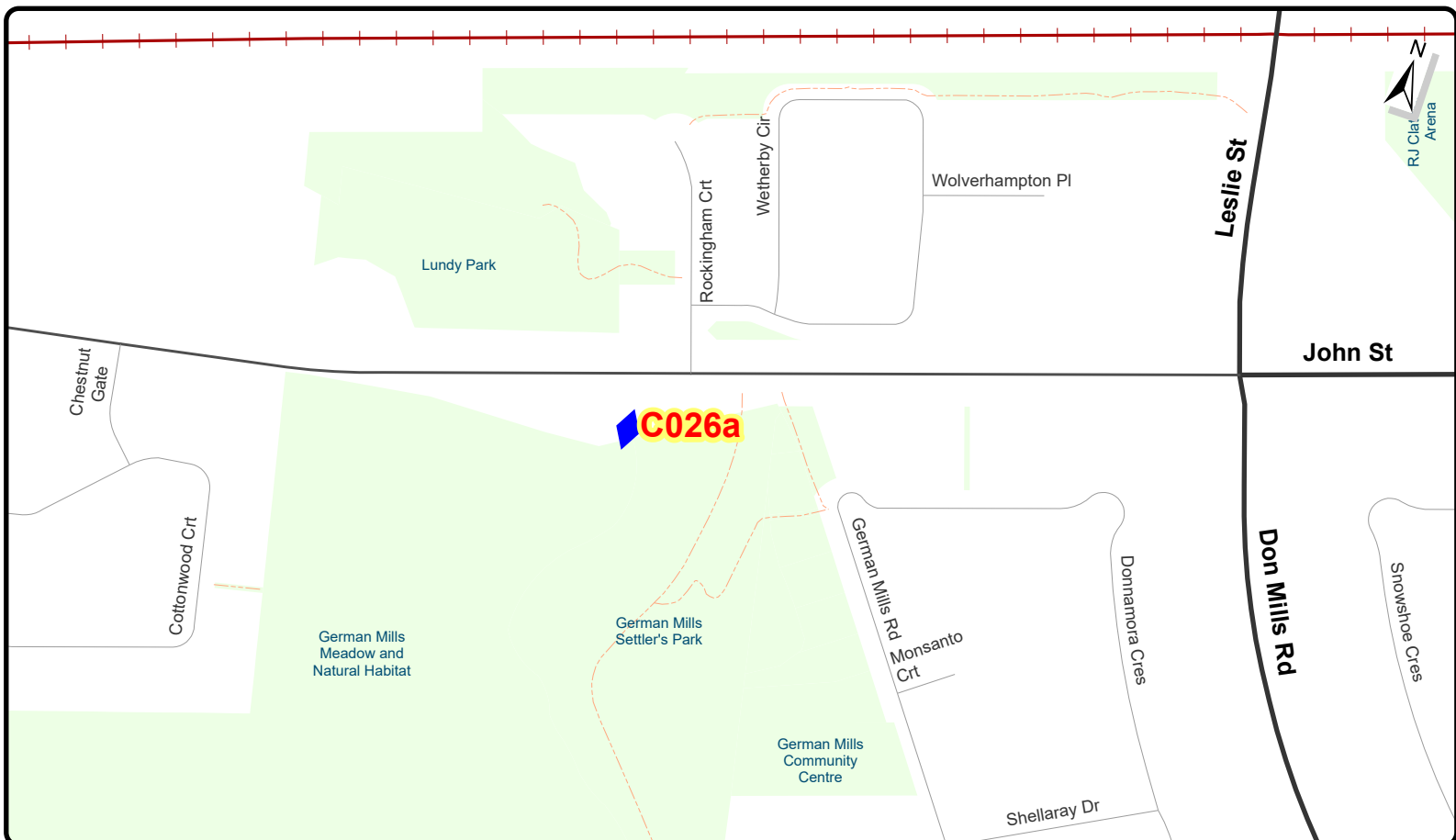
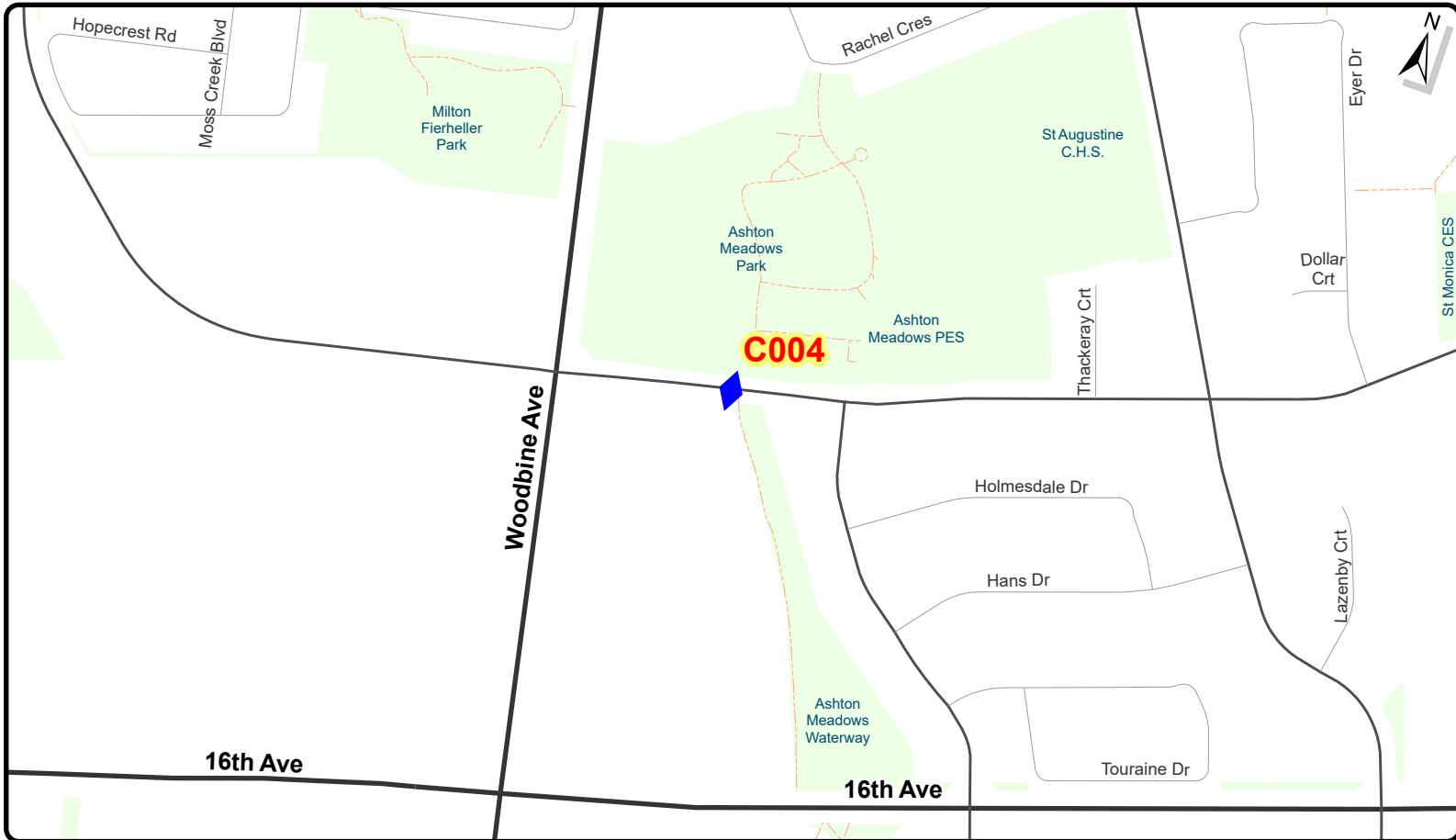
Structures Minor Rehabilitation (8 structures)

421

ES - Infrastructure (2024)

(Culverts #C004, C026A, C038, C086, C090, C106, C137, and Pedestrian Bridge P057)

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Structures Minor Rehabilitation (8 structures)

422

ES - Infrastructure (2024)

(Culverts #C004, C026A, C038, C086, C090, C106, C137, and Pedestrian Bridge P057)

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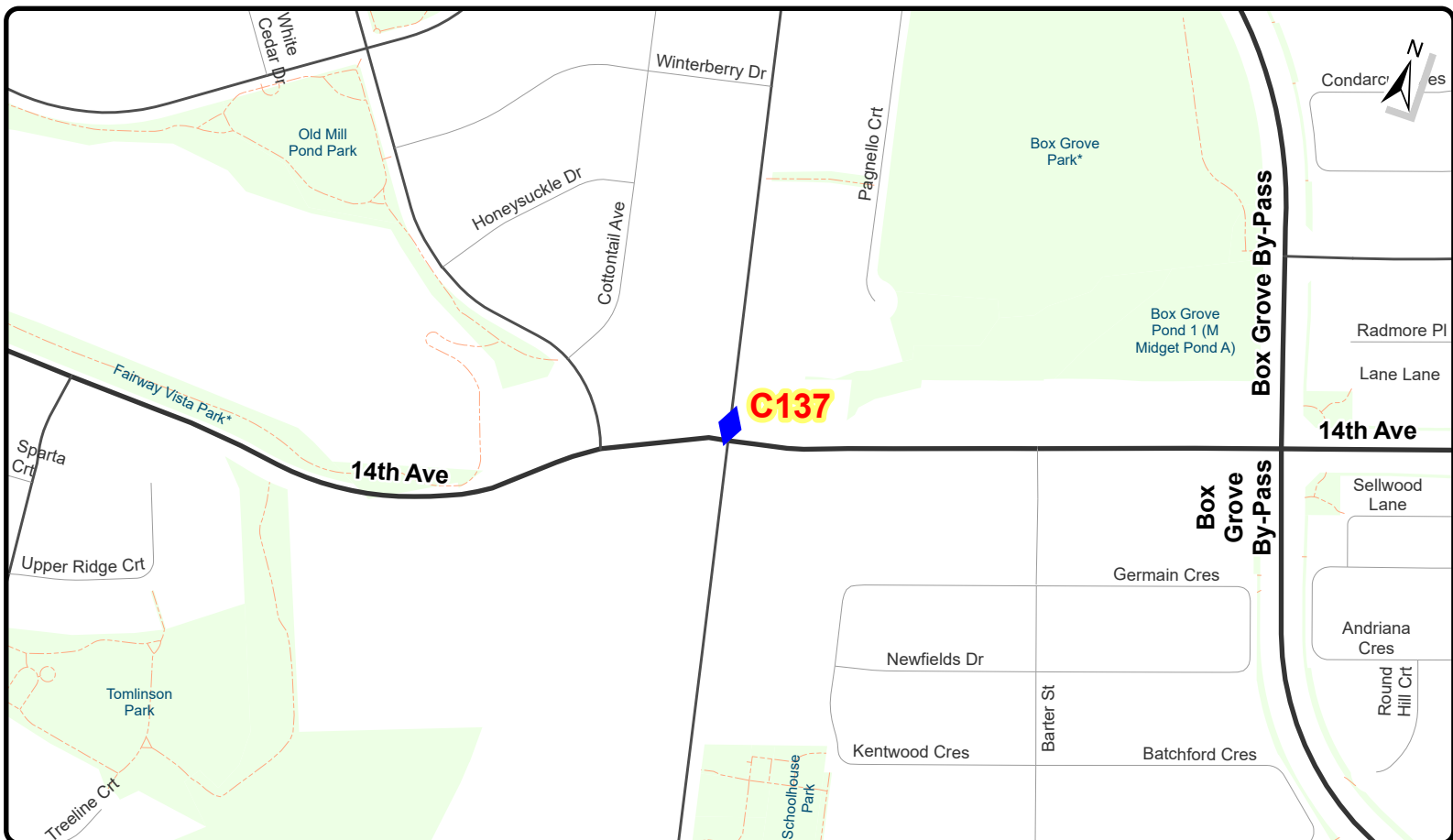


Structures Minor Rehabilitation (8 structures)

(Culverts #C004, C026A, C038, C086, C090, C106, C137, and Pedestrian Bridge P057)

423
ES - Infrastructure (2024)

Page 3 of 4

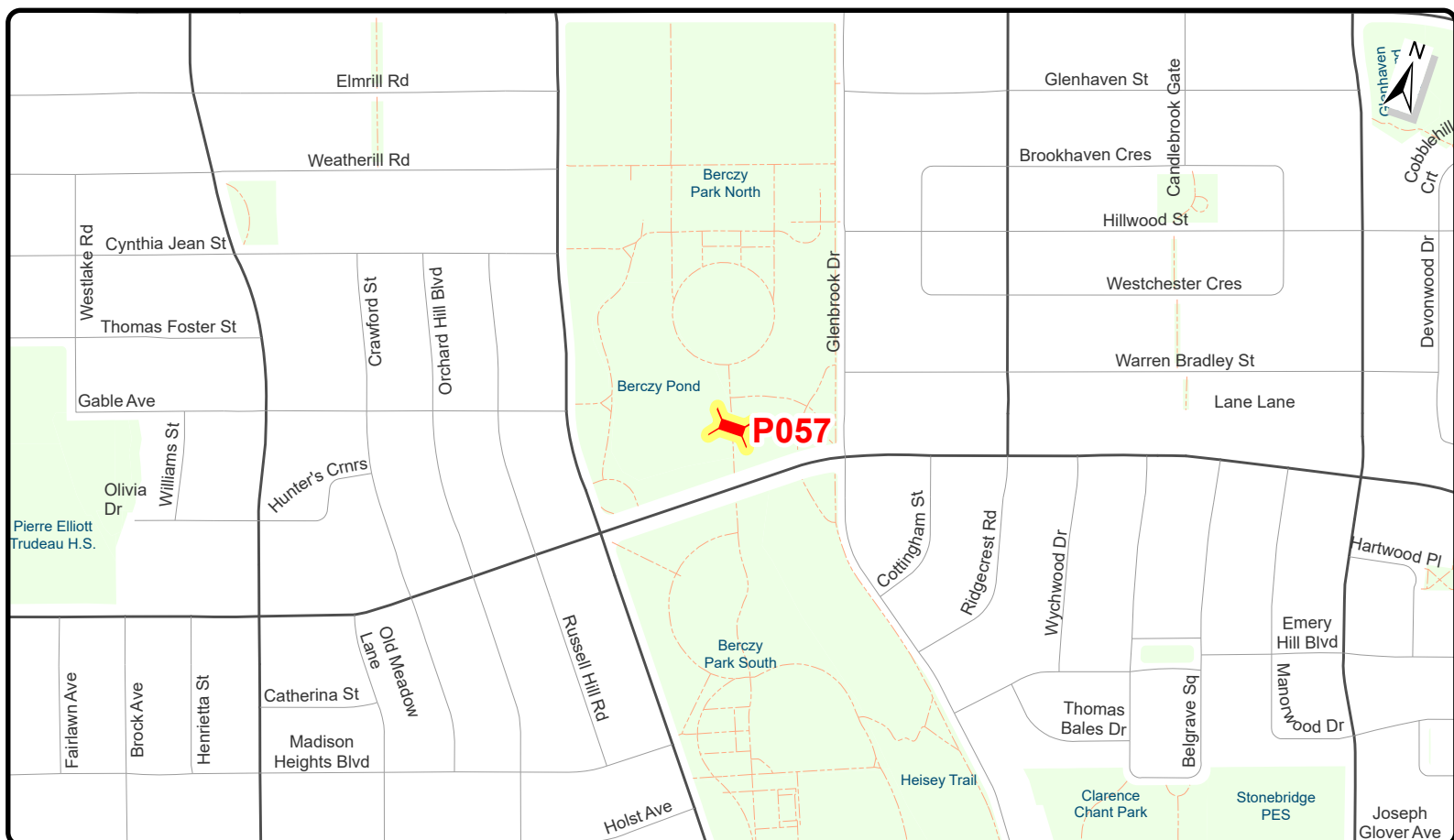


Structures Minor Rehabilitation (8 structures)

424
ES - Infrastructure (2024)

(Culverts #C004, C026A, C038, C086, C090, C106, C137, and Pedestrian Bridge P057)

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2024 PROJECT FUNDING REQUEST FORM

425

Number: 24241

Project Cost: \$154,400

Project Name: Structures Program-Full-Time Staff

Commission: Community Services

Department: ES - Infrastructure

Project Mgr: Paul Ahn

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This funds one Senior Project Engineer (existing Permanent Full-Time staff) position.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	This position manages the annual structures (bridges and culverts) program including detailed visual inspection, condition survey/design, and cost effective maintenance. The results are used to identify the structures that require rehabilitation. Rehabilitation of structures improves the overall condition and increases the service life. The amount requested is consistent with the 2023 Life Cycle Reserve Study Update. Requirement validation: This position is critical to support structures rehabilitation projects for the City-owned structures.
Internal Charges:	154,400	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	154,400	0	
HST Impact:	0	0	
Total Project Cost:	154,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	154,400	0	0	0	0	0	0
TOTAL FUNDING	154,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 152,100
				Amount Incl HST 154,400
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

426

Number: 24242

Project Cost: \$2,367,800

Project Name: Structures Rehabilitation (4 Structures) - Design & Const.

