



# **2021 CAPITAL BUDGET, 2022-2025 FORECAST and Asset Management Status Update**

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The City of St. Catharines



# 2021 Capital Budget and 2022-2025 Forecast

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## Asset Management Status Update

### Background

The City's Asset Management Plan (AMP) was presented to Council in 2013. The AMP included the major asset categories of roads, bridges & major culverts, water mains, sanitary sewers and facilities. Subsequently, staff have, with limited resourcing, continued to refine the City's asset management planning, so that this report also includes information on sidewalks, playgrounds/courts and the storm sewer collection system.

In response to the new legislation from the Province related to Asset Management (O. Reg.588/17), the Asset Management Working Group (AMWG) comprising of EFES, Municipal Works, FMS and other senior staff has been working together since 2018. In June 2019, AMWG brought forward the Strategic Asset Management Policy for Council's approval. Staff will continue to work together onward to ensure that the City of St. Catharines meets all of the various milestones required by O. Reg. 588/17.

In Q1 2020 a consultant was engaged to assist in updating the AMP to meet the requirements of O. Reg. 588/17

### Infrastructure Deficit

A 2016 Federation of Canadian Municipalities report on the state of Canadian Infrastructure in Canada <sup>(1)</sup> identified that the replacement value of assets rated as poor to very poor across the entire country

was estimated to be approximately \$141 billion or 12% of the total replacement value of those assets. The City of St. Catharines was one of a total of 120 survey respondents from municipalities across Canada that helped to inform the report.

The City's current infrastructure deficit of approximately \$453 million represents approximately 9.2% of the replacement value of those asset categories as shown in Table 1. The City's infrastructure deficit for a particular asset is being defined as the replacement value of known deficiencies and includes assets rated as poor or very poor or as a high priority building deficiency identified through condition assessments.

With the City's infrastructure deficit currently below the national average, the infrastructure deficit needs to be considered in relation to sustainable funding and annual reinvestment targets for the City's assets, as the City's current contributions are below the recommended reinvestment targets.

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### Notes

- (1) Federation of Canadian Municipalities (FCM), in cooperation with the Canadian Construction Association (CCA), the Canadian Public Works Association (CPWA) and the Canadian Society for Civil Engineering (CSCE) published the *Canadian Infrastructure Report Card – 2016 (CIRC – 2016)*.

**Table 1**

Asset Category			Asset Replace-ment	Infra-structure Deficit	Target Reinvestment Rate (1)				Total Renewal Cap, OP, W/WW Budgets (\$M) (2)	
			Value (\$M)	Value (\$M)	Lower %	Upper %	Lower \$M	Upper \$M		
Roads	571 km	B	977.0	73.0	2.0%	3.0%	19.5	29.3	7.7	
Bridges and Major Culverts (3)	71	H	51.0	9.2	1.0%	2.0%	0.5	1.0	1.4	
Water Distribution System (4)	604 km	G,K	1,363.0	56.0	1.0%	2.0%	13.6	27.3	8.1	
Sanitary Sewer Collection System	571 km	E,K	1,037.0	171.0	1.0%	1.3%	10.4	13.5	4.7	
Storm Sewer Collection System	408 km	D,K	760.0	72.2	1.0%	1.3%	7.6	9.9	1.6	
Sidewalks (5)	586 km	C,K	144.7	7.2	2.0%	3.3%	2.9	4.8	0.6	
Facilities & Improved Lands (6)	128 sites	M,N,O	587.0	55.5	1.7%	2.5%	10.0	14.7	4.1	
Playgrounds/Courts (7)	108	L	18.5	8.8	1.7%	5.0%	0.3	0.9	0.9	
<b>Total</b>			<b>4,938.2</b>	<b>452.9</b>			<b>64.8</b>	<b>101.4</b>	<b>29.1</b>	<b>45% of lower limit</b>

**Notes:**

(1) - Source: Canadian Infrastructure Report Card 2016 except as modified; (2) - Does not include 2021 funding for new infrastructure (ie new storm sewers, new sidewalks) or ICIP COVID19 Project ; (3) - City's estimated target reinvestment rate is higher than 1%-1.5% prescribed because City has a lower estimated life expectancy; (4) - City's estimated target reinvestment rate is higher than 1%-1.5% prescribed because City has a lower estimated life expectancy; (5) - City's estimated target reinvestment rate is higher than 2%-3% prescribed because City has a lower estimated life expectancy; (6) Includes parking garages and paid parking lots.(7) - City's estimated target reinvestment rate is higher than 1.7%-2.5% prescribed because City has a lower estimated life expectancy.

**Sustainable Funding**

Each asset category has a life expectancy, and so there is a need to renew these assets on a regular basis. Generally speaking, the replacement value divided by the expected life provides an approximation of the anticipated level of annual sustainable funding. The CIRC – 2016 report provides a lower and upper range of suggested annual reinvestment rates (based as a percentage of replacement value) for various asset classes. A summary of the target reinvestment rates required to support sustainability for the City’s assets are presented in Table 1 above.

As highlighted above and discussed further in the 2021 Capital Budget and Program Report, funding levels still fall well short of the sustainable levels of funding required. The 2021 funding for capital from all budgets represents 45% of the estimated lower funding target. These annual shortfalls impact the City’s ability to sustain its current levels of service and increase risk of asset failure and contribute to the City’s growing infrastructure deficit.

In 2019 Council approved the 10-year Financial Plan for Water and Wastewater, which included significant increases in the investment in related infrastructure over the next ten years to assist in closing the funding gap for the Water/Wastewater assets.

As a result of the financial and operational challenges facing the City caused by COVID19, the 2021 budget and 2022-2025 forecast reflects a reallocation of the investment in Water and Wastewater. Decreased spending in years 2021-2023 is offset by increases in spending in years 2024 - 2026, resulting in the same net investment in infrastructure over the next 6 years. However, in the short term the spending deferrals will continue to contribute to the widening infrastructure gap.

The asset replacement costs, infrastructure deficit, sustainable funding and the 2021 budget allocations are shown graphically below.

Figure 1

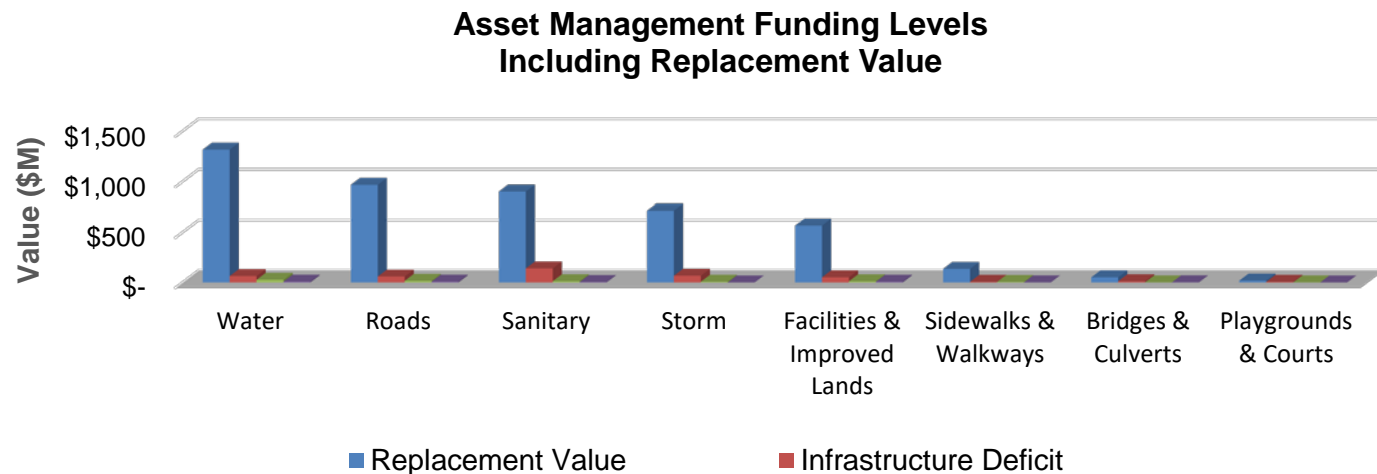


Figure 2.

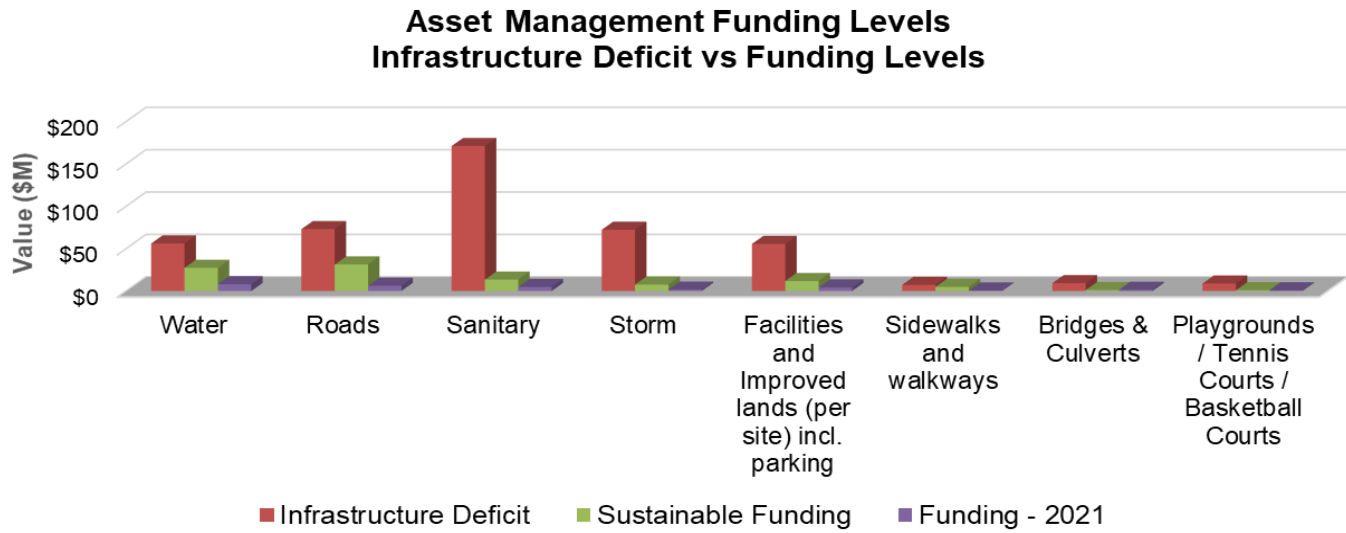
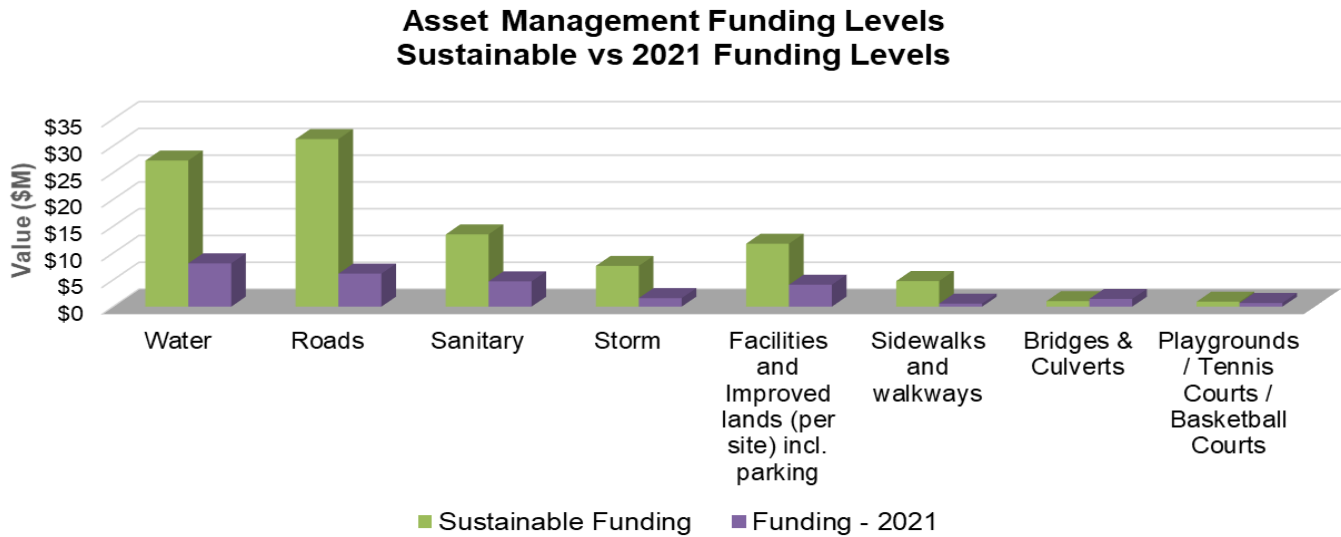


Figure 3.





### **Prioritization of Capital Projects**

Recognizing that the City must prioritize its projects so as to reduce corporate risk, the general priority criteria are similar; namely that the highest priorities are given to:

- Regulatory requirements
- Health and safety concerns
- Maintenance of the basic asset / preventative maintenance
- Service level requirements or system reliability
- Programming quality of the asset

The introductory paragraphs of each capital budget section provide additional details of how these general priority criteria are applied to each asset class.

Prioritization of projects within each asset class are based on a series of criteria specific to the asset class. As an example, the pavement management system that provides suggested roads to be rehabilitated utilizes pavement condition ratings; water main break rates prioritize the replacement of water mains, etc.

### **Prioritization of Construction Programs**

For asset categories within the road allowance (roads, sidewalks, sewers, water mains), coordination with other construction activities is also always taken into consideration to take advantage of economies of scale and reduce the impact of construction on abutting property owners and the travelling public. This coordination may impact the timing of asset renewal for some asset categories. As an example, the need to rehabilitate a certain section of roadway may accelerate the timing of sewer or water main replacement under that section of roadway. Determination of the

final construction program for all of the assets for a particular year is the result of an iterative effort by staff in reviewing all of the asset categories.

Schedule S within the 2021 Capital Budget and Four Year Forecast, provides a list of the 2021 coordinated projects, showing the budget for each asset class within the project.

### **Assets not within the AMP**

As the City strengthens its Corporate Asset Management and continues to comply with O. Reg. 588/17, asset classes listed below that are currently not represented in the AMP will be addressed as required.

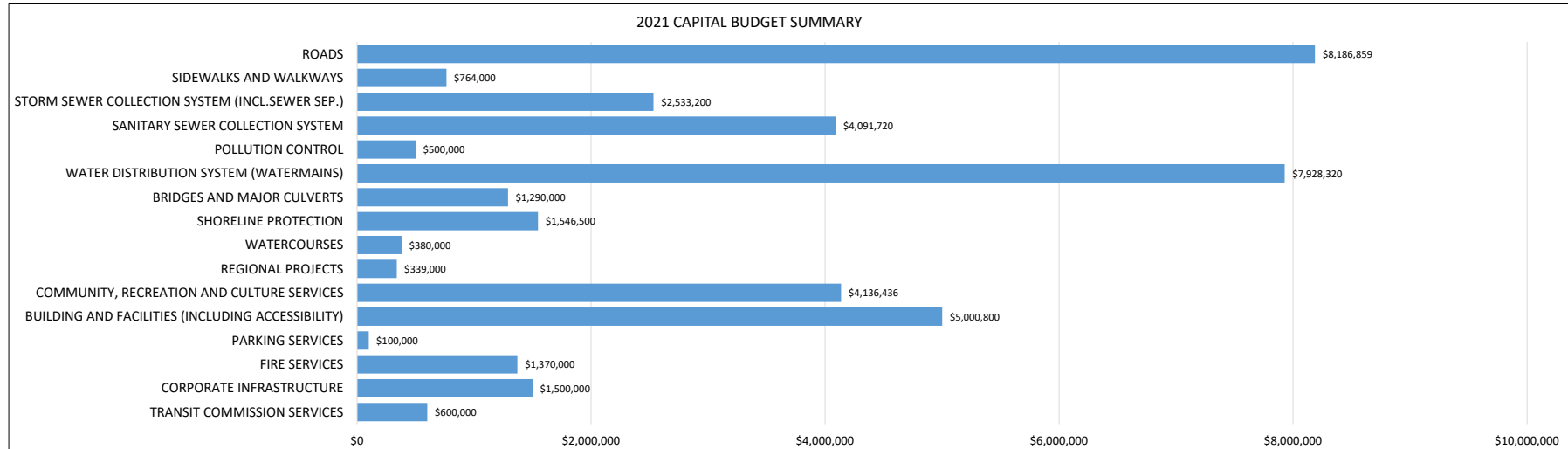
- |                           |                                   |
|---------------------------|-----------------------------------|
| - Fleet                   | - Watercourse improvements        |
| - Trees (Street and Park) | - Niagara District Airport assets |
| - Street lights           | - Traffic lights & signage        |
| - Shoreline protection    | - Recreational trails             |
| - Other Corporate Assets  | - Street and Park Furniture       |
- (Furniture, IT equipment, etc.)

While not incorporated into the AMP, information regarding these assets is maintained to varying degrees by staff to inform decisions regarding the rehabilitation or replacement of those assets. For example, information is maintained regarding the operational and replacement costs and ultimate replacement timing for our various fleet equipment. Funding for fleet replacement is incorporated as part of various equipment reserves in the Operating Budget.



CITY OF ST. CATHARINES  
2021 CAPITAL BUDGET SUMMARY (SCHEDULE A)

DESCRIPTION	SCHEDULE	GROSS COST	GAS TAX	OTHER EXTERNAL/ RESERVES	TAX/RATE PAYER	DEBT
ROADS	SCHEDULE B	8,186,859	2,119,699	125,000	1,224,300	4,717,860
SIDEWALKS AND WALKWAYS	SCHEDULE C	764,000	-	-	421,900	342,100
STORM SEWER COLLECTION SYSTEM (INCL. SEWER SEP.)	SCHEDULE D	2,533,200	250,000	267,000	121,300	1,894,900
SANITARY SEWER COLLECTION SYSTEM	SCHEDULE E	4,091,720	1,250,000	-	2,115,300	726,420
POLLUTION CONTROL	SCHEDULE F	500,000	-	-	132,700	367,300
WATER DISTRIBUTION SYSTEM (WATERMAINS)	SCHEDULE G	7,928,320	1,352,000	-	4,323,250	2,253,070
BRIDGES AND MAJOR CULVERTS	SCHEDULE H	1,290,000	-	412,500	52,700	824,800
SHORELINE PROTECTION	SCHEDULE I	1,546,500	-	-	93,200	1,453,300
WATERCOURSES	SCHEDULE J	380,000	-	-	22,800	357,200
REGIONAL PROJECTS	SCHEDULE K	339,000	-	-	87,100	251,900
COMMUNITY, RECREATION AND CULTURE SERVICES	SCHEDULE L	4,136,436	-	1,408,936	1,113,400	1,614,100
BUILDING AND FACILITIES (INCLUDING ACCESSIBILITY)	SCHEDULE M	5,000,800	-	755,000	554,300	3,691,500
PARKING SERVICES	SCHEDULE N	100,000	-	100,000	-	-
FIRE SERVICES	SCHEDULE O	1,370,000	-	870,000	-	500,000
CORPORATE INFRASTRUCTURE	SCHEDULE P	1,500,000	-	-	560,000	940,000
TRANSIT COMMISSION SERVICES	SCHEDULE Q	600,000	-	-	60,000	540,000
		<b>\$ 40,266,835</b>	<b>\$ 4,971,699</b>	<b>\$ 3,938,436</b>	<b>\$ 10,882,250</b>	<b>\$ 20,474,450</b>
LESS: CAPITAL BUDGETS COUNCIL PREAPPROVED IN 2020 OR PRIOR YRS		499,000	-	84,000	114,200	300,800
CAPITAL BUDGET REQUIRING COUNCIL APPROVAL		<b>\$ 39,767,835</b>	<b>\$ 4,971,699</b>	<b>\$ 3,854,436</b>	<b>\$ 10,768,050</b>	<b>\$ 20,173,650</b>





## Road Construction and Improvement Program Schedule B

The City owns and maintains 571 km of roadway or 1,150 km of traffic lanes. The current replacement cost is estimated at \$977 million, in 2020 dollars. The current roadway infrastructure deficit is estimated at \$73 million. This estimate will be updated in the Corporate Asset Management Plan for Core assets which will be delivered prior to July 1, 2021 in compliance with Provincial legislation (O.Reg. 588/17).

The City has utilized a pavement management system to guide the road improvement program since 1989. The City has recently transitioned from one software system to another. Both pavement management systems identify the highest priorities for road renewal based on a predicted future road condition using historical experience and the risks of delaying treatments. Generally, this means priority is given to roads with higher traffic volumes. Both software will generally recommend resurfacing rather than reconstruction which is costlier.

The Road Construction and Improvement Capital Program (Schedule B) includes \$8.187M of which \$1.736M is for road resurfacing. In addition to these amounts in the Capital Budget, the annual Operating Budget includes amounts to support guiderail improvements, studies and preventative maintenance such as spot road repairs and crack sealing (2021-\$470,000).

Many of the projects within the Road Construction and Improvements Capital program (Schedule B) are coordinated with other major asset improvement projects occurring at the same time on the same street.

Given the identified road deficiencies and the current level of funding, further declines in the overall condition of the road network is expected within 10 years if funding remains at 2021 levels.

To update the City's asset management plans for the road network and comply with O. Reg. 588/17, levels of service considering cost of service and risk will need to be revisited.

A Pavement Quality Index (PQI) is a measurement of physical cracking, deformations and surface defects collectively referred to as distresses. In 2018, 549km of the City's Roads were surveyed and given two performance indicators: Ride Condition Index (RCI) and Pavement Condition Index (PCI) ranging from zero to 100 based on industry standards and the ASTM Pavement Condition Index rating system. A PCI index of 100 indicates a perfect road (no distress) surface and an index of zero indicates a surface that has completely deteriorated. Similarly, an RCI of 100 would indicate a very smooth ride. The Pavement Quality index combines ride and condition to give an overall rating in the PQI index. The average PQI of City's road network is 55.9.

