

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF MAY 22, 2024

Item 5, Report No. 20 of the Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on May 22, 2024.

5. 2023 ASSET MANAGEMENT STATE OF INFRASTRUCTURE UPDATE

The Committee of the Whole recommends approval of the recommendation contained in the following report of the Deputy City Manager, Infrastructure Development, dated May 14, 2024:

Recommendations

1. THAT the 2023 Asset Management State of Infrastructure updates, as outlined in this report, be received for information.

Committee of the Whole (2) Report

DATE: Tuesday, May 14, 2024

WARD(S): ALL

**TITLE: 2023 ASSET MANAGEMENT STATE OF INFRASTRUCTURE
UPDATE**

FROM:

Vince Musacchio, Deputy City Manager, Infrastructure Development

ACTION: FOR INFORMATION

Purpose

The Asset Management State of Infrastructure Update summarizes the state of the City's infrastructure assets that are essential to providing vital community services. This is the first update on the state of the City's infrastructure since the 2021 and 2022 completion of the Asset Management Plans for Core and Non-Core Assets respectively.

Report Highlights

- The Asset Management Program for City infrastructure is in alignment with the Term of Council Strategic Priority of Service Excellence and Accountability under the Objective to Ensure Financial Sustainability and an Effective and Efficient Administration.
- Information from the Asset Management State of Infrastructure Update has directly informed the “2023 Delivery Report – Infrastructure Development” as well as updates to the Core and Non-Core Asset Management Plans.
- City staff are now internally completing all in-kind future updates to Asset Management Plans building on prior work from external consultants. Net new additions to the Plans required by O. Reg. 588/17 on July 1, 2025 will be facilitated with further work from external consultants.
- 98% of Core assets (such as water, wastewater, stormwater, road and bridge infrastructure) and 91% of Non-Core assets (such as facilities, parks, forestry, fleet, fire and other transportation infrastructure) are in fair or better condition with replacement values of \$6.8B and \$1.6B respectively.

Recommendations

1. THAT the 2023 Asset Management State of Infrastructure updates, as outlined in this report, be received for information.

Background

Assets are essential to provide the necessary services that contribute to the high quality of life enjoyed by City of Vaughan residents. It is imperative to ensure services are delivered in a safe, reliable, and efficient manner, while sustaining a growing community.

Infrastructure assets are built, owned, operated and maintained by the City.

Overall responsibility of asset management is shared across City departments to effectively and continuously assess, evaluate and improve asset management programs to deliver services balanced against considerations of costs and risks.

The City is committed to sustainable asset management practices.

The City has continued to grow its asset base and advance asset management programs to manage its assets. Examples of initiatives implemented through proactive asset management include assessing the condition of buildings like community centers, modeling the deterioration of buried pipes in the water distribution system, and evaluating the remaining life on playground equipment to better inform decisions about maintenance, rehabilitation, replacement, and disposal.

Asset Management Planning for Municipal Infrastructure Regulation came into effect in January 2018.

In May 2017, the Province issued the “Proposed Municipal Asset Management Planning Regulation” to implement best practices throughout the municipal sector. The Regulation is intended to provide certainty around future provincial asset management planning requirements and support resilience and sustainability as key aspects of municipal asset management planning. [Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure](#) came into effect in January 2018.

O. Reg. 588/17 is targeted at the issue of many Ontario municipalities having existing infrastructure assets that are degrading faster than they are being repaired or replaced, putting infrastructure services at risk.

O. Reg. 588/17 stipulates that Asset Management Program elements be in place within Ontario municipalities by specific key dates.

O. Reg 588/17 Requirement	O. Reg 588/17 Requirement Date	City Status for Requirement
Asset Management Policy approved by Council and available on the City’s website.	July 1, 2019	Complete
Asset Management Plans for Core Assets approved by Council and available on the City’s website.	July 1, 2022	Complete
Asset Management Plans for other assets approved by Council and available on the City’s website.	July 1, 2024	Complete
Asset Management Plans augmented with affordability of forecasted Levels of Service.	July 1, 2025	In Progress

The City’s first Asset Management Policy, Core Asset Management Plans and Non-Core Asset Management Plans were approved by Council in March 2019, June 2021 and December 2022 respectively.

The City’s first Asset Management Policy was presented at Finance, Administration and Audit Committee on March 4, 2019. The Policy provides a framework to ensure long-term asset sustainability and demonstrates fiscal stewardship for the City’s growing and aging asset base. Additionally, the policy outlines roles and responsibilities across the corporation, which are critical to successful implementation of the City’s asset management programs.

To empower focused conversations around local and legislated requirements, the policy was divided into six components with the following content:

1. Administrative Requirements
 - Strategic alignment
 - Guiding principles
 - Governance and continuous improvement

2. Critical Assets and Business Risks
 - Potential risks and vulnerabilities
 - Climate change

3. Land-use Planning
 - Community planning
4. Infrastructure Financial Management
 - Budgeting and financial planning
 - Capitalization thresholds
5. Levels of Service
 - Customer expectations
 - Regulatory requirements
 - Organizational objectives
6. Implementation and Communication Procedures
 - Asset management planning inputs
 - Asset management planning outputs

Building on the Asset Management Policy, City Staff proceeded with the preparation of Asset Management Plans for Core Assets (Water, Wastewater, Stormwater, Roads, Bridges, Major Culverts) and presented them at Committee of the Whole (Working Session) on June 2, 2021. Subsequently, City Staff took next steps to develop Asset Management Plans for Non-Core Assets (Facilities, Parks, Active Transportation, Traffic Control & Streetlights, Fleet, Fire) and presented them at Committee of the Whole (Working Session) on December 7, 2022.