Commission: Community Services

Repair/Replace

Department: ES - Infrastructure

Useful Life: 15 Pre Approval: ☐

Project Mgr: Hossein Sharif

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☒ 4 ☒

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☒

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Design and construction of 4 structures (SC016, C049, C063, and C066). See attached map for locations.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	1,976,800	0	This project includes rehabilitation of 4 structures. Amount requested is consistent with 2023 Life Cycle Reserve Study update.
Internal Charges:	0	0	
External Consulting:	350,000	0	
Contingency %: 0	0	0	
Sub Total:	2,326,800	0	
HST Impact:	40,952	0	
Total Project Cost:	2,367,800	0	

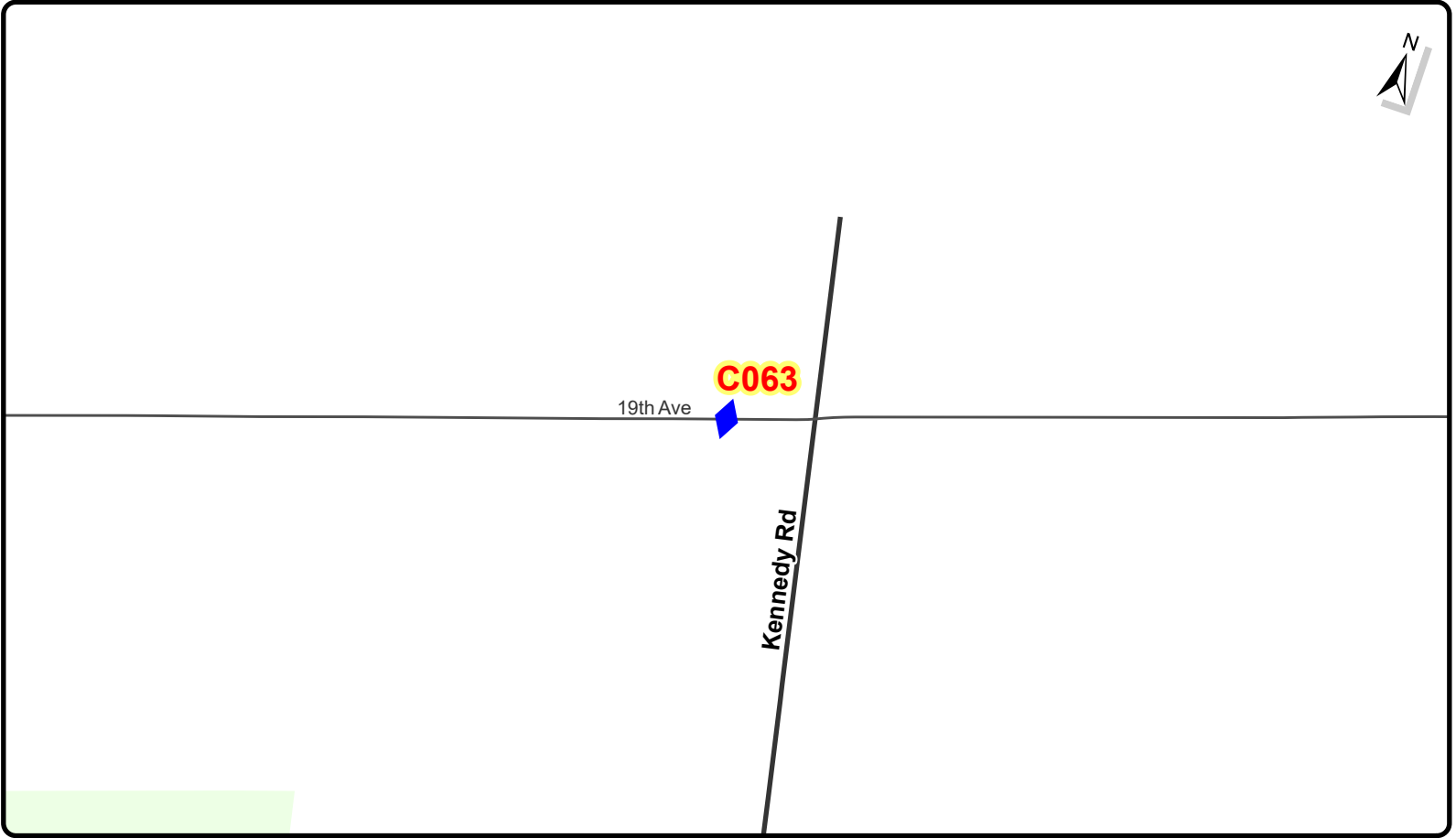
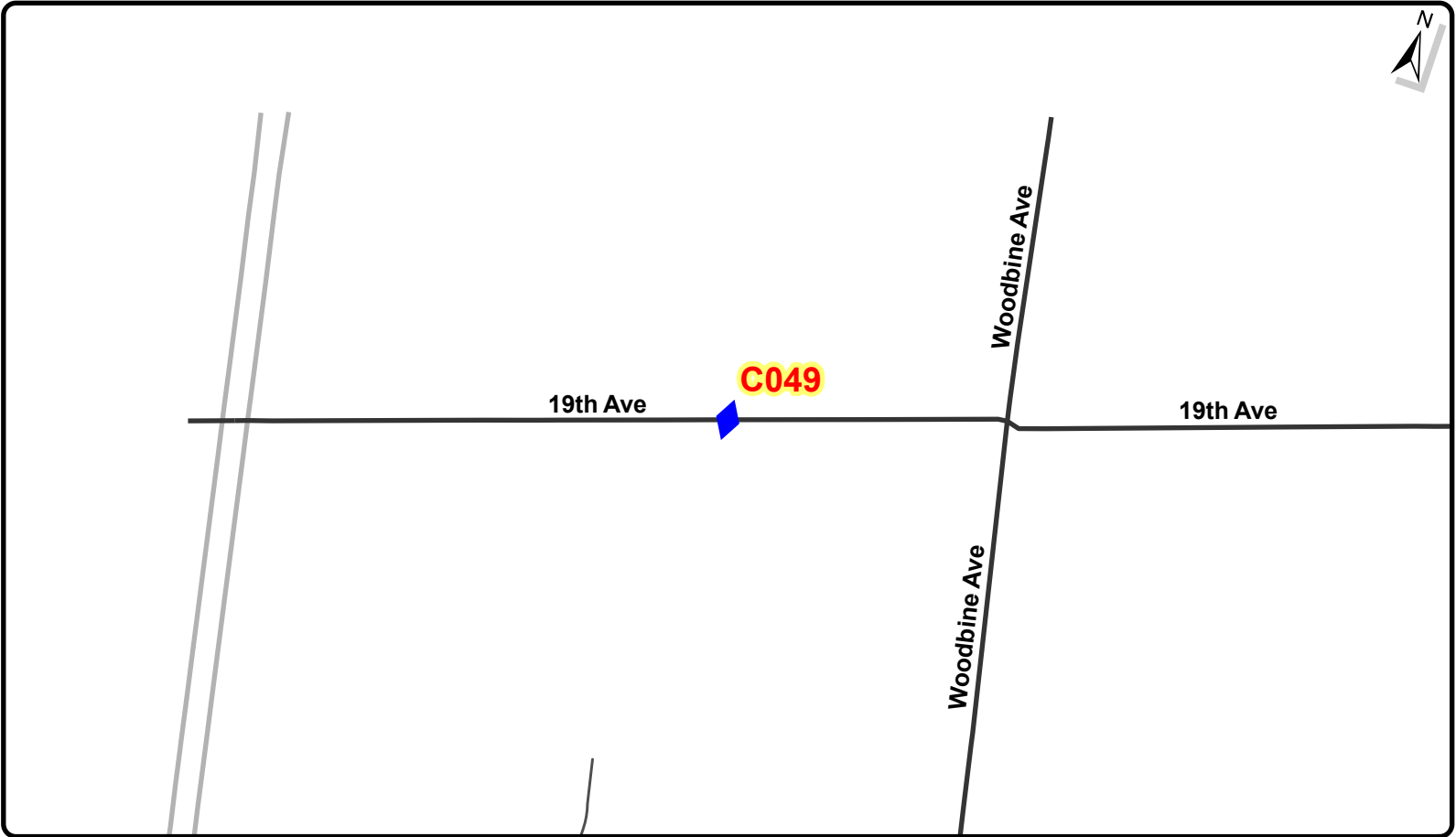
SOURCE(S) OF FUNDING (\$)		Components				Future Phases	
Funding Type	Budget	Design + CA	Construction		TOTAL		
Gas Tax	2,367,800	356,200	2,011,600	0	0	2,367,800	0
TOTAL FUNDING	<u>2,367,800</u>					<u>2,367,800</u>	<u>0</u>

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 2,367,800
				Amount Incl HST 2,367,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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(Culverts #C049, C063, C066 and Storm Culvert SC16)

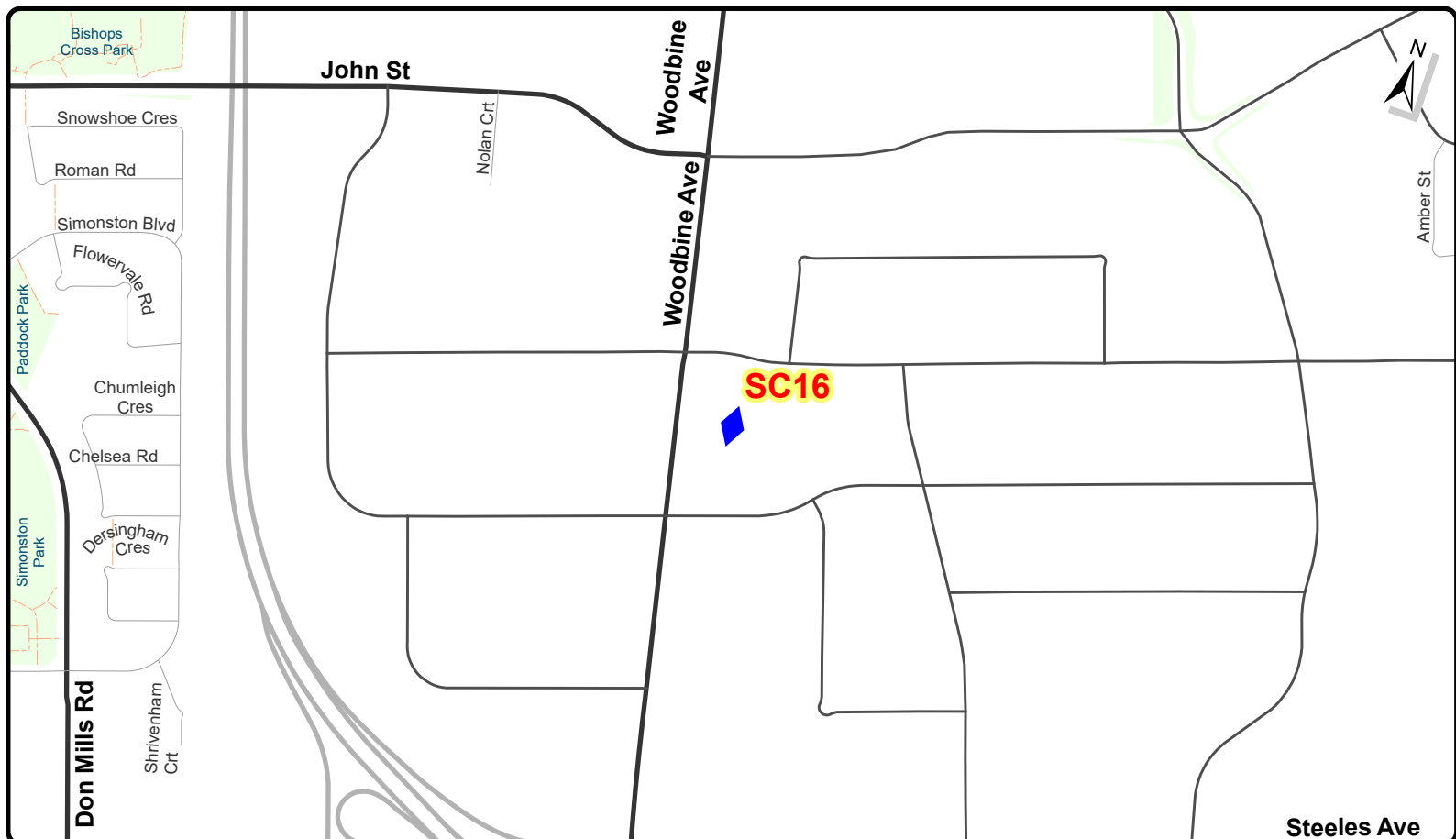
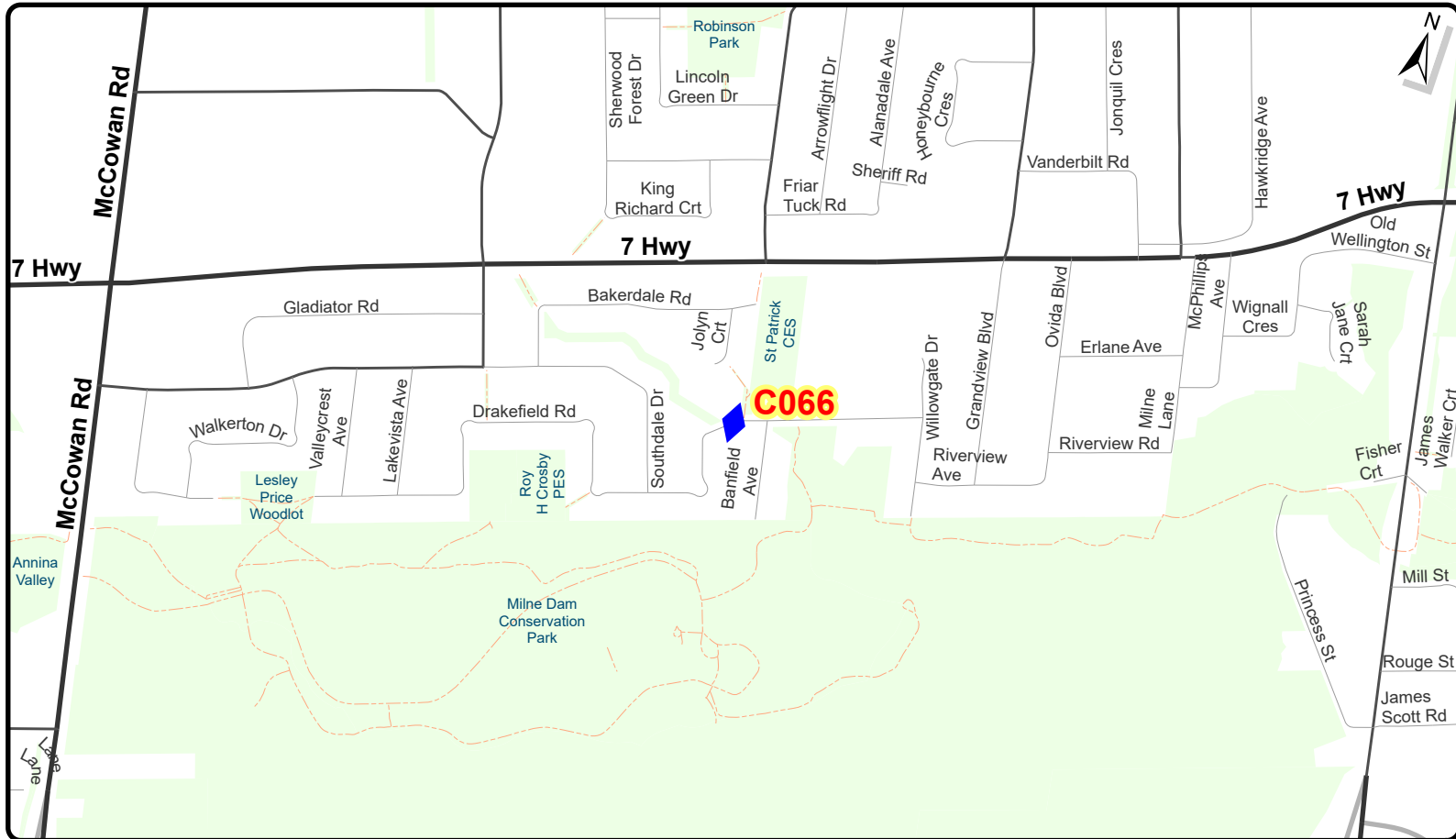