2021 CAPITAL BUDGET  
ROADS ( SCHEDULE B)

Project No.	Project Type	Project Name/ Location	From	To	Gross Cost	Details	Notes
<b>Previously Budgeted Projects- Additional Budget Requirements</b>							
P17-067	R	St. David's Rd./Townline Reconstruction	Burleigh Hill Dr.	Leeson St.	\$ 1,807,500	Road reconstruction in conjunction with underground improvements	CP
P18-061	R	Gale Cres. Road and Underground Improvements	Geneva St.	Oakdale Ave.	252,000	Engineering services for detailed design for future road reconstruction	CP
P18-062	R	Lake St. Road and Underground Improvements	Ontario St.	Welland Ave.	180,000	Engineering services for detailed design for future road reconstruction	CP
P18-063	SI	Chestnut/Merritt St. Road and Underground Improvements	Hastings St.	Brookdale Ave.	150,000	Environmental Assessment (EA) for the Chestnut Street Extension, aligned with the Draft Transportation Master Plan recommendations (CAO-181-2020)	CP
P18-063	R	Chestnut/Merritt St. Road and Underground Improvements	Almond Lane	Walnut St.	228,000	Engineering services for detailed design for future road reconstruction	CP
P20-062	R	Scarth Rd. Reconstruction	South Drive	Highland Ave.	100,000	Road reconstruction	CP
P20-068	SI	Grantham Rail Trail			340,000	Additional funding for the creation and improvement of the Grantham Rail Trail, to respond to unexpected site conditions (CAO-181-2020)	
<b>Subtotal</b>					<b>\$ 3,057,500</b>		

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
ROADS ( SCHEDULE B)

Project No.	Project Type	Project Name/ Location	From	To	Gross Cost	Details	Notes
<b>New Projects</b>							
P21-061	R	Pelham Rd. (bike lanes)	Hamilton St.	Rykert St.	\$ 469,000	Road improvements to accommodate bike lanes	CP
P21-062	R	Eleanordale / Helm / Rochelle / Tavistock / Viking Road and Underground Improvements			516,359		CP
		Eleanordale Circle	Tavistock Rd.	End		Milling, spot curb repairs and asphalt overlay in conjunction with underground service improvements	
		Helm St.	Bunting Rd.	Viking Rd.			
		Viking Rd.	St. Lawrence Dr.	End			
		Rochelle Drive	Goldsmith Rd.	Bunting Rd.		Curb repairs to improve drainage in conjunction with watermain replacement	
		Tavistock Rd.	Scott St.	Eleanordale Circle			
P21-063	R	Tremont Drive Retaining Wall Rehabilitation	Allandale Drive	Approx. 90m west of Allandale Dr.	125,000	Address identified deficiencies in steel bin retaining wall nearing life expectancy	
P21-064	R	Hasting St.			1,303,000	City share of development agreement	CP
			Almond St.	Wedsworth St.		Relocation of lighting and poles in conjunction with road reconstruction	
			Almond St.	Wedsworth St.		Road reconstruction to urban cross section	
P21-068	SI	Bike Lane Bollards			36,000	Pilot project to add bollards to separate bike lanes from the general traffic lane and improve safety for cyclists (CAO-181-2020)	
P21-069	SI	Active Transportation			250,000	Annual - priority location(s) to be determined	

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
ROADS ( SCHEDULE B)

Project No.	Project Type	Project Name/ Location	From	To	Gross Cost	Details	Notes
P21-080	R	2021 Road Resurfacing Program			1,736,000		
		Dunkirk Rd.	Wright St.	Bunting Rd.		Mill full depth road repairs and asphalt overlay	
		Admiral Rd.	Hartzel Rd.	Park Ave.		Semi urban road resurfacing	
		Park Ave.	Rockwood Ave.	Admiral Rd.			
		Catharine St.	Maple St.	Russell Ave.		Full width mill, curb and base repairs, and 50mm asphalt overlay	
		Page St.	Queenston St.	Welland Ave.			
		Lake St.	Prince Edward Dr.	Lakeshore Rd.			
		Lake St.	Lakeport Rd.	Prince Edward Dr.			
P21-097	R	Traffic Signals (including pedestrian crossings)			\$ 300,000	Annual - priority location(s) to be determined	
P21-101	R	Greenmeadow / Wood Underground Improvements			394,000	Road repairs in conjunction with underground service improvements	CP
		Greenmeadow Cres.	Wood St.	Dixie Rd.			
		Wood St.	Geneva St.	Carlton St.			
				<b>Subtotal</b>	<b>\$ 5,129,359</b>		
					<b>\$ 8,186,859</b>		

NOTES:

CP- Co-ordinated project involving more than one asset group (See Schedule S)

Project Type:

R=Renewal, SI=Service Improvement, G=Growth



## Sidewalks and Walkways Schedule C

The City’s sidewalks are those which are located within road allowances. Walkways and emergency accesses are located on City owned lands. Walkways include those sidewalks which run mid- block between two streets or are located between houses to connect a park or school to an adjacent street. An emergency access is like a walkway but is wide enough to allow vehicles to drive along it. The sidewalk construction program excludes recreational trails or sidewalks within a City facility’s site such as within a park, arena or parking lot.

**Table 1 – City of St Catharines – Rehabilitation Programs – City Sidewalks & City Walkways**

Category	Total length	Estimated replacement value
City Sidewalks	560 km	\$138.4M
City Walkways & Emergency Accesses	26.2 km	\$6.3M
Total	586.2 km	\$144.7M

Based on an estimated life cycle of 30 years, the annual sustainable reinvestment rate of the sidewalks, walkways and emergency accesses is more than \$4.8 million which is substantially higher than the 2021 \$552,000 budget for the renewal component of this program. The City is supporting approximately 20% of the recommended minimum reinvestment level.

Existing sidewalks are replaced to maintain safe walking routes for pedestrians. To mitigate risk of user injury, locations for sidewalk replacements are determined from a list of sidewalk deficiencies compiled by Operations staff based on annual field observations and resident complaints. The lists are then analyzed and in cases where more than 40% of the existing sidewalks are deficient, the entire block is recommended for replacement. Locations not meeting the 40% threshold are repaired as “spot” repairs. Spot repairs are carried out by both City crews and contractors. The spot repairs are included in the operating budget (and not in the amounts above).

The construction of new sidewalks is based on requests from residents and businesses, and to complete the gaps in the sidewalk network. Priorities for new sidewalks are based on safety considerations (traffic volume, traffic speed), pedestrian demand (bus routes, generators, destinations), and coordination with other City works. In 2021, 83% of the sidewalk replacements will be done in conjunction with other municipal works.

2021 CAPITAL BUDGET  
SIDEWALKS AND WALKWAYS ( SCHEDULE C)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
<b>Previously Budgeted Projects- Additional Budget Requirements</b>							
P17-067	R	St. David's/Townline Reconstruction			\$ 356,000	New north side sidewalk in conjunction with Thorold Rd. reconstruction, additional scope identified in Environmental Assessment	CP
	SI	Townline Rd. West	Keating St.	Merritt St.			
	R	St. David's Rd.	Burleigh Hill Dr.	Leeson St.		Upgrade existing sidewalks	
P18-061	R	Gale Cres. Road and Underground Improvements	Geneva St.	Oakdale Ave.	19,000	Engineering services for detailed design or sidewalk replacements in conjunction with road reconstruction	CP
P20-062	R	Scarth Rd. Reconstruction	South Dr.	Highland Ave.	23,000	Replace existing sidewalks in conjunction with road reconstruction	CP
<b>Subtotal</b>					<b>\$ 398,000</b>		

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
SIDEWALKS AND WALKWAYS ( SCHEDULE C)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
<b>New Projects</b>							
P21-040	R	2021 Walkway and Sidewalk Improvements			\$ 50,000	Annual walkway repair program - locations to be determined	
P21-042	SI	2021 New Sidewalks			86,000	Annual - priority location(s) to be determined	
P21-061	R	Pelham Rd. (bike lanes)	Hamilton St.	Rykert St.	104,000	Sidewalk improvements to accommodate bike lanes	CP
P21-064	G	Hasting St.			126,000	New Sidewalks in conjunction with road development to west	CP
	G	Hasting St.	Almond St.	Wedsworth St.			
	R	Hasting St.	Almond St.	Wedsworth St.		Replace existing sidewalks in conjunction with road reconstruction and development	
<b>Subtotal</b>					<b>\$ 366,000</b>		
					<b>\$ 764,000</b>		
Additional budget for sidewalk construction with Regional projects (Schedule K)					<b>\$ 18,000</b>		

NOTES:

CP- Co-ordinated project involving more than one asset group (See Schedule S)

Project Type:

R=Renewal, SI=Service Improvement, G=Growth



## **Storm Sewer Collection System (Including Sewer Separation) Schedule D**

The total length of storm sewers in the City is approximately 408 km with an estimated replacement value of \$760 million, in 2021 dollars.

As previously reported to Council, storm sewer separation forms a significant component of a multifaceted approach to alleviate basement flooding problems. Removal of storm water from combined sanitary sewers creates additional capacity in the sanitary sewer system reducing the chances of basement flooding and incidents of combined sewer overflows to the environment. New storm sewers are also proposed in areas with surface flooding when open channel solutions cannot be effective.

The new storm sewers will reduce the amount of surface water entering the sanitary or combined sewer system thereby providing relief to the immediately adjacent areas as well as the properties upstream and downstream of the new sewers.

Unlike sanitary and combined sewers, storm sewers have not been historically inspected and as a result, it is more difficult to assess their condition. The proposed 2021 storm sewer budget includes \$100,000 for CCTV (closed circuit TV) inspection of storm sewers.

A zoom camera inspection program that began in August 2017 is currently nearing completion to prioritize further investigations, maintenance and replacements of sewers. Complete results for the inspections are expected in the third quarter of 2020. Preliminary data for the inspected storm sewers indicates that approximately 9.5% and 1% of the existing storm sewer system is in a poor

condition, or in a critical condition, respectively, resulting in an infrastructure deficit of approximately \$72.2 million or \$7.6 million in 2021 dollars.

Based on an estimated life cycle of a hundred years, the annual sustainable reinvestment rate for the storm sewer system should be at least \$7.6 million. Approximately \$1,595,000 of the \$2.78 million proposed 2021 budget is for the rehabilitation and repair of existing storm sewers. Therefore, the actual reinvestment rate in the existing storm sewer system is extremely low as compared to the required sustainable reinvestment rate. The Asset Management Plans legislated for completion by July 1, 2021 will include the storm sewer system.

2021 CAPITAL BUDGET  
STORM SEWER COLLECTION SYSTEM - INCLUDING SEWER SEPARATION (SCHEDULE D)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Note
<b>Previously Budgeted Projects- Additional Budget Requirements</b>							
P17-067	R	St. David's/Townline Reconstruction			\$ 250,000	City share of storm sewer construction in conjunction with Thorold Rd. reconstruction	CP
		Townline Rd. West	Leeson St.	Bradley St.			
		St Davids Rd.	Burleigh Hill	Leeson St.			
P18-061	R	Gale Cres. Road and Underground Improvements	Geneva St.	Oakdale Ave.	159,150	Engineering services for detailed design for storm sewer installation in conjunction with road reconstruction	CP
P18-062	R	Lake St. Road and Underground Improvements	Ontario St.	Welland Ave.	29,850	Engineering services for detailed design for installation and rehabilitation of storm sewers in conjunction with road reconstruction	CP
P20-062	R	Scarth Rd. Reconstruction	South Drive	Highland Ave.	59,000	Funds for installation of catch basins and catch basin leads to improve drainage in conjunction with road reconstruction	CP
<b>Subtotal</b>					<b>\$ 498,000</b>		

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
STORM SEWER COLLECTION SYSTEM - INCLUDING SEWER SEPARATION (SCHEDULE D)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Note
<b>New Projects</b>							
P21-001	SI	Princess / Westchester Underground Improvements			\$ 250,000	Installation of new storm sewer in conjunction with watermain replacement	CP
		Princess St.	Westchester Cres	Melbourne Ave.			
P21-004	SI	Forest Hill / Hillcrest / Rockcliffe Underground Improvements			118,200	Engineering services for new storm sewer sections in conjunction with sanitary sewer and road works	CP
	SI	Forest Hill Rd.	South Dr.	Hillcrest Ave.			
	SI	Hillcrest Ave.	Rockcliffe Ave.	South End			
P21-006	R	Catch Basins and Storm Service Installations			100,000	Installation of catch basins, catch basin leads and storm laterals to alleviate isolated surface flooding	
P21-007	R	Glendale/Merritt/Northwood/Wiley			92,000	Replacement of a collapsed storm sewer section across Glendale Ave.	CP
		Glendale Ave.	Downstream off	Across Glendale			
			Craiglee Terrace	Ave.			
P21-014	R	Storm CCTV Sewer Inspections			100,000	CCTV inspections of existing sewers to identify condition and future works	
P21-015	R	Design for Possible Future Storm Sewer Projects			50,000	Engineering services for possible future projects	
P21-016	R	Storm Sewer Spot Repairs			250,000	Storm sewer spot repairs in conjunction with other projects or as needed	
P21-064	G	Hasting St.	Almond St.	Wedsworth St.	286,000	City share of storm sewer works in conjunction of new development	CP
P21-101	SI	Greenmeadow / Wood Underground Improvements			284,000	Installation of new storm sewer sections in conjunction with watermain and road resurfacing	CP
		Wood St.	Geneva St.	Carlton St.			

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
STORM SEWER COLLECTION SYSTEM - INCLUDING SEWER SEPARATION (SCHEDULE D)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Note
ST21-12	R	Storm System Master Servicing Study			\$ 300,000	Storm sewer master servicing study	
ST21-13	R	Carlton St. Storm Sewer Study	Ontario St.	Rodman St.	75,000	Study to determine storm sewer separation possibilities for a larger area that drains towards Carlton Street sewers	
ST21-14	R	Ontario St. CSO Reduction Study	Scott. St.		30,000	Study to review existing sewer systems and identify options to reduce instances of combined sewer overflows	
ST21-15	R	Port Dalhousie Area Storm Servicing Study			100,000	Study to review drainage options for the Port Dalhousie Area to reduce instances of flooding	
Subtotal					<u>\$ 2,035,200</u>		
					<u>\$ 2,533,200</u>		

Additional budget for Storm Sewers within Regional projects (Schedule K) \$ 250,000

NOTES:

CP- Co-ordinated project involving more than one asset group (See Schedule S)

Project Type:

R=Renewal, SI=Service Improvement, G=Growth



## Sanitary Sewer Collection System Schedule E

The total length of combined and sanitary sewers in the City is approximately 571 km, with an estimated replacement value of \$1.037 billion, in 2021 dollars.

In 2019, Council approved a 10- Year Financial Plan for Water and Wastewater (The Water/Wastewater Plan). The Plan includes year over year increases for investment in capital infrastructure, which will reduce the funding gap for this asset class. As a result of the financial and operational challenges facing the City caused by COVID19, the 2021 budget and 2022-2025 forecast reflects a reallocation of the investment in Sanitary Sewer Collection Systems and Pollution Control, as shown in the table below. Increases in spending in the years of 2024 through 2026 result in the same net investment in infrastructure, over the next 6 years. However, in the short term the spending deferrals will continue to contribute to the widening infrastructure gap.

Year	Plan (\$000)	Proposed (\$000)	(Decrease)/ Increase (\$000)
2021	\$ 5,362	\$ 4,762	\$ (600)
2022	5,959	5,359	(600)
2023	6,562	6,262	(300)
2024	7,173	7,473	300
2025	7,797	8,397	600
2026	8,433	9,033	600
Total	\$ 41,286	\$ 41,286	\$ -

To mitigate the risk of asset failure, sewers for replacement and rehabilitation are selected on a priority basis. The priorities are set principally from the results of CCTV inspection reports and an

almost completed city-wide sewer zoom camera inspection project. Information from operations field personnel is also solicited when developing the program. Also when possible, sewer repair, replacement and rehabilitation works are carried out in conjunction with other works, such as road repairs and watermain replacements.

Deficiencies in the sewer system include blockages from collapsed pipe sections, grease and severe root infiltration, which restricts capacity and may lead to backup during periods of high flow. Rehabilitation of these sewers is intended to ensure an adequate level of service and reduce the likelihood of basement flooding in adjacent and upstream areas of the sewer system.

A City-wide Zoom camera inspection of the sewer systems started in August 2017. Complete results for the inspections are expected in the third quarter of 2020. Preliminary data indicates that approximately 16.5% and 2% of the sanitary sewer system is in poor condition or critical condition, respectively. This results in an infrastructure deficit of approximately \$171 million for the sewers in a poor condition and approximately \$21 million for the sewers in a critical condition in 2021 dollars.

As shown on Schedule E, F, and P the 2021 renewal budget is \$4.742 million, which is 46% of the recommended reinvestment minimum, ranging from \$10.4 million to \$13.5 million. (Assuming an average service life between 75 and 100 years for sanitary sewer lines). Therefore, the actual reinvestment rate in the wastewater system is low as compared to the required sustainable reinvestment rate. The Asset Management Plans legislated for completion by July 1, 2021 will address this issue.

2021 CAPITAL BUDGET  
SANITARY SEWER COLLECTION SYSTEM (SCHEDULE E)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
<b>Previously Budgeted Projects- Additional Budget Requirements</b>							
P17-067	R	St. David's/Townline Reconstruction	Burleigh Hill Dr.	Leeson St.	\$ 695,000	Rebudgeted and additional funds for replacement of existing sanitary sewers in conjunction with Thorold Rd. reconstruction project	CP
P18-061	R	Gale Cres. Road and Underground Improvements	Geneva St.	Oakdale Ave.	113,000	Engineering services for detailed design for replacement of sanitary sewer sections in conjunction with road reconstruction	CP
P18-062	R	Lake St. Road and Underground Improvements	Ontario St.	Welland Ave.	502,720	Engineering services and partial construction funding for replacement of sanitary sewer sections in conjunction with road reconstruction	CP
P19-065	R	Ridley Rd. Re-Alignment and Improvement	Louth St.	Henrietta St.	350,000	Additional funds for the replacement of sanitary sewer sections in conjunction with storm sewer, watermain and road works	CP
<b>Subtotal</b>					<b>\$ 1,660,720</b>		

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
SANITARY SEWER COLLECTION SYSTEM (SCHEDULE E)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
<b>New Projects</b>							
P21-001	R	Princess / Westchester Underground Improvements			\$ 848,000	Replacement of existing sanitary sewers in conjunction with watermain replacement	CP
		Westchester Cres.	Argyle Cres.	Collier St.			
P21-004	R	Forest Hill / Hillcrest / Rockcliffe Underground Improvements			159,000	Design for sanitary sewer sections replacement in conjunction with storm sewer and road works	CP
		Forest Hill Rd.	Hillcrest Ave.	South Dr.			
		Hillcrest Ave.	120m North of Rockcliffe Rd.	South End			
		Rockcliffe Rd.	Hillcrest Ave.	South Dr.			
P21-007	R	Glendale/Merritt/Northwood/Wiley			460,000	Replacement of a deteriorated sanitary sewer sections	CP
		Merritt St.	70m North of Seymour Ave.	160m North of Seymour Ave.			
		Northwood Drive	North Leg	South Leg			
		Wiley St.	Russell Ave.	Ottawa St.			
P21-010	R	2021 Extraneous Flow Elimination			50,000	Study to determine sources of inflow and infiltration into sanitary sewer system	
P21-011	R	Sanitary Sewer Spot Repairs			500,000	Sanitary sewer spot repairs in conjunction with other projects or on an as needed basis	
P21-012	R	Sanitary Sewer Flushing & Reaming			25,000	Sewer flushing and reaming for physical cleaning of selected sewer sections with operational issues	

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
SANITARY SEWER COLLECTION SYSTEM (SCHEDULE E)

Project No.	Project Type	Project Name/Location	From	To	Gross Cost	Details	Notes
P21-014	R	Sanitary CCTV Sewer Inspections			\$ 300,000	CCTV inspections of existing sewers to identify condition and future works	
P21-015	R	Design for Future Sanitary Sewer Projects			50,000	Engineering services for possible 2022 projects	
P21-019	R	Sewershed Analysis			10,000	Engineering services required for analysis of sewer capacities as needed	
P21-064	G	Hasting St.	Almond St.	Wedsworth St.	29,000	City share of costs for sanitary works in conjunction with development servicing agreement	CP
<b>Subtotal</b>					<b>\$ 2,431,000</b>		
					<b>\$ 4,091,720</b>		
Additional budget for Sanitary Sewers within Regional projects (Schedule K)					<b>\$ 20,000</b>		

NOTES:

CP- Co-ordinated project involving more than one asset group (See Schedule S)

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

## **Pollution Control Plan Schedule F**

Projects identified by the City's Pollution Control Plan (PCP) are the City's effort to meet or exceed the requirements of the Ministry of the Environment and Climate Change's Procedure F-5-5, Determination of Treatment Requirements for Municipal and Private Combined and Partially Separated Sewer Systems. The PCP identified a number of initiatives to upgrade the existing sewage infrastructure to address combined sewer overflow discharges to

the natural environment. The investments in Pollution Control are also included in the Council approved 10 - Year Financial Plan for Water and Wastewater (The Water/Wastewater Plan). See Schedule E, for more discussion.

An update of the City's Pollution Control Plan is underway with completion anticipated by the end of 2020. The 2021 budget includes funds to initiate a high priority recommendation of that report.

2021 CAPITAL BUDGET  
POLLUTION CONTROL (SCHEDULE F)

Project No.	Project Type	Project Name	Gross Cost	Details
<b>New Projects</b>				
ST21-11	R	2021 Pollution Control Priority	\$ 500,000	Engineering services to implement recommendations of updated Pollution Control Plan 2020
			<b><u>\$ 500,000</u></b>	

## Water Distribution System (Watermains) Schedule G

The total length of watermains under the City’s jurisdiction is approximately 604 km with an estimated replacement value of \$1.363 billion (including water service replacements) in 2021 dollars.

In 2019, Council approved a 10 - Year Financial Plan for Water and Wastewater (The Water/Wastewater Plan). The Plan includes year over year increases for investment in capital infrastructure, which will reduce the funding gap for this asset class. As a result of the financial and operational challenges facing the City caused by COVID19, the 2021 budget and 2022-2025 forecast reflects a reallocation of the investment in the water distribution system, as shown in the table below. Increases in spending in the years of 2024 through 2026 result in the same net investment in infrastructure, over the next 6 years. However, in the short term the spending deferrals will continue to contribute to the widening infrastructure gap.

Year	Plan (\$000)	Proposed (\$000)	(Decrease)/Increase (\$000)
2021	\$ 9,329	\$ 8,129	\$ (1,200)
2022	10,516	9,316	(1,200)
2023	11,726	10,726	(1,000)
2024	12,961	13,761	800
2025	14,220	15,420	1,200
2026	15,504	16,904	1,400
Total	\$ 74,256	\$ 74,256	\$ -

Approximately 4.1% of all of the watermain sections are currently in a critical condition. Critical watermain sections are the sections that

have broken in the current year, or have broken multiple times in the past, or are undersized as per current standards. The cost to replace or upgrade these sections is approximately \$56 million in 2021 dollars.