The purpose of Asset Management Plans is to capture new infrastructure assets and any updates in the City's asset data, so as to provide the City with comprehensive Asset Management Plans. The objective is to deliver a financial and technical roadmap for the management of the City's core infrastructure assets, and to provide the means for the City to maximize value from its assets, at the lowest overall expense while, at the same time, providing enhanced service levels for its residents and promoting green initiatives.

Essential elements of the Asset Management Plans include:

1. State of Infrastructure
 - Inventory of assets
 - Condition of assets
 - Remaining service life of assets

2. Level of Service
 - Performance measures
 - Future demand drivers
3. Asset Lifecycle Costs
 - Operations and maintenance
 - Capital renewal and replacement
4. Financial Needs and Funding Forecasts
 - 20-Year reinvestment forecast

Development of the Asset Management Plans for Core and Non-Core Assets is in alignment with the Term of Council Strategic Priority of Service Excellence and Accountability under the Objective to Ensure Financial Sustainability and an Effective and Efficient Administration.

City staff are now internally completing all in-kind future updates to Asset Management Plans building on prior work from external consultants. Net new additions to the Plans required by O. Reg. 588/17 on July 1, 2025 will be facilitated with further work from external consultants funded with an already approved project budget.

Organizations that implement good Asset Management practices will benefit from improved business and financial performance, effective investment decisions, and better risk management. Stakeholders can expect lower total asset life cycle costs, higher asset performance, and confidence in sustained future performance.

Previous Reports/Authority

[Item 2, Report No. 5, of the Finance, Administration and Audit Committee, which was adopted without amendment by the Council of the City of Vaughan on March 19, 2019](#)

[The Council-approved Asset Management Policy](#)

[Item 2, Report No. 31, of the Committee of the Whole \(Working Session\), which was adopted without amendment by the Council of the City of Vaughan on June 22, 2021](#)

[The Council-approved Asset Management Plans for Core Assets](#)

[Item 1, Report No. 45, of the Committee of the Whole \(Working Session\), which was adopted without amendment by the Council of the City of Vaughan on December 13, 2022](#)

[The Council-approved Asset Management Plans for Non-Core Assets](#)

Analysis and Options

Fiscally sustainable asset management over the long-term is imperative considering the sizeable valuation of the City’s infrastructure and the multiple decades over which the lifecycle of these assets will span.

The replacement value of the City’s assets in Water, Wastewater, Stormwater, Roads, Bridges and Major Culverts is sizable at a collective \$6.8 billion.

Service Area	Replacement Valuation	Share of Core Assets Valuation
Water Distribution	\$1.5 B	22.2%
Wastewater Collection	\$1.1 B	16.6%
Stormwater Management	\$2.4 B	35.0%
Road Pavement	\$1.5 B	22.2%
Bridges & Major Culverts	\$270 M	4.0%
Total	\$6.8 B	100%

98% of Water, Wastewater, Stormwater, Road, Bridge and Major Culvert assets are in fair or better condition.

Service Area	Asset Condition			
	Very Good	Good	Fair	Poor
Water Distribution	85.6%	4.4%	3.3%	6.7%
Wastewater Collection	99.4%	0.4%	0.1%	0.1%
Stormwater Management	99.7%	0.3%	0.0%	0.0%
Road Pavement	95.0%	4.3%	0.7%	0.0%
Bridges and Major Culverts	11.6%	84.0%	4.4%	0.0%

The replacement value of the City’s assets in Facilities, Parks, Urban Forestry, Active Transportation, Traffic Control & Streetlights, Fleet and Fire is significant at a collective \$1.6 billion.

Service Area	Replacement Valuation	Share of Non-Core Assets Valuation
Facilities	\$680 M	41.6%
Parks	\$273 M	16.7%
Urban Forestry	\$117 M	7.2%
Active Transportation	\$228 M	13.9%
Traffic Control & Streetlights	\$227 M	13.8%
Fleet	\$59 M	3.6%
Fire	\$53 M	3.2%
Total	\$1.34 B	100%

91% of all Facilities, Parks, Urban Forestry, Active Transportation, Traffic Control & Streetlights, Fleet and Fire assets are fair or better condition.

Service Area	Asset Condition			
	Very Good	Good	Fair	Poor
Facilities	43.4%	34.5%	21.9%	0.2%
Parks	17.6%	62.9%	13.0%	6.5%
Urban Forestry	65.0%	8.0%	4.0%	23.0%
Active Transportation	70.4%	17.8%	6.1%	5.7%
Traffic Control & Streetlights	60.8%	4.6%	11.6%	23.0%
Fleet	32.9%	5.7%	10.8%	50.6%
Fire	53.0%	14.0%	16.0%	17.0%

Financial Impact

There are no immediate financial impacts anticipated as a result of the report recommendations.

Information from the Asset Management State of Infrastructure Update directly informs updates to the Core and Non-Core Asset Management Plans. City staff are now internally completing all in-kind future updates to Asset Management Plans building on prior work from external consultants. Net new additions to the Plans required by O. Reg. 588/17 on July 1, 2025 will be facilitated with further work from external consultants

funded with an already approved project budget. These additions to the Plans include determinations of operating and capital affordability for forecasted Levels of Service for all asset service areas. The determination of affordability will intersect with the City's Long-Range Fiscal Plan (LRFP) and will also consider the City's financial reserves to verify which asset service areas are positioned with a funding surplus or shortfall financial outlook.