Structures Rehabilitation (4 Structures) - Design & Const.

(Culverts #C049, C063, C066 and Storm Culvert SC16)

428
ES - Infrastructure (2024)

Page 2 of 2





2024 PROJECT FUNDING REQUEST FORM

429

Number: 24243

Project Cost: \$934,100

Project Name: Structures Replacement (3 Structures) Construction

Commission: Community Services

Repair/Replace

Department: ES - Infrastructure

Useful Life: 50

Pre Approval: ☐

Project Mgr: Hossein Sharif

Category: Major

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Recent awards

5 ☒ 6 ☒ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of 2 pedestrian bridges (P026 and P055) and 1 culvert (C222). See attached map for locations.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	892,900	0	This project includes replacement of 3 structures. Design was carried out through 2022 Capital budget (\$316,900). This request is to fund construction and contract administration for these 3 structures which require replacement due to current condition assessment. Amount requested is consistent with 2023 Life Cycle Reserve Study update.
Internal Charges:	0	0	
External Consulting:	25,000	0	
Contingency %: 0	0	0	
Sub Total:	917,900	0	
HST Impact:	16,155	0	
Total Project Cost:	934,100	0	

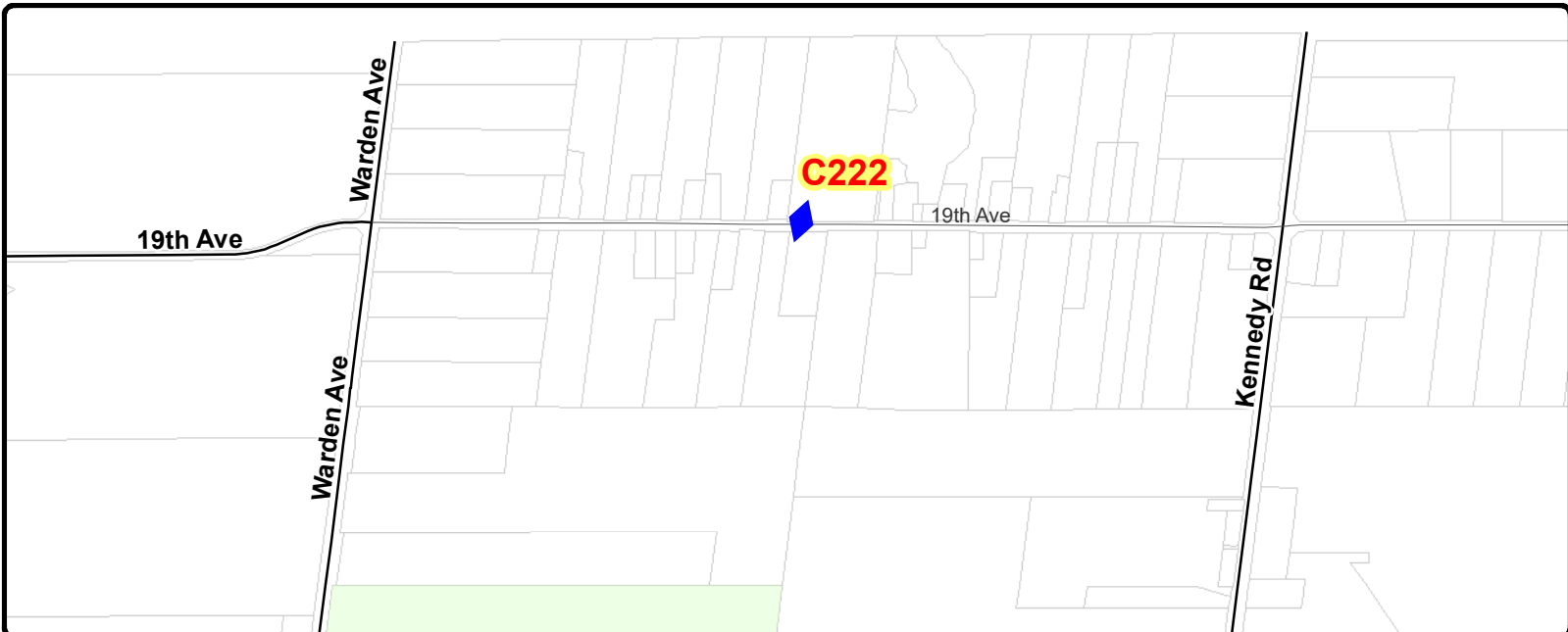
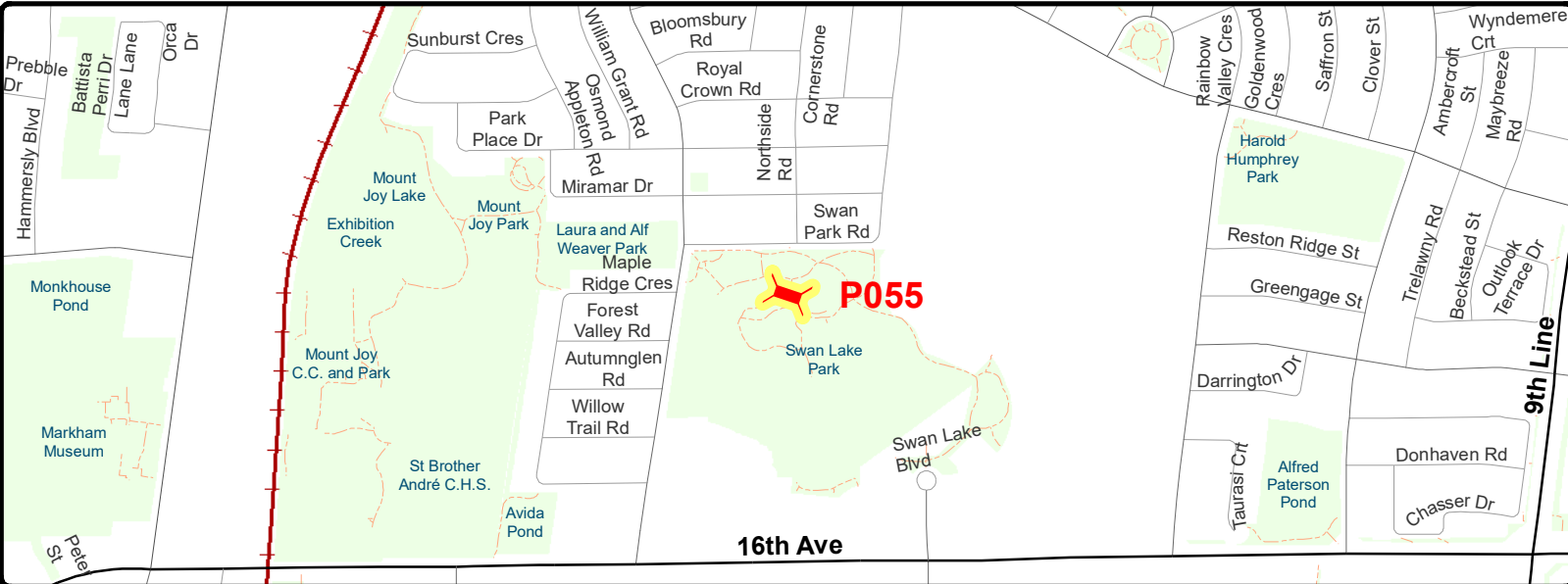
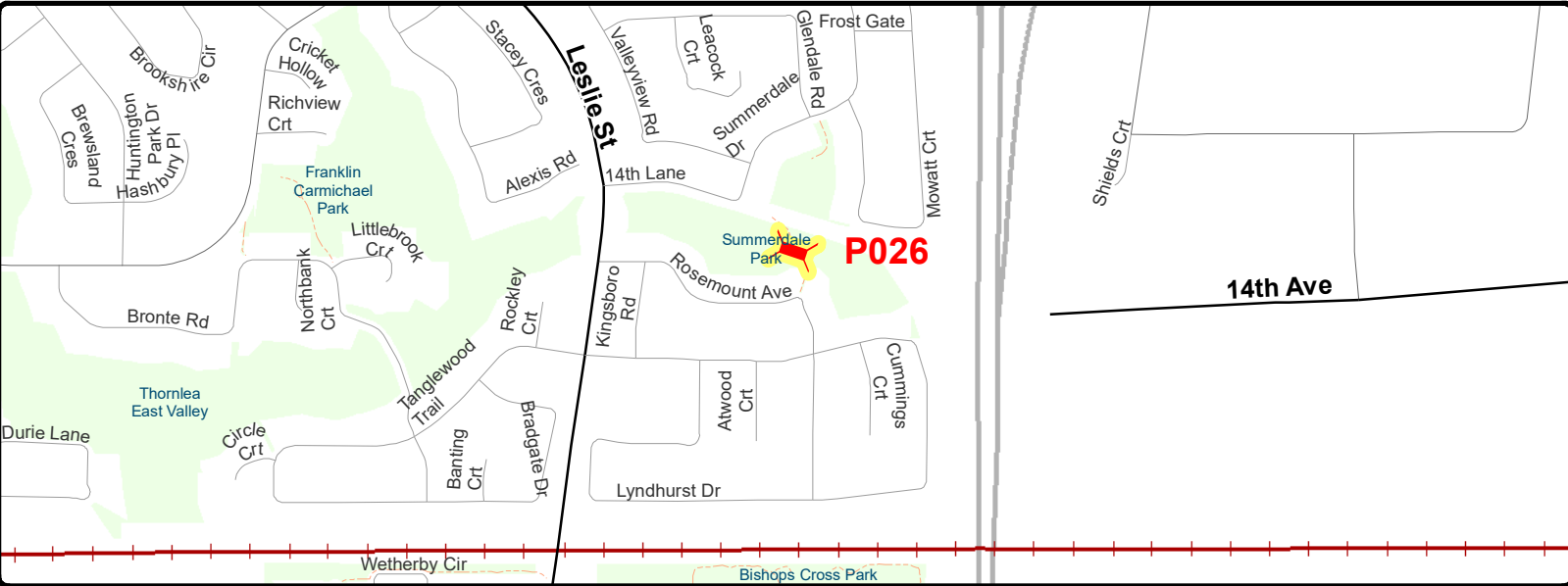
<u>SOURCE(S) OF FUNDING (\$)</u>		<u>Components</u>				<u>Future</u>	
<u>Funding Type</u>	<u>Budget</u>	<u>Construction</u>	<u>Contract Admin</u>			<u>Phases</u>	
Operating Funded Life Cycle	934,100	908,659	25,441	0	0	934,100	0
TOTAL FUNDING	<u>934,100</u>					<u>934,100</u>	<u>0</u>

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 934,100
				Amount Incl HST 934,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

(Pedestrian Bridge # P026, P055 , Culvert # C222)



Environmental Services - Stormwater



2024 PROJECT FUNDING REQUEST FORM

433

Number: 24244

Project Cost: \$8,151,000

Project Name: Don Mills Channel SWM Pond - Construction

Commission: Community Services

New Asset/Expansion

Department: ES - Stormwater

Useful Life: 100 Pre Approval: ☐

Project Mgr: Rob Muir

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☒

Cost Validation: Internal peer review

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To construct a new stormwater management pond and associated structures to mitigate flooding in the Don Mills Channel area.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	7,800,000	61,801,300	Don Mills Channel flood control program was approved by Council in June 2018.
Internal Charges:	0	0	Total program cost: \$72 million.
External Consulting:	210,000	0	Funding source: Stormwater Fee.
Contingency %: 0	0	0	40% of project cost (\$3.26 M) will be reimbursed through the Disaster Mitigation and Adaptation Fund (DMAF) grant.
Sub Total:	8,010,000	61,801,300	Net cost to the City will be 60% (\$4.89 M)
HST Impact:	140,976	1,087,703	
Total Project Cost:	8,151,000	62,889,000	

SOURCE(S) OF FUNDING (\$)	Components					Future Phases
Funding Type	Budget	CA	Construction	TOTAL		
Infrastructure Grant	3,260,400	85,500	3,174,900	0	0	3,260,400
Reserve Fund	4,890,600	128,200	4,762,400	0	0	4,890,600
TOTAL FUNDING	8,151,000					62,889,000

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:



2024 PROJECT FUNDING REQUEST FORM

434

Number: 24245

Project Cost: \$133,800

Project Name: Oil Grit Separators (OGS) - Inspection and Cleaning

Studies/Pilot Programs

Commission: Community Services

Useful Life: 0 Pre Approval: ☐

Department: ES - Stormwater

Category: Minor

Project Mgr: Roshanak Maleki

Cost Validation: Recent awards

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

OGS are structures consisting of one or more chambers that remove sediment, screen debris, and separate oil from stormwater run-off prior to stormwater being discharged downstream. The accumulated pollutants need to be removed as part of a regular maintenance program. The inspection program will identify the OGS that require cleaning to monitor and establish future frequency.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	109,500	0	This is an annual program.
Internal Charges:	0	0	Inventory: 44. Inspection frequency is twice a year (spring & winter). 22 OGS requires cleaning based on historical inspection analysis. Environmental Services is responsible for inspection and sediment cleaning.
External Consulting:	22,000	0	Requirement Validation: Condition assessment & legislative compliance (Section 53 of Ontario Water Resources Act)
Contingency %: 0	0	0	
Sub Total:	131,500	0	
HST Impact:	2,314	0	
Total Project Cost:	133,800	0	

SOURCE(S) OF FUNDING (\$)	Components					Future Phases
Funding Type	Budget	Inspection	Cleaning	TOTAL		
Operating Funded Life Cycle	133,800	22,387	111,413	0	0	133,800
TOTAL FUNDING	133,800					0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 133,800
				Amount Incl HST 133,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

435

Number: 24246

Project Cost: \$15,400

Project Name: Rain Gauge Replacement

Commission: Community Services

Repair/Replace

Department: ES - Stormwater

Useful Life: 12 Pre Approval: ☐

Project Mgr: Jack Zi

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☒ 7 ☒ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

A rain gauge is an essential device for measuring and monitoring rainfall events. The collected data will support various applications in Hydrology and Hydraulic modelling, Climate Change Research and Infrastructure planning, enabling the development of resilient infrastructure systems. This request is to replace 4 rain gauges (RG07, RG10, RG12, RG13). Refer to the attached map for locations.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)		2024	Future Phases
Cost/Quote:		15,100	0
Internal Charges:		0	0
External Consulting:		0	0
Contingency %: 0		0	0
Sub Total:		15,100	0
HST Impact:		266	0
Total Project Cost:		15,400	0

NOTES

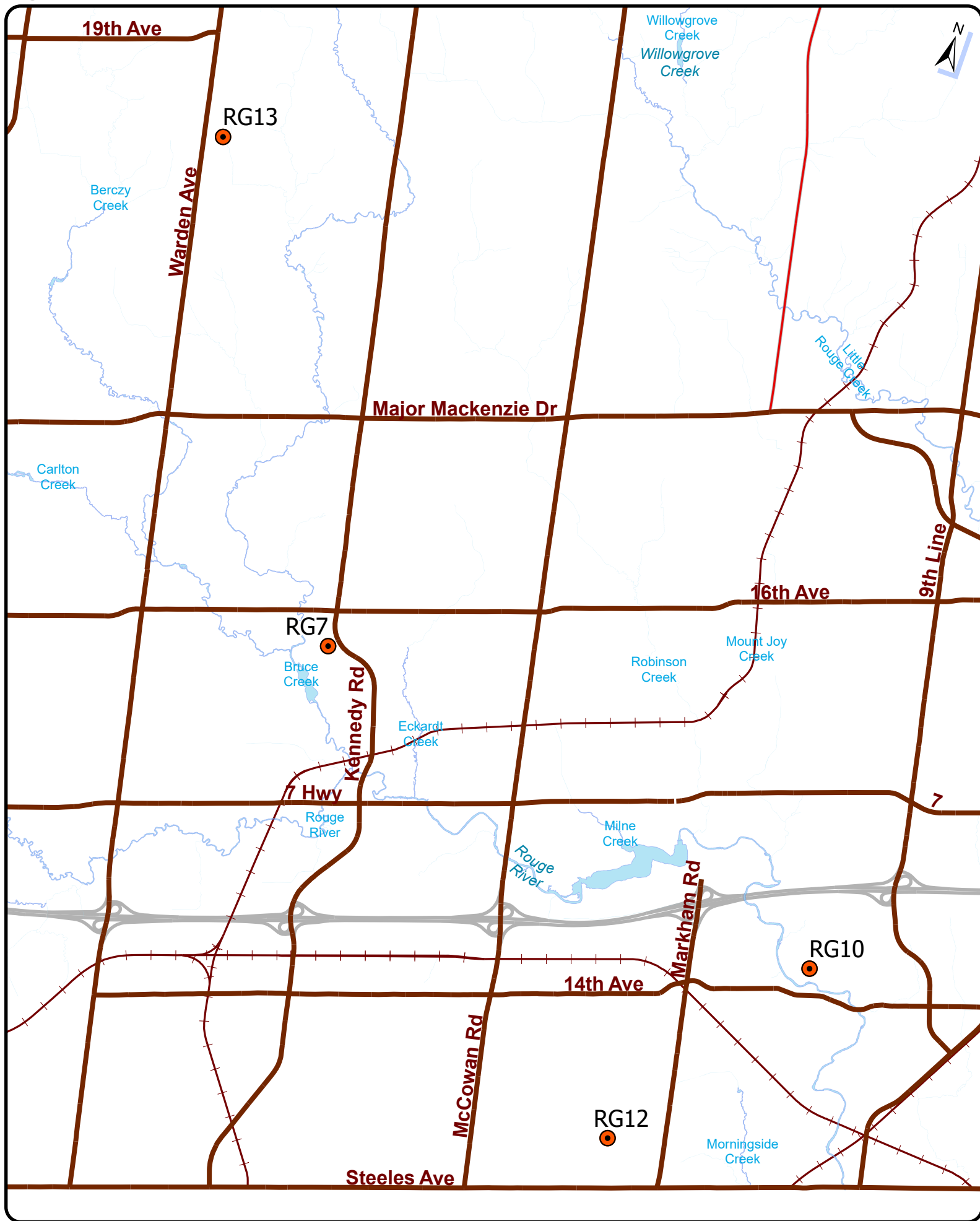
The City has 13 rain gauges in inventory. 4 rain gauges need to be replaced due to condition assessment. They are located as follows:
RG07 - Fire Hall #94;
RG10 - Rouge River Community Centre;
RG12 - Parklands Public School; and
RG13 - 1091 Warden Avenue.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	15,400	0	0	0	0	0	0
TOTAL FUNDING	15,400					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 15,400
				Amount Incl HST 15,400
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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2024 PROJECT FUNDING REQUEST FORM

437

Number: 24247

Project Cost: \$570,000

Project Name: Storm and Sanitary Sewer CCTV Inspection

Studies/Pilot Programs

Commission: Community Services

Useful Life: 0 Pre Approval: ☐

Department: ES - Stormwater

Category: Major

Project Mgr: Philip Zhang

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Condition assessment

5 ☐ 6 ☐ 7 ☐ 8 ☒ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Program to determine the condition of the storm and sanitary sewers using closed circuit television (CCTV) inspection. Pipe rehabilitation/ replacement programs will be developed based on the condition inspection results. 2024 Program includes:
a) 78 km storm sewers out of total 943 km (Life Cycle funded); b) 74 km sanitary sewers out of total 934 km (Waterworks funded).
Map is attached.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	497,200	2,779,750
Internal Charges:	0	0
External Consulting:	62,975	0
Contingency %: 0	0	0
Sub Total:	560,175	2,779,750
HST Impact:	9,859	48,924
Total Project Cost:	570,000	2,828,700

NOTES

This is an annual program (10 year cycle) - Phase 6 of 10.
Program will be re-evaluated at the end of the 10 year cycle.
External consultant is retained to identify deficiencies on CCTV inspection. Unit cost is consistent with recent award.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Contractor	Consultant			TOTAL	
Operating Funded Life Cycle	200,600	171,090	29,510	0	0	200,600	1,019,400
Waterworks	369,400	334,843	34,557	0	0	369,400	1,809,300
TOTAL FUNDING	570,000					570,000	2,828,700

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

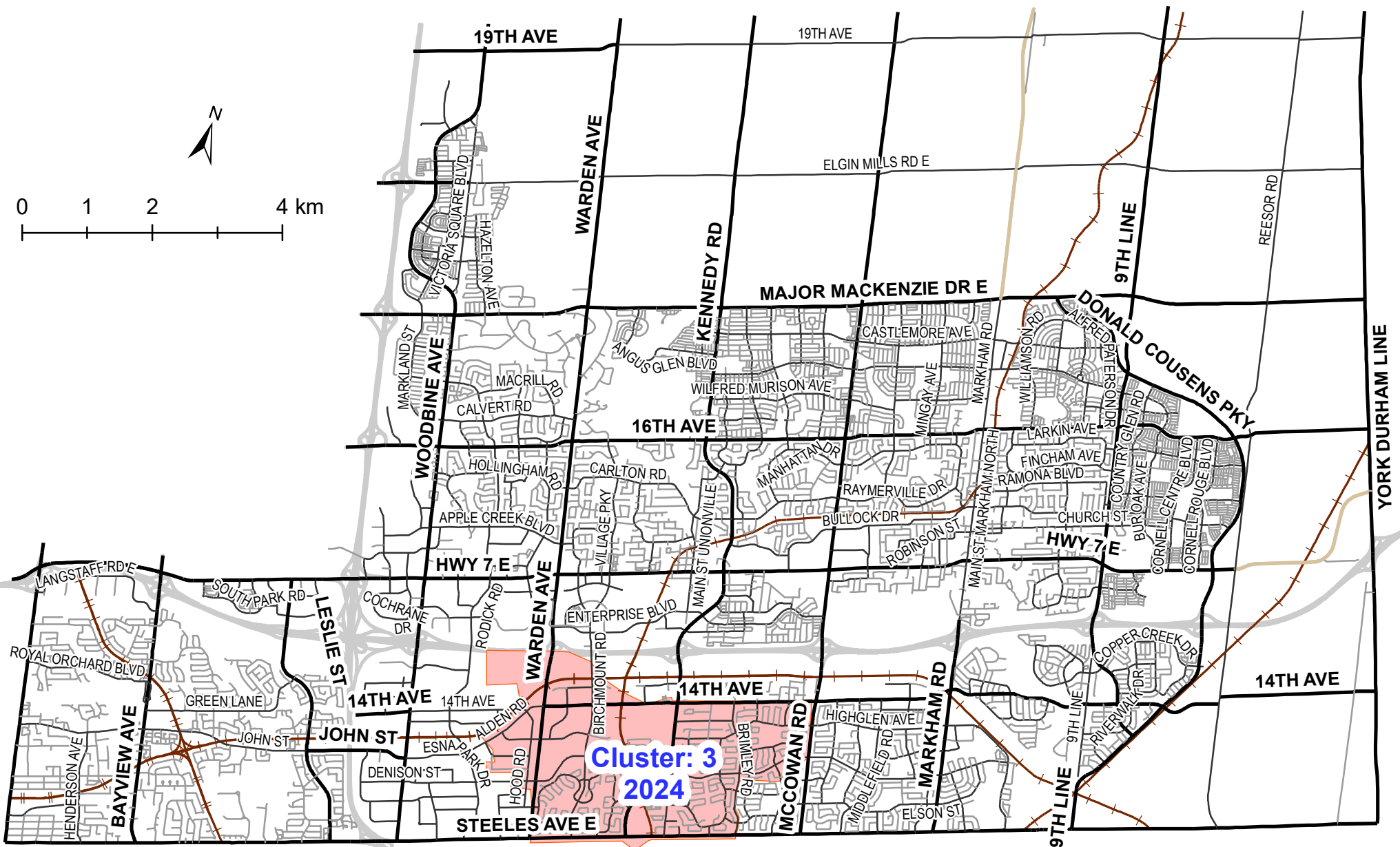
DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 200,600
				Amount Incl HST 200,600
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Total Cost: \$570,000
\$200,600 is funded through Storm Lifecycle
\$369,400 is funded through Sanitary Lifecycle (Water Rate)

2024 Sanitary & Storm Sewers CCTV Inspection



Program Name: Storm and Sanitary CCTV Inspection**Department: Environmental Services**

Phase #	Inspection year	Project #	Past	2024	Future	Total	Comments
Phase 1	2019	#19225 / #19248/ 760-510-5300	\$524,003			\$524,003	52 km storm; 52 km sanitary; 1,400 laterals
Phase 2	2020	#20237	\$1,585,200			\$1,585,200	90 km storm; 91 km sanitary; 6,946 laterals
Phase 3	2021	#21149	\$652,800			\$652,800	80 km storm; 94 km sanitary
Phase 4	2022	#22186	\$625,800			\$625,800	82.3 km storm; 80.8 km sanitary
Phase 5	2023	#23027	\$756,600			\$756,600	107 km storm; 106 km sanitary
Phase 6	2024	#24247 (This request)		\$570,000		\$570,000	74 km storm; 78 km sanitary
Phase 7 to Phase 10	2025 - 2028				\$2,828,700	\$2,828,700	
Total Cost			\$4,144,403	\$570,000	\$2,828,700	\$7,543,103	

Description of Program

Program to determine the condition of the storm and sanitary sewers using closed circuit television (CCTV) inspection

What was completed in the past

4 phases have been completed or in progress (out of total 10 phases): \$4,144,403

Current ask

CCTV inspection of 78 km storm sewers (out of 943 km) and 74 km sanitary sewers (out of 934 km): \$570,000

Future Phases

Phases 7 to 10 between 2025 - 2028: \$2,828,700

Related 2024 Project(s)

Sanitary Sewer Rehabilitation (#24xxx): \$ 923,100

Map Attached



2024 PROJECT FUNDING REQUEST FORM

440

Number: 24248

Project Cost: \$417,300

Project Name: Storm Sewer Pipes - Rehabilitation

Commission: Community Services

Department: ES - Stormwater

Project Mgr: Philip Zhang

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 25 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Rehabilitation of deficient storm sewer pipes identified through 2022 and 2023 CCTV (closed circuit television) inspection.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	360,050	0	Storm sewer pipe rehabilitation is conducted once every two years. Approx. 80-90 km of storm sewers are inspected every year out of 943 km (10 year cycle). Based on the video inspections, deficient pipe sections are identified and rehabilitated. There is no substantial backlog. Storm sewer pipes are in a state of good repair. Amount requested is consistent with 2023 Life Cycle Reserve Study Update.
Internal Charges:	0	0	
External Consulting:	50,000	0	
Contingency %: 0	0	0	
Sub Total:	410,050	0	
HST Impact:	7,217	0	
Total Project Cost:	417,300	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Consulting	Construction			TOTAL	
Operating Funded Life Cycle	417,300	50,900	366,400	0	0	417,300	0
TOTAL FUNDING	417,300					417,300	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 417,300
				Amount Incl HST 417,300
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

441

Number: 24249

Project Cost: \$59,500

Project Name: Storm Sewer Pipes Emergency Repairs

Commission: Community Services

Department: ES - Stormwater

Project Mgr: Edgar Tovilla

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Internal peer review

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to carry out emergency repairs of storm sewer pipes on as required basis.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			2024		Future Phases	
Cost/Quote:	58,471	0				
Internal Charges:	0	0				
External Consulting:	0	0				
Contingency %: 0	0	0				
Sub Total:	58,471	0				
HST Impact:	1,029	0				
Total Project Cost:	59,500	0				

NOTES

This is an annual program to conduct emergency repair of storm sewer pipes on as required basis.
Budget amount is based on previous 3 years average spent.
Previously this component was included as Emergency Repairs under Roads Operations.