Council has also directed that each year’s water budget should include an allocation of at least \$750,000 for the replacement of old and deteriorated cast iron watermains in areas experiencing coloured water problems. The 2021 budget includes \$3.89 million for replacement of old and deteriorated cast iron watermains which are usually the cause of coloured water in the system.

The \$8.1 million 2021 capital budget for renewal, is approximately 60% of the recommended reinvestment minimum which ranges from \$13.6 million to \$27.3 million. (Assuming an average service life 50 to 75 years for watermains).

Approximately 24% of the City’s watermain system is comprised of older cast iron watermains. Not all cast iron watermains have reached the end of their useful lives yet and replacements are prioritized based on watermain break histories, coloured water issues, and in conjunction with other projects.

Staff continues to monitor the number and location of existing watermain breaks. Figures 1 and 2 present records for the past 15 years and reflect the high variability in the number of annual watermain breaks. Despite the variability in annual watermain breaks, a continuous targeting of watermains with relative high break rates for replacements seem to be gradually reducing the average number of annual watermain breaks. Increasing age of existing watermains, especially watermains made of older materials, makes the watermains more prone to possible failures. A proactive approach is necessary to keep the watermain system in a good and

reliable condition which also reduces maintenance costs and the risks of contamination of the system. In spite of these mitigation

strategies while capital reinvestment remains under the target levels, break rates could possibly increase.

Figure 1

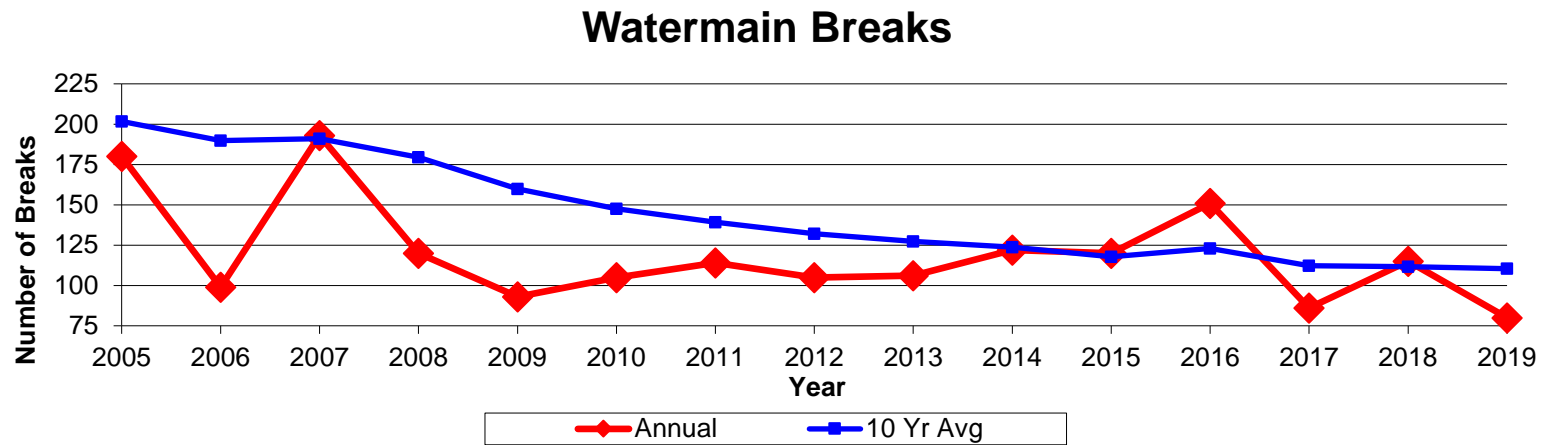
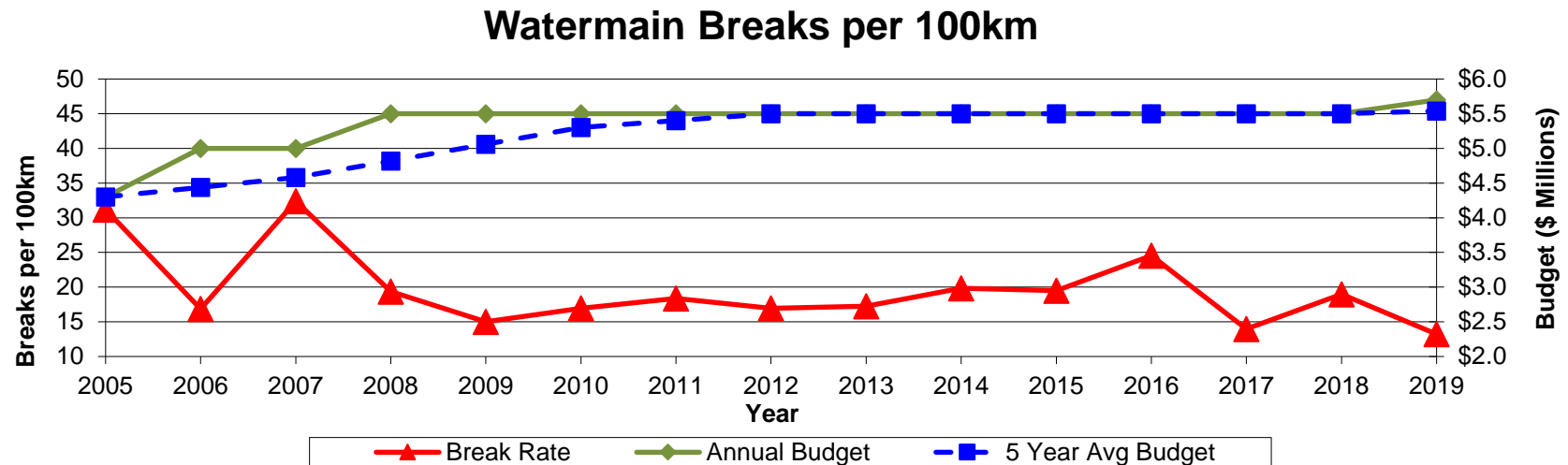


Figure 2





2021 CAPITAL BUDGET  
WATER DISTRIBUTION SYSTEM - WATERMAINS (SCHEDULE G)

Project No.	Prj Type	Project Name/Location	From	To	Gross Cost	Details	Notes
<b>Previously Budgeted Projects- Additional Budget Requirements</b>							
P18-062	R	Lake St. Road and Underground Improvements	Ontario St.	Welland Ave.	\$ 169,000	Engineering services for detailed design for replacement of existing cast iron watermain in conjunction with road reconstruction	CP
P18-063	R	Merritt St. Road and Underground Improvements	Almond Lane	Walnut St.	60,000	Engineering services for detailed design for replacement of existing cast iron watermain in conjunction with road works	CP
P20-062	R	Scarth Rd. Reconstruction	South Dr.	Highland Ave.	131,000	Funds for replacement of existing cast iron watermain in conjunction with road reconstruction	CP
P20-100	R	Edinburgh Dr./ Tamarack Ave. Tamarack Ave. Edinburgh Dr.	Grantham Ave. Bessborough St.	50 m East of Foxglove Ave. Scott St.	632,000	Funding to replace 2020 budget reallocation; replace / upgrade existing cast iron watermains with very high break rate in conjunction with roadworks	
P20-102	R	Lakeshore Rd. at Welland Canal Watermain Replacement	at Lock 1 Spillway Bridge		107,000	Additional funds for construction to be coordinated with St. Lawrence Seaway Corporation	
P20-116	R	Storz Hydrant Port Conversions			212,320	Multi-year conversion of existing hydrant ports to Storz type connections in priority areas	
<b>Subtotal</b>					<b>\$ 1,311,320</b>		

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
WATER DISTRIBUTION SYSTEM - WATERMAINS (SCHEDULE G)

Project No.	Prj Type	Project Name/Location	From	To	Gross Cost	Details	Notes
<b>New Projects</b>							
P21-001	R	Princess / Westchester Underground Improvements	Argyle Cres.	Collier St.	\$ 778,000	Replacement of existing cast iron watermain in conjunction with sanitary and storm sewer replacement	CP
		Westchester Cres. Princess St.	Westchester Cres.	Melbourne Ave.			
P21-002	R	Bartlett / Perma/ Underground Improvements	Parkview Rd.	Grantham Ave.	724,000	Replacement of existing cast iron watermain in conjunction with sanitary sewer spot repairs	
		Bartlett St.	Vine St. S	Welland Ave.		Replacement of existing ductile iron watermain	
P21-003	R	Ontario St. (RR#42) Underground improvement	Carlton St.	60m North of Hiscott St.	300,000	Design for the replacement of existing cast iron watermains in conjunction with sanitary and storm sewer spot repairs	
P21-004	R	Forest Hill / Hillcrest / Rockcliffe Underground Improvements	Hillcrest Ave.	South Dr.	127,000	Engineering services for replacement of existing cast iron watermain in conjunction with sanitary and storm sewers work and road resurfacing	CP
		Forest Hill Rd.	Glenridge Ave.	Highland Ave.			
P21-062	R	Eleanordale / Helm / Rochelle / Tavistock / Viking Rd. and Underground Improvements	Tavistock Rd.	Cul-de-Sac	2,277,000	Replacement of existing ductile iron watermain in conjunction with storm sewer spot repairs and road works	CP
		Eleanordale Circle	Viking Dr.	Bunting Rd.			
		Helm St.	70m south of Goldsmith Ave.	Tavistock Rd.			
		Rochelle Drive	Tavistock Rd.	Bunting Rd.			
		Rochelle Drive	Rochelle Dr.	Scott St.			
		Tavistock Rd.	Helm St.	Cul-de-Sac			
		Viking Drive					

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
WATER DISTRIBUTION SYSTEM - WATERMAINS (SCHEDULE G)

Project No.	Prj Type	Project Name/Location	From	To	Gross Cost	Details	Notes
P21-100	R	Flanders Watermain Improvements	Karen Ave.	Winnifred Ave.	\$ 560,000	Replacement of existing cast iron watermain in conjunction with sanitary sewer spot repairs and road resurfacing	
P21-101	R	Greenmeadow / Wood Underground Improvements			1,551,000		CP
		Greenmeadow Cres.	Wood St.	Cul-de-Sac		Replacement of ductile iron or cast iron watermains in conjunction with roadworks and storm sewer works	
		St. Alfred's Park	Greenmeadow Crt.	Ted St.			
		Wood St.	Geneva St.	Carlton St.			
P21-118	R	Valves, Hydrants & Services			50,000	Replacement of existing valves, hydrants, and services etc. in conjunction with other works	
P21-119	R	Design for 2022 Projects			50,000	Engineering services for possible 2022 projects	
ST21 - 17	R	Water Master Servicing Plan			200,000	Undertake master servicing plan / Environmental Assessment including pressure zone boundary adjustment recommendations	
<b>Subtotal</b>					<b>\$ 6,617,000</b>		
					<b><u>\$ 7,928,320</u></b>		

Additional budget for Watermains within Regional projects (Schedule K)

**\$ 51,000**

NOTES:

CP- Co-ordinated project involving more than one asset group (See Schedule S)

Project Type:

R=Renewal, SI=Service Improvement, G=Growth



## Bridges and Major Culverts Schedule H

The 2020 replacement value for the City's 71 owned bridges and major culverts (greater than 3m span) is approximately \$51 million. Provincial regulations require that biennial inspections (once every two years) be carried out on bridge and culverts with spans greater than three metres. These inspections were last undertaken during the 2018 calendar year, and as scheduled will be completed again by the end of 2020.

The estimated priority infrastructure deficit is \$9.2 million, which includes identified needs for the "NOW" and "1 to 5 Year" categories.

	Bridge & Culvert Deficiencies – January 30, 2019		
Priority Rating in 2019	Total Structures	% of Total	Total Deficiency (\$000)
Adequate	24	32%	n/a
6-10 Year	6	8%	\$2,890
1-5 Year	26	35%	\$ 8,175
NOW	19	25%	\$991
<b>Total</b>	<b>75*</b>	<b>100%</b>	<b>\$12,056</b>

\*There are 75 records above because 4 structures require work for two different time frames.

The consequences of not implementing a proactive plan and sustainable levels of funding for the City's bridge assets include:

- Further aging of the City's structural infrastructure
- An increase in the amount of backlog work to be completed

- Increased capital expenditures at the time of rehabilitation or replacement
- Unexpected emergency structure closures or maintenance activity affecting the travelling public, businesses, and emergency services, and
- The possibility of catastrophic failures

The 2021 capital budget includes partial funding for two structures which require major rehabilitation or replacement and engineering studies associated with a future project. One location, Third Avenue Louth/Glass Ave is a boundary bridge and jointly owned with the Town of Lincoln. Costs will be shared 50/50 with Lincoln. The City's 2021 investment of \$1.29 million in bridges and culverts is higher than the annual recommended reinvestment which ranges from \$0.5 million to \$0.8 million.

2021 CAPITAL BUDGET  
BRIDGES AND MAJOR CULVERTS (SCHEDULE H)

Project No.	Project Type	Project Name/Location	Gross Cost	Details
<b>Previously Budgeted Projects- Additional Budget Requirements</b>				
P17-121	R	Third Ave. Louth / Glass Ave Bridge @ 15 Mile Creek	\$ 1,215,000	Additional funds for replacement of bridge with load restrictions. Costs shared with Town of Lincoln
P17-125	R	South Service Rd. Bridge (B011S) Engineering Assessment	75,000.0	Engineering Assessment for Condition Survey and Analysis (rehabilitation, replacement or removal)
<b>Subtotal</b>			<b>\$ 1,290,000</b>	

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

## Shoreline Protection Schedule I

The City has approximately 4,635 metres of shoreline. The City has installed approximately 3,545 metres of shoreline protection. The 2021 replacement value of the existing shoreline protection is approximately \$45 million.

Approximately 2,670 metres of shoreline is in good condition requiring no immediate foreseeable remediation/actions.

The City undertook a City-wide review in 2018 of both protected shoreline (with existing City installed shoreline protection) and unprotected (natural) shoreline. The report was finalized in early 2019 and since then the City has completed the installation of shoreline protection at two (2) of their sites. Using information from the report and updating it to include the sites where protection has been added, the following is a summary of the status of the City's shorelines:

Remediation Priority		Sites with existing shoreline protection			Site with no protection or temporary protection			All city owned shoreline		
Priority Description	Timing (years)	# of Sites	Length (m)	Cost (\$000)	# of Sites	Length (m)	Cost (\$000)	# of Sites	Length (m)	Cost (\$000)
High	1-5	-	-	\$ -	2	180	\$1,455	2	180	\$1,455
Med. or Low/Med. Maintenance	Ongoing	1	425	\$ 135	1	440	\$ 182	2	865	\$ 317
Medium or Low/Medium Repairs	1-5	1	240	\$3,052	4	140	\$1,785	5	380	\$4,837
Medium or Low/Medium Repairs	6-10	1	210	\$ 14	-	-	\$ -	1	210	\$ 14
Low	n/a	18	2,670	\$ -	5	330	\$ -	23	3,000	\$ -
<b>Total</b>		<b>21</b>	<b>3,545</b>	<b>\$3,201</b>	<b>12</b>	<b>1,090</b>	<b>\$3,422</b>	<b>33</b>	<b>4,635</b>	<b>\$6,623</b>

The High priority sites should be addressed between the 1 to 5-year time-frame. The 2021 project for \$1,546,500 includes the engineering services and construction for the highest priority location at Westgate Park.

2021 CAPITAL BUDGET  
SHORELINE PROTECTION (SCHEDULE I)

Project No.	Project Type	Project Name	Location	Gross Cost	Details
<b>New Projects</b>					
P21-132	R	Westgate Park- construction	8-14 Shore Boulevard	\$ 1,546,500	Engineering services and construction to address shoreline protection priorities
				<b><u>\$ 1,546,500</u></b>	

Project Type:

R=Renewal, SI=Service Improvement, G=Growth



## Watercourse Rehabilitation Program Schedule J

The City of St. Catharines has approximately 36.5 km of natural watercourses that generally drain water from within the City out to Lake Ontario. The deterioration of the protective works for these watercourses and the limited funds available to rehabilitate them, may lead to the erosion of public and private lands and structures.

A Watercourse Flooding and Erosion Control Priority Study Report was provided to the City in February 2015 for creeks within the urban areas of St. Catharines. Staff is using the report's findings and recommendations for prioritizing watercourse restoration works in conjunction with other required infrastructure works/projects. The study also prioritized rehabilitation needs of culverts with diameters too small to be included in the mandatory biennial Bridge and Major Culvert Inspections.

That 2015 study identified 87 watercourse sites within the urban boundary that are eroded and need rehabilitation. Of those sites, 16 are identified as highest priority based on erosion levels with an estimated \$8.9 million cost for remediation. Based on high level estimates, the total citywide watercourse rehabilitation costs, excluding Twelve Mile Creek, will be approximately \$46.1 million in 2020 dollars.

Included in the 2021 Capital Budget is funding to update 2011 fieldwork and the 2015 study. Also included is funding to initiate a class environmental assessment for erosion control along Spring Garden Creek. This EA is recommended now, in advance of anticipated sanitary sewer rehabilitation which will also be within the creek's floodplain. In 2018 a Dam Safety Review was completed for the Martindale Pond Weir and Heywood Generating Station on Twelve Mile Creek. These two structures control the water level in

Martindale Pond. The review concludes that deficiencies exist in the existing weir and to a much lesser extent at the Heywood Generating Station. Additional studies will be carried out with existing funding to suggest alternatives and recommend a preferred option for the Weir. The five-year Capital Forecast includes high level estimates for full replacement of the weir with additional spillway capacity (2023 - \$4m).

### Old Welland Canal Lock Walls

There have been 4 alignments of the Welland Canal including the present canal through Port Weller. In 2018, a detailed inspection program was undertaken on the exposed lock walls constructed for the first three (3) Welland Canals, and assigned a timeline for the recommended maintenance and capital rehabilitation. Based on the 2018 inspections the following table summarizes the maintenance and capital needs:

Priority Rating	Total
Adequate	\$ -
6-10 Years	\$74,850
1-5 Years	\$773,450
NOW	\$914,750
Total	\$1,763,050

These priority ratings highlight the need for immediate capital work and translate into an average annual funding level of more than \$170,000 over a 10-year period.

No additional funding is recommended for 2021. Budgets totaling \$500,000 to undertake the construction are included in the 2022–25 forecast.

2021 CAPITAL BUDGET  
WATERCOURSES (SCHEDULE J)

<b>Project No.</b>	<b>Project Type</b>	<b>Project Name</b>	<b>From</b>	<b>To</b>	<b>Gross Cost</b>	<b>Details</b>
<b>New Projects</b>						
ST21-16	R	Watercourse Flooding & Erosion Control Priority Study			\$ 150,000	Update 2011 fieldwork and priority study for natural creeks within the City's urban boundary, including culvert condition data
P21-129	R	Spring Garden Creek EA / Design	Lake Ontario	Guy Rd. Park	230,000	Engineering Services to address previously identified deficiencies and to coordinate with sanitary sewer repairs
<b>Subtotal</b>					<b>\$ 380,000</b>	

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

## **Regional Projects Schedule K**

This category includes the City's share of municipal works (such as sewer repairs, watermain replacements, sidewalk replacements and new storm sewer construction) on projects undertaken in cooperation with the Regional Municipality of Niagara. The Region consults with the City, when determining the timing of projects, which are managed by the Region. Coordinating the City's efforts in this way helps to minimize cost and disruption to the affected residents and businesses, and provides infrastructure renewal within the City.

For 2021, Niagara Region has advised they will proceed with construction at four locations, namely;

- a) St. Paul Street West Bridge over CN railway – bridge replacement.
- b) Downing Trunk - Storm Sewer Replacement

The existing bridge which carries St. Paul Street West over the CN railway tracks is currently posted with a load restriction and its configuration has substandard sightlines. The replacement bridge and modified bridge approaches will improve safety for vehicles and pedestrians, provide increased clearances from the rail tracks and modify Great Western Street, the existing primary entrance to the St Catharines train station (future GO station). The majority of the project costs were budgeted in 2020 for the City's share of costs including replacement sidewalks and a wider sidewalk on the bridge structure, replacement watermains, existing sewer repairs and new storm sewers for combined sewer separation. Minor additional funding is requested in 2021.

2021 CAPITAL BUDGET  
REGIONAL PROJECTS (SCHEDULE K)

Project No.	Project Type	Project Name	From	To	Gross Cost	Details	Notes
<b>Previously Budgeted Projects- Additional Budget Requirements</b>							
<b>Watermains</b>							
RN20-stp	R	Region - St. Paul St. W (RR#81) Bridge Over CN Tracks	Merigold St.	St. Paul Cres.	\$ 51,000	Replacement of existing cast iron watermain in conjunction with Regional bridge replacement project	CP
<b>Sanitary Sewer</b>							
RN20-stp	SI	Region - St. Paul St. W (RR#81) Bridge Over CN Tracks	Merigold St.	St. Paul Cres.	20,000	Additional funds for new sanitary sewer sections in conjunction with Regional bridge replacement project	CP
<b>Sidewalks</b>							
RN20-stp	SI	Region - St. Paul St. W (RR#81) Bridge Over CN Tracks	Merigold St.	St. Paul Cres.	18,000	Additional funds for new sidewalks in conjunction with Regional bridge replacement project	CP
<b>Subtotal</b>					<b>\$ 89,000</b>		
<b>New Projects</b>							
<b>Storm Sewer</b>							
RN21-dow	SI	Region - Downing Trunk Watermain Replacement and ancillary works	Approx. 100m ne/o Glenridge	South St.	250,000	New storm relief sewer for combined sewer separation in conjunction with Regional trunk watermain replacement	
<b>Subtotal</b>					<b>\$ 250,000</b>		
					<b>\$ 339,000</b>		

NOTES:

CP- Co-ordinated project involving more than one asset group (See Schedule S)

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

## **Community, Recreation and Culture Services – Non-Facilities Assets Schedule L**

### **Parks Renewal Plan**

There are 72 playgrounds, 15 tennis court and 22 basketball court locations that serve the residents of St. Catharines. Playground equipment and court renewal as well as upgrades are required to maintain service levels and ongoing safe play spaces. The City's Parks Renewal Plan prioritizes asset renewal based on asset condition, as well as health and safety considerations, with the assets in the poorest condition being prioritized for replacement.