Operational Impact

There are no immediate operational impacts anticipated as a result of the report recommendations.

Information from the Asset Management State of Infrastructure Update directly informs updates to the Core and Non-Core Asset Management Plans. The Asset Management Plans themselves provide input into annual budget processes through facilitating and informing evidence-based decision-making in how the City's assets are operated, maintained, renewed and replaced toward optimizing costs and mitigating risks over their asset lifecycles while overseeing the levels of service they provide to residents. The Asset Management Plans also provide formal input into capital project management processes at the City.

Broader Regional Impacts/Considerations

There are no Regional impacts anticipated as a result of the report recommendations.

Conclusion

The City is in the advantageous position of having most of its infrastructure being relatively young, which is reflected in the fact that 98% of Core assets (such as water, wastewater, stormwater, road and bridge infrastructure) and 91% of Non-Core assets (such as facilities, parks, forestry, fleet, fire and other transportation infrastructure) are in fair or better condition.

However, management of asset lifecycles with suitable operational and capital activities in addition to ongoing long-term planning with appropriate funding of infrastructure reserves are paramount to ensuring asset service levels are maintained over the approaching decades on a fiscally responsible and sustainable foundation. Upcoming work to meet the final requirements of O. Reg. 588/17 that are due on July 1, 2025 will undertake a detailed analysis of the future affordability of the City's asset service areas and verify which areas are positioned with a funding surplus or shortfall financial outlook.

For more information, please contact: Selma Hubjer, Director, Infrastructure Planning & Corporate Asset Management, Ext. 8674.

Attachments

1. 2023 Asset Management State of Infrastructure Update by Service Area, Infrastructure Planning & Corporate Asset Management, April 2024

Prepared by

Justin Wong, Program Manager, Corporate Asset Management, Ext. 8725

Michael Frieri, Manager, Corporate Asset Management, Ext. 8729

Water



REPLACEMENT COST

\$1,501,106,000

OVERALL CONDITION GRADE

A

CONDITION (FAIR OR BETTER)

93%

ASSET PORTFOLIO

- ▶ **1,174** kilometres of watermains
- ▶ **91,000** service connections with meters
- ▶ **54,014** valves
- ▶ **10,609** hydrants
- ▶ **10,652** chambers
- ▶ **2** water pumping stations

CHANGES IN ASSET PORTFOLIO

In 2023, the City added 3,450 metres of new watermains.

FUTURE OUTLOOK

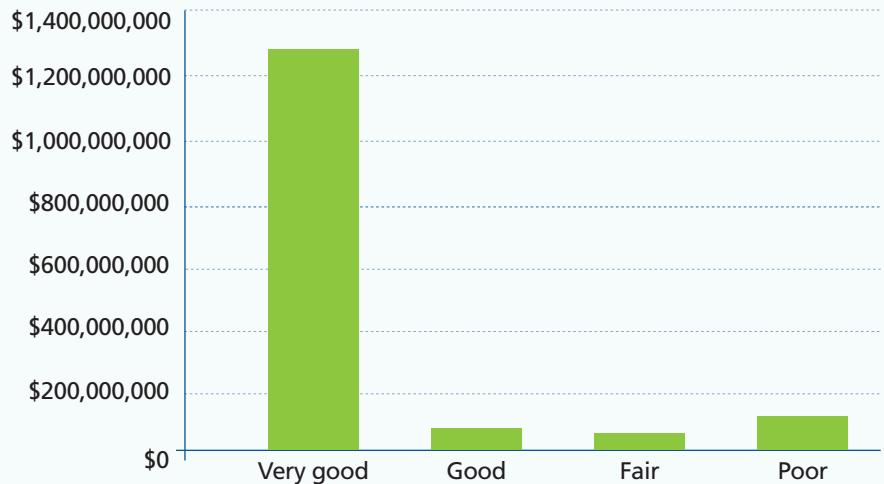
In 2024, the City will initiate a multi-year watermain condition assessment program to provide up-to-date information on Vaughan's watermains.

The City of Vaughan's water service provides drinking water and fire protection services to approximately 335,000 residents and 19,500 businesses. The City manages a reliable water system, that provides sufficient quality flow and safe and drinkable water to all residential, industrial, commercial and institutional customers.

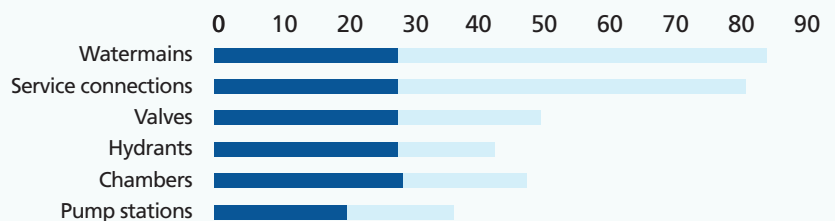
Replacement cost summary

2022 replacement cost		\$1,468,349,000
Changes		\$32,757,000
New and upgraded assets	\$0	
Asset evaluation improvements and inflation	\$32,757,000	
Decommissioned assets	\$0	
2023 replacement cost		\$1,501,106,000

Condition



Average age and useful life expectancy in years



Wastewater



REPLACEMENT COST

\$1,120,943,000

OVERALL CONDITION GRADE

A

CONDITION (FAIR OR BETTER)

99%

ASSET PORTFOLIO

- ▶ **1,024** kilometres of wastewater mains
- ▶ **91,000** laterals
- ▶ **16,592** maintenance holes
- ▶ **12** water pumping stations
- ▶ **1** generator station

CHANGES IN ASSET PORTFOLIO

In 2023, the City added 320 metres of new wastewater mains and lined 470 metres of existing wastewater mains.