SOURCE(S) OF FUNDING (\$)		Components						Future Phases	
Funding Type	Budget	TOTAL						Future Phases	
Operating Funded Life Cycle	59,500	0	0	0	0	0	0	0	0
TOTAL FUNDING	59,500						0		0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 59,500
				Amount Incl HST 59,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

442

Number: 24250

Project Cost: \$81,400

Project Name: Stormwater Underground Tanks - Condition Inspection

Commission: Community Services

Repair/Replace

Department: ES - Stormwater

Useful Life: 0

Pre Approval: ☐

Project Mgr: Rob Muir

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☒ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Condition Inspection of four (4) stormwater Underground Storage Tanks within Aaniin Community Centre and PanAm Centre. Condition inspection of stormwater underground tanks will determine the accumulated sediment level, condition of the tanks, and required rehabilitation. Refer to attached location map.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

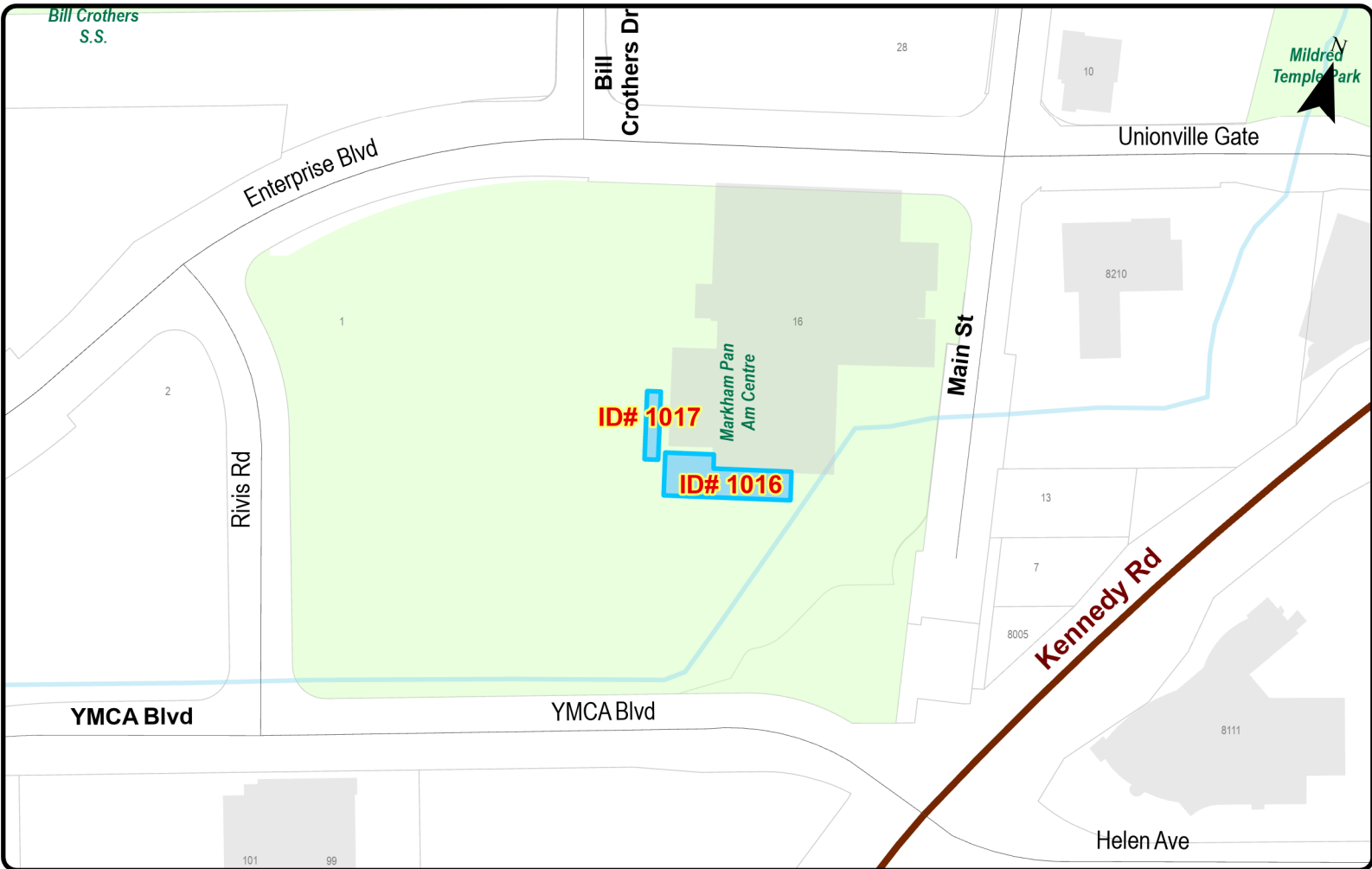
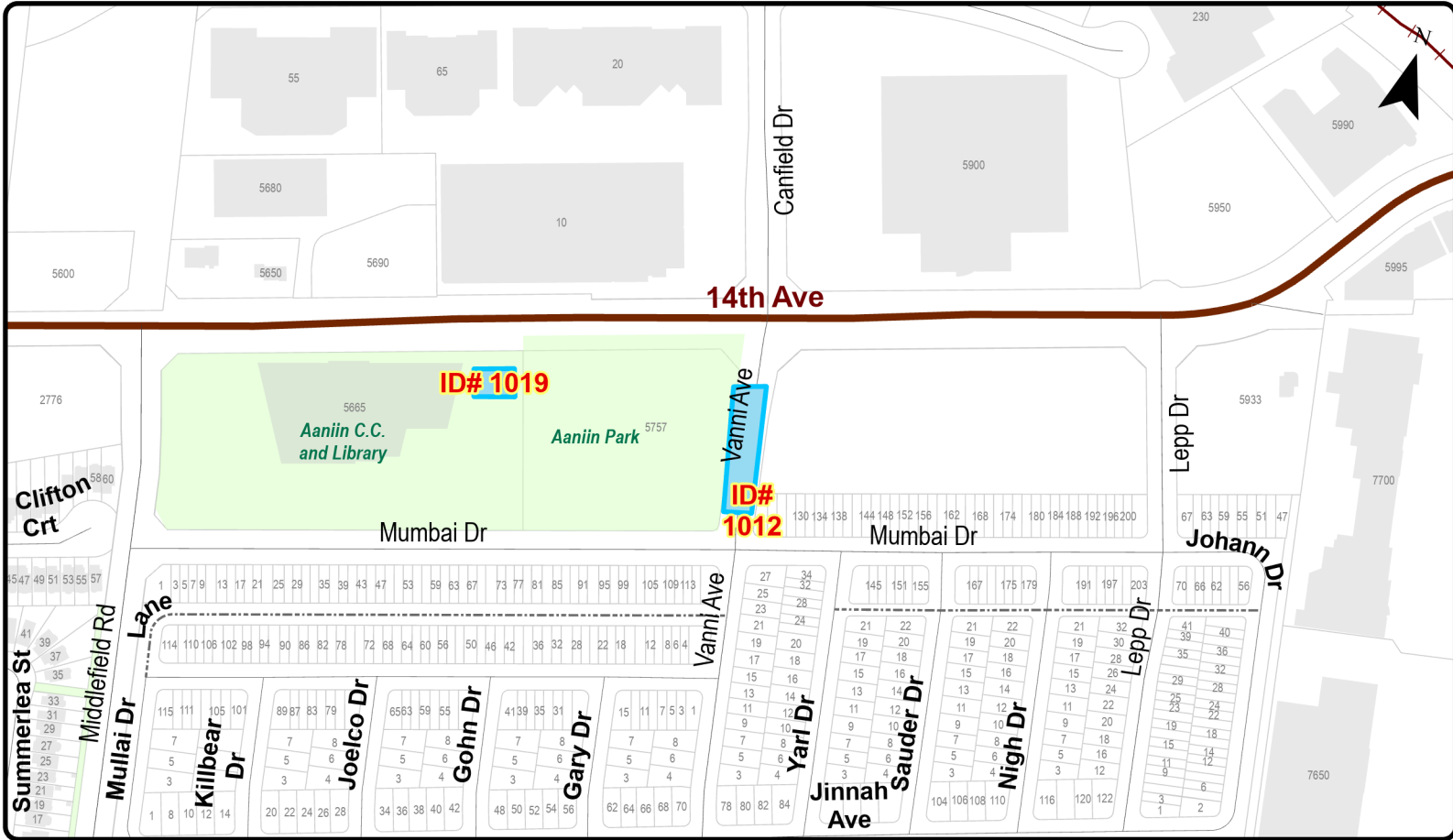
PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	Total assumed inventory: 9. This request is to carry out condition inspections of four newly assumed underground tanks. Frequency of condition inspection is 10 years.
Internal Charges:	0	0	
External Consulting:	80,000	0	
Contingency %: 0	0	0	
Sub Total:	80,000	0	
HST Impact:	1,408	0	
Total Project Cost:	81,400	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	81,400	0	0	0	0	0	0
TOTAL FUNDING	81,400				0		0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 54,000
				Amount Incl HST 81,400
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Cost was increased based on recent quotes.				





2024 PROJECT FUNDING REQUEST FORM

444

Number: 24251

Project Cost: \$162,000

Project Name: Swan Lake Chemical Treatment

Studies/Pilot Programs

Commission: Community Services

Useful Life: 3 Pre Approval: ☐

Department: ES - Stormwater

Category: Major

Project Mgr: Zahra Parhizgari

Cost Validation: Internal peer review

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Condition assessment

5 ☒ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

To carry out chemical treatment of Swan Lake, including project planning, contract administration, chemical treatment application and expanded monitoring after treatment is completed.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	109,100	0	Chemical treatment program is required to improve the water quality at Swan Lake. Frequency of the program is every 3 years as per approved Council report dated Nov 16, 2021.
Internal Charges:	0	0	
External Consulting:	50,100	0	
Contingency %: 0	0	0	
Sub Total:	159,200	0	
HST Impact:	2,802	0	
Total Project Cost:	162,000	0	

SOURCE(S) OF FUNDING (\$)		Components				Future Phases	
Funding Type	Budget	Consulting	Construction		TOTAL		
Operating Funded Life Cycle	162,000	50,980	111,020	0	0	162,000	0
TOTAL FUNDING	162,000					162,000	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 162,000
				Amount Incl HST 162,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

445

Number: 24252

Project Cost: \$50,900

Project Name: Technology Assessment for Chloride Treatment - Swan Lake

Studies/Pilot Programs

Commission: Community Services

Useful Life: 0 Pre Approval: ☐

Department: ES - Stormwater

Category: Major

Project Mgr: Zahra Parhizgari

Cost Validation: Internal peer review

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Requirement Validation: Other(specify in Notes)

5 ☒ 6 ☐ 7 ☐ 8 ☐ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

To carry out a pilot project using bichar for chloride treatment at Swan Lake, including project planning, testing and evaluation.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	This budget request is to assess and evaluate various technologies for chloride treatment at Swan Lake, as per Nov 16, 2021 approved Council Report. Findings may be used to identify quality improvement methods requested by the public/ stakeholders.
Internal Charges:	0	0	
External Consulting:	50,000	0	
Contingency %: 0	0	0	
Sub Total:	50,000	0	
HST Impact:	880	0	
Total Project Cost:	50,900	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Future Phases
Operating Funded Life Cycle	50,900	0	0	0	0	0	0
TOTAL FUNDING	50,900	0	0	0	0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 71,200
				Amount Incl HST 50,900
				Year in the study 2024

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

This request is brought forward from 2027 to 2024 based on recent Council Report. 2024 Life cycle study will be updated to reflect this change.



2024 PROJECT FUNDING REQUEST FORM

446

Number: 24253

Project Cost: \$77,300

Project Name: Water Quality Improvements

Commission: Community Services

Department: ES - Stormwater

Project Mgr: Zahra Parhizgari

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☒ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Internal peer review

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This project is to carry out the geese control program at Swan Lake (Ward 5) and Toogood Pond (Ward 3). This program is intended to manage recurring water quality complaints and to reduce nutrient loading into Swan Lake and Toogood Pond.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	76,000	0	This is an annual program to carry out geese control at Swan Lake and Toogood Pond. Program has been enhanced on geese management and fish removal as per Markham Sub Committee report dated Nov 16, 2021 which was approved by the Council. Requirement Validation: To protect the water quality.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	76,000	0	
HST Impact:	1,338	0	
Total Project Cost:	77,300	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Operating Funded Life Cycle	77,300	0	0	0	0	0	0
TOTAL FUNDING	77,300					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 77,300
				Amount Incl HST 77,300
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

447

Number: 24254

Project Cost: \$31,000

Project Name: Water Quality Monitoring at Swan Lake

Commission: Community Services

Department: ES - Stormwater

Project Mgr: Zahra Parhizgari

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☒ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This request is to continue with the water quality sampling and analysis at Swan Lake.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	Requirement: In June 2020, Council approved continuation of monitoring at Swan Lake. Unit cost is consistent with recent budget plus inflation. Amount requested is consistent with 2023 Life Cycle Reserve Study Update.
Internal Charges:	0	0	
External Consulting:	30,500	0	
Contingency %: 0	0	0	
Sub Total:	30,500	0	
HST Impact:	537	0	
Total Project Cost:	31,000	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Phases
Operating Funded Life Cycle	31,000	0	0	0	0	0	0
TOTAL FUNDING	31,000	0	0	0	0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 31,000
				Amount Incl HST 31,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

448

Number: 24255

Project Cost: \$1,023,600

Project Name: Wet SWM Pond Cleaning #50 & #71 - Constr. & CA

Commission: Community Services

Repair/Replace

Department: ES - Stormwater

Useful Life: 20

Pre Approval: ☐

Project Mgr: Timothy Ng

Category: Major

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Recent awards

5 ☐ 6 ☒ 7 ☐ 8 ☐

Requirement Validation: Legislative compliance

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Pond sediment cleaning for two stormwater management (SWM) ponds: Pond #50: Ascot Village Pond (Ward 1) with current sediment level: 70% and Pond #71: Glenhaven Pond (Ward 6) with current sediment level of 52%. Refer to attached location map. SWM Ponds require maintenance to function efficiently. Sediment levels need to be monitored and when the percentage of accumulated sediment is above regulatory limits (varies depending on the pond design), ponds need to be cleaned to ensure that the approved quality control function of the pond is maintained.

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PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	935,900	0
Internal Charges:	0	0
External Consulting:	70,000	0
Contingency %: 0	0	0
Sub Total:	1,005,900	0
HST Impact:	17,704	0
Total Project Cost:	1,023,600	0

NOTES

Total inventory: 70 wet ponds
Requirement Validation: Condition assessment & Legislative compliance (Section 53, Ontario Water Resources Act).
Operations is responsible for minor above ground maintenance on ponds while ES is responsible for inspection, sediment cleaning, rehabilitation and flood control strategies. Unit cost is consistent with recent award plus inflation. This request is for construction and contract administration. Design budget was requested in 2023.