Asset condition evaluation is classified into red, yellow and green categories:

- Red category: replacement expected within the next five years
- Yellow category: replacement expected within the next five to 10 years
- Green category: replacement not expected within the next 10 years

Current red category assets within the Parks Renewal Plan include: 43 playgrounds, 16 basketball courts and 10 tennis courts. In 2021, the playground equipment at Montebello Park as well as the basketball court at Bogart Street Park is scheduled for replacement. The Elma Street Park replacement will see the addition of a multi-use court for basketball, tennis and pickleball, and replacement of playground equipment.

Community, Recreation and Cultural services will be involved in a number of capital projects in 2021, which includes larger multi-year projects and ongoing annual capital renewal projects.

### **Canada Summer Games (Initial Project)**

In the spring of 2017, Niagara was named the host of the 2021 Canada Summer games. The capital budget dollars set aside for this event is the fourth of a four-year commitment the City has made for this unique occasion that will take place in our City and Region. Funds are targeted towards capital facility investments as detailed in report PRCS/CAO-320-2016.

### **Parks Legacy Fund Projects**

The goal of the Parks Legacy Fund is to maintain and sustain City parks through leveraging alternative sources of funding such as donations and legacy giving. The Fund will annually provide matching funding towards community projects in City parks. The Parks Legacy Fund will help to alleviate the financial implications of the Parks Renewal Plan by leveraging City funds with matching community donations.

### **Sunset Beach**

See Schedule M and the related narrative for information on Sunset Beach.

### **Tree Planting**

The City of St. Catharines plants trees to help improve air quality and add economic value, beauty and shade to its neighbourhoods. Trees are planted on public boulevards, road allowances fronting residences, and in circles where trees are currently not planted.

This capital program assists in increasing the tree canopy percentage on both public and private property. The 2021 budget will allow the City to hold two tree giveaways intended to assist in reaching the City's 30% tree canopy goal by 2030.

**Trails Development and Renewal**

The 2021 budget includes \$2.119M for trails renewal, which have been identified as an emerging high priority as a result of COVID19.

**Memorial Bench Program**

The City currently has an inventory of 304 wooden benches with many of the benches approaching end of useful life. The Memorial Bench Program will replace 50 benches per year from 2020-2025 with the replacements concluding in 2025. The new benches will be made from composite materials that are expected to last 25-30 years.

2021 CAPITAL BUDGET  
COMMUNITY, RECREATION AND CULTURE SERVICES (SCHEDULE L)

Project No.	Project Type	Project Name	Gross Cost	Details	Notes
<b>Previously Budgeted Projects- Additional Budget Requirements</b>					
PRC18-01	SI	Canada Summer Games (year 4 of 4)	\$ 320,000	Address asset deficiencies and improvements for the Canada Summer Games (PRCS/CAO-320-2016)	PA
<b>Subtotal</b>			<b>\$ 320,000</b>		
<b>New Projects</b>					
PRC21-01	SI	Tree Planting Program	\$ 368,000	Address asset deficiencies and achieve Council approved tree canopy goal of 30%	
PRC21-02	R	Parks Renewal Plan - Montebello Park Playground Equipment	330,000	Replace playground assets which are at end of useful life, and maintain level of service as per the Parks Renewal Plan	
PRC21-03	R	Memorial Bench Program - 50 benches (Year 2 of 6)	80,000	Replace assets which are approaching end of useful life and maintain level of service	
PRC21-04	R	Parks Renewal Plan - Bogart St. Park Basketball/Tennis/Pickleball Court and Playground	380,000	Replace basketball/tennis/pickleball courts and playground equipment which are at end of useful life and maintain level of service as per Parks Renewal Plan	
PRC21-05	R	Parks Legacy Fund - Happy Rolph's	179,000	Happy Rolph's project with private funding from Rotary Club matched by Parks Legacy Funding. Project includes an accessibility loop throughout the park and additional play amenities (CRCS-118-2020)	PA

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
COMMUNITY, RECREATION AND CULTURE SERVICES (SCHEDULE L)

Project No.	Project Type	Project Name	Gross Cost	Details	Notes
PRC21-05-1	R	Parks Legacy Fund	\$ 60,000	The Park legacy Fund will annually leverage and match alternative funding to maintain and enhance parks levels of service. Project still to be determined for 2021 (As approved by Council on October 7, 2019)	
P21-155		City-wide Trail Improvements	1,030,936	Trail improvements within; Lakeside Park, Rennie Park, Fairview Park, and Pearson park, and also Merritt Trail. Trail improvements will improve the City's trail network, and particularly park connection points. Project is 100% funded from ICIP Covid-19 grant (CAO-181-2020)	
P21-156	SI	Splashpad & Washroom	200,000	Design of a splashpad, seasonal washroom facility and sun shelter. Location to be informed by the Aquatics Strategy being presented to Council in Q1 2021 (CAO-181-2020)	
P21-157	SI	Active Transportation Priorities	1,188,500	Active Transportation priorities that have become more urgent as a result of Covid-19 and the resulting need to improve bike trails and City's trail network (CAO-181-2020)	
<b>Subtotal</b>			<b>\$ 3,816,436</b>		
			<b>\$ 4,136,436</b>		
<b>Less:</b>					
PA		Canada Summer Games (Year 4 of 4)	320,000	Council Approval PRCS/CAO-320-2016	
PA		<u>Parks Legacy Fund - Happy Rolph's</u>	<u>179,000</u>	Council Approval (CRCS-118-2020)	
<b>Total budget requiring Council approval</b>			<b>\$ 3,317,436</b>		

Notes:

PA - "Previously Approved " During 2020 or prior years, Council approved this 2021 budget item.

Project Type:

R=Renewal, SI=Service Improvement, G=Growth



## **Buildings and Facilities (Including Accessibility) Schedule M**

The estimated total replacement value of City owned structures addressed in the program is \$587 million, the related current infrastructure deficit is estimated at \$55.5 million and the target annual reinvestment rate is between \$10.0 million and \$14.7 million.

The facility improvements proposed in 2021 total \$4.576M, (budgets shown in schedules M, N and O), which is below the target reinvestment rate. The Arena Strategy was updated in 2019 and the capital items identified in that plan are consistent with the amounts for the items included in the 2021 Capital budget, however timing for several items has been deferred, due to 2020 financial constraints.

The Master Plan for Sunset Beach was also developed in 2019, and the 2021 Capital budget incorporates the remaining capital requirements for accessibility identified in the plan for the washroom (Schedule M). Many elements in the plan have been included in future years, either in the 2022-2025 forecast or included in Schedule V - Other potential Capital Projects - 2025 and Beyond.

The 2017 Fire Master Plan, confirmed the need for asset renewal at Firehalls, with priority given to renovations at Fire Hall 1, which would allow for the relocation of one of the Aerial Firetrucks. A 2020 Feasibility Study, to determine future needs and capital cost estimates for Fire Hall asset renewal, identified the need to replace three Fire Halls (1, 2, 3) and upgrade Fire Hall 6. These Fire Halls are nearing their end of life and they do not meet operational needs (including Accessibility). The 2021 Capital Budget includes \$250,000

for the design of a new Fire Hall 1 and future year forecasts include \$27 million for Fire Hall renewal and upgrades.

The City maintains many buildings differentiated by factors such as usage, (i.e. arenas, fire halls, operations work centres), or third party designation (i.e. Historical buildings). Various components within buildings also receive attention (i.e. roofs, washrooms) as well as overall standards for buildings (i.e. accessibility). The City undertakes several ongoing key initiatives and programs to maintain and improve City owned facility assets such as structures, buildings and related land improvements.

### **Accessibility Implementation**

The City is striving to meet the provincially mandated accessibility standards by the 2025 target as set out by the Accessibility for Ontarians with Disability Act (AODA). To rectify the estimated \$5.750 million in non-compliant items, the City continues to complete accessibility upgrades, including barrier free washrooms. The 2021 Capital budget for accessibility of \$250,800 provides for upgrades for the Sunset Beach Washrooms.

Based on 2021-2025 forecast budget levels (with an annual minimum of \$250,000), the highest priority items will be completed, however some portion of the lower priority items will remain unaddressed, at the target date.

### **Heritage Building Rehabilitation**

The Old Court House, Montebello Park Pavilion and Band Shell, City Hall, the Morningstar Mill, Dalhousie House, and the Old Robertson School at 85 Church Street are examples of City owned buildings which are classified as Heritage Buildings.

Due to the age of the heritage buildings, many of the architectural, structural, mechanical, and electrical components of these structures have well exceeded their useful service life and require regular maintenance and rehabilitation in order to preserve the integrity of these buildings. There are some components within these structures that do not meet current codes and safety regulations and require retrofits in order to remain in operation.

The 2021 heritage building rehabilitations will include upgrades to Robertson School.

### **Arena Improvement Initiative**

The 2019 Arena Strategy highlighted the need to right size the City's arenas (excluding Meridian Centre), to ensure that current levels of service can be delivered at an optimal cost.

In 2021, several mechanical and electrical systems are being replaced with the capital budget of \$2.315 million. This includes ice pad & board replacement at Merritton Centennial Arena, and LED lighting upgrades at Bill Burgoyne, Seymour Hannah, and Merritton Centennial Arenas.

### **Parking Services (Schedule N)**

In 2021, \$100,000 of the Capital budget is allotted to Security Improvements and waterproofing repairs at the Ontario Street Parking Garage. There is also an additional \$500,000 included in Schedule M for driveway, service paths, and parking lot reconstruction at Burgoyne Woods.

### **General Building Improvement**

Recent condition assessments and regulatory requirements were considered in determining the Facilities Capital Budget. In 2021 \$555,000 of reserve contributions funded from 2021 operating budget will fund a portion of the smaller projects which include the structural, architectural, mechanical and electrical components of various City buildings that have reached the end of their service life.

2021 CAPITAL BUDGET  
BUILDINGS AND FACILITIES- INCLUDING ACCESSIBILITY (SCHEDULE M)

Project No.	Project Type	Project Name	Gross Cost	Details	Notes
<b>Previously Budgeted Projects- Additional Budget Requirements</b>					
P16-163	R	Bill Burgoyne Arena Roof Replacement - Low Roof (NW Corner)	\$ 25,000	Address roofing deficiency, and maintain building envelope	
P18-181	R	Museum HVAC	700,000	Replace outdated equipment which are at the end of service life, and improve efficiency of overall system	
P19-147	R	Robertson School Flat Roof Maintenance	50,000	Address roofing deficiency, and maintain building envelope	
P20-153	SI	Sunset Beach Washroom Full Accessibility	250,800	Replace existing washroom which is at end of life and does not meet accessibility requirements. Work will improve level of service at park (PRCS-149-2019)	A
P20-157	SI	P20-157 Centennial Library-Garage Security Doors/Fencing	20,000	Address public safety concerns at Central Branch	
P20-159	R	Meridian Centre Chiller Regasketing	100,000	Preventative maintenance on equipment to prolong service life	
P20-162	R	Meridian Centre - Front Sliding Door Replacement	25,000	Replenish budget for project to mitigate on-going repairs	
<b>Subtotal</b>			<b>\$ 1,170,800</b>		

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
BUILDINGS AND FACILITIES- INCLUDING ACCESSIBILITY (SCHEDULE M)

Project No.	Project Type	Project Name	Gross Cost	Details	Notes
<b>New Projects</b>					
<b>Administrative and Operational Centres</b>					
P21-142	R	Buchanan House Green House Demolition	\$ 150,000	Demolition of partial asset which is unsuitable for current use, and would require significant capital funding to satisfy code compliance. Improve building envelope, and reduce future maintenance	
<b>Administrative and Operational Centres</b>			<b>\$ 150,000</b>		
<b>PRCS - Arenas and Recreation Facilities</b>					
P21-136	R	Roofing Replacements - Haig Bowl Arena and St. Catharines Municipal Golf Course	\$ 80,000	Address roofing deficiencies, and maintain building envelopes	
P21-137	SI	Arena LED Lighting Refit - Bill Burgoyne Arena, Seymour Hannah & Merritton Arena	225,000	Full and partial lighting retrofits to improve energy efficiency in line with the Conservation and Demand Management Plan, and to minimize future maintenance	
P21-138	SI	Kiwanis Aquatics Centre - Waste Heat Recovery	50,000	Equipment upgrades to improve energy efficiency in line with the Conservation and Demand Management Plan	
P21-139	R	Kiwanis Aquatics Centre - Window/Flashing	50,000	Address building envelope deficiency	
P21-140	R	Merritton Arena Replace Floor, Boards, Header and Mains	1,200,000	Replace ice slab and boards which are approaching end of service life, and to improve efficiency/performance of ice plant	
P21-141	R	Garden City and Bill Burgoyne Arenas Capital Maintenance	110,000	Replacement and repair of select equipment which is beyond service life	
<b>PRCS - Arenas and Recreation Facilities</b>			<b>\$ 1,715,000</b>		

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
BUILDINGS AND FACILITIES- INCLUDING ACCESSIBILITY (SCHEDULE M)

Project No.	Project Type	Project Name	Gross Cost	Details	Notes
<b>PRCS - Parks Structures and Facilities</b>					
P21-143	R	Burgoyne Woods Site Paving	\$ 500,000	Address deficient pavement condition, and to improve service levels	
P21-144	R	Burgoyne Woods Washroom Roof	15,000	Address roofing deficiency, and maintain building envelope	
P21-145	SI	Lakeside Park - New Parking Lot	25,000	Preliminary design of new parking lot to improve user experience and service offering	
P21-152	SI	Sunset Beach - Parking Lot	250,000	Design of the new parking lot at Sunset Beach which will inform future construction budget for the parking lot, as well as shoreline protection and associated trail connections (CAO-181-2020)	
<b>PRCS - Parks Structures and Facilities</b>			<b>\$ 790,000</b>		
<b>Other Special Purpose Facilities</b>					
P21-146	R	Centennial Library Recaulk Exterior Panels	\$ 150,000	Address building envelope deficiency	
P21-147	R	Performing Arts Ctr. Sump pump replacements	20,000	Replacement of deficient equipment, and to minimize future maintenance	
P21-148	R	Performing Arts Centre Exterior Door Repairs	10,000	Address ongoing maintenance concerns	
P21-149	SI	Meridian Centre Life Safety Lines	45,000	Address shortcomings of existing system, to provide full coverage over the interior, and will remove costs for temporary rigging for specific events	
P21-150	R	Robertson School - Annex Foundation Repairs	400,000	Necessary foundation repairs identified during the design phase of Annex project	
P21-153	SI	Public Washroom	500,000	Purchase and installation of single all-season accessible washroom (CAO-181-2020)	

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2021 CAPITAL BUDGET  
BUILDINGS AND FACILITIES- INCLUDING ACCESSIBILITY (SCHEDULE M)

Project No.	Project Type	Project Name	Gross Cost	Details	Notes
P21-154	SI	St. Catharines Public Library Security Gates	\$ 50,000	Installation of security gates and fencing along the covered walkway at the Centennial St. Catharines Public Library at the Church St. entrance, to improve security (CAO-181-2020)	
<b>Other Special Purpose Facilities</b>			<b>1,175,000</b>		
<b>New Projects Subtotal</b>			<b>\$ 3,830,000</b>		
			<b>\$ 5,000,800</b>		

Notes:

A- Accessibility Upgrades

Total Accessibility Upgrades Included in Above Projects

Proj.#	Location/Name	Accessibility Budget
P20-153	Sunset Beach Washroom Full Accessibility	250,800
		<b>\$ 250,800</b>

Project Type:

R=Renewal, SI=Service Improvement, G=Growth

2020 CAPITALBUDGET  
PARKING SERVICES (SCHEDULE N)

Project No.	Project Type	Project Name	Gross Cost	Details
<b>New Projects</b>				
<b>P21-151</b>	<b>R</b>	Ontario St. Parking Garage Waterproofing Repairs and Security	\$ 100,000	Address identified deficiency, and to improve user experience and site safety
			<b><u>\$ 100,000</u></b>	

Project Type:

R=Renewal, Si= Service Improvement, G=Growth





2021 CAPITAL BUDGET  
FIRE SERVICES ( SCHEDULE O)

Project No.	Project Type	Project Name	Gross Cost	Details
<b>New Projects</b>				
<b>PFR21-01</b>	SI	City's share of Consultants Fees - NG911 Implementation	\$ 30,000	City of St. Catharines portion of a shared consulting fee to review design, purchase and implementation of NG911 equipment and software for Dispatch Centre. Consulting fee to be shared amongst stakeholders including; Region of Niagara, Niagara Regional Police, Niagara Emergency Medical Services, St.Catharines Fire Services and Niagara Parks Commission
<b>P21-133</b>	R	Fire Hall #1 - Geneva St. Design of headquarters	250,000	Design of new station headquarters based on recommendation from feasibility study and to improve service offering
<b>P21-134</b>	R	Fire Hall #1 - Geneva St. Replace Roof Top Unit (HVAC) -admin area	40,000	Replacement of HVAC equipment which has reached end of serviceable life
<b>P21-135</b>	R	Fire Hall #6 - Scott St. Roofing Replacement	50,000	Address roofing deficiency and to maintain building envelope
<b>PFR21-02</b>	R	Replacement of Pumper Truck	1,000,000	Replacement of 2001 Pumper Truck (Unit 19) that has reached end of life, consistent with National Fire Protection Association Standards
<b>Subtotal</b>			<b><u>\$ 1,370,000</u></b>	

Project Type:

R=Renewal, SI=Service Improvement, G=Growth



2021 CAPITAL BUDGET  
CORPORATE INFRASTRUCTURE (SCHEDULE P)

Project No.	Project Type	Project Name	Gross Cost	Details
<b>New Projects</b>				
PCI21-01	R	Water and Tax System Replacement	\$ 1,000,000	Replace the existing water and tax billing system. Current system is extremely old and running on old infrastructure. Vendor support is very limited
ST21-10	R	Phase 1 Asset Management Implementation	500,000	Implementation of systems and tools to support ongoing asset management (includes process reviews & mapping related to financial systems & Work Manager)
<b>Subtotal</b>			<b><u>\$ 1,500,000</u></b>	

Project Type:

R=Renewal, SI=Service Improvement, G=Growth



2021 CAPITAL BUDGET  
TRANSIT COMMISSION SERVICES (SCHEDULE Q)

Project No.	Project Type	Project Name	Gross Cost	Details	Notes
PTC20-001	R	2021 Transit Funding Replenishment	\$ 600,000	Portion of Transit Commission 2021 Facility budget	1
			<u>\$ 600,000</u>		

NOTE:

- 1 Budget established to provide the City's portion of funding for facility renewal. Upper levels of government provide the largest share of the required funding. Budget will be funded by debt serviced by the Transit Commission and 10% revenue contribution from the Transit Commission.



2021 CAPITAL BUDGET  
 NIAGARA DISTRICT AIRPORT (SCHEDULE R)

Project No.	Project Name	Gross Cost	Details	Notes
PNA21-01	2021 Municipal Working Capital Grant	\$ -		A
		<u>\$ -</u>		

A The Capital Grant has been funded from the operating budget in both 2020 & 2021. Niagara Region is developing a Master Plan which it anticipates will be completed by the end of 2021, which may result in significant changes in future year capital requirements.

Project Type:

R=Renewal, Si= Service Improvement, G=Growth





## **Co-ordinated Projects Schedule S**

For asset categories within the road allowance (roads, sidewalks, sewers, water mains), coordination with other construction activities is taken into consideration to take advantage of economies of scale and reduce the impact of construction on abutting property owners and the travelling public.

Determination of the final construction program for all of the assets for a particular year is the result of an iterative effort by staff in reviewing all of the asset categories. Schedule S reports on the new and continuing projects included within the 2020 Capital Budget. For each project in the schedule, each of the asset categories previously reported in Schedule B to R is shown.