FUTURE OUTLOOK

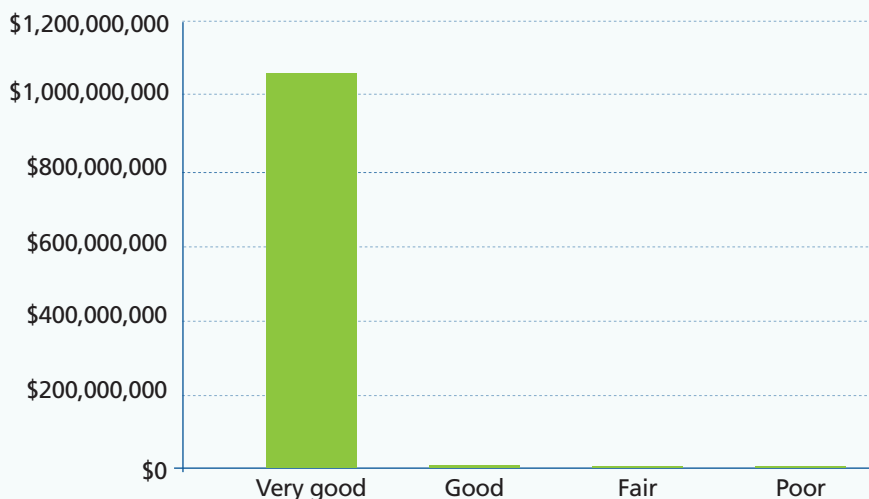
The City will continue closed-circuit television on Vaughan's pipe network to update pipe condition data in 2024.

The City of Vaughan's wastewater infrastructure is a combination of linear sewers (pipes) and pumping stations that collect residential, commercial and industrial wastewater through gravity and force mains. This infrastructure discharges the collected wastewater into regional wastewater treatment plants, where it is cleaned and returned to the environment.

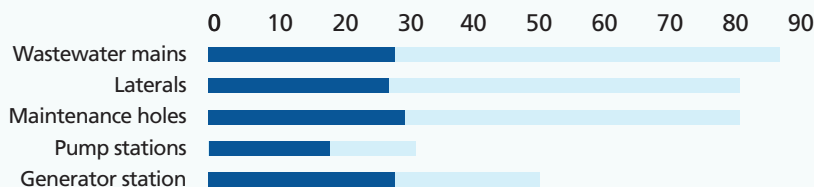
Replacement cost summary

2022 replacement cost	\$1,092,521,000	
Changes	\$28,422,000	
New and upgraded assets	\$430,000	
Asset evaluation improvements and inflation	\$27,992,000	
Decommissioned assets	\$0	
2023 replacement cost	\$1,120,943,000	

Condition



Average age and useful life expectancy in years



Stormwater



REPLACEMENT COST

\$2,360,598,000

OVERALL CONDITION GRADE

A

CONDITION (FAIR OR BETTER)

99%

ASSET PORTFOLIO

- ▶ **1,173** kilometres of stormwater mains
- ▶ **91,000** laterals
- ▶ **16,221** maintenance holes
- ▶ **22,478** catch basins
- ▶ **352** culverts
- ▶ **794** inlet-outlet structures
- ▶ **489** devices
- ▶ **1** pump station
- ▶ **191** stormwater management ponds

CHANGES IN ASSET PORTFOLIO

In 2023, the City added 870 metres of new stormwater mains and 6 new inlet-outlet structures.

FUTURE OUTLOOK

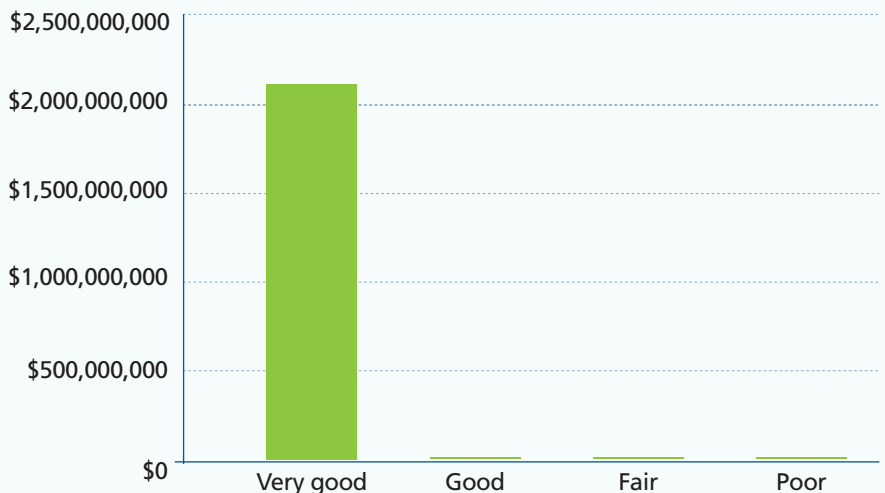
The City will continue closed-circuit television inspections on the entire pipe network to update data in 2024.

The City of Vaughan's stormwater management system is designed to mitigate flooding and minimize hazards during major storm events. The system protects the environment by cleaning stormwater and returning it to the environment. By doing this, the City is helping to preserve this natural resource and protect aquatic life in the natural environment.