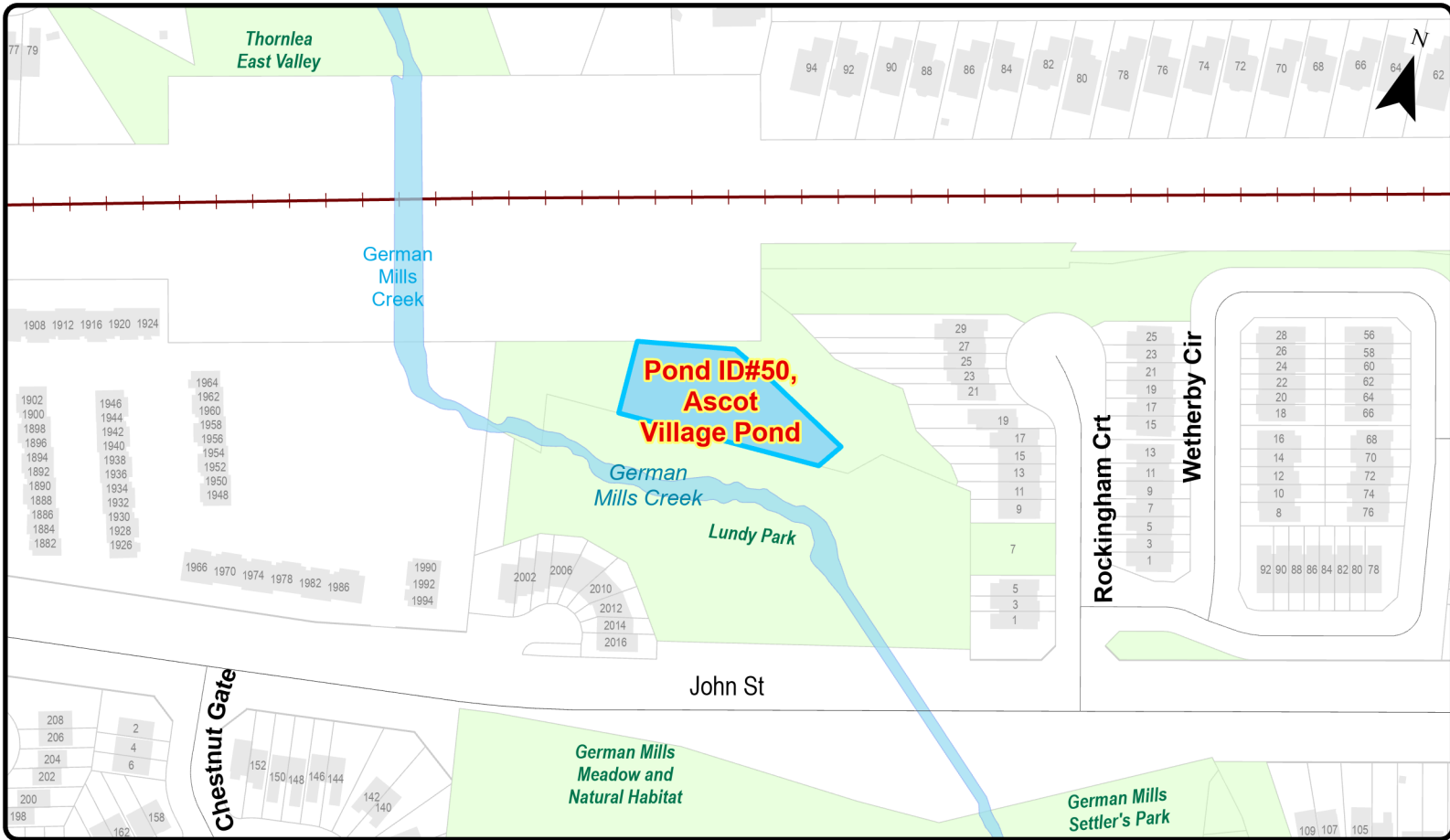
SOURCE(S) OF FUNDING (\$)

Funding Type	Components					TOTAL	Future Phases
	Budget	Construction	CA				
Gas Tax	1,023,600	952,368	71,232	0	0	1,023,600	0
TOTAL FUNDING	1,023,600					1,023,600	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 1,194,900
				Amount Incl HST 1,023,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Total cost is \$1,194,900 \$1,023,600 is for Wet SWM Pond - Sediment Cleaning #50 & #71 Construction - This Request \$114,200 is for Wet SWM Pond - Sediment Cleaning #55 & #60 Design \$57,100 is for Wet SWM Pond - Sediment Cleaning #102 Design has been deferred.				





2024 PROJECT FUNDING REQUEST FORM

450

Number: 24256

Project Cost: \$114,200

Project Name: Wet SWM Pond Cleaning ID #55 & #60 - Design

Commission: Community Services

Department: ES - Stormwater

Project Mgr: Timothy Ng

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐
5 ☐ 6 ☐ 7 ☒ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Legislative compliance

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Design for sediment cleaning and maintenance of 2 stormwater management (SWM) ponds: Pond #55: Lemsford Drive Pond (Ward 7) with current sediment level: 54% and Pond #60: South Unionville Pond (Ward 3) with current sediment level of 90%. Refer to attached location map.

SWM Ponds require maintenance to function efficiently. Sediment levels need to be monitored and when the percentage of accumulated sediment is above regulatory limits (varies depending on the pond design), ponds need to be cleaned to ensure that the approved quality control function of the pond is maintained.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

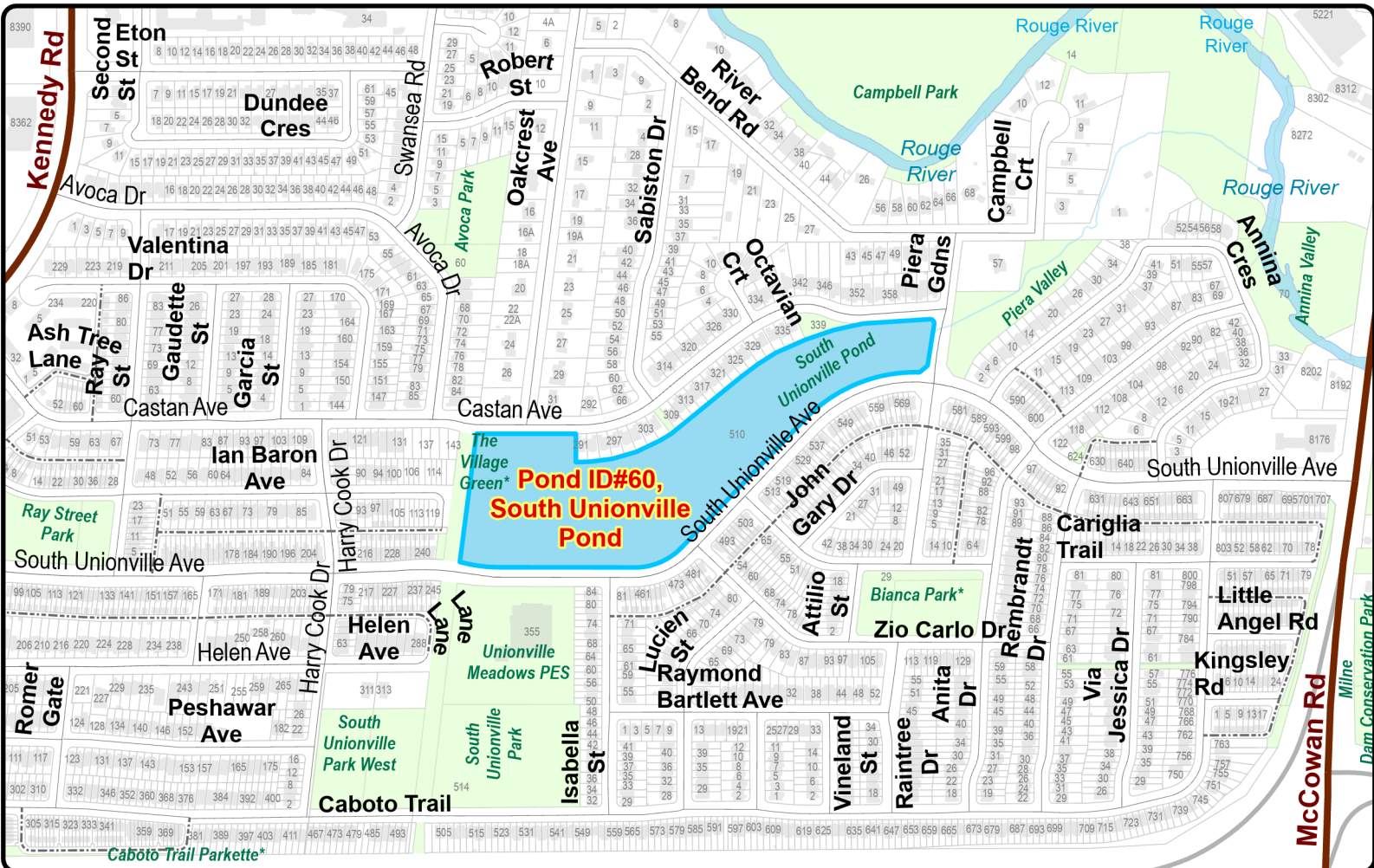
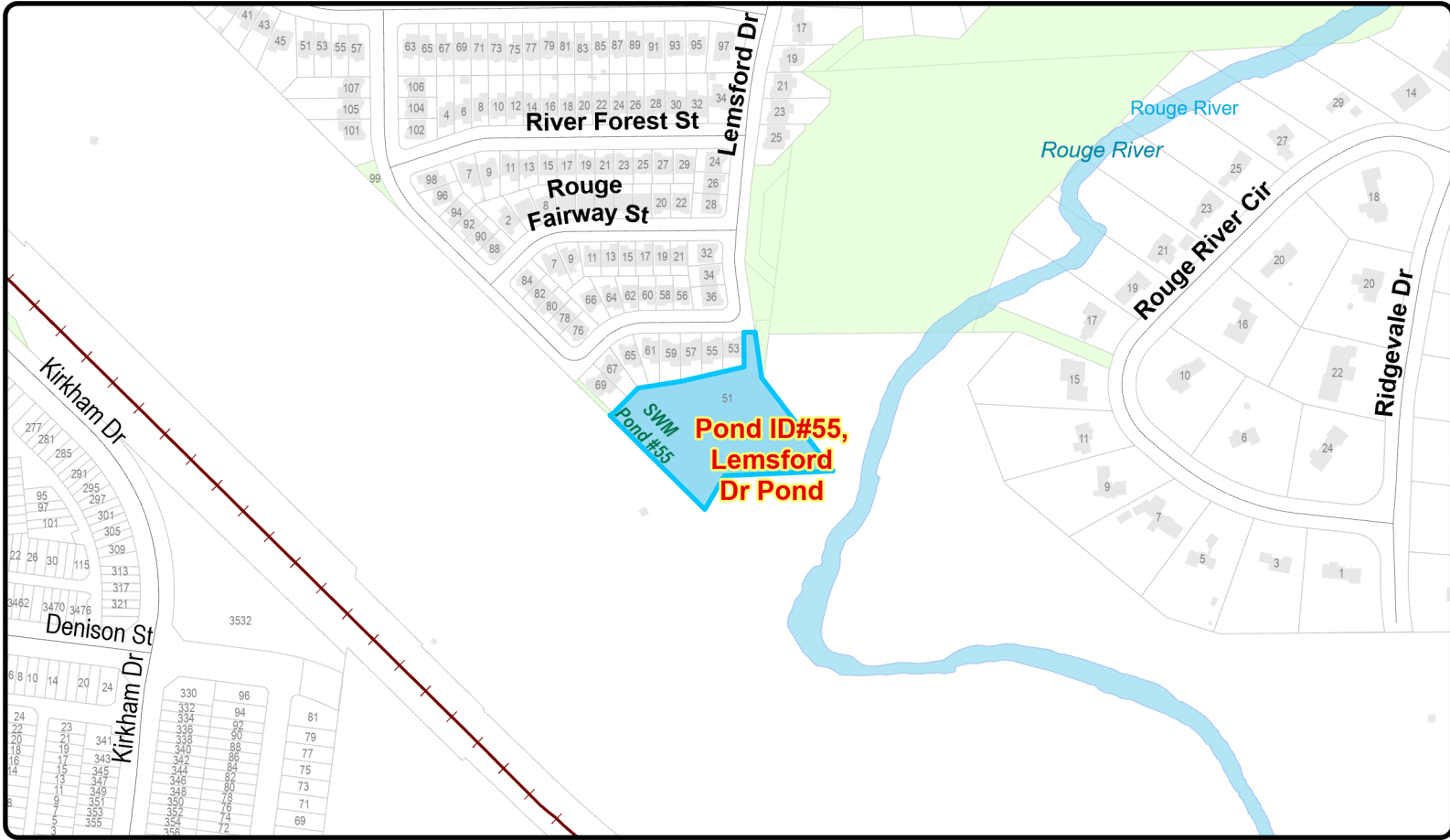
PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	Total inventory: 70 wet ponds
Internal Charges:	0	0	Requirement Validation: Condition assessment & Legislative compliance (Section 53, Ontario Water Resources Act).
External Consulting:	112,200	2,341,980	Operations is responsible for minor above ground maintenance on ponds while ES is responsible for inspection, sediment cleaning, rehabilitation and flood control strategies. Unit cost is consistent with recent award plus inflation. This request is for design.
Contingency %: 0	0	0	Construction and CA budget will be requested in 2025. Future cost may change based on design outcome.
Sub Total:	112,200	2,341,980	
HST Impact:	1,975	41,219	
Total Project Cost:	114,200	2,383,200	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	Design				TOTAL	
Operating Funded Life Cycle	114,200	114,200	0	0	0	114,200	2,383,200
TOTAL FUNDING	114,200					114,200	2,383,200

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 1,194,900
				Amount Incl HST 114,200
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Total cost is \$1,194,900 \$114,200 is for Wet SWM Pond - Sediment Cleaning #55 & #60 Design - This Request \$1,023,600 is for Wet SWM Pond - Sediment Cleaning #50 & #71 Construction \$57,100 is for Wet SWM Pond - Sediment Cleaning #102 Design has been deferred.				