2021 CAPITAL BUDGET  
COORDINATED PROJECTS (SCHEDULE S)

PROJECT NO	SCH	DESCRIPTION	GROSS COST	COMMENTS
<b>P17-067</b>		<b>St. David's Rd./Townline Reconstruction</b>		
	B	Roads	\$ 1,807,500	Additional funds for road reconstruction, existing sidewalks
	C	Sidewalks	356,000	upgrade, installation of new sidewalks and storm sewer , and
	D	Storm Sewer Collection System	250,000	replacement of sanitary sewer in conjunction with Thorold Rd.
	E	Sanitary Sewer Collection System	695,000	Project
			<b>\$ 3,108,500</b>	
<b>P18-061</b>		<b>Gale Cres. Road and Underground Improvements</b>		
	B	Roads	252,000	Engineering services for detailed design for future road
	C	Sidewalks	19,000	reconstruction, storm sewer installation, and sidewalk and sanitary
	D	Storm Sewer Collection System	159,150	sewer replacement
	E	Sanitary Sewer Collection System	113,000	
			<b>\$ 543,150</b>	
<b>P18-062</b>		<b>Lake St. Road and Underground Improvements</b>		
	B	Roads	180,000	Engineering services for future road reconstruction, storm sewer
	D	Storm Sewer Collection System	29,850	installation, and for replacement of existing cast iron watermain and
	E	Sanitary Sewer Collection System	502,720	sanitary sewer
	G	Water Distribution System	169,000	
			<b>\$ 881,570</b>	
<b>P18-063</b>		<b>Chestnut/Merritt St. Road and Underground Improvements</b>		
	B	Roads	228,000	Engineering services for detailed design for future road
	B	Roads	150,000	reconstruction and replacement of exiting cast iron watermain
	G	Water Distribution System	60,000	
			<b>\$ 438,000</b>	
<b>P20-062</b>		<b>Scarth Rd. Reconstruction</b>		
	B	Roads	100,000	Additional funds for road reconstruction, existing sidewalk
	C	Sidewalks	23,000	replacement, ductile iron watermain replacement, and installation
	D	Storm Sewer Collection System	59,000	of catch basins and catch basin leads to improve drainage
	G	Water Distribution System	131,000	
			<b>\$ 313,000</b>	

2021 CAPITAL BUDGET  
COORDINATED PROJECTS (SCHEDULE S)

PROJECT NO	SCH	DESCRIPTION	GROSS COST	COMMENTS
<b>P21-001</b>		<b>Princess / Westchester Underground Improvements</b>		
D	D	Storm Sewer Collection System	250,000	Replacement/upgrades of sanitary sewer, cast iron watermain, and installation of new storm sewer
E	E	Sanitary Sewer Collection System	848,000	
G	G	Water Distribution System	778,000	
			<b>\$ 1,876,000</b>	
<b>P21-004</b>		<b>Forest Hill / Hillcrest / Rockcliffe Underground Improvements</b>		
	D	Storm Sewer Collection System	118,200	Replacement/upgrades of cast iron watermain, installation of new storm sewer, and design for sanitary sewer section replacement
	E	Sanitary Sewer Collection System	159,000	
	G	Water Distribution System	127,000	
			<b>\$ 404,200</b>	
<b>P21-007</b>		<b>Glendale/Merritt/Northwood/Wiley</b>		
	D	Storm Sewer Collection System	92,000	Replacement/upgrades of storm and sanitary sewers
	E	Sanitary Sewer Collection System	460,000	
			<b>\$ 552,000</b>	
<b>P21-061</b>		<b>Pelham Rd. (bike lanes)</b>		
	B	Roads	469,000	Road and sidewalk improvements to accommodate bike lines
	C	Sidewalks	104,000	
			<b>\$ 573,000</b>	
<b>P21-062</b>		<b>Eleanordale / Helm / Rochelle / Tavistock / Viking Road and Underground Improvements</b>		
	B	Roads	516,359	Milling, spot curb repairs and asphalt overlay in conjunction with underground service improvements, and replacement of existing ductile iron watermain
	G	Water Distribution System	2,277,000	
			<b>\$ 2,793,359</b>	

2021 CAPITAL BUDGET  
COORDINATED PROJECTS (SCHEDULE S)

PROJECT NO	SCH	DESCRIPTION	GROSS COST	COMMENTS
<b>P21-064</b>		<b>Hasting St.</b>		
	B	Roads	1,303,000	City share of development agreement for road reconstruction, sidewalks replacement and installation of new sidewalks in conjunction with storm and sanitary sewer works
	C	Sidewalks	126,000	
	D	Storm Sewer Collection System	286,000	
	E	Sanitary Sewer Collection System	29,000	
			<b>\$ 1,744,000</b>	
<b>P21-101</b>		<b>Greenmeadow / Wood Underground Improvements</b>		
	B	Roads	394,000	Road repair, installation of new storm sewer, and replacement of ductile iron or cast iron watermain
	D	Storm Sewer Collection System	284,000	
	G	Water Distribution System	1,551,000	
			<b>\$ 2,229,000</b>	
<b>RN20-stp</b>		<b>Region - St. Paul St. W (RR#81) Bridge Over CN Tracks</b>		
K	K	Sidewalks	18,000	Replacement/upgrades of sanitary sewer, cast iron watermain and sidewalks in conjunction with Regional replacement of bridge and bridge approaches
K	K	Storm Sewers	20,000	
K	K	Watermains	51,000	
			<b>\$ 89,000</b>	
<b>Total</b>			<b><u>\$ 15,544,779</u></b>	

CITY OF ST.CATHARINES  
2022 CAPITAL FORECAST (SCHEDULE T)

DESCRIPTION	GROSS COSTS	GAS TAX	OTHER EXTERNAL/ RESERVES	TAX/RATE PAYER	DEBT
<b>ROADS</b>					
2022 Priority Program	7,801,000	400,000	-	1,447,100	5,953,900
Active Transportation	250,000	250,000	-	-	-
Traffic Signals (including pedestrian crossings)	140,000	-	-	140,000	-
	<b>\$ 8,191,000</b>	<b>\$ 650,000</b>	<b>\$ -</b>	<b>\$ 1,587,100</b>	<b>\$ 5,953,900</b>
<b>SIDEWALKS AND WALKWAYS</b>					
Lake Street Road and Underground Improvements	112,200	-	-	102,700	9,500
2022 Sidewalk Replacement	757,000	-	-	272,700	484,300
2022 New Sidewalks	345,000	-	-	16,900	328,100
2022 Walkway Improvements	50,000	-	-	50,000	-
	<b>1,264,200</b>	<b>-</b>	<b>-</b>	<b>442,300</b>	<b>821,900</b>
<b>STORM SEWER - 2022 Priorities</b>	<b>4,610,800</b>	<b>55,699</b>	<b>550,000</b>	<b>196,200</b>	<b>3,808,901</b>
<b>SANITARY SEWER - 2022 Priorities</b>	<b>3,903,954</b>	<b>1,000,000</b>	<b>-</b>	<b>1,884,060</b>	<b>1,019,894</b>
<b>POLLUTION CONTROL- 2022 Priorities</b>	<b>800,000</b>	<b>-</b>	<b>-</b>	<b>800,000</b>	<b>-</b>
<b>WATERMAINS -2022 Priorities</b>	<b>9,165,906</b>	<b>1,352,000</b>	<b>-</b>	<b>5,655,078</b>	<b>2,158,828</b>
<b>BRIDGES AND MAOR CULVERTS</b>					
First Ave. Louth s/o Pelham 12 Mile Creek - Construction	902,500	-	-	44,200	858,300
South Service Road Bridge (B011S)	805,000	-	-	39,400	765,600
	<b>1,707,500</b>	<b>-</b>	<b>-</b>	<b>83,600</b>	<b>1,623,900</b>
<b>SHORELINE PROTECTION</b>					
Belmont Park (Beachview Drive East) Shoreline Protection	11,000	-	-	500	10,500
	<b>11,000</b>	<b>-</b>	<b>-</b>	<b>500</b>	<b>10,500</b>
<b>WATERCOURSES</b>	<b>1,430,000</b>	<b>-</b>	<b>-</b>	<b>70,100</b>	<b>1,359,900</b>

CITY OF ST.CATHARINES  
2022 CAPITAL FORECAST (SCHEDULE T)

DESCRIPTION	GROSS COSTS	GAS TAX	OTHER EXTERNAL/ RESERVES	TAX/RATE PAYER	DEBT
<b>REGIONAL</b>	-	-			
Regional - Burleigh Hill Drive (RR#36)	1,380,000	382,000	-	48,900	949,100
Region - Niagara Street (RR48) Reconstruction	1,668,000	732,000	-	526,100	409,900
Region - Glendale Avenue RR89 improvements	450,000	450,000	-	-	-
	<b>\$ 3,498,000</b>	<b>\$ 1,564,000</b>	<b>\$ -</b>	<b>\$ 575,000</b>	<b>\$ 1,359,000</b>
<b>PARKS, RECREATION AND CULTURE SERVICES</b>					
Court	480,000	-	-	65,400	414,600
Tree Planting Program	375,000	-	-	375,000	-
Memorial Bench Program - 50 benches (Year 3 of 6)	80,000	-	-	80,000	-
Parks Legacy Fund	125,000	-	-	125,000	-
Restoration of William Hamilton Merritt Statue	135,000	-	-	135,000	-
Pathway - Hydro Corridor (P7)	760,000	-	760,000	-	-
Splashpad	1,000,000	-	-	-	1,000,000
	<b>2,955,000</b>	<b>-</b>	<b>760,000</b>	<b>780,400</b>	<b>1,414,600</b>
<b>BUILDING AND FACILITIES</b>					
Administrative and Operational Facilities	870,000	-	110,000	37,200	722,800
PRCS Arenas and Recreational Facilities	1,955,000	-	370,000	401,100	1,183,900
PRCS Parks Structure and Facilities	640,000	-	70,000	-	570,000
Special Purpose Facilities	595,000	-	95,000	267,000	233,000
	<b>4,060,000</b>	<b>-</b>	<b>645,000</b>	<b>705,300</b>	<b>2,709,700</b>
<b>FIRE SERVICE</b>	<b>6,500,000</b>	<b>-</b>	<b>-</b>	<b>313,350</b>	<b>6,186,650</b>
<b>PARKING SERVICE</b>	<b>55,000</b>	<b>-</b>	<b>55,000</b>	<b>-</b>	<b>-</b>
Enterprise Resource Planning System, Financials replacement	4,000,000	-	-	196,000	3,804,000
Asset Management - Phase 2	1,300,000	-	-	161,850	1,138,150
<b>CORPORATE INFRASTRUCTURE</b>	<b>5,300,000</b>	<b>-</b>	<b>-</b>	<b>357,850</b>	<b>4,942,150</b>
<b>TRANSIT COMMISSION SERVICES</b>	<b>600,000</b>	<b>-</b>	<b>-</b>	<b>60,000</b>	<b>540,000</b>
<b>TOTALS 2022 CAPITAL FORECAST</b>	<b>\$ 54,052,360</b>	<b>\$ 4,621,699</b>	<b>\$ 2,010,000</b>	<b>\$ 13,510,838</b>	<b>\$ 33,909,823</b>

CITY OF ST. CATHARINES  
2021 CAPITAL BUDGET AND FOUR YEAR FORECAST (SCHEDULE U)

	2021	2022	2023	2024	2025
<b>CAPITAL EXPENDITURES</b>					
<b>Roads</b>	8,186,859	8,191,000	11,831,000	7,851,951	8,720,001
<b>Sidewalks and Walkways</b>	764,000	1,264,200	710,000	710,000	710,000
<b>Storm Sewer Collection System (including Sewer Separation)</b>	2,533,200	4,610,800	2,375,168	3,815,100	3,970,000
<b>Sanitary Sewer Collection System</b>	4,091,720	3,903,954	3,694,133	6,473,376	7,346,844
<b>Pollution Control</b>	500,000	800,000	1,000,000	1,000,000	1,000,000
<b>Water Distribution System (Watermain)</b>	7,928,320	9,165,906	4,031,225	13,760,749	14,250,964
<b>Bridges and Major Culverts</b>	1,290,000	1,707,500	-	805,000	517,500
<b>Shoreline Protection</b>	1,546,500	11,000	489,000	3,224,000	41,000
<b>Watercourses</b>	380,000	1,430,000	6,730,000	1,800,000	580,000
<b>Regional Projects</b>	339,000	3,498,000	10,466,000	-	1,962,000
<b>Community, Recreation and Culture Services</b>	4,136,436	2,955,000	1,545,000	1,115,000	965,000
<b>Buildings and Facilities (including Accessibility)</b>	5,000,800	4,060,000	8,410,000	7,075,000	5,116,019
<b>Parking Services</b>	100,000	55,000	200,000	850,000	-
<b>Fire Services</b>	1,370,000	6,500,000	7,720,000	7,292,727	9,125,509
<b>Corporate Infrastructure</b>	1,500,000	5,300,000	4,300,000	-	-
<b>Transit Commission</b>	600,000	600,000	600,000	600,000	600,000
	<b>\$ 40,266,835</b>	<b>\$ 54,052,360</b>	<b>\$ 64,101,526</b>	<b>\$ 56,372,903</b>	<b>\$ 54,904,837</b>
<b>SOURCES OF FINANCING</b>					
Gas Tax	4,971,699	4,621,699	4,405,251	4,405,251	4,405,251
Other External Funding (including Grants)	2,213,436	550,000	550,000	550,000	550,000
Reserve Funds (including D.C)	1,725,000	1,460,000	2,791,520	1,296,363	1,312,754
<b>TOTAL GRANTS/ 3rd PARTY/ RESERVES</b>	<b>\$ 8,910,135</b>	<b>\$ 6,631,699</b>	<b>\$ 7,746,771</b>	<b>\$ 6,251,614</b>	<b>\$ 6,268,005</b>
Infrastructure Levy	1,730,000	1,694,000	1,569,000	1,569,000	1,569,000
Tax Support	1,150,000	1,350,000	1,700,000	2,100,000	2,272,000
Water/Wastewater	6,224,250	7,001,758	7,663,693	8,205,747	8,728,982
Capital Out of Revenue (1)	1,778,000	3,465,080	4,947,800	7,398,190	9,093,900
<b>TOTAL TAX/ RATE PAYER</b>	<b>\$ 10,882,250</b>	<b>\$ 13,510,838</b>	<b>\$ 15,880,493</b>	<b>\$ 19,272,937</b>	<b>\$ 21,663,882</b>
<b>DEBENTURE (2)</b>	<b>20,474,450</b>	<b>33,909,823</b>	<b>40,474,262</b>	<b>30,848,352</b>	<b>26,972,950</b>
<b>TOTAL</b>	<b>\$ 40,266,835</b>	<b>\$ 54,052,360</b>	<b>\$ 64,101,526</b>	<b>\$ 56,372,903</b>	<b>\$ 54,904,837</b>

CITY OF ST. CATHARINES  
2021 CAPITAL BUDGET AND FOUR YEAR FORECAST (SCHEDULE U)

	2021	2022	2023	2024	2025
Note (1)					
Capital out of Revenue Allocation					
Tax Supported	1,000,000	1,450,200	1,750,000	2,000,000	2,250,000
Water/Wastewater	718,000	1,954,880	3,137,800	5,338,190	6,783,900
Transit Commission	60,000	60,000	60,000	60,000	60,000
Total Capital out of Revenue	<u>1,778,000</u>	<u>3,465,080</u>	<u>4,947,800</u>	<u>7,398,190</u>	<u>9,093,900</u>
Note(2)					
Debenture Allocation					
Tax Supported	16,587,660	30,003,601	36,099,397	24,970,164	20,481,024
Water/Wastewater	3,346,790	3,366,222	3,834,865	5,338,188	5,951,926
Transit Commission	540,000	540,000	540,000	540,000	540,000
Total Debenture	<u>20,474,450</u>	<u>33,909,823</u>	<u>40,474,262</u>	<u>30,848,352</u>	<u>26,972,950</u>



OTHER POTENTIAL CAPITAL PROJECTS - 2026 and BEYOND  
SCHEDULE V

The intent of the list below is to highlight projects that have been raised to Council or discussed by Council. As these projects have not been included in the forecast at this time they would be considered in years six through ten (2026- 2030). However, some of these items represent underfunding of current programs, and should funding become available the expenditures could be accelerated. The costs provided are based on high level estimates. Costs are expected to change as the scope is refined and project planning proceeds. This list does not include the regular ongoing annual replacement of linear assets, and buildings and facilities that are being accommodated in the annual Capital Budget. Also, Sidewalks and Roads underfunding has not been included on this list, as they are currently under review.

Project Type	Asset	Facility/location	Description	Estimated Cost (\$000)	Supporting reports plans/strategy	Estimated Year
SI	Road/ Bridge	Moffat Street Secondary Access	High level estimate to be confirmed once location is determined	\$ 6,500	Environmental Assessment funding approved 2019	2026-29
R	Road	First Road West	(associated with development of s/o CNR lands)	1,295	2009 Development Charges (D.C.) Study	2026-30
R	Shoreline	Newport ROW Shoreline	Shoreline Protection	985	2018 Shoreline Protection Review	2026-27
R	Watercourses	Lock Wall Rehabilitation	Various lock wall locations identified as medium rating to be completed within 1-5 years	590	2018 Lock Wall Inspections	2026
R	Bridges	Bridges	Replacements -Costs over \$500k annual budget	1,900	2018 Bridge and Culvert Inspection	2026-30
R	Watercourses	Dick's Creek	Erosion control- Various locations Spring Garden Creek & other locations	4,000	2011 Inspection/2014 Priority Report	2026
R	Shoreline	Lakefront Park	2024 budget deferrals	1,000		2026
R	Arena	Bill Burgoyne Arena	Twin Arena (option 1)	21,800	PRCS-124-2019 - Arena Strategy	2029
R	Heritage	Old Courthouse	Address Accessibility / Deficiencies	2,700		2026
R	Arena	Merritton Arena	Replace floor and boards	1,100		2026
R	Park	Jaycee Park	New indoor equipment storage facility	1,000		2026-30
R	Aquatics	Not yet determined	Aquatics facilities	10,000	Aquatics Facility Strategy	2026
SI	Park	Sunset Beach	Park Improvements phase 3 including Playground	1,400	PRCS-149-2019	2026-30
R	Playgrounds	Playground Replacements	57 playground replacements as planned from 2020-29	9,360		2026-29
R	Tennis Courts	Tennis Court Replacements	10 tennis courts replacements as planned from 2020-29	2,075		
R	Basketball Courts	Basketball Courts	18 basketball courts replacements as planned from 2020 -29	1,350	PRCS-B002-2018 - Parks Renewal Plan	
SI	Park	Not yet determined	Skateboard Park (north of the QEW)	500	Recreation Facility & Programming Master Plan Recommendation #28 / Recreation Master Plan Advisory Committee's highest prioritized recommendation	2026-30
<b>2025-2029 identified unfunded projects</b>				<b>\$ 67,555</b>		



2021 CAPITAL BUDGET  
PROJECT FUNDING (SCHEDULE W)

			FUNDING SOURCES									
			GRANTS/DEV. CHRGS/RESERVES			RATE/TAX PAYER SUPPORT						
Sch.	Project No.	Facility/Project Name	Gross Cost	Gas Tax	Other External Funding	Reserves & Budget Transfers	Infrastruct. Levy	Tax Support	Water/Wastewater	Capital out of Revenue	Debenture	Notes
B	P17-067	St. David's Rd./Townline Reconstruction	1,807,500	375,000	-	-	-	-	-	75,000	1,357,500	
B	P18-061	Gale Cres. Road and Underground Improvements	252,000	-	-	-	-	-	-	15,200	236,800	
B	P18-062	Lake St. Road and Underground Improvements	180,000	-	-	-	-	-	-	10,800	169,200	
B	P18-063	Chestnut/Merritt St. Road and Underground Improvements	228,000	-	-	-	-	-	-	13,700	214,300	
B	P18-063	Chestnut/Merritt St. Road and Underground Improvements	150,000	-	-	-	-	-	-	8,000	142,000	
B	P20-062	Scarth Rd. Reconstruction	100,000	-	-	-	-	-	-	6,000	94,000	
B	P20-068	Grantham Rail Trail	340,000	-	-	-	-	-	-	20,000	320,000	
B	P21-061	Pelham Rd. (bike lanes)	469,000	-	125,000	-	-	-	-	20,700	323,300	2
B	P21-062	Eleanordale / Helm / Rochelle / Tavistock / Viking Road and Underground Improvements	516,359	369,699	-	-	-	-	-	8,800	137,860	
B	P21-063	Tremont Drive Retaining Wall Rehab	125,000	-	-	-	-	-	-	7,500	117,500	
B	P21-064	Hasting St.	1,303,000	-	-	-	-	-	-	78,200	1,224,800	
B	P21-068	Bike Lane Bollards	36,000	-	-	-	36,000	-	-	-	-	
B	P21-069	Active Transportation	250,000	-	-	-	-	-	-	15,000	235,000	
B	P21-080	2021 Road Resurfacing Program	1,736,000	1,075,000	-	-	-	600,000	-	3,700	57,300	
B	P21-097	Traffic Signals (including pedestrian crossings)	300,000	-	-	-	300,000	-	-	-	-	
B	P21-101	Greenmeadow / Wood Underground Improvements	394,000	300,000	-	-	-	-	-	5,700	88,300	
C	P17-067	St. David's/Townline Reconstruction	356,000	-	-	-	-	252,000	-	6,300	97,700	
C	P18-061	Gale Cres. Rd and Underground Improvements	19,000	-	-	-	-	19,000	-	-	-	
C	P20-062	Scarth Rd. Reconstruction	23,000	-	-	-	-	23,000	-	-	-	
C	P21-040	2021 Walkway and Sidewalk Improvements	50,000	-	-	-	50,000	-	-	-	-	
C	P21-042	2021 New Sidewalks	86,000	-	-	-	-	-	-	5,200	80,800	
C	P21-061	Pelham Rd. (bike lanes)	104,000	-	-	-	-	40,000	-	3,800	60,200	
C	P21-064	Hasting St.	126,000	-	-	-	-	16,000	-	6,600	103,400	
D	P17-067	St. David's/Townline Reconstruction	250,000	250,000	-	-	-	-	-	-	-	
D	P18-061	Gale Cres. Road and Underground Improvements	159,150	-	-	-	-	-	-	9,600	149,550	
D	P18-062	Lake St. Road and Underground Improvements	29,850	-	-	-	-	-	-	1,800	28,050	
D	P20-062	Scarth Rd. Reconstruction	59,000	-	-	-	-	-	-	3,600	55,400	
D	P21-001	Princess / Westchester Underground Improvements	250,000	-	125,000	-	-	-	-	7,500	117,500	1
D	P21-004	Forest Hill / Hillcrest / Rockcliffe Underground Improvements	118,200	-	-	-	-	-	-	7,100	111,100	

2021 CAPITAL BUDGET  
PROJECT FUNDING (SCHEDULE W)

			FUNDING SOURCES									
			GRANTS/DEV. CHRGS/RESERVES			RATE/TAX PAYER SUPPORT						
Sch.	Project No.	Facility/Project Name	Gross Cost	Gas Tax	Other External Funding	Reserves & Budget Transfers	Infrastruct. Levy	Tax Support	Water/Wastewater	Capital out of Revenue	Debenture	Notes
D	P21-006	Catch Basins and Storm Service Installations	100,000	-	-	-	-	-	-	6,000	94,000	
D	P21-007	Glendale/Merritt/Northwood/Wiley	92,000	-	-	-	-	-	-	5,600	86,400	
D	P21-014	Storm CCTV Sewer Inspections	100,000	-	-	-	-	-	-	6,000	94,000	
D	P21-015	Design for Possible Future Storm Sewer Projects	50,000	-	-	-	-	-	-	3,000	47,000	
D	P21-016	Storm Sewer Spot Repairs	250,000	-	-	-	-	-	-	15,000	235,000	
D	P21-064	Hasting St.	286,000	-	-	-	-	-	-	17,200	268,800	
D	P21-101	Greenmeadow / Wood Underground Improvements	284,000	-	142,000	-	-	-	-	8,600	133,400	1
D	ST21-12	Storm System Master Servicing Study	300,000	-	-	-	-	-	-	18,000	282,000	
D	ST21-13	Carlton St. Storm Sewer Study	75,000	-	-	-	-	-	-	4,500	70,500	
D	ST21-14	Ontario St. CSO Reduction Study	30,000	-	-	-	-	-	-	1,800	28,200	
D	ST21-15	Port Dalhousie Area Storm Servicing Study	100,000	-	-	-	-	-	-	6,000	94,000	
E	P17-067	St. David's/Townline Reconstruction	695,000	-	-	-	-	-	273,500	110,500	311,000	
E	P18-061	Gale Cres. Road and Underground Improvements	113,000	-	-	-	-	-	113,000	-	-	
E	P18-062	Lake St. Road and Underground Improvements	502,720	287,500	-	-	-	-	-	57,000	158,220	
E	P19-065	Ridley Rd. Re-Alignment and Improvement	350,000	-	-	-	-	-	-	92,800	257,200	
E	P21-001	Princess / Westchester Underground Improvements	848,000	805,000	-	-	-	-	43,000	-	-	
E	P21-004	Forest Hill / Hillcrest / Rockcliffe Underground Improvements	159,000	-	-	-	-	-	159,000	-	-	
E	P21-007	Glendale/Merritt/Northwood/Wiley	460,000	157,500	-	-	-	-	302,500	-	-	
E	P21-010	2021 Extraneous Flow Elimination	50,000	-	-	-	-	-	50,000	-	-	
E	P21-011	Sanitary Sewer Spot Repairs	500,000	-	-	-	-	-	500,000	-	-	
E	P21-012	Sanitary Sewer Flushing & Reaming	25,000	-	-	-	-	-	25,000	-	-	
E	P21-014	Sanitary CCTV Sewer Inspections	300,000	-	-	-	-	-	300,000	-	-	
E	P21-015	Design for Future Sanitary Sewer Projects	50,000	-	-	-	-	-	50,000	-	-	
E	P21-019	Sewershed Analysis	10,000	-	-	-	-	-	10,000	-	-	
E	P21-064	Hasting St.	29,000	-	-	-	-	-	29,000	-	-	
F	ST21-11	2021 Pollution Control Priority	500,000	-	-	-	-	-	-	132,700	367,300	
G	P18-062	Lake St. Road and Underground Improvements	169,000	-	-	-	-	-	169,000	-	-	