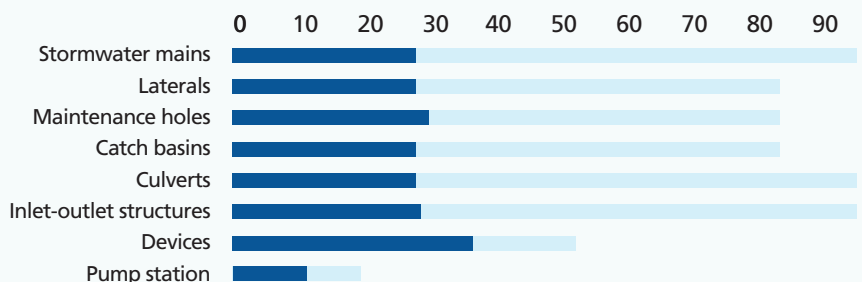
Replacement cost summary

2022 replacement cost	\$2,278,422,000	
Changes	\$82,176,000	
New and upgraded assets	\$13,630,000	
Asset evaluation improvements and inflation	\$68,546,000	
Decommissioned assets	\$0	
2023 replacement cost	\$2,360,598,000	

Condition



Average age and useful life expectancy in years



Roads



REPLACEMENT COST

\$1,499,752,000

OVERALL CONDITION GRADE

A

CONDITION (FAIR OR BETTER)

100%

ASSET PORTFOLIO

- ▶ **1321** lane-kilometres of local roads
- ▶ **742** lane-kilometres of collector roads
- ▶ **101** lane-kilometres of rural roads
- ▶ **8** lane-kilometres of laneways

CHANGES IN ASSET PORTFOLIO

In 2023, the City rehabilitated 46 lane-kilometres of road.

FUTURE OUTLOOK

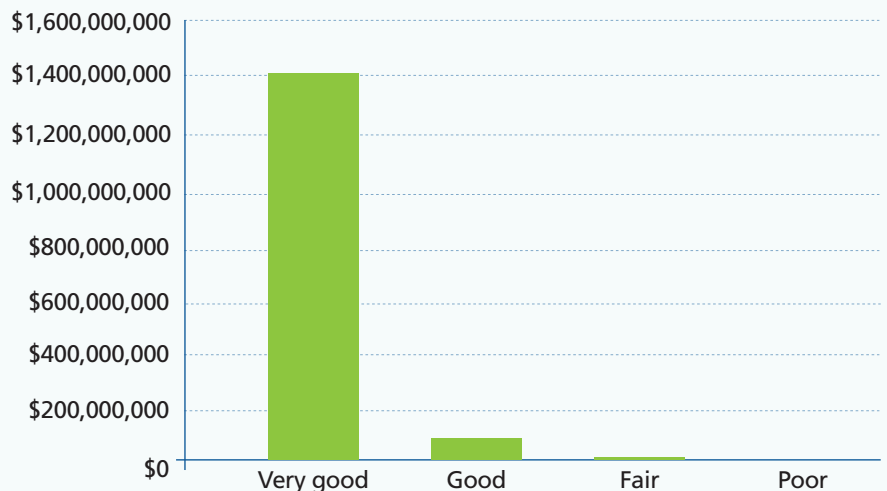
The City has several capital projects planned for 2024 to meet current and future transportation demands including preservation, rehabilitation and replacement of road pavement.

City of Vaughan-owned roads are efficiently maintained to enable safe and effective travel. The City is dedicated to achieving high-quality standards in the maintenance of its road assets through road inspections, crack sealing, pothole repairs and more.

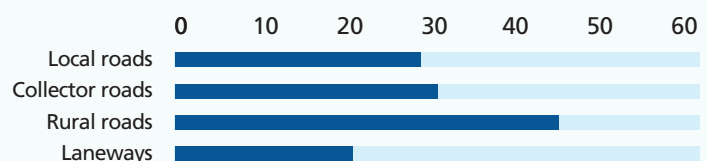
Replacement cost summary

2022 replacement cost		\$1,472,115,000
Changes		\$27,637,000
New and upgraded assets	\$20,901,000	
Asset evaluation improvements and inflation	\$6,736,000	
Decommissioned assets	\$0	
2023 replacement cost		\$1,499,752,000

Condition



Average age and useful life expectancy in years



Bridges and Major Culverts



REPLACEMENT COST

\$271,190,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

100%

ASSET PORTFOLIO

- ▶ 27 vehicular bridges
- ▶ 46 pedestrian bridges
- ▶ 5 pedestrian tunnel culverts
- ▶ 80 concrete culverts
- ▶ 34 steel culverts

CHANGES IN ASSET PORTFOLIO

In 2023, the City rehabilitated 1 vehicular bridge and replaced 2 pedestrian bridges and 4 road culverts.

FUTURE OUTLOOK

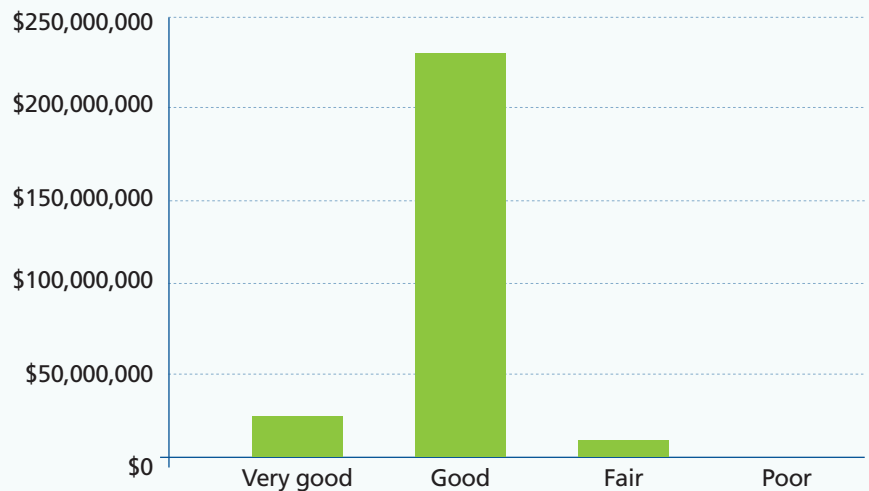
The City has several capital projects planned for 2024 to meet current and future transportation demands including preservation, rehabilitation and replacement of bridges and major culverts.