Environmental Services - Waste



2024 PROJECT FUNDING REQUEST FORM

454

Number: 24257

Project Cost: \$108,200

Project Name: Incremental Growth Related Waste Management Vehicles

Commission: Community Services

Department: ES - Waste

Project Mgr: Micheal Dipasquale

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 0 Pre Approval: ☐

Category:

Cost Validation:

Requirement Validation:

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Development Charge (DC) funding for additional growth-related waste management vehicles purchased by contractor. If waste management was done in-house, these vehicles would need to be purchased by the City; this request is to obtain DC Funding to offset a portion of the capital cost included in the waste management contract paid through the operating budget

BUILDING MARKHAM'S FUTURE TOGETHER:

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	108,222	0	The value of the request is based on the percentage of collections allocated to this growth related service, plus 2% annual inflation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	108,222	0	
HST Impact:	0	0	
Total Project Cost:	108,200	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
DCA	108,200	0	0	0	0	0	0
TOTAL FUNDING	108,200					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Environmental Services - Waterworks



2024 PROJECT FUNDING REQUEST FORM

457

Number: 24258

Project Cost: \$40,100

Project Name: Acoustic Equipment for Sewer Flushing Optimization

Commission: Community Services

New Asset/Expansion

Department: ES - Waterworks

Useful Life: 0

Pre Approval: ☐

Project Mgr: Edgar Tovilla

Category: Minor

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Other(specify in Notes)

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

This equipment is an acoustic assessment tool, which rapidly verifies through a sensor scanner the condition of sewer pipes based on sound transmitter and receiver. This equipment will be used to assess all sanitary sewers in the system on a new 10 year cycle program.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)			NOTES	
	2024	Future Phases	This equipment requires an annual software service fee of \$1,400. This equipment is proprietary technology which will be sole sourced with the manufacturer. This process will reduce the in house flushing needs by approximately 70% every year. These savings will allow City staff to increase our current service level of a 10 year cycle to meet the industry best management practice of flushing the sewers every 5 years.	
Cost/Quote:	39,420	0		
Internal Charges:	0	0		
External Consulting:	0	0		
Contingency %: 0	0	0		
Sub Total:	39,420	0		
HST Impact:	694	0		
Total Project Cost:	40,100	0		

SOURCE(S) OF FUNDING (\$)		Components					Future Phases	
Funding Type	Budget					TOTAL		
Waterworks	40,100	0	0	0	0	0	0	0
TOTAL FUNDING	40,100					0		0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$1,400	\$0	\$1,400

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: <input type="text"/>
				Amount Incl HST <input type="text"/>
				Year in the study <input type="text"/>
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

458

Number: 24259

Project Cost: \$363,300

Project Name: Calvert Pump Station - Immediate Process Improvements

Repair/Replace

Commission: Community Services

Useful Life: 10 Pre Approval: ☐

Department: ES - Waterworks

Category: Minor

Project Mgr: Edgar Tovilla

Cost Validation: External peer review

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Waterworks has conducted a condition assessment for the Calvert Sanitary Pumping Station (SPS). The scope involves replacement of pumps, H&S and compliance priority aspects, process-mechanical, and process-electrical component replacement.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	357,064	0	A consultant report outlined the specific component replacements. For Calvert SPS, a replacement of process-mechanical (valves/piping) to meet Fire Code requirements, and HVAC issues with process related equipment. Cost estimates were prepared by consultants.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	357,064	0	
HST Impact:	6,284	0	
Total Project Cost:	363,300	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Waterworks	363,300	0	0	0	0	0	0
TOTAL FUNDING	363,300					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 675,700
				Amount Incl HST 363,300
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Remainder of LC budget to be allocated for Calvert PS Structural Improvement works				



2024 PROJECT FUNDING REQUEST FORM

459

Number: 24260

Project Cost: \$150,000

Project Name: Calvert Pump Station - Immediate Structural Improvements

Commission: Community Services

Repair/Replace

Department: ES - Waterworks

Useful Life: 10 Pre Approval: ☐

Project Mgr: Edgar Tovilla

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☒ 3 ☐ 4 ☐

Cost Validation: External peer review

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Waterworks has conducted a condition assessment for the Calvert Sanitary Pumping Station (SPS). The scope involves replacement of non-process equipment such as building and structural maintenance, ventilation systems, plumbing, driveway repairs, and masonry

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	147,406	0	A consultant report outlined the specific component replacements. These works include non-process component repairs and replacements including structural components, as well as civil aspects. Cost estimates were prepared by consultants.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	147,406	0	
HST Impact:	2,594	0	
Total Project Cost:	150,000	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Waterworks	150,000	0	0	0	0	0	0
TOTAL FUNDING	150,000					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 675,700
				Amount Incl HST 150,000
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
Remainder of LC budget to be allocated for Calvert PS Process improvement and Milliken Mills Rehabilitation works				



2024 PROJECT FUNDING REQUEST FORM

460

Number: 24261

Project Cost: \$772,800

Project Name: Cathodic Protection of Ductile Iron Watermains

Commission: Community Services

Repair/Replace

Department: ES - Waterworks

Useful Life: 20 Pre Approval: ☐

Project Mgr: Vikas Thakur

Category: Minor

Ward(s): CW ☐ 1 ☒ 2 ☒ 3 ☐ 4 ☐

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☒

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Program to install corrosion protection material (anodes) to ductile iron (DI) watermains to reduce/ prevent corrosion. Renewal of corrosion protection is necessary to replace the depleted anodes (18-20 years old) and test stations. Map attached.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	759,400	0	This is an annual program. Program commenced in 1993 with an avg. of 120 watermain breaks/year which has reduced to an avg. of 17 breaks/ year in last five years. Second cycle of ductile and cast iron watermains corrosion protection commenced in 2014. This request is to install anodes for approx. 12.7 km length of DI watermain (Refer to attached map). Unit cost is consistent with recent award plus inflation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	759,400	0	
HST Impact:	13,365	0	
Total Project Cost:	772,800	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Waterworks	772,800	0	0	0	0	0	0
TOTAL FUNDING	772,800					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

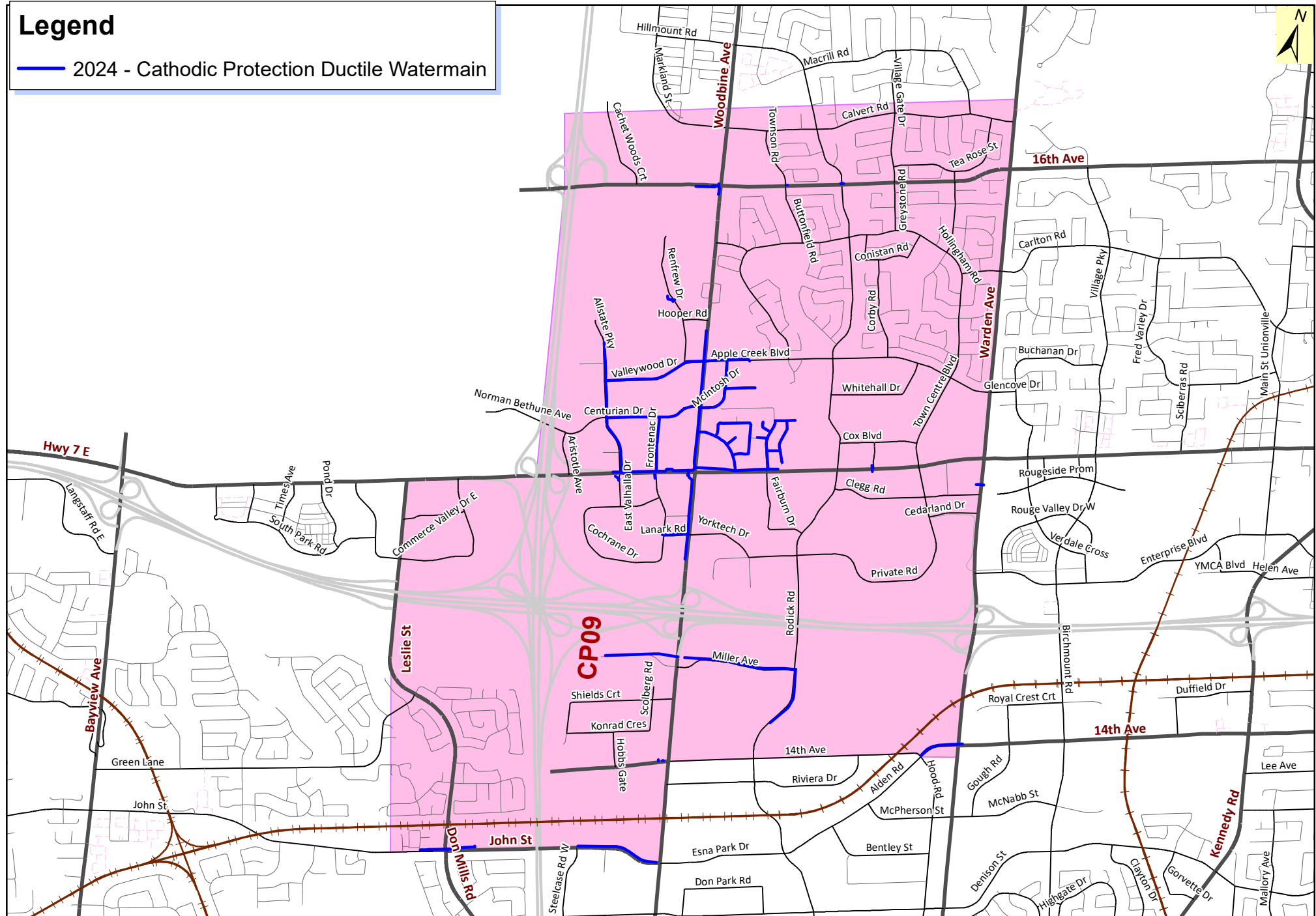
DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 772,800
				Amount Incl HST 772,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
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Cathodic Protection of Ductile Iron Watermain

Legend

— 2024 - Cathodic Protection Ductile Watermain



Program Name: Cathodic Protection of Iron Watermains**Department: Environmental Services**

Year	Project #	Past	2024	Future	Total	Remarks
2019	#19241	\$427,800			\$427,800	10.4 km Cast Iron
2020	#20255	\$378,900			\$378,900	11 km Cast Iron
2021	#21167	\$493,100			\$493,100	15 km Ductile Iron
2022	#22201	\$444,000			\$444,000	12 km Ductile Iron
2023	#23035	\$995,100			\$995,100	20 km Ductile Iron
2024	#24261 (This Request)		\$772,800		\$772,700	12.7 km Ductile Iron
2025 Onwards				varies	varies	
Total		\$2,738,900	\$772,800			

Description of Program

Program to install corrosion protection material (anodes) to ductile iron (DI) watermains to reduce/ prevent corrosion. This is an annual program.

What was completed in the past

See above table

Current ask

772,800

Future Phases

Varies

Related 2024 Project(s)

N/A

Map

Attached



2024 PROJECT FUNDING REQUEST FORM

463

Number: 24262

Project Cost: \$621,000

Project Name: CI Watermain Rehabilitation - Design

Commission: Community Services

Repair/Replace

Department: ES - Waterworks

Useful Life: 0

Pre Approval: ☐

Project Mgr: Aaron Smith

Category: Annual

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☒

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Detailed design for relining of approx. 4 km of cast iron (CI) watermain. Refer to attached map.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	70,027,066	Total CI Watermain: 54.1 km. As part of the CI watermain replacement program, 92% of aged CI watermain will be replaced with PVC and 8% will be rehabilitated with CIPP liner. This request includes CIPP rehabilitation design of: - 1.7 km on HWY 7 including Christman Court. - 2.3 km on Green Lane, Aileen Road, Guardsman Rd, Harlech Crt areas. Construction and contract administration costs will be requested through 2025 Capital budget request.
Internal Charges:	154,400	0	
External Consulting:	458,500	0	
Contingency %: 0	0	0	
Sub Total:	612,900	70,027,066	
HST Impact:	8,070	1,232,476	
Total Project Cost:	621,000	71,259,500	

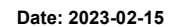
SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Design	Internal staff			TOTAL	
Waterworks	621,000	466,600	154,400	0	0	621,000	71,259,500
TOTAL FUNDING	621,000					621,000	71,259,500

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

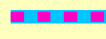
DCA/LIFE CYCLE DETAILS

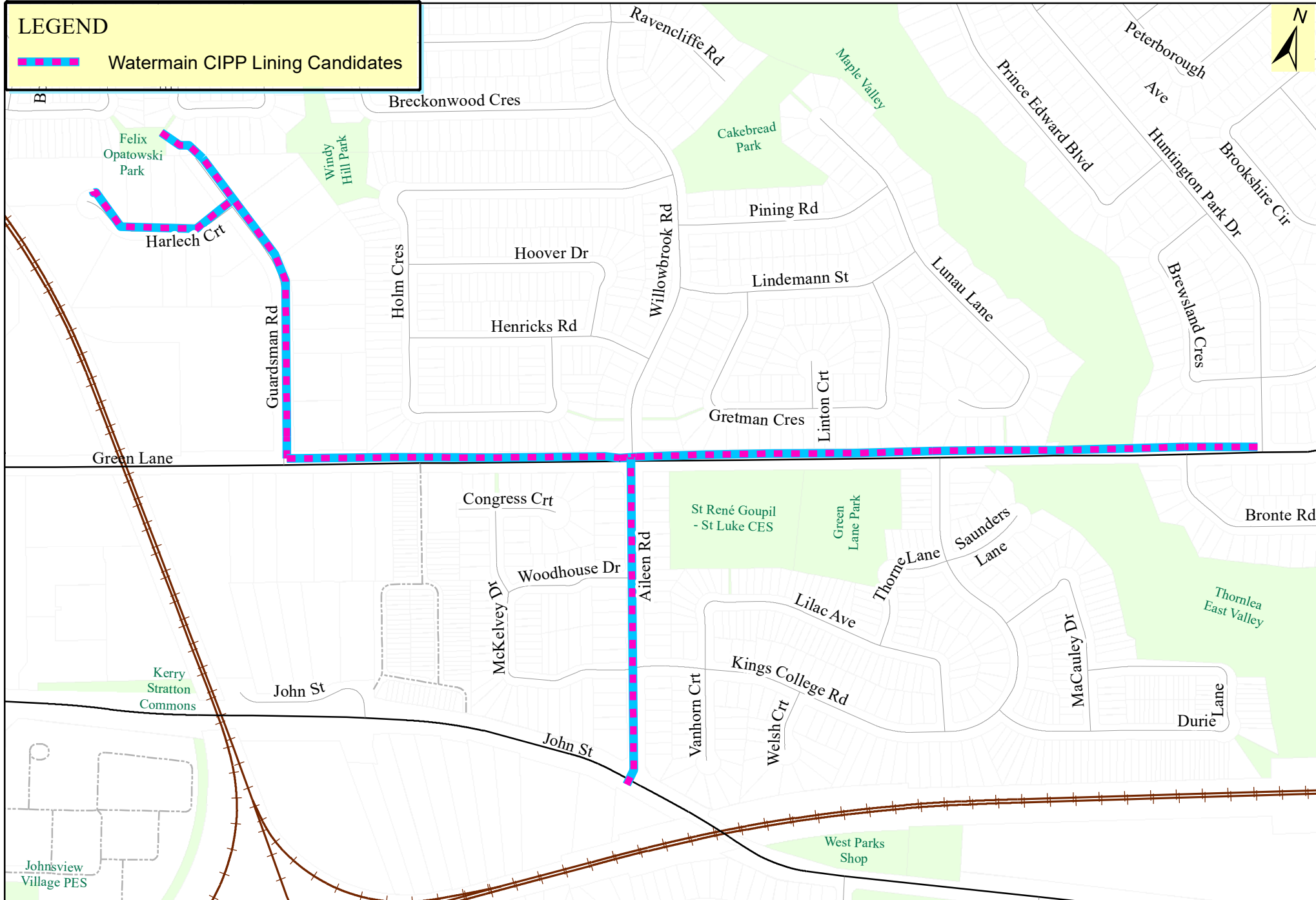
DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 618,800
				Amount Incl HST 618,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				

**Hwy 7 from Cosburn to Wootten Way N/ Christman Crt,
Easement: Markham Rd to Reeve Dr**



LEGEND

 Watermain CIPP Lining Candidates



Program Name: CI Watermain Rehabilitation / Replacement
Department: Environmental Services