2021 CAPITAL BUDGET  
PROJECT FUNDING (SCHEDULE W)

			FUNDING SOURCES									
			GRANTS/DEV. CHRGS/RESERVES			RATE/TAX PAYER SUPPORT						
Sch.	Project No.	Facility/Project Name	Gross Cost	Gas Tax	Other External Funding	Reserves & Budget Transfers	Infrastruct. Levy	Tax Support	Water/Wastewater	Capital out of Revenue	Debenture	Notes
G	P18-063	Merritt St. Road and Underground Improvements	60,000	-	-	-	-	-	60,000	-	-	
G	P20-062	Scarth Rd. Reconstruction	131,000	-	-	-	-	-	131,000	-	-	
G	P20-100	Edinburgh/ Tamarack	632,000	-	-	-	-	-	-	79,000	553,000	
G	P20-102	Lakeshore Rd. at Welland Canal Watermain Replacement	107,000	-	-	-	-	-	107,000	-	-	
G	P20-116	Storz Hydrant Port Conversions	212,320	-	-	-	-	-	212,320	-	-	
G	P21-001	Princess / Westchester Underground Improvements	778,000	287,000	-	-	-	-	491,000	-	-	
G	P21-002	Bartlett / Perma/ Underground Improvements	724,000	-	-	-	-	-	724,000	-	-	
G	P21-003	Ontario St. (RR#42) Underground improvement	300,000	-	-	-	-	-	300,000	-	-	
G	P21-004	Forest Hill / Hillcrest / Rockcliffe Underground Improvements	127,000	-	-	-	-	-	127,000	-	-	
G	P21-062	Eleanordale / Helm / Rochelle / Tavistock / Viking Rd. & Underground Improvements	2,277,000	488,000	-	-	-	-	438,000	171,000	1,180,000	
G	P21-100	Flanders Watermain Improvements	560,000	-	-	-	-	-	560,000	-	-	
G	P21-101	Greenmeadow / Wood Underground Improvements	1,551,000	577,000	-	-	-	-	378,930	75,000	520,070	
G	P21-118	Valves, Hydrants & Services	50,000	-	-	-	-	-	50,000	-	-	
G	P21-119	Design for 2022 Projects	50,000	-	-	-	-	-	50,000	-	-	
G	ST21-17	Water Master Servicing Plan	200,000	-	-	-	-	-	200,000	-	-	
H	P17-121	Third Ave. Louth / Glass Ave Bridge @ 15 Mile	1,215,000	-	412,500	-	-	-	-	48,200	754,300	3
H	P17-125	South Service Rd. Bridge (B011S) Condition Survey & Rehab Replacement Analysis	75,000	-	-	-	-	-	-	4,500	70,500	
I	P20-132	Westgate Park (8-14 Shore Blvd)	1,546,500	-	-	-	-	-	-	93,200	1,453,300	
J	ST21-16	Watercourse Flooding & Erosion Control Priority Study	150,000	-	-	-	-	-	-	9,000	141,000	
J	P21-129	Spring Garden Creek EA / Design	230,000	-	-	-	-	-	-	13,800	216,200	
K	RN20-stp	Region - St. Paul St. W (RR#81) Bridge Over CN Tracks	51,000	-	-	-	-	-	51,000	-	-	
K	RN20-stp	Region - St. Paul St. W (RR#81) Bridge Over CN Tracks	20,000	-	-	-	-	-	20,000	-	-	
K	RN20-stp	Region - St. Paul St. W (RR#81) Bridge Over CN Tracks	18,000	-	-	-	-	-	-	1,100	16,900	

2021 CAPITAL BUDGET  
PROJECT FUNDING (SCHEDULE W)

			FUNDING SOURCES									
			GRANTS/DEV. CHRGS/RESERVES			RATE/TAX PAYER SUPPORT						
Sch.	Project No.	Facility/Project Name	Gross Cost	Gas Tax	Other External Funding	Reserves & Budget Transfers	Infrastruct. Levy	Tax Support	Water/Wastewater	Capital out of Revenue	Debenture	Notes
K	RN21-dow	Region - Downing Trunk Watermain Replacement and ancillary works	250,000	-	-	-	-	-	-	15,000	235,000	
L	PRC18-01	Canada Summer Games (year 4 of 4)	320,000	-	-	-	-	-	-	19,200	300,800	PA
L	PRC21-01	Tree Planting Program	368,000	-	-	-	368,000	-	-	-	-	
L	PRC21-02	Park Renewal Plan - Montebello Park Playground	330,000	-	-	-	330,000	-	-	-	-	
L	PRC21-03	Memorial Bench Program - 50 benches	80,000	-	-	-	80,000	-	-	-	-	
L	PRC21-04	Park Renewal Plan - Bogart St. Park Basketball/Tennis/Pickleball Court & Playground	380,000	-	264,000	-	116,000	-	-	-	-	7
L	PRC21-05	Parks Legacy Fund - Happy Rolph's	179,000	-	84,000	-	95,000	-	-	-	-	4 PA
L	PRC21-05-1	Parks Legacy Fund	60,000	-	30,000	-	30,000	-	-	-	-	4
L	P21-155	City-wide Trail Improvements	1,030,936	-	1,030,936	-	-	-	-	-	-	9
L	P21-156	Splashpad/ Washroom	200,000	-	-	-	-	-	-	12,000	188,000	
L	P21-157	Active Transportation Priorities	1,188,500	-	-	-	-	-	-	63,200	1,125,300	
M	P16-163	Bill Burgoyne Arena Roof Replacement - Low Roof (NW Corner)	25,000	-	-	25,000	-	-	-	-	-	5
M	P18-181	Museum HVAC	700,000	-	-	-	-	-	-	42,000	658,000	
M	P19-147	Robertson School Flat Roof Maintenance	50,000	-	-	-	-	-	-	3,000	47,000	
M	P20-153	Sunset Beach Washroom Full Accessibility	250,800	-	-	-	-	-	-	15,100	235,700	
M	P20-157	P20-157 Centennial Library-Garage Security Doors/Fencing	20,000	-	-	20,000	-	-	-	-	-	5
M	P20-159	Meridian Centre Chiller Regasketing	100,000	-	-	-	-	-	-	6,000	94,000	
M	P20-162	Meridian Centre - Front Sliding Door Replacement	25,000	-	-	25,000	-	-	-	-	-	5
M	P21-142	Buchanan House Green House Demolition	150,000	-	-	150,000	-	-	-	-	-	5
M	P21-136	Roofing Replacements (2 locations)	80,000	-	-	-	80,000	-	-	-	-	
M	P21-137	Arena LED Lighting Refit (3 arenas)	225,000	-	-	-	-	-	-	13,500	211,500	
M	P21-138	Kiwanis Aquatics Centre - Waste Heat Recovery	50,000	-	-	50,000	-	-	-	-	-	5
M	P21-139	Kiwanis Aquatics Centre - Window/Flashing	50,000	-	-	50,000	-	-	-	-	-	5
M	P21-140	Merritton Arena Replace Floor, Boards, Header and Mains	1,200,000	-	-	-	-	-	-	72,000	1,128,000	
M	P21-141	Garden City & Bill Burgoyne Arenas Capital Maintenance	110,000	-	-	65,000	-	-	-	2,700	42,300	
M	P21-143	Burgoyne Woods Site Paving	500,000	-	-	-	200,000	-	-	18,000	282,000	
M	P21-144	Burgoyne Woods Washroom Roof	15,000	-	-	15,000	-	-	-	-	-	5

2021 CAPITAL BUDGET  
PROJECT FUNDING (SCHEDULE W)

			FUNDING SOURCES									
			GRANTS/DEV. CHRGS/RESERVES			RATE/TAX PAYER SUPPORT						
Sch.	Project No.	Facility/Project Name	Gross Cost	Gas Tax	Other External Funding	Reserves & Budget Transfers	Infrastruct. Levy	Tax Support	Water/Wastewater	Capital out of Revenue	Debenture	Notes
M	P21-145	Lakeside Park - New Parking Lot	25,000	-	-	25,000	-	-	-	-	-	5
M	P21-146	Centennial Library Recaulk Exterior Panels	150,000	-	-	-	-	-	-	9,000	141,000	
M	P21-147	Performing Arts Centre Sump Pump Replacements	20,000	-	-	20,000	-	-	-	-	-	5
M	P21-148	Performing Arts Centre Exterior Door Repairs	10,000	-	-	10,000	-	-	-	-	-	5
M	P21-149	Meridian Centre Life Safety Lines	45,000	-	-	-	45,000	-	-	-	-	
M	P21-150	Robertson School - Annex Foundation Repairs	400,000	-	-	-	-	-	-	24,000	376,000	
M	P21-152	Sunset Beach - Parking Lot	250,000	-	-	-	-	-	-	13,000	237,000	
M	P21-153	Self-Cleaning/Contained Washroom (Downtown)	500,000	-	-	300,000	-	-	-	8,000	192,000	6
M	P21-154	St.Catharines Public Library Security Gates	50,000	-	-	-	-	-	-	3,000	47,000	
N	P21-151	Ontario St. Parking Garage Waterproofing Repairs and Security	100,000	-	-	100,000	-	-	-	-	-	5
O	PFR21-01	City's share of Consultants Fees - NG911 Implementation (additional)	30,000	-	-	30,000	-	-	-	-	-	6
O	P21-133	Firehall #1 - Geneva St. Design of Headquarters	250,000	-	-	250,000	-	-	-	-	-	6
O	P21-134	Firehall #1 - Geneva St. Replace RTU-Admin area	40,000	-	-	40,000	-	-	-	-	-	6
O	P21-135	Fire Hall #6 - Scott St. Roofing Replacement	50,000	-	-	50,000	-	-	-	-	-	6
O	PFR21-02	Fire vehicles	1,000,000	-	-	500,000	-	-	-	-	500,000	8
P	PCI21-01	Water and Tax System Replacement	1,000,000	-	-	-	-	-	-	60,000	940,000	
P	ST21-10	Phase 1 Asset Management Implementation	500,000	-	-	-	-	200,000	300,000	-	-	
Q	PTC21-01	2021 Transit Funding Replenishment	600,000	-	-	-	-	-	-	60,000	540,000	
<b>TOTAL</b>			<b>\$ 40,266,835</b>	<b>\$ 4,971,699</b>	<b>\$ 2,213,436</b>	<b>\$ 1,725,000</b>	<b>\$ 1,730,000</b>	<b>\$ 1,150,000</b>	<b>\$ 6,224,250</b>	<b>\$ 1,778,000</b>	<b>\$ 20,474,450</b>	
<b>Less Amount Previously Approved by Council</b>			<b>\$ 499,000</b>	<b>\$ -</b>	<b>\$ 84,000</b>	<b>\$ -</b>	<b>\$ 95,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 19,200</b>	<b>\$ 300,800</b>	
<b>Capital Budget Requiring Council Approval</b>			<b>\$ 39,767,835</b>	<b>\$ 4,971,699</b>	<b>\$ 2,129,436</b>	<b>\$ 1,725,000</b>	<b>\$ 1,635,000</b>	<b>\$ 1,150,000</b>	<b>\$ 6,224,250</b>	<b>\$ 1,758,800</b>	<b>\$ 20,173,650</b>	

Notes:

- 1- Niagara CSO Map Grant Funding
- 2- Regional Bike Grant
- 3 - Cost Sharing with Town of Lincoln
- 4 - Rotary Club Funding to be matched by the City
- 5-Building Reserve

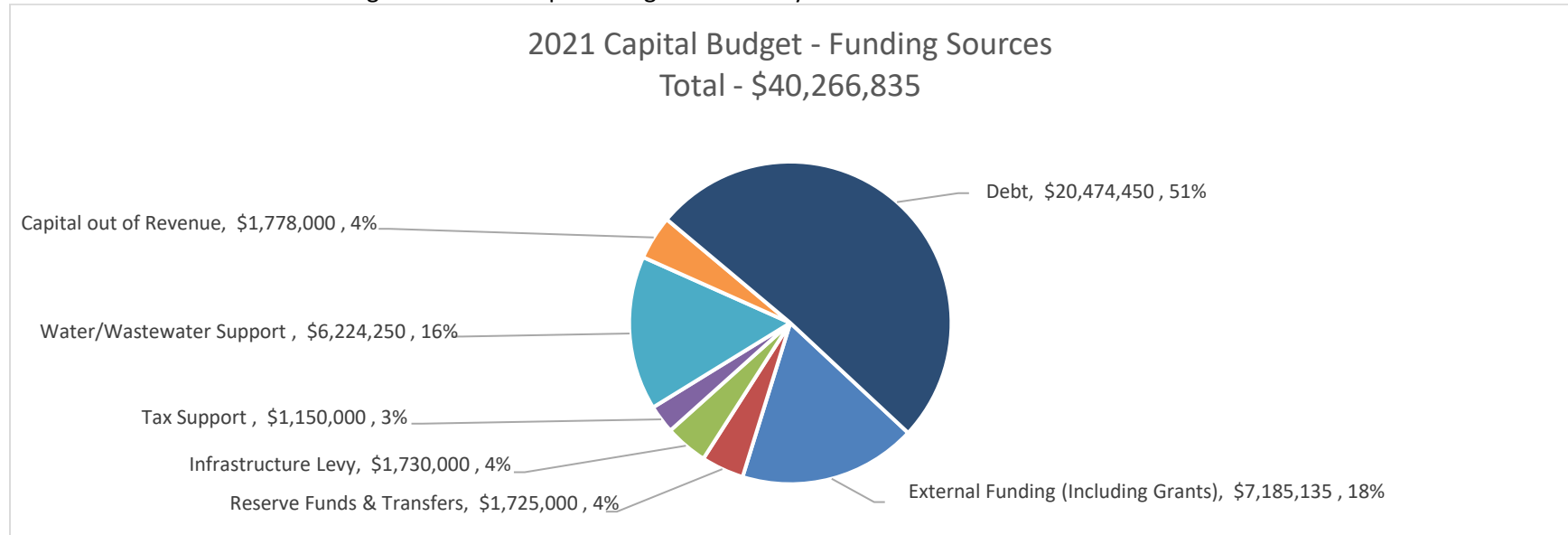
- 6 - Transfer of surplus funding from prior year projects
- 7 - Investing in Canada Infrastructure Program (ICIP)
- 8 - Firefighting Equipment Reserve
- 9 - ICIP COVID19 Funded Project contingent upon receipt of grant funding
- PA - Previously Approved by Council





**Funding Our Capital Assets  
Schedule X**

Seven different sources of funding for the 2021 capital Budget for the City of St. Catharines are shown below:



**External Funding (Including Grants) - \$7,185,135**

The 2021 Budget includes the \$1,030,936 grant the City will submit for funding within Infrastructure Canada’s Investing In Canada Plan (ICIP) COVID19 tranche. The budget also includes an anticipated grant from a prior year ICIP application for \$264,000 for the Bogart Street Court and Playground Renewal Project. Should the City be unsuccessful in securing these grants the related projects could not continue in 2021 as planned.

The Federal Gas Tax Program (FGT) is the largest of the recurring grants received by the City for Capital projects. The City’s Gas Tax funding for 2021 of \$4,971,699 includes annual funding of \$4,221,699 and \$750,000 of surplus funding from projects

completed under budget or funded from additional sources. As in prior years the regular annual amount funds various linear projects that are discussed in further detail in Schedule Y.

The 2021 grant funding also includes anticipated grants of \$392,000 from the Niagara Region, through the Combined Sewer Overflow Control Policy Funding Program (CSO Map Fund) for \$267,000, and the Bike Grant (\$125,000). Should the Region not approve the applications, the related projects will be removed from the 2021 capital budget. In 2021, there is \$412,500 for 50/50 project cost sharing with the Town of Lincoln for a bridge replacement. Finally, The Parks Legacy Fund projects rely upon donor contributions of \$114,000.

**Infrastructure Levy - \$1,730,000**

The Infrastructure Levy was established in 2016 to address the infrastructure deficit. The funds are being utilized to fund renewal. Any funds not allocated in the year will be maintained in a reserve for use in future years for eligible projects. The annual funding has been set at 1% of the City’s portion of the current year tax levy, providing \$1,569,000. For 2021, an \$161,000 of available funding resulting from favorable variances in previous projects has been utilized to provide the City’s funding portion of the Legacy Parks Projects (\$125,000) and the Bollards for Bike Lanes Project (\$36,000) . The projects funded by the 2021 infrastructure levy are shown in the graph below.

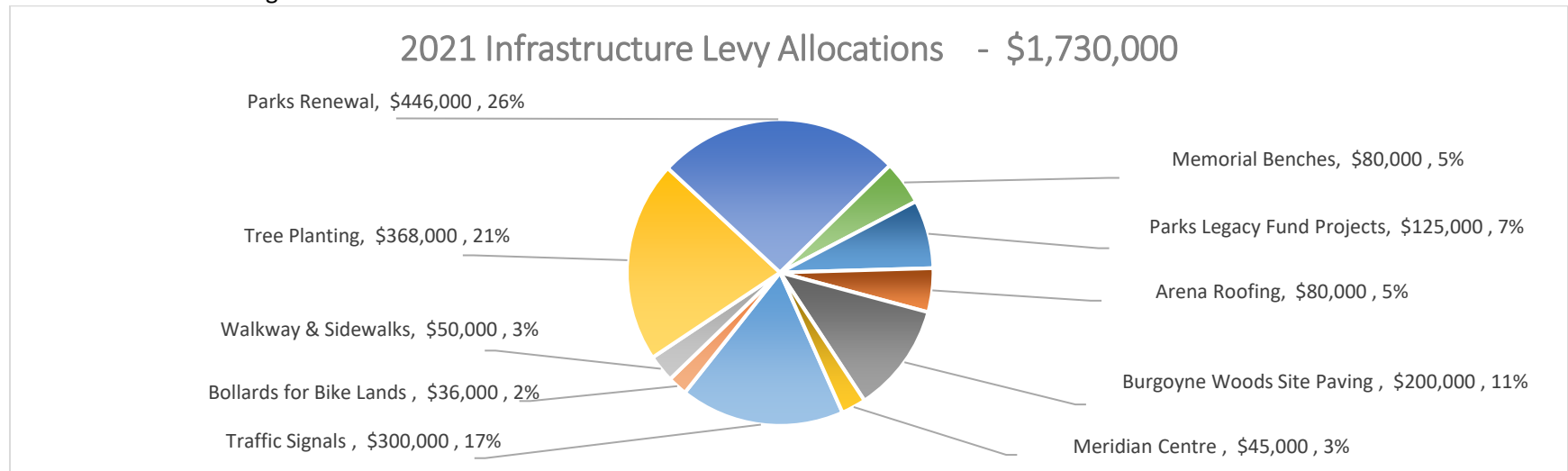
**Reserves & Project Transfers - \$1,725,000**

The City of St. Catharines also uses reserves to fund capital works. The Building Reserve Fund is providing funding of \$555,000 for works related to building and facilities infrastructure. This

contribution is lower than the prior years’ annual contribution of \$650,000 to reduce the operating budget funding. Also \$670,000 of funds have been transferred from existing approved Fire projects to fund other Fire projects and provide partial funding for the Self Cleaning and Contained Washroom Project. Commencing with 2021, Fire Services larger vehicle and equipment purchases have been included within the capital budget and are 50% funded by the Firefighting Equipment Reserve (\$500,000) and 50% funded by debt.

**Tax Support - \$1,150,000**

Consistent with prior years, rehabilitation projects for roads, sidewalks, bridges and major culverts, are included in the Capital budget and funded from the operating budget. Recognizing the immediate financial challenges facing the City as a result of COVID19, the annual funding from the operating budget has been reduced by \$1,156,000 and has been replaced with increased FGT and debt.



### **Utilities Rate Support - \$6,224,250**

In 2019 Council approved the 10-year Financial Plan for Water and Wastewater (Water/Wastewater Plan) that included a significant increase in capital renewal, funded from rates. The Water/Wastewater Plan includes annual increases of no more than 6.5% on a typical residential household bill. The Water/Wastewater Plan was guided by the following principles (FMS-057-2019);

- 1) to reduce existing funding gaps, and
- 2) moving towards a sustainable replacement level of capital spending year over year.

The capital spending and funding amounts from rates, capital out of revenue, and debt that were included in The Water/Wastewater Plan, have been adjusted in the 2021 budget in response to the financial and operational challenges facing the City caused by COVID19. The 2021 budget and 2022-2025 forecast reflects a reallocation of the investment in Water and Wastewater. Decreased spending in years 2021-2023 is offset by increases in spending in the years 2024 - 2026, resulting in the same net investment in infrastructure over the next 6 years. However, in the short term the spending deferrals will continue to contribute to the widening infrastructure gap.

### **Capital out of Revenue - \$1,778,000**

Capital out of revenue is the portion of the project cost that is funded from the operating budget. This Council supported strategy, sets the contribution rate at 10% of the project costs not funded from other identified sources. The capital out of revenue contribution approximates one years' worth of debenture costs of the project.

For 2021 the capital out of revenue contribution percentage has been reduced to 6% to provide relief to the operating budget,

significantly impacted by COVID19. These funding reductions have been offset by higher Federal Gas tax funding and debentures.

Where the City is issuing debt for water, wastewater or Transit Commission, a separate capital out of revenue payment is required from the respective area. The capital out of revenue contribution rates for Water and Wastewater set out in the Water/Wastewater Plan range from 40% to 60%, so as to manage debt levels while increasing investment in capital. For 2021 the capital out of revenue contribution percentage has been reduced to 12% (Water) and 27%(Wastewater) to provide relief to the 2021 Water/Wastewater budget, which will be significantly impacted by COVID19. These funding reductions have been offset by higher Federal Gas tax funding and debentures.

### **Debt - \$20,474,450**

Debt is the most significant funding source for the annual Capital Budget and is utilized after all other funding has been applied. Debenture financing allows the City to spread the costs of Capital over the term of debt, rather than requiring funding in the year of construction. Using debt also facilitates paying for the assets over a period that approximates the asset life. Debt Management is necessary to ensure that the City maintains an appropriate debt level. The Council Approved Debt Management Strategy is outlined in schedule AB.

Debenture funding has been utilized to reduce tax and rate supported funding 2021, to respond to the current financial situation. However, at 51%, the debt funding percentage is still comparable to debt funding rates in prior years.



**Funding from Federal Gas Tax - \$4,971,699  
Schedule Y**

Council endorsed a five-year capital investment plan for FGT revenues in 2009 which identified continued funding for combined sewer system upgrades (storm sewer separations) and watermain replacement in conjunction with the combined sewer system upgrade and various road resurfacing projects. Council subsequently shifted focus away from underground infrastructure to include facility energy related initiatives and non-resurfacing roadwork. One of the requirements of the FGTP is that the expenditures are incremental, meaning that the funds cannot be used to displace current capital investment or reduce municipal taxes.

The City's use of \$4,971,699 of Gas Tax funding includes annual funding of \$4,221,699 and \$750,000 of surplus funding from

projects completed under budget and/or funded from additional sources. The additional funding has been utilized to reduce the 2021 tax and rate payer support.

Below is a list of the 2021 capital projects funded by FGT:

B	2021 Road Resurfacing	1,075,000
B	Road Construction	1,044,699
C	Storm Sewer Collection	250,000
E	Sanitary Sewer Collection	1,092,500
G	Water Distribution	1,509,500
	<b>TOTAL</b>	<b>\$ 4,971,699</b>



## Debt Management Strategy Schedule Z

The currently established Debt Management Strategy, with Council's ongoing support, has the following criteria:

- 1) Eligibility: Not all capital projects are suited for debt financing. The City's strategy is to recommend debt financing only for infrastructure purposes. Large projects that provide assets with well-defined benefits to the community, have long asset lives and the ability to leverage additional financing elsewhere are eligible for debt financing.
- 2) Sustainable level of borrowing: For debt management purposes, the City has adopted a policy aimed at containing debt charges at approximately 10% of the City's total own expenditures. This constraint ensures that the debt service costs will not become an increasing burden and a larger portion of the City's budget, as it is essential the City ensure debt levels are sustainable within the Operating Budget.
- 3) Debt repayment: The City has a 10% down payment strategy which reduces the amount to be borrowed and at the same time, bringing the approximate costs of one year's debt service to the year of decision. As a result, Council will raise, through property taxes, an amount which will be equivalent of future annual debt charges for each project. Debentures are taken for shorter timeframes versus longer timeframe which are typically five or ten years.

The Water/Wastewater Plan includes increasing capital out of revenue percentages, over the next 10 years. The targets of at least a 40/60 split are intended to balance asset renewal and debt levels.

The capital out of revenue contributions of 6% for tax supported projects included in the 2021 Capital Budget are outside of the current Debt Management Strategy's guidance. These reduced rates will provide temporary relief to the 2021 operating budget. The debt funded projects still remain in compliance with Criteria 1 listed above.

While the debt charges for 2021 will remain below 10% of the City's own expenditures, in compliance with criteria 2 of the Strategy, the future year forecasts outlined below indicate that the debt charge ratio will move above 10%. These forecasts will be updated and the debt servicing ratios will continue to be monitored and reviewed with Council on a regular basis.

## Debt Management Strategy Schedule Z

The Municipal Act requires that a Municipality have a five-year capital financing forecast. Ontario Regulation 403/02 limits annual debt charges to no more than 25% of the City's net revenue fund revenues. Using this guideline, the City could increase its debt (approximately) by a further \$80.36 million based on an interest rate of 7%, which is the rate the Ministry of Municipal Affairs uses for illustrative purposes. (Calculation is provided on Schedule AA). Using a lower estimated borrowing rate of 5%, the City's additional debt capacity would be \$90.34 million.

The additional debt capacity has decreased from prior years (2019 - \$194 million) as a result of the change in accounting treatment for the City's commitment to fund the Niagara Health System Hospital. The Ontario Regulation 403/02 requires the inclusion of the total remaining outstanding principal and interest on this type of obligation, which has reduced the current year borrowing capacity by \$108 million. This debt capacity adjustment will reduce to nil by 2026 when the obligation is fully settled.

The City Treasurer has updated the Debt Repayment Limit for the City, and the debenture amount proposed in the 2021 Capital Budget will not cause the City to exceed its limit.

In 2019, the City's debt charges were 8.56% of the City's total estimated expenditures. Each year, the Ministry of Municipal Affairs

produces a financial indicator review that states that debt costs between 5% and 10% are considered moderate risk – which is where the City of St Catharines currently resides. Table 1 below reports the estimated impact of increased borrowing activities for the next five years.

Table 1 below shows the total debt charges as a percentage of operating budget exceeding the 10% upper limit in 2022. There are many assumptions to determine this percentage, including the amount of debt to be issued, timing of the debt issuances and total amount of expenditures. The assumptions made are conservative. This projection assumes all future debt being issued for a period of 10 years is at an interest rate of 4%. The interest rate on recent debentures issues has been much lower (2019-2.37%, 2020 -1.57%). Any changes made to any of the assumptions – whether that is timing, term or interest rate for debt issuances, or the level of capital spending supported by debt, will have an impact on the debt charges as a percentage of expenditures, the projected debt balance and future tax levy impacts.

As the City continues to refine its Asset Management Plan and formulate its future debt needs these forecasts will be updated and the debt servicing will continue to be monitored and reviewed on a regular basis, for compliance with Council set limits.

TABLE 1

	2020	2021	2022	2023	2024	2025
<b>Outstanding Debt</b>	\$122.9m	\$126.8m	\$131.70m	\$139.3m	\$150.6m	\$163.9m
<b>Debt Per Household</b>	\$2,053	\$2,117	\$2,200	\$2,327	\$2,515	\$2,736
<b>Total Annual Debt Servicing</b>	\$17.3m	\$18.5 m	\$20.8 m	\$21.6m	\$23.4 m	\$25.3m
<b>As % of Operating Budget</b>	9.11%	9.48%	10.40%	10.51%	11.13%	11.73 %



## 2021 CAPITAL BUDGET -MUNICIPAL ACT DEBT LIMITS (SCHEDULE AA)

Calculation of Debt Charges:		(Per 2019 FIR schedule 81 )		
Total Principal			\$	24,764,757
Total Interest				6,413,246
NET DEBT CHARGES			A	<u>\$ 31,178,003</u>
Calculation of Annual Repayment Limit:				
Total Revenue Fund Revenue (sch10 9910)			\$	223,142,785
<b>Excluded Revenue Amounts</b>				
Ontario Grants - incl. Grants for TCAs (SLC 10 0699 01+SLC 10 0810 01+ SLC10 0815 01)				667,113
Canada Grants - incl. Grants for TCAs (SLC 10 0820 01+SLC 10 0825 01)				(453,773)
Deferred Revenue Earned (Provincial Gas Tax) (SLC 10 830 01)				(2,524,717)
Deferred Revenue Earned (Canada Gas Tax) (SLC 10 831 01)				(5,138,713)
Other Municipalities including revenue for TCA (SLC 10 1098 01+SLC 101099 01)				(7,036,786)
Gain/Loss on sale of land & capital assets (SLC 10 1811 01)				(37,800)
Deferred revenue earned (Recreation Land the planning act) (SLC 10 1813 01)				(1,335)
Other Deferred revenue earned (SLC 10 1814 01)				(231,161)
Donated Tangible Capital Assets (SLC 53 0610 01)				(887,424)
Increase/Decrease in Gov't Business Enterprise equity (SLC 10 1905 01)				(1,837,057)
NET REVENUE FUND REVENUES			\$	<u>205,661,132</u>
25% OF NET REVENUE FUND REVENUE			B	<u>\$ 51,415,283</u>
Adjustments to Annual Repayment Limit				
ANNUAL REPAYMENT LIMIT UNDER REGULATION			C (B - A)	<u>\$ 20,237,280</u>
Unfinanced prior year capital projects/unissued debt (details in AA-1)		\$		41,801,153
Capitalized Annual Repayment	Years	Rate	Factor	
	10	7.00%	0.1424	D
				<u>(5,951,544)</u>
ADJUSTED ANNUAL REPAYMENT LIMIT			(C - D)	<u>\$ 14,285,736</u>
Remaining Debt Capacity				
Capitalized Debt Capacity				100,337,033
2020 Capital Budget				(19,974,450)
REMAINING DEBT CAPACITY				<u>80,362,583</u>

## 2021 CAPITAL BUDGET - SCHEDULE AA-1

### MUNICIPAL ACT DEBT LIMITS

UNFINANCED PRIOR YEAR CAPITAL PROJECTS/UNISSUED DEBT  
(INCLUDES 2020 CAPITAL PROJECTS)

	Debt Amount
Roads	\$ 9,277,143
Sidewalks & Walkways	1,469,000
Storm Sewer Collection (incl. Separation)	7,517,300
Pollution Control Plan	1,934,500
Water Distribution System	348,250
Shoreline Protection	1,452,000
Canada Summer Games Commitment	864,000
Arenas Improvement Program	2,403,000
Merritton Park	940,000
Senior and Community Centres	238,460
PRCS Other Buildings & Facilities	2,165,000
Heritage Buildings	2,029,000
Fire	4,401,000
Parking Operations	270,000
Lock III Complex	1,485,000
Administrative & Operational Workspace	1,906,500
Corporate Infrastructure	3,101,000
TOTAL	\$ 41,801,153

**Capital Budget and Debt – Municipal Comparators  
Schedule AB**

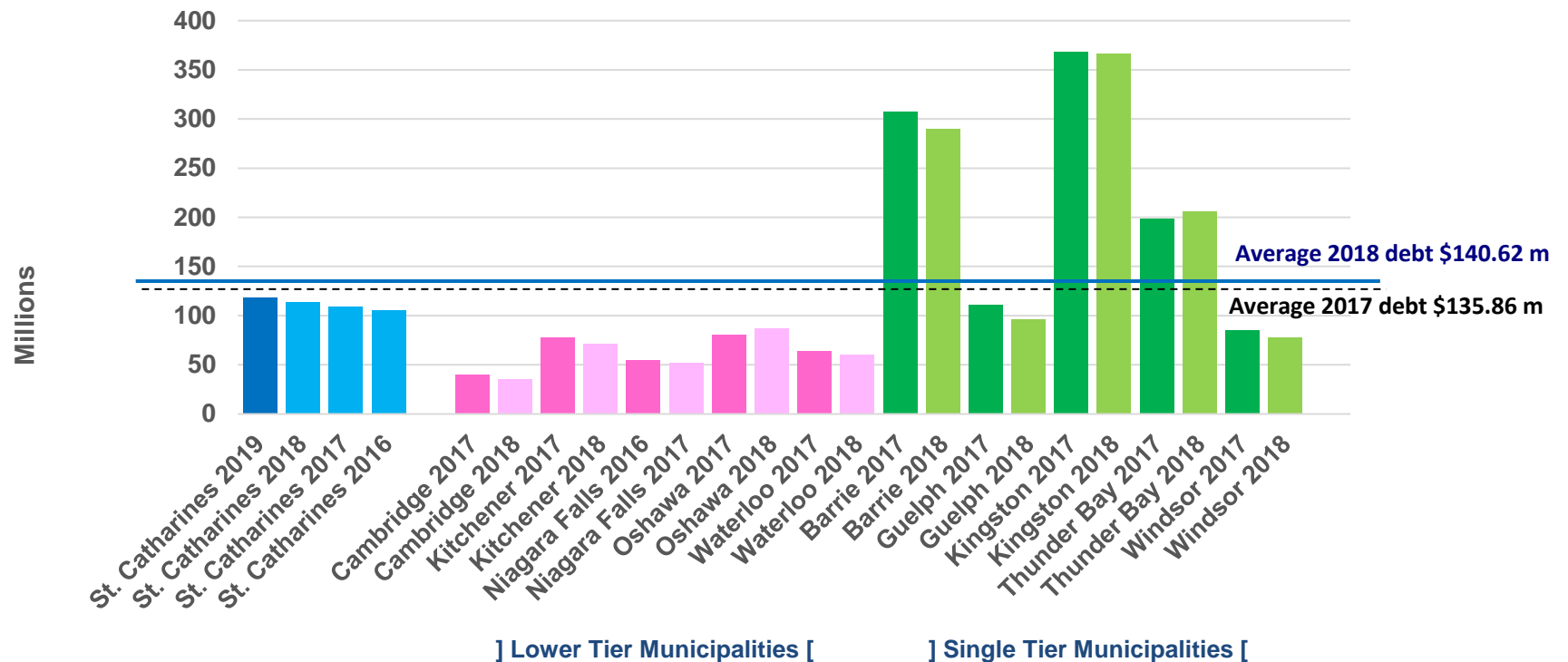
Unlike Federal and Provincial budgets, municipal budgets are very capital intensive. Borrowing for capital projects provides many economic benefits for the future of the municipality, especially so, as choosing to be debt-free would result in substantially less infrastructure being renewed and available to the public. City Council has identified five single-tier and five lower-tier municipalities with similar characteristics to the City of St. Catharines, which are shown in Graph 1 below.

Table 2 below shows the City of St. Catharines debt burden for the last four years (including internal debt).

**TABLE 2**

City of St. Catharines Outstanding Debt (\$Millions)	
2016	\$111.3
2017	\$114.6
2018	\$119.3
2019	\$122.9

**Graph 1. Debt levels: Comparator Municipalities**

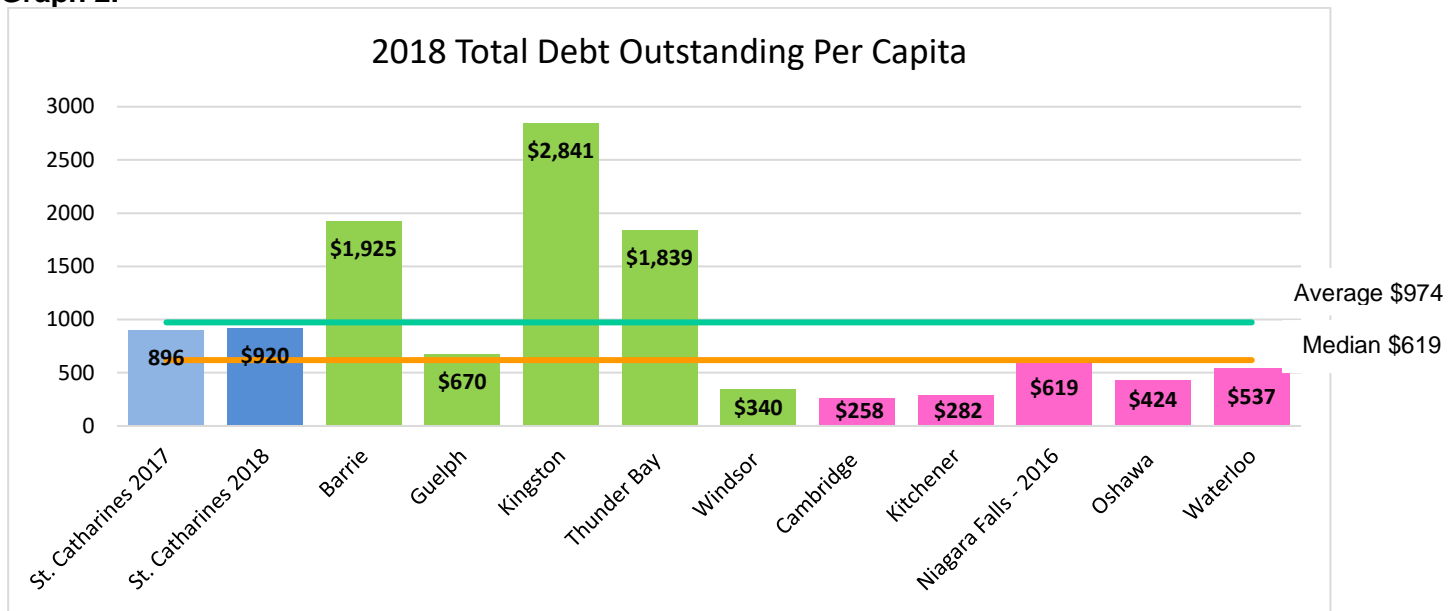


**Capital Budget and Debt – Municipal Comparators  
Schedule AB (continued)**

Debt per capita is another common debt ratio. The latest data available from the 2019 BMA Study based on 2018 FIR data is shown in the Graph 2 below. The City of St. Catharines total debt outstanding per capita for 2018 was \$920, which is above the average for all reporting municipalities in the BMA study. The 2018 average for municipalities in the 2019 BMA Study was \$758 and the median was \$550. Looking amongst our ten comparators the data is a bit different. The eleven comparator municipalities’ average for 2018 was \$974 and the median

was \$619. St. Catharines outstanding debt per capita of \$920 for 2018 (\$896– 2017) is below the average for the Council approved municipal comparators. While the City of St. Catharines debt is at the higher end of the comparators, it is still at a reasonable level in comparison to other municipalities, particularly older cities with similar aged infrastructure.

**Graph 2.**



2021 CAPITAL BUDGET  
REPRIORITIZED PRIOR FOUR YEAR FORECASTS (SCHEDULE AC)

This summary of capital expenditures compares the projected four year forecast (2021-2025) and capital budget completed in 2020 with the new figures projected in 2021 for the same forecast time period.

	2021			2022			2023			2024		
	2020 Forecast	2021 Forecast	Variance \$	2020 Forecast	2022 Forecast	Variance \$	2020 Forecast	2023 Forecast	Variance \$	2020 Forecast	2024 Forecast	Variance \$
<b>CAPITAL EXPENDITURES</b>												
<b>Roads</b>	7,861,000	8,186,859	325,859	8,031,000	8,191,000	160,000	8,391,000	11,831,000	3,440,000	8,402,000	7,851,951	(550,049)
<b>Sidewalks and Walkways</b>	474,000	764,000	290,000	50,000	1,264,200	1,214,200	211,000	710,000	499,000	735,000	710,000	(25,000)
<b>Storm Sewer Collection System (Incl. Sewer Sep.)</b>	2,825,168	2,533,200	(291,968)	1,840,000	4,610,800	2,770,800	2,375,168	2,375,168	-	3,815,168	3,815,100	(68)
<b>Sanitary Sewer Collection System</b>	4,036,720	4,091,720	55,000	4,208,954	3,903,954	(305,000)	5,077,133	3,694,133	(1,383,000)	6,173,376	6,473,376	300,000
<b>Pollution Control</b>	500,000	500,000	-	800,000	800,000	-	1,000,000	1,000,000	-	1,000,000	1,000,000	-
<b>Water Distribution System (Watermains)</b>	8,589,320	7,928,320	(661,000)	8,415,906	9,165,906	750,000	7,979,225	4,031,225	(3,948,000)	12,960,749	13,760,749	800,000
<b>Bridges and Major Culverts</b>	1,100,000	1,290,000	190,000	420,000	1,707,500	1,287,500	450,000	-	(450,000)	674,000	805,000	131,000
<b>Shoreline Protection</b>	1,845,000	1,546,500	(298,500)	35,000	11,000	(24,000)	640,000	489,000	(151,000)	1,910,000	3,224,000	1,314,000
<b>Watercourses</b>	800,000	380,000	(420,000)	1,400,000	1,430,000	30,000	4,050,000	6,730,000	2,680,000	1,600,000	1,800,000	200,000
<b>Regional Projects</b>	2,236,000	339,000	(1,897,000)	7,425,000	3,498,000	(3,927,000)	4,998,000	10,466,000	5,468,000	-	-	-
<b>Parks, Recreation and Culture Services</b>	4,264,101	4,136,436	(127,665)	2,027,800	2,955,000	927,200	1,387,000	1,545,000	158,000	1,739,600	1,115,000	(624,600)
<b>Buildings and Facilities (Including Accessibility)</b>	6,500,000	5,000,800	(1,499,200)	3,975,000	4,060,000	85,000	4,627,000	8,410,000	3,783,000	4,910,000	7,075,000	2,165,000
<b>Parking Services</b>	-	100,000	100,000	1,095,000	55,000	(1,040,000)	400,000	200,000	(200,000)	-	850,000	850,000
<b>Fire Services</b>	330,000	1,370,000	1,040,000	1,420,000	6,500,000	5,080,000	4,420,000	7,720,000	3,300,000	3,850,000	7,292,727	3,442,727
<b>Corporate Infrastructure</b>	700,000	1,500,000	800,000	500,000	5,300,000	4,800,000	500,000	4,300,000	3,800,000	500,000	-	(500,000)
<b>Transit Commission</b>	600,000	600,000	-	600,000	600,000	-	600,000	600,000	-	600,000	600,000	-
	<u>42,661,309</u>	<u>40,266,835</u>	<u>(2,394,474)</u>	<u>42,243,660</u>	<u>54,052,360</u>	<u>11,808,700</u>	<u>47,105,526</u>	<u>64,101,526</u>	<u>16,996,000</u>	<u>48,869,893</u>	<u>56,372,903</u>	<u>7,503,010</u>

Projects Added/Increased	Projects Added/Increased	Projects Added/Increased	Projects Added/Increased
Roads Increased 325,859	Roads Increased 160,000	Other Roads Prj. Increased 520,000	Sanitary Sewer Increased 300,000
Sidewalks Increased 290,000	Burleigh Hill Dr. Prj. Added 1,214,200	First Street Louth Road Impr.Added 2,920,000	Water Distribution Increased 800,000
Sanitary Sewer Increased 55,000	Storm Sewer Increased 2,770,800	Sidewalks Increased 499,000	Bridges & Culverts Increased 131,000
Bridges and Major Culverts Increased 190,000	Water Distribution Increased 750,000	Dick's Creek Watercourse Added 600,000	Shoreline Prtctn -Lakefront Park Incrs 1,107,500
Region- Downning Trunk Watermain/Storm Sewer Repl. Added 250,000	Other Bridges & Culverts Increased 482,500	Watercourses Impr. Added 2,080,000	Other Shoreline Protection Prj. Incrs 206,500
Ontario St. Parking Grge Waterproof 100,000	South Service Road Bridge Added 805,000	Regional Projects Increased 864,000	Watercourses Increased 200,000
Fire - Pumper Replacement Added 1,000,000	Watercourses Increased 30,000	Regional - St Paul St. W Added 2,365,000	Sunset Beach Project Increased 143,468
Fire Services Added 40,000	Regional Projects Increased 233,000	Regional - Ontario St delayed 3,650,000	Other Buildings & Facilities Proj. Incr. 1,594,932
Corp. Infra.- Asset Mgmt Project 500,000	Park Renewal Plan Increased 155,000	Parking - Ontario St.Garage Security 200,000	Park Legacy Fund Added 250,000
Corporate Infra. Other increases 300,000	Splashpad Added 1,000,000	Parks Legacy Fund Added 250,000	Memorial Benches Added 80,000
Park Renewal Plan -Bogart St. Added 380,000	Parks Legacy Fund Added 125,000	Park Renewal Plan Increased 515,000	Park Renewal Plan Increased 85,000
Parks Legacy Fund Added 239,000	William Hamilton Merritt Statue 135,000	Building & Facilities Increased 3,213,000	Garden Park 850,000
Active Transportation Priorities Added 1,188,500	Fire Hall Projects ( Fire Hall #1) 5,080,000	Sunset Beach Added 570,000	Fire Hall Projects ( Fire Hall #1) 2,350,000
Splashpad/ Washroom Added 200,000	Corp.Inf. - ERPS project 3,800,000	Fire Services Increased 6,800,000	Fire - Pumper Replace Vehicle unit #17 1,092,727
City-wide Trail Improvements Added 1,030,936	Corp. Inf.- Asset Mgmt Project 1,000,000	Fire - Breathing Apparatus Added 900,000	Airport Added
PRCS Increased 5,000	Sunset Beach Increased 83,200	Corporate Infrastructure Increased 3,800,000	
Meridian Centre Increased 40,000			
\$ 6,134,295	\$ 17,823,700	\$ 29,746,000	\$ 9,191,127
<b>Less: Projects Decreased/Deferred</b>	<b>Less: Projects Decreased/Deferred</b>	<b>Less: Projects Decreased/Deferred</b>	<b>Less: Projects Deferred/Decreased</b>
Storm Sewer Decreased 291,968	Sanitary Sewer Decreased 305,000	Sanitary Sewer Decreased 1,383,000	Roads Decreased 550,049
Water Distribution Decreased 661,000	Shoreline Protection Decreased 24,000	Water Distribution Decreased 3,948,000	Sidewalks Decreased 25,000
Shoreline Protection Decreased 298,500	Regional- Ontario St. Prj. Delayed 4,160,000	Bridges & Culverts Deferred 450,000	Storm Sewer Decreased 68
Watercourses Decreased 420,000	Buildings and Facilities Deferred 485,000	Shoreline Protection Decreased 151,000	Tree Planting Program Decreased 13,000
Region-St. Paul St. W delayed to later yr 2,147,000	Other Parking Service Prj.Deferred 245,000	Region - Louth Street Delayed 1,411,000	Welland Canal Trail 600,000
PRSC- Sunset Beach Deferral 2,670,301	Garden Park Prkg Lot Recons. Prj. Deferr 795,000	William St. Parking Lot Deferred 400,000	Corporate Infrastructure Advanced 500,000
Parks Structures & Other Special Purpose Facilities Decreased 570,000	Tree Planting Program Decreased 1,000	Tree Planting Program Decreased 7,000	
Admin. & Operational Buildings Decreased 750,000		Welland Canal Trail 600,000	
Arenas & Rec. Facilities Decreased 720,000		Fire Hall #1 Project Advanced 4,400,000	
\$ 8,528,769	\$ 6,015,000	\$ 12,750,000	\$ 1,688,117
\$ (2,394,474)	\$ 11,808,700	\$ 16,996,000	\$ 7,503,010



2021 CAPITAL BUDGET SORTED BY WARD-LINEAR PROJECTS  
(SCHEDULE AD)

Schedule	Project No.	Project Name/ Location	Details	WARD
B	P17-067	St. David's Rd./Townline Reconstruction	Road reconstruction in conjunction with underground improvements	1
B	P18-061	Gale Cres. Road and Underground Improvements	Engineering services for detailed design following for future road reconstruction	1
B	P18-063	Chestnut/Merritt St. Road and Underground Improvements	Detailed design for future road reconstruction	1
B	P18-063	Chestnut/Merritt St. Road and Underground Improvements	Environmental Assessment (EA) for the Chestnut Street Extension, aligned with the Draft Transportation Master Plan recommendations	1
B	P21-063	Tremont Drive Retaining Wall Rehab	Address identified deficiencies in steel bin retaining wall nearing life expectancy	1
B	P21-064	Hasting St.	City share of development agreement for road reconstruction and relocation of lighting and poles	1
B	P21-080	2021 Road Resurfacing Program - Dunkirk Rd.	Mill full depth road repairs and asphalt overlay	1
B	P21-080	2021 Road Resurfacing Program - Admiral Rd.	Semi urban road resurfacing	1
B	P21-080	2021 Road Resurfacing Program - Park Ave.	Semi urban road resurfacing	1
B	P21-080	2021 Road Resurfacing Program - Page St.	Full width mill, curb and base repairs, and 50mm asphalt overlay	1
C	P17-067	St. David's/Townline Reconstruction	New north side sidewalk in conjunction with Thorold Road reconstruction and upgrade existing sidewalks	1
C	P18-061	Gale Cres. Road and Underground Improvements	Engineering services for detailed design or sidewalk replacements in conjunction with road reconstruction	1
C	P21-064	Hasting St.	City share of development agreement for sidewalks replacement and installation of new sidewalks in conjunction road reconstruction	1
D	P17-067	St. David's/Townline Reconstruction	City share of storm sewer construction in conjunction with Thorold Road reconstruction	1
D	P18-061	Gale Cres. Road and Underground Improvements	Engineering services for detailed design for storm sewer installation in conjunction with road reconstruction	1

2021 CAPITAL BUDGET SORTED BY WARD-LINEAR PROJECTS  
(SCHEDULE AD)

Schedule	Project No.	Project Name/ Location	Details	WARD
D	P21-064	Hasting St.	City share of storm sewer works in conjunction of new development	1
D	P21-001	Princess / Westchester Underground Improvements	Installation of new storm sewer in conjunction with watermain replacement	1
E	P17-067	St. David's/Townline Reconstruction	Rebudgeted & additional funds for replacement of existing sanitary sewers in conjunction with Thorold Road reconstruction project	1
E	P18-061	Gale Cres. Road and Underground Improvements	Engineering services for detailed design for replacement of sanitary sewer sections in conjunction with road reconstruction	1
E	P21-064	Hasting St.	City share of costs for sanitary works in conjunction with development servicing agreement	1
E	P21-001	Princess / Westchester Underground Improvements	Replacement of existing sanitary sewers in conjunction with watermain replacement (Gas Tax)	1
E	P21-007	Glendale/Merritt/Northwood/Wiley	Replacement of a deteriorated sanitary sewer section	1
G	P18-063	Merritt St. Road and Underground Improvements	Engineering services for detailed design for replacement of existing cast iron watermain in conjunction with road works	1
G	P21-001	Princess / Westchester Underground Improvements	Replacement of existing cast iron watermain in conjunction with sanitary and storm sewer replacement	1
G	P21-002	Bartlett / Perma/ Underground Improvements	Replacement of existing ductile iron watermain	1
H	P17-125	South Service Rd. Bridge (B011S) Condition Survey & Rehab Replacement Analysis	Engineering Assessment for Condition Survey and Analysis (rehabilitation, replacement or removal)	1
B	P20-062	Scarath Rd. Reconstruction	Road reconstruction	2
B	P21-061	Pelham Rd. (bike lanes)	Road improvements to accommodate bike lanes	2
C	P20-062	Scarath Rd. Reconstruction	Sidewalk replacement in conjunction with road reconstruction	2
C	P21-061	Pelham Rd. (bike lanes)	Sidewalk improvements to accommodate bike lanes	2
D	P20-062	Scarath Rd. Reconstruction	Funds for installation of catch basins & catch basin leads to improve drainage in conjunction with road reconstruction	2



2021 CAPITAL BUDGET SORTED BY WARD-LINEAR PROJECTS  
(SCHEDULE AD)

<b>Schedule</b>	<b>Project No.</b>	<b>Project Name/ Location</b>	<b>Details</b>	<b>WARD</b>
D	P21-004	Forest Hill / Hillcrest / Rockcliffe Underground Improvements	Engineering services for new storm sewer sections in conjunction with sanitary sewer and road works	2
D	P21-007	Glendale/Merritt/Northwood/Wiley	Replacement of a collapsed storm sewer section across Glendale Avenue	2
E	P19-065	Ridley Rd. Re-Alignment and Improvement	Council Approval PBS-108-2019, additional funds for the replacement of sanitary sewer sections in conjunction with watermain and road works	2
E	P21-004	Forest Hill / Hillcrest / Rockcliffe Underground Improvements	Design for sanitary sewer sections replacement in conjunction with storm sewer and road works	2
G	P20-062	Scarth Rd. Reconstruction	Funds for replacement of existing cast iron watermain in conjunction with road reconstruction	2
G	P21-004	Forest Hill / Hillcrest / Rockcliffe Underground Improvements	Engineering services for replacement of existing cast iron watermain in conjunction with sanitary and storm sewers work and road resurfacing	2
K	RN20-stp	Region - St. Paul St. W (RR#81) Bridge Over CN Tracks	Additional funds for new sidewalks in conjunction with Regional bridge replacement project	2
K	RN20-stp	Region - St. Paul St. W (RR#81) Bridge Over CN Tracks	Additional funds for new sanitary sewer sections in conjunction with Regional bridge replacement project	2
K	RN20-stp	Region - St. Paul St. W (RR#81) Bridge Over CN Tracks	Replacement of existing cast iron watermain in conjunction with Regional bridge replacement project	2
K	RN21-dow	Region - Downing Trunk Watermain Replacement and ancillary works	New storm relief sewer for combined sewer separation in conjunction with Regional trunk watermain replacement	2
B	P21-101	Greenmeadow / Wood Underground Improvements	Road repairs in conjunction with underground service improvements	3
D	P21-101	Greenmeadow / Wood Underground Improvements	Installation of new storm sewer sections in conjunction with watermain road resurfacing	3
E	P21-007	Glendale/Merritt/Northwood/Wiley	Replacement of a deteriorated sanitary sewer section	3

2021 CAPITAL BUDGET SORTED BY WARD-LINEAR PROJECTS  
(SCHEDULE AD)

Schedule	Project No.	Project Name/ Location	Details	WARD
G	P21-002	Bartlett / Perma/ Underground Improvements	Replacement of existing cast iron watermain in conjunction with possible sanitary sewer spot repairs	3
G	P21-100	Flanders Watermain Improvements	Replacement of existing cast iron watermain in conjunction with sanitary sewer spot repairs and road resurfacing	3
G	P21-101	Greenmeadow / Wood Underground Improvements	Replacement of ductile iron or cast iron watermains in conjunction with roadworks and storm sewer works	3
B	P18-062	Lake St. Road and Underground Improvements	Engineering services for detailed design following for future road reconstruction	4
B	P21-080	2021 Road Resurfacing Program - Catharine St.	Full width mill, curb and base repairs, and 50mm asphalt overlay	4
D	P18-062	Lake St. Road and Underground Improvements	Engineering services for detailed design for installation of storm sewers in conjunction with road reconstruction	4
D	ST21-13	Carlton St. Storm Sewer Study	Study to determine storm sewer separation possibilities for a larger area that drains towards Carlton Street sewers	4
D	ST21-14	Ontario St. CSO Reduction Study	Study to review existing sewer systems in order to possibly reduce instances of combined sewer overflows	4
E	P18-062	Lake St. Road and Underground Improvements	Engineering services and partial construction funding for replacement of sanitary sewer sections in conjunction with road reconstruction	4
G	P18-062	Lake St. Road and Underground Improvements	Engineering services for detailed design for replacement of existing cast iron watermain in conjunction with road reconstruction	4
G	P21-003	Ontario St. (RR#42) Underground improvement	Design for the replacement of existing cast iron watermains in conjunction with possible sanitary and storm sewer spot repairs	4
H	P17-121	Third Ave. Louth / Glass Ave Bridge @ 15 Mile Creek	Additional funds for replacement of bridge with load restrictions. Costs shared with Town of Lincoln	4
B	P21-062	Eleanordale / Helm / Rochelle / Tavistock / Viking Rd. and Underground Improvements	Milling, spot curb repairs and asphalt overlay in conjunction with underground service improvements	5

2021 CAPITAL BUDGET SORTED BY WARD-LINEAR PROJECTS  
(SCHEDULE AD)

Schedule	Project No.	Project Name/ Location	Details	WARD
B	P21-080	2021 Road Resurfacing Program - Lake St.	Full width mill, curb and base repairs, and 50mm asphalt overlay	6
G	P20-102	Lakeshore Rd. at Welland Canal Watermain Replacement	Additional funds for construction to be coordinated with St. Lawrence Seaway Corporation	5
G	P21-062	Eleanordale / Helm / Rochelle / Tavistock / Viking Rd. & Underground Improvements	Replacement of existing ductile iron watermain in conjunction with storm sewer spot repairs and road works	5
G	P20-100	Edinburgh/ Tamarack	Funding to replace 2020 budget reallocation; replace / upgrade of existing cast iron watermain with very high break rate in conjunction with roadworks	5
J	P21-129	Spring Garden Creek EA / Design	Engineering Services to address previously identified deficiencies & to coordinate with sanitary sewer repairs	5
D	ST21-15	Port Dalhousie Area Storm Servicing Study	Study to review possible drainage options for the Port Dalhousie Area to reduce instances of floodings	6
I	P20-132	Westgate Park (8-14 Shore Blvd) - construction	Engineering services & construction to address shoreline protection priorities	6
B	P21-069	Active Transportation	Annual - priority location(s) to be determined	City Wide
B	P21-097	Traffic Signals (including pedestrian crossings)	Annual - priority location(s) to be determined	City Wide
C	P21-040	2021 Walkway and Sidewalk Improvements	Annual walkway repair program locations to be determined	City Wide
C	P21-042	2021 New Sidewalks	Annual - priority location(s) to be determined	City Wide
D	P21-006	Catch Basins and Storm Service Installations	Installation of catch basins, catch basin leads, & storm laterals to alleviate isolated surface flooding	City Wide
D	P21-014	Storm CCTV Sewer Inspections	CCTV inspections of existing sewers to identify condition & future works	City Wide
D	P21-015	Design for Possible Future Storm Sewer Projects	Engineering services for possible future projects	City Wide
D	P21-016	Storm Sewer Spot Repairs	Storm sewer spot repairs in conjunction with other projects or on an as needed basis	City Wide
D	ST21-12	Storm System Master Servicing Study	Storm master servicing study	City Wide

2021 CAPITAL BUDGET SORTED BY WARD-LINEAR PROJECTS  
(SCHEDULE AD)

<b>Schedule</b>	<b>Project No.</b>	<b>Project Name/ Location</b>	<b>Details</b>	<b>WARD</b>
E	P21-011	Sanitary Sewer Spot Repairs	Sanitary sewer spot repairs in conjunction with other projects or on an as needed basis	City Wide
E	P21-012	Sanitary Sewer Flushing & Reaming	Sewer flushing & reaming for physical cleaning of selected sewer sections with operational issues	City Wide
E	P21-014	Sanitary CCTV Sewer Inspections	CCTV inspections of existing sewers to identify condition & future works	City Wide
E	P21-015	Design for Future Sanitary Sewer Projects	Engineering services for possible 2022 projects	City Wide
E	P21-019	Sewershed Analysis	Engineering services required for analysis of sewer capacities as needed	City Wide
E	P21-010	2021 Extraneous Flow Elimination	Study to determine sources of inflow & infiltration into sanitary sewer system	City Wide
F	ST21-11	2021 Pollution Control Priority	Engineering Services to implement recommendations of updated Pollution Control Plan 2020	City Wide
G	P20-116	Storz Hydrant Port Conversions	Multi-year conversion of existing hydrant ports to Storz type connections in priority areas	City Wide
G	P21-118	Valves, Hydrants & Services	Replacement of existing valves, hydrants, & services etc. in conjunction with other works	City Wide
G	P21-119	Design for 2022 Projects	Engineering services for possible 2022 projects	City Wide
G	ST21 - 17	Water Master Servicing Plan	Undertake master servicing plan / EA including pressure zone boundary adjustment recommendations	City Wide
J	ST21-16	Watercourse Flooding & Erosion Control Priority Study	Update 2011 fieldwork & priority study for natural creeks within the City's urban boundary, including culvert condition data	City Wide
B	P21-068	Bike Lane Bollards	Pilot project to add bollards to separate bike lanes from the general traffic lane and improve safety for cyclists	To be determined

2021 CAPITAL BUDGET SORTED BY WARD-FACILITIES PROJECTS  
(SCHEDULE AE)

<b>Schedule</b>	<b>Prj. No.</b>	<b>Project Name/ Location</b>	<b>Details</b>	<b>WARD</b>
M	P18-181	Museum HVAC	Replace outdated equipment which are at the end of service life, and improve efficiency of overall system	1
M	P21-140	Merritton Arena Replace Floor, Boards, Header and Mains	Replace ice slab and boards which are approaching end of service life, and to improve efficiency/performance of ice plant	1
O	P21-133	Firehall #1 - Geneva St. Design of headquarters	Design of new station headquarters based on recommendation from feasibility study and to improve service offering	1
O	P21-134	Firehall #1 - Geneva St. Replace RTU-admin area	Replacement of HVAC equipment which has reached end of serviceable life	1
M	P21-143	Burgoyne Woods Site Paving	Address deficient pavement condition, and to improve user experience	2
M	P21-144	Burgoyne Woods Washroom Roof	Address roofing deficiency, and maintain building envelope	2
B	P20-068	Grantham Rail Trail	Additional funding for the creation and improvement of the Grantham Rail Trail, to respond to unexpected site conditions	3, 5
M	P21-142	Buchanan House Green House Demolition	Demolition of partial asset which is unsuitable for current use, and would require significant capital funding to satisfy code compliance. Improve building envelope, and reduce future maintenance	3
M	P21-138	Kiwanis Aquatics Centre - Waste Heat Recovery	Equipment upgrades to improve energy efficiency in line with the Conservation and Demand Management Plan	3
M	P21-139	Kiwanis Aquatics Centre - Window/Flashing	Address building envelope deficiency	3
M	P19-147	Robertson School Flat Roof Maintenance	Address roofing deficiency, and maintain building envelope	4
M	P20-157	P20-157 Centennial Library-Garage Security Doors/Fencing	Address public safety concerns at Central Branch	4

2021 CAPITAL BUDGET SORTED BY WARD-FACILITIES PROJECTS  
(SCHEDULE AE)

<b>Schedule</b>	<b>Prj. No.</b>	<b>Project Name/ Location</b>	<b>Details</b>	<b>WARD</b>
M	P20-159	Meridian Centre Chiller Regasketing	Preventative maintenance on equipment to prolong service life	4
M	P20-162	Meridian Centre - Front Sliding Door Replacement	Replenish budget for project to mitigate on-going repairs	4
M	P21-146	Centennial Library Recaulk Exterior Panels	Address building envelope deficiency	4
M	P21-147	Performing Arts Centre Sump Pump Replacements	Replacement of deficient equipment, and to minimize future maintenance	4
M	P21-148	Performing Arts Centre Exterior Door Repairs	Address ongoing maintenance concerns	4
M	P21-149	Meridian Centre Life Safety Lines	Address shortcomings of existing system, to provide full coverage over the interior, and will remove costs for temporary rigging for specific events	4
M	P21-150	Robertson School - Annex Foundation Repairs	Necessary foundation repairs identified during the design phase of Annex project	4
M	P21-154	St. Catharines Public Library Security Gates	Installation of security gates and fencing along the covered walkway at the Centennial St. Catharines Public Library at the Church St. entrance, to improve security	4
N	P21-151	Ontario St. Parking Garage Waterproofing Repairs and Security	Address identified deficiency, and to improve user experience and site safety	4
M	P20-153	Sunset Beach Washroom Full Accessibility	Replace existing washroom which is at end of life and does not meet accessibility requirements. Work will improve level of service at park	5
M	P21-152	Sunset Beach - Parking Lot	Design of the new parking lot at Sunset Beach which will inform future construction budget for the parking lot, as well as shoreline protection and associated trail connections	5

2021 CAPITAL BUDGET SORTED BY WARD-FACILITIES PROJECTS  
(SCHEDULE AE)

<b>Schedule</b>	<b>Prj. No.</b>	<b>Project Name/ Location</b>	<b>Details</b>	<b>WARD</b>
O	P21-135	Fire Hall #6 - Scott St .Roofing Replacement	Address roofing deficiency and to maintain building envelope	5
M	P16-163	Bill Burgoyne Arena Roof Replacement - Low Roof (NW Corner)	Address roofing deficiency, and maintain building envelope	6
M	P21-145	Lakeside Park - New Parking Lot	Preliminary design of new parking lot to improve user experience and service offering	6
M	P21-136	Roofing Replacements (2 locations)	Address roofing deficiencies, and maintain building envelopes	1,4
M	P21-141	Garden City & Bill Burgoyne Arenas Capital Maintenance	Replacement and repair of select equipment which are beyond service life	1,6
M	P21-137	Arena LED Lighting Refit (3 arenas)	Full and partial lighting retrofits to improve energy efficiency in line with the CDMP, and to minimize future maintenance	1,2,6
L	P21-155	City-wide Trail Improvements	Trail improvements within; Lakeside Park, Rennie Park, Fairview Park, and Pearson park, and also Merritt Trail. Trail improvements will improve the City's trail network, and particularly park connection points. Project is 100% funded from ICIP Covid-19 grant	City wide
L	P21-156	Splashpad & Washroom	Design of a splashpad, seasonal washroom facility and sun shelter. Location to be informed by the Aquatics Strategy being presented to Council in Q1 2021	To be determined
L	P21-157	Active Transportation Priorities	Active Transportation priorities that have become more urgent as a result of Covid-19 and the resulting need to improve bike trails and City's trail network	To be determined
M	P21-153	Self-Cleaning/Contained Washroom (Downtown)	Purchase and installation of a single unit all-season accessible washroom	To be determined