City of Vaughan-owned bridges and major culverts are managed in accordance with Provincial Bridge Legislation and Guidelines. These assets are controlled based on biennial field inspections by qualified experts to identify structural issues and concerns following the Ontario Structure Inspection Manual.

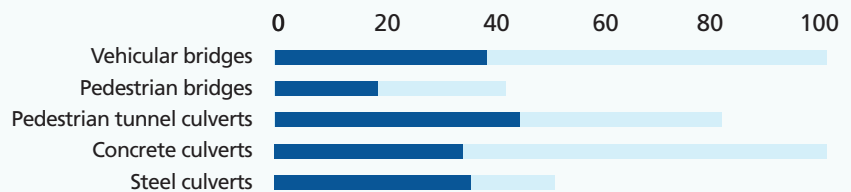
Replacement cost summary

2022 replacement cost		\$218,273,000
Changes		\$52,917,000
New and upgraded assets	\$0	
Asset evaluation improvements and inflation	\$52,917,000	
Decommissioned assets	\$0	
2023 replacement cost		\$271,190,000

Condition



Average age and useful life expectancy in years



Facilities



REPLACEMENT COST

\$680,475,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

99%

ASSET PORTFOLIO

- ▶ 2 administration buildings
- ▶ 13 community centres and other City facilities
- ▶ 10 fire stations
- ▶ 19 heritage buildings
- ▶ 10 libraries
- ▶ 21 parks facilities
- ▶ 14 water pumping stations
- ▶ 7 seniors clubs
- ▶ 6 sport buildings
- ▶ 3 yards
- ▶ 3 others
- ▶ 26 tanks and generators

CHANGES IN ASSET PORTFOLIO

In 2023, The Sports Village was added to the City's facilities portfolio.

FUTURE OUTLOOK

Carrville Community Centre is a new City-owned facility under development, which will be added to the facilities portfolio in 2024.

The City of Vaughan operates more than 100 properties, facilities and buildings. These facilities provide a wide range of services and programs offered by the City. Vaughan's Facility Management team focuses on the effective property management services of these assets, to ensure each facility meets functional requirements, such as building and safety codes.

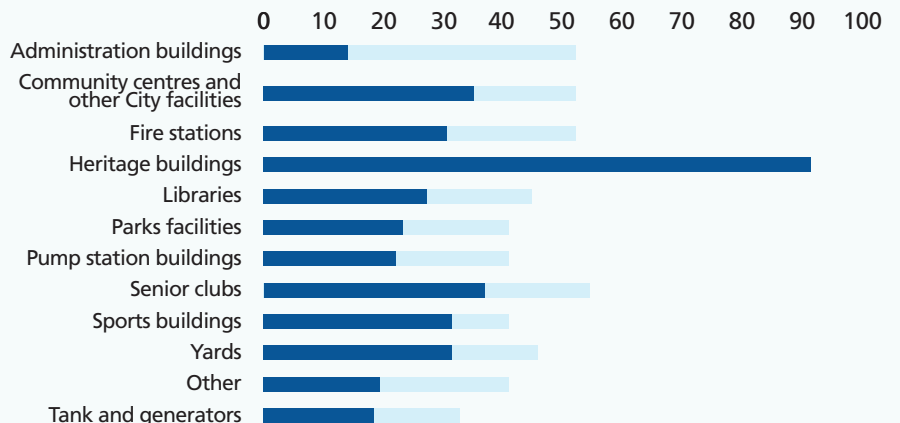
Replacement cost summary

2022 replacement cost		\$590,785,000
Changes		\$89,690,000
New and upgraded assets	\$41,625,000	
Asset evaluation improvements and inflation	\$48,065,000	
Decommissioned assets	\$0	
2023 replacement cost		\$680,475,000

Condition



Average age and useful life expectancy in years



Parks



REPLACEMENT COST

\$273,304,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

99%

ASSET PORTFOLIO

- ▶ 233 parks
- ▶ 62 baseball diamonds
- ▶ 76 basketball courts
- ▶ 23 bocce courts
- ▶ 5 ice rinks
- ▶ 10 skate parks
- ▶ 149 soccer fields
- ▶ 136 tennis courts
- ▶ 277 playgrounds
- ▶ 21 splashpads

CHANGES IN ASSET PORTFOLIO

In 2023, the City updated cemetery assets and developed new condition assessment scores.

FUTURE OUTLOOK

In 2024, the City plans to:

- refine replacement costs based on capital project expenditures.
- refine playground condition scores based on inspections done by Parks Operations staff.
- investigate the use of drones for monitoring and assessing parks.

The City of Vaughan's park network features more than 230 locations across 640 hectares of land in Vaughan. The City's Parks Operations team manages these assets to ensure they meet the needs of current and future generations.

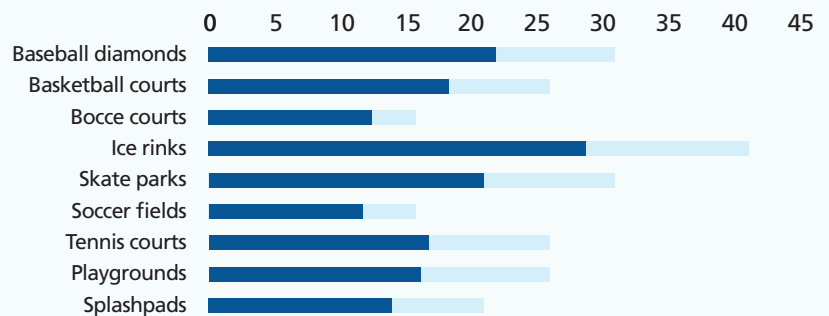
Replacement cost summary

2022 replacement cost	\$242,550,000	
Changes	\$30,754,000	
New and upgraded assets	\$3,813,000	
Asset evaluation improvements and inflation	\$26,941,000	
Decommissioned assets	\$0	
2023 replacement cost	\$273,304,000	

Condition



Average age and useful life expectancy in years



Urban Forestry



REPLACEMENT COST

\$117,121,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

77%

ASSET PORTFOLIO

▶ **129,508** street trees

CHANGES IN ASSET PORTFOLIO

In 2023, the City aligned its Asset Management Plan with the Urban Forest Management Plan.

FUTURE OUTLOOK

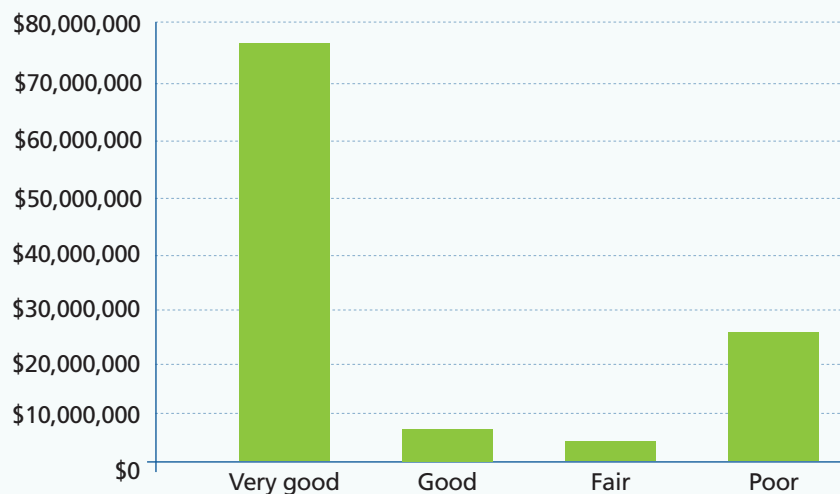
The City will work to integrate the Woodland Management Strategy into the Asset Management Plan in 2024.

The Forestry Operations team manages 130,000 street trees in the Vaughan. Unlike other assets, trees are living, natural assets and increase in value with age for most of their lifecycle. The City of Vaughan recognizes the significant role that the urban tree canopy plays in providing an improved quality of life. Preserving and protecting the health of trees will help the City achieve its commitment to maintaining and enhancing the urban forest and the environment.

Replacement cost summary

2022 replacement cost		\$114,825,000
Changes		\$2,296,000
New and upgraded assets	\$0	
Asset evaluation improvements and inflation	\$2,296,000	
Decommissioned assets	\$0	
2023 replacement cost		\$117,121,000

Condition



Average age and useful life expectancy in years



Active Transportation



REPLACEMENT COST

\$227,776,000

OVERALL CONDITION GRADE

A

CONDITION (FAIR OR BETTER)

94%

ASSET PORTFOLIO

- ▶ **1120** kilometres of sidewalks and walkways
- ▶ **14** kilometres of cycle tracks
- ▶ **41** kilometres of in-boulevard multi-use pathways
- ▶ **52** kilometres of open space multi-use recreational trails

CHANGES IN ASSET PORTFOLIO

In 2023, the City added 6 kilometres of new cycle tracks and 5 kilometres of new in-boulevard multi-use pathways.

FUTURE OUTLOOK

Active transportation infrastructure on local and regional roads will continue to be advanced in 2024 as part of larger capital and development projects and annual planning and implementation budgets.

The City of Vaughan has an expansive active transportation network – and it continues to grow. This network includes more than 1,000 kilometres of pedestrian, cycling and shared-use facilities to get people through the city, in whichever mode of transportation they choose, seamlessly.

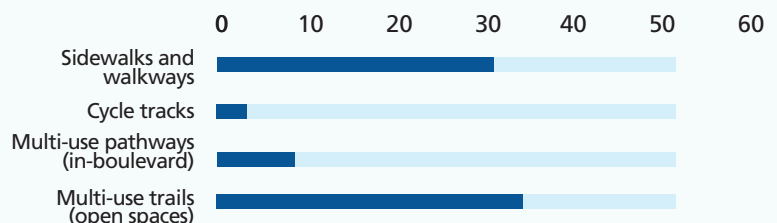
Replacement cost summary

2022 replacement cost	\$217,480,000	
Changes	\$10,296,000	
New and upgraded assets	\$2,820,000	
Asset evaluation improvements and inflation	\$7,476,000	
Decommissioned assets	\$0	
2023 replacement cost	\$227,776,000	

Condition



Average age and useful life expectancy in years



Traffic Control and Streetlights



REPLACEMENT COST

\$226,730,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

77%

ASSET PORTFOLIO

- ▶ **96** traffic signal controls
- ▶ **435** traffic calming measures
- ▶ **23,717** street signs
- ▶ **27,084** streetlights

CHANGES IN ASSET PORTFOLIO

In 2023, the City added 250 new streetlight poles and 300 LED lights.

FUTURE OUTLOOK

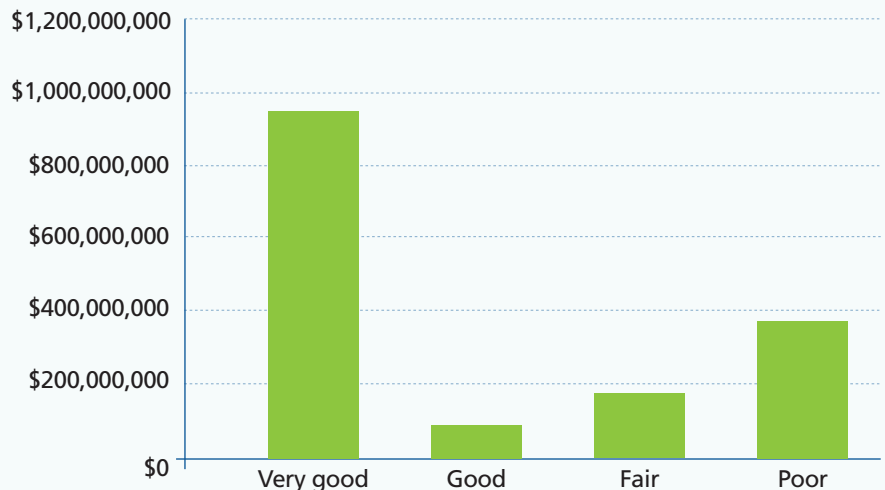
The City will convert all the remaining high-pressure sodium (HPS) streetlights to LEDs and refine replacement costs based on capital project expenditures.

The City of Vaughan's traffic control and streetlight assets are managed by the Traffic Engineering team. These assets include traffic signal controls, traffic signs, traffic calming measures and streetlights.

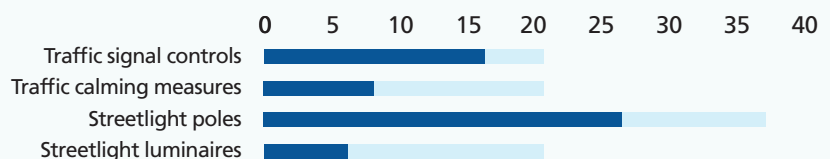
Replacement cost summary

2022 replacement cost		\$184,644,000
Changes		\$42,086,000
New and upgraded assets	\$1,367,400	
Asset evaluation improvements and inflation	\$40,718,600	
Decommissioned assets	\$0	
2023 replacement cost		\$226,730,000

Condition



Average age and useful life expectancy in years



Fleet



REPLACEMENT COST

\$58,789,000

OVERALL CONDITION GRADE

C

CONDITION (FAIR OR BETTER)

49%

ASSET PORTFOLIO

- ▶ 323 vehicles
- ▶ 782 pieces of equipment
- ▶ 79 trailers
- ▶ 22 other

CHANGES IN ASSET PORTFOLIO

In 2023, the City purchased or replaced 12 vehicles, 25 pieces of equipment and 2 trailers.

FUTURE OUTLOOK

The City is considering making new additions to its fleet, which could include fully electric and hybrid vehicles.

Fleet assets – which include City of Vaughan-owned vehicles and equipment – are managed and maintained by the City of Vaughan’s Fleet Management Services department. These vehicles and equipment are utilized by various City departments for their day-to-day operations.

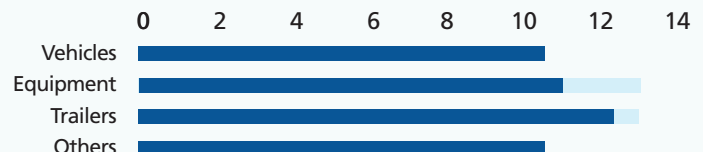
Replacement cost summary

2022 replacement cost		\$39,928,000
Changes		\$18,861,000
New and upgraded assets	\$3,622,000	
Asset evaluation improvements and inflation	\$15,239,000	
Decommissioned assets	-	
2023 replacement cost		\$58,789,000

Condition



Average age and useful life expectancy in years



Fire



REPLACEMENT COST

\$53,170,000

OVERALL CONDITION GRADE

B

CONDITION (FAIR OR BETTER)

83%

ASSET PORTFOLIO

- ▶ 27 emergency response vehicles
- ▶ 22 passenger vehicles
- ▶ 3,082 pieces of equipment

CHANGES IN ASSET PORTFOLIO

In 2023, the City updated unit costs for vehicles and equipment.

FUTURE OUTLOOK

New emergency response vehicles are planned for in 2024 and 2025.

The City of Vaughan's Vaughan Fire and Rescue Service (VFRS) manages an array of emergency response vehicles and equipment such as fire suppression and support vehicles. VFRS is dedicated to providing efficient emergency response as well as fire protection, prevention, safety and education to those who live, work and visit the city.

Replacement cost summary

2022 replacement cost	\$49,018,000	
Changes	\$4,152,000	
New and upgraded assets	\$188,000	
Asset evaluation improvements and inflation	\$3,964,000	
Decommissioned assets	\$0	
2023 replacement cost	\$53,170,000	

Condition



Average age and useful life expectancy in years