Component	Project #	Past	2024	Future	Total
Phase 1 (West Thornhill Ph 2D; McCowan Rd & Heritage St.; Old English Lane & Limcombe Dr Area)	#19245, #19243	\$13,624,200			\$13,624,200
Phase 2 (West Thornhill Ph 3A; Laureleaf Area / Milmar Crt Area)	#19242, #20257, #20258	\$12,034,200			\$12,034,200
Phase 3a (John St & 14th Ave end Section (Re-Lining))	#20256, #21168	\$7,060,400			\$7,060,400
Phase 3b (West Thornhill Area - Phase 3B)	#21170	\$4,036,300			\$4,036,300
Phase 4a (Gladiator Rd / Bakerdale / Southdale / Bakerdale Area)	#21169, #22202	\$5,746,300			\$5,746,300
Phase 4b (West Thornhill Area - Phase 3C)	#22204	\$3,412,700			\$3,412,700
Phase 5a - Design (Drakefield Rd/ Banfield Ave./ Princess St. / Dublin St. Area)	#22203	\$297,200			\$297,200
Phase 5b - Construction (Drakefield Rd/ Banfield Ave./ Princess St. / Dublin St. Area)	#23036	\$9,811,400			\$9,811,400
Phase 6a - Design - Part of Highway 7 including Christman Ct.	#24262 (This Request)		\$621,000	\$6,065,800	\$6,684,600
Phase 7a - Design - Part of Green Lane, Aileen Road, Guardsman & Harlech Crt Area					
Phases 8 to Phase 15	N/A			\$65,193,743	\$65,193,743
Total		\$56,022,700	\$621,000	\$71,259,543	\$127,901,043

Description of Program

To replace aged cast iron watermain (current age: 58 years; service life: 60 years) with PVC watermain (service life: 90 years)

What was completed in the past

5 phases (Phase 1, 2, 3, 4 & 5) have been completed (out of 15 phases) since 2019 - \$56M

Current ask

Phase 6a - Design - Part of Highway 7 including Christman Ct.	\$621,000
Phase 7a - Design - Part of Green Lane, Aileen Road, Guardsman & Harlech Crt Area	

Future phases

Phase 6a - Constr. - Part of Highway 7 including Christman Ct.	\$6M
Phase 7a - Constr. - Part of Green Lane, Aileen Road, Guardsman & Harlech	
Phase 8 to Phase 15 (2025- 2032)	\$65.2M
Total	\$71.2M

Related 2024 project(s)

None

Map

Attached

PROGRAM STATUS

Phases	Project Status
Phase 1	Completed in 2019
Phase 2a (Design) (Laureleaf Area / Milmar Crt & Alden Rd)	Completed in 2019
Phase 2a (Construction) (Laureleaf Area / Milmar Crt & Alden Rd)	Completed in 2020
Phase 2b (West Thornhill Area - Phase 3A: Morgan Ave - between Henderson ad Yonge; Clark Ave - between Hendwerson and Johnson)	Completed in 2020
Phase 3a (Design) (John St & 14th Ave end Section (Re-Lining))	Completed in 2020
Phase 3a (Construction) (John St & 14th Ave end Section (Re-Lining))	Completed in 2021
Phase 3b (Construction) (West Thornhill Area - Phase 3B: Johnson St, Vanwood Rd, St. Andreas Crt, Ida St, Dove Ln, Wiarion Crt)	Completed in 2021
Phase 4a (Design) (Gladiator Rd / Bakerdale / Southdale / Bakerdale Area)	Completed in 2021
Phase 4a (Construction) (Gladiator Rd / Bakerdale / Southdale / Bakerdale Area)	2022
Phase 4b (Construction) (West Thornhill Area - Phase 3C (Glen Cameron Rd, Lilian Ave, Mira Road, Pheasant Valley Crt)	2022
Phase 5a - Design (Drakefield Rd/ Banfield Ave./ Princess St. / Dublin St. Area))	2022
Phase 5b - Construction (This Request) (Drakefield Rd. / Banfield Ave./ Princess St. / Dublin St. Area)	2023
Phase 6 a- Design (This Request) Part of Highway 7 including Christman Ct.	2024
Phase 7 a- Design (This Request) Part of Green Lane, Aileen Road, Guardsman & Harlech Crt Area	2024
Phases 6b and 7b Construction Phase 8 to Phase 15 (various streets)	2025 2025 - 2032



2024 PROJECT FUNDING REQUEST FORM

467

Number: 24263

Project Cost: \$477,500

Project Name: Curb Box Inspection and Replacement Program

Commission: Community Services

Department: ES - Waterworks

Project Mgr: Aaron Smith

Ward(s): CW ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 20 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐**DETAILED DESCRIPTION (SCOPE OF PROJECT):**

Program to conduct inspection of curb boxes and repair /replace defective curb boxes which are normally located at the property line. Curb box/ stop valve is the main control appurtenance for the City to turn on/off water supply to the private property. Over time, curb boxes/ stop valves deteriorate and become inoperable. Proactive inspection and repairs are required to ensure continuous water supply and reduce service interruptions.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	469,200	0	This is an annual program. Total inventory: 84,330. This request is to inspect approx. 2,300 curb boxes and replacement of approx. 25% of inspected curb boxes and damaged sidewalk bays as required (Refer to attached map). There is no substantial backlog and curb boxes are in a state of good repair. Unit cost is consistent with recent award plus inflation.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	469,200	0	
HST Impact:	8,258	0	
Total Project Cost:	477,500	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Phases
Waterworks	477,500	0	0	0	0	0	0
TOTAL FUNDING	477,500				0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 477,500
				Amount Incl HST 477,500
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Program Name: Curb Box Inspection and Replacement Program**Department: Environmental Services**

Year	Project #	Past	2024	Future	Total
2019	#19246	\$392,200			\$392,200
2020	#20259	\$614,100			\$614,100
2021	#21171	\$714,900			\$714,900
2022	#22205	\$639,700			\$639,700
2023	#23258	\$748,100			\$748,100
2024	#24263 (This Request)		\$477,500		\$477,500
2025 Onwards				varies	varies
Total		\$3,109,000	\$477,500		

Description of Program

Program to conduct inspection of curb boxes and repair /replace defective curb boxes which are normally located at the property line. This is an annual program.

What was completed in the past

See above table

Current ask

\$477,500

Future Phases

Varies

Related 2024 Project(s)

N/A

Map

N/A



2024 PROJECT FUNDING REQUEST FORM

469

Number: 24264

Project Cost: \$65,800

Project Name: District Metered Area (DMA) Equipment Replacement Class

Repair/Replace

Commission: Community Services

Useful Life: 20 Pre Approval: ☐

Department: ES - Waterworks

Category: Minor

Project Mgr: Edgar Tovilla

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Documentation of life cycle years

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of class 1 instrumentation equipments for distric metered area (DMA) 3&4.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	64,700	0	There are 2 flow monitoring locations in Area 3 and there are 3 flow monitoring locations in Area 4 (from a total of 9 District Metered Areas (DMA's)). Instrumentation components include Programmable Logic Controllers (PLC), Flow meter, Radio Antenna, Antenna Mast, Ethernet Radio, pressure sensor and temperature sensor etc.
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	64,700	0	
HST Impact:	1,139	0	
Total Project Cost:	65,800	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Waterworks	65,800	0	0	0	0	0	0
TOTAL FUNDING	65,800					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 65,800
				Amount Incl HST 65,800
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

470

Number: 24265

Project Cost: \$114,600

Project Name: Infrastructure Data Analyst - Full Time Staff

Studies/Pilot Programs

Commission: Community Services

Useful Life: 0 Pre Approval: ☐

Department: ES - Waterworks

Category: Annual

Project Mgr: Shipra Singh

Cost Validation: Other(specify in Notes)

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This funds one permanent full time staff position.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	This position will assist the IMS/ Capital Planning Manager to effectively manage all infrastructure data and capital planning for all ES assets with a value of \$7.8B (79% of City assets value) and enhance the service level.
Internal Charges:	114,600	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	114,600	0	
HST Impact:	0	0	
Total Project Cost:	114,600	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget					TOTAL	
Waterworks	114,600	0	0	0	0	0	0
TOTAL FUNDING	114,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 112,900
				Amount Incl HST 112,900
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

471

Number: 24266

Project Cost: \$924,200

Project Name: Sanitary Sewers - Rehabilitation

Commission: Community Services

Repair/Replace

Department: ES - Waterworks

Useful Life: 50

Pre Approval: ☐

Project Mgr: Philip Zhang

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4

Cost Validation: Recent awards

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program to rehabilitate the main sanitary sewer, service laterals using structural liner including repairs to manholes. This request also funds 50% of 1 existing full time staff position (Environmental Senior Engineer)

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	832,350	0	This is an annual program. Program is to rehabilitate the main sanitary sewer, service laterals using structural liner and repairs to manholes identified through CCTV inspection. Sanitary sewers are in a state of good repair. This request includes salary recovery for a 0.5 FTE (full time position).
Internal Charges:	77,200	0	
External Consulting:	0	0	
Contingency %: 0	0	0	
Sub Total:	909,550	0	
HST Impact:	14,649	0	
Total Project Cost:	924,200	0	

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	Rehabilitation	Internal Charges			TOTAL	
Waterworks	924,200	847,000	77,200	0	0	924,200	0
TOTAL FUNDING	924,200					924,200	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study	Life Cycle
				Amount in Study: 923,100
				Amount Incl HST 923,100
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Program Name: Sanitary Sewer Rehabilitation Program**Department: Environmental Services**

Year	Project #	Past	2024	Future	Total
2019	#19249	\$1,130,600			\$1,130,600
2020	#20261	\$910,600			\$910,600
2021	#21173	\$1,405,000			\$1,405,000
2022	#22210	\$981,900			\$981,900
2023	#23264	\$846,600			\$846,600
2024	#24266 (This Request)		\$924,200		\$923,100
2025 Onwards				varies	varies
Total		\$5,274,700	\$924,200		

Description of Program

Program to rehabilitate the main sewer, service laterals using structural liner including repairs to manholes identified through CCTV inspection

What was completed in the past

See above table

Current ask

\$924,200

Future Phases

Varies

Related 2024 Project(s)

N/A

Map

N/A



2024 PROJECT FUNDING REQUEST FORM

473

Number: 24267

Project Cost: \$114,200

Project Name: Sanitary System Assessment

Studies/Pilot Programs

Commission: Community Services

Useful Life: 0 Pre Approval: ☐

Department: ES - Waterworks

Category: Major

Project Mgr: Shumin Gao

Cost Validation: Internal peer review

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Due to intensification and potential Bill 23 impact, some areas of sanitary sewer may approach it's full capacity based on the current calibrated hydraulic model and current system assessment criteria. It is also a condition in the upcoming legislative requirement, Consolidated Linear Infrastructure-Environmental Compliance Approval (CLI-ECA), the City shall ensure any addition of new development does not exceed the system hydraulic capacity. It is intended to complete two sanitary sewer catchment area assessments in 2024.

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PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	112,200	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	112,200	0
HST Impact:	1,975	0
Total Project Cost:	114,200	0

NOTES

The current City wide hydraulic model was calibrated in 2014, we would like to update and re-fine the calibration the model in the selected area where there is urgent development pressure. Sanitary sewer capacity assessment will be done for 2 sanitary catchment areas.

SOURCE(S) OF FUNDING (\$)

<u>Funding Type</u>	<u>Budget</u>						<u>TOTAL</u>	<u>Future Phases</u>
Waterworks	114,200	0	0	0	0	0	0	
TOTAL FUNDING	<u>114,200</u>					<u>0</u>	<u>0</u>	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 114,200
				Amount Incl HST 114,200
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				



2024 PROJECT FUNDING REQUEST FORM

474

Number: 24268

Project Cost: \$593,700

Project Name: Water Sampling Stations Replacement Program

Commission: Community Services

Repair/Replace

Department: ES - Waterworks

Useful Life: 20 Pre Approval: ☐

Project Mgr: Edgar Tovilla

Category: Major

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Documentation of life cycle years

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of deteriorated sampling stations that have completed its life cycle.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases
Cost/Quote:	583,432	0
Internal Charges:	0	0
External Consulting:	0	0
Contingency %: 0	0	0
Sub Total:	583,432	0
HST Impact:	10,268	0
Total Project Cost:	593,700	0

NOTES

Sampling stations: 88 out of 107 (82%) scheduled. Cost is consistent with LC analysis. Maps as attached.

SOURCE(S) OF FUNDING (\$)		Components					Future Phases
Funding Type	Budget	TOTAL					Future Phases
Waterworks	593,700	0	0	0	0	0	0
TOTAL FUNDING	593,700	0					0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 593,700
				Amount Incl HST 593,700
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				



2024 PROJECT FUNDING REQUEST FORM

475

Number: 24269

Project Cost: \$35,600

Project Name: Watermain Leak Detection Program

Commission: Community Services

Department: ES - Waterworks

Project Mgr: Celia Fan

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐
5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

ITS Involved Project: Is ITS Consulted? ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This is an annual program. In 2023 we completed the leak survey on 50% of metallic watermain within the City. 2024 is to complete leak survey on the other 50% metallic watermain. The total inventory of metallic watermain is 280 km. In addition to the leak survey, leak correlation is to be completed to pin-point leaks on those potential leak locations identified from the previous year leak survey. The results of investigation from leak correlation will identify the confirmed leak location to be repaired.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	0	0	Amount requested is consistent with 2023 Waterworks Reserve Study Update.
Internal Charges:	0	0	
External Consulting:	35,000	0	
Contingency %: 0	0	0	
Sub Total:	35,000	0	
HST Impact:	616	0	
Total Project Cost:	35,600	0	

SOURCE(S) OF FUNDING (\$)	Components						Future Phases
Funding Type	Budget	TOTAL					Future Phases
Waterworks	35,600	0	0	0	0	0	0
TOTAL FUNDING	35,600					0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$0	\$0	\$0

DCA/LIFE CYCLE DETAILS

DCA	Year	Amount	Amount in Study	Life Cycle
Name				
				Amount in Study: 35,600
				Amount Incl HST 35,600
				Year in the study 2024
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:				
<div></div>				

Corporate Wide



2024 PROJECT FUNDING REQUEST FORM

Number: 24270

Project Name: ITS - Cyber Security

Project Cost: \$574,800

Commission: Corporate Services

New Asset/Expansion

Department: ITS

Useful Life: 5

Pre Approval: ☐

Project Mgr: Robert Cole

Category: Annual

Ward(s): CW ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐

Cost Validation: Third party estimate

5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

ITS Involved Project: Is ITS Consulted? ☒

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This funding is to request additional software for Cyber Security in the Markham Env.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS (\$)	2024	Future Phases	NOTES
Cost/Quote:	538,000	0	
Internal Charges:	0	0	
External Consulting:	0	0	
Contingency %: 5	26,900	0	
Sub Total:	564,900	0	
HST Impact:	9,942	0	
Total Project Cost:	574,800	0	

SOURCE(S) OF FUNDING (\$)		Components						Future Phases
Funding Type	Budget	TOTAL						Future Phases
Building Fees	27,100	0	0	0	0	0	0	0
Development Fees	36,200	0	0	0	0	0	0	0
Operating Funded Life Cycle	122,800	0	0	0	0	0	0	0
Ramp Up	361,600	0	0	0	0	0	0	0
Waterworks	27,100	0	0	0	0	0	0	0
TOTAL FUNDING	574,800					0	0	0

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	\$0	\$560,000	\$0	\$560,000

DCA/LIFE CYCLE DETAILS

DCA

Name

Year

Amount

**Amount in
Study**

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost: