

## Committee of the Whole (2) Report

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**DATE:** Tuesday, June 6, 2023      **WARD(S):** ALL

**TITLE:** 2022 DELIVERY REPORT – INFRASTRUCTURE  
DEVELOPMENT

**FROM:**

Vince Musacchio, Deputy City Manager, Infrastructure Development

**ACTION:** FOR INFORMATION

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**Purpose**

The annual Delivery Report provides Council with the portfolio's 2022 accomplishments, and asset group updates with inventory counts and values, as well as an overview of 2022 Infrastructure Development initiatives.

**Report Highlights**

- 363 projects were undertaken in 2022 with an overall expenditure (inclusive of accruals) of more than \$165 million.
- The Portfolio achieved a 104% "Cash Flow Rate", the percentage of actual versus forecasted cash flow.
- The Development Engineering department joined the Portfolio in January 2022, allowing for further standardization of City-wide Capital Delivery.
- Improvements in program delivery has increased with the further refinement of processes and leveraging available technology.

**Recommendation**

1. THAT this report be received for information.

## **Background**

### **The Infrastructure Development Portfolio was created on July 1, 2019**

Following a corporate re-organization on July 1, 2019, the Infrastructure Development Portfolio was created by consolidating all of the City's capital delivery departments with the mandate to more efficiently deliver on Vaughan's approved and planned capital program. The portfolio oversees the majority of the City's Infrastructure planning and delivery, asset management, facility management and real estate functions.

In support of the City's vision, mission, values and Service Excellence Strategic Plan, the Portfolio developed a purpose statement to provide staff with the "what, how and why" as it relates to their vital roles and functional responsibilities.

**"We deliver City spaces through creative and inspired thinking to shape exceptional experiences."**

In addition, the Portfolio's supplementary core values and corresponding behaviours help foster a culture of innovation, collaboration, and creativity. These supplementary core values complement the City's values of RESPECT, ACCOUNTABILITY and DEDICATION, further supporting and advancing our purpose.

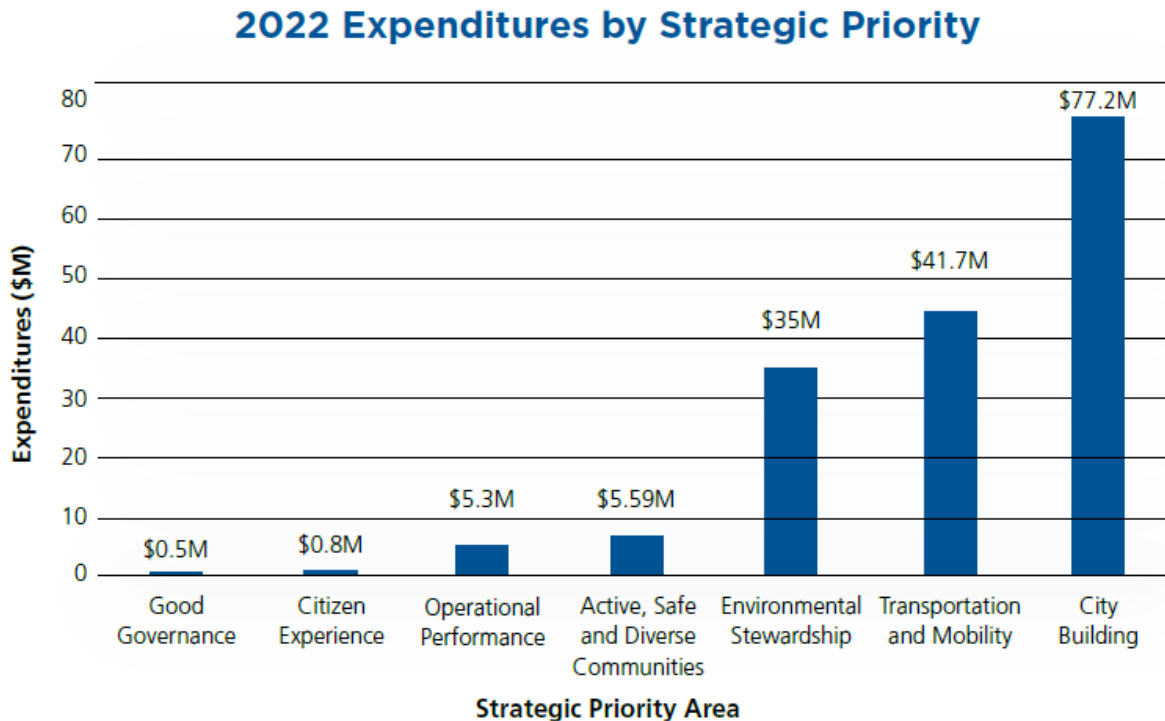
### **Infrastructure assets are built, owned, operated, and maintained by the City**

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. Important elements of the Asset Management cycle are the acquisition, renewal and replacement of infrastructure that provide these services.

### **Strong alignment with the 2018-2022 Term of Council Service Excellence Strategic Plan**

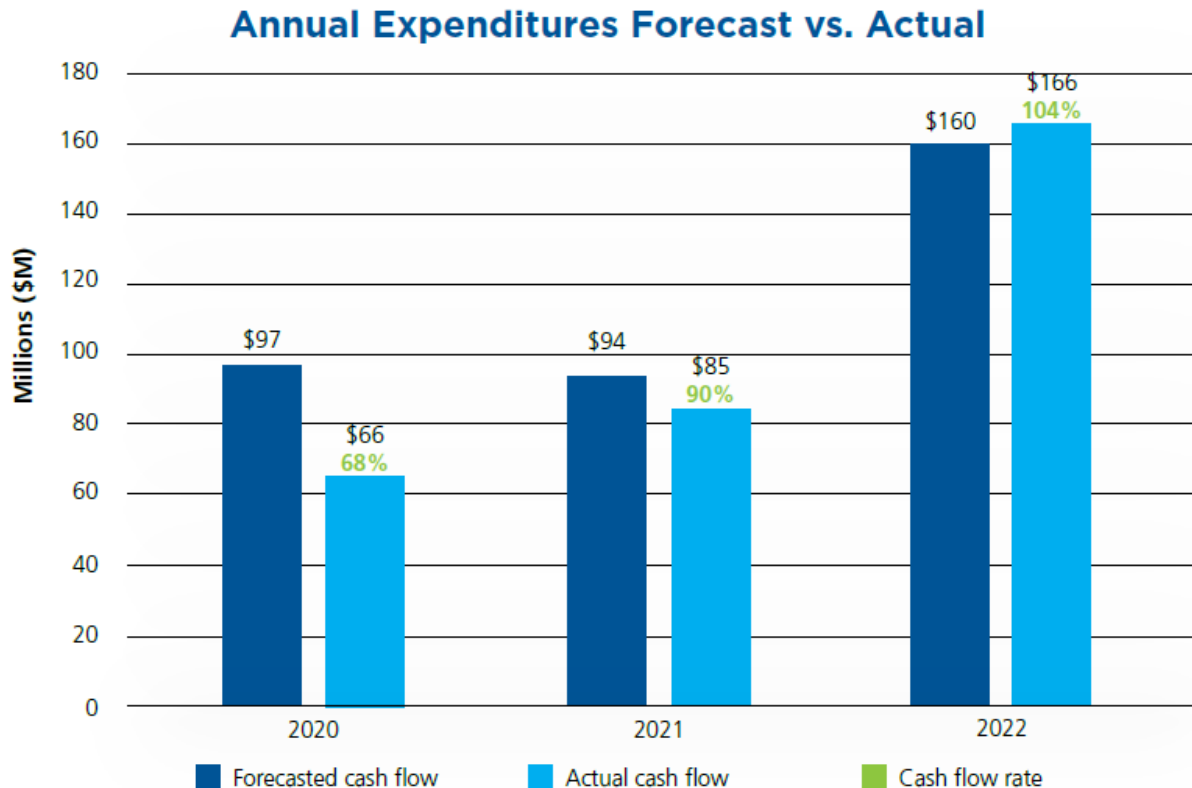
Infrastructure Development continued to contribute to the City of Vaughan's Strategic Plan by planning, designing, initiating, and completing projects to support Active, Safe and Diverse Communities; City Building; Environmental Stewardship; and Transportation and Mobility. This contribution significantly aids in delivering on the City's vision to become a city of choice that promotes diversity, innovation, and opportunity for all citizens, fostering a vibrant community life that is inclusive, progressive, environmentally responsible, and sustainable.

The following is a summary of the 2022 expenditures (including accruals) by strategic priority:



**The Portfolio has continued to improve delivery of the annual capital program since the creation of the Infrastructure Development portfolio in 2019**

The main Key Performance Indicator (KPI) to measure the effectiveness of capital delivery for the portfolio is the aggregate cashflow delivery rate. On an annual basis, the portfolio details the delivery plan for the year and determines the required budget utilization (cash flow) to support the delivery of the capital program. This forecasted cash flow is then measured against the actual cash flow to determine the cashflow rate. The portfolio has established a benchmark of 95% cashflow as an appropriate performance measure for the successful delivery of the program. The following is the annual cash flow rate comparison for the past three years.



**The Infrastructure Development Portfolio achieved a 104% Cashflow rate in 2022**

The portfolio achieved the best cashflow delivery rate since its inception in 2019. In 2022, the portfolio achieved a 104% Cashflow rate with a total delivery of over \$165 Million. As a result, the delivery target of 95% was surpassed for the first time.

**Previous Reports/Authority**

[2021 Delivery Report – Infrastructure Development](#)

**Analysis and Options**

**In 2022, the City invested \$73.32 million in State of Good Repair projects and \$92.34 million in Growth-Related projects, for a total of \$165.66 million in expenditures**

The City's capital program can be sub-divided into two categories: State of Good Repair and Growth-Related programs.

### State of Good Repair Program

This program is established through a risk-based review of the condition of the City's infrastructure and its ability to provide the Level of Service to Vaughan's Citizens. Each asset class is reviewed and the investment requirements (including rehabilitation and replacement) are determined to ensure that the City achieves maximum Value for Money. Funding sources for this program are generally capital through taxation, infrastructure reserves and Gas Tax.

### Growth-Related Program

This program is established to deliver on new infrastructure to support growth. This infrastructure includes community infrastructure (such as community centres, parks, fire stations, etc.), as well as linear infrastructure (such as watermains, sewers, roads, etc.). These programs are typically established through the City's Growth Management Strategy and the corresponding master plans in support of development. The funding sources for this program are primarily Development Charges.

A detailed review of these expenditures, summarized per asset class, are noted below.

### **In 2022, an investment of \$38.8 million in 104 projects was made to the City's road network**

Roads asset class consists of a network of arterial, collector and local roadways and associated assets to provide the safe passage of vehicles throughout the community. The bridges asset class consists of structures which provide a roadway or walkway for the passage of vehicles, pedestrians or cyclists across an obstruction, gap or facility and are greater than or equal to 3 metres in span.

Overall, the road network includes the following assets:

- roadways
- curb and gutters
- barriers
- pedestrian bridges
- roadway bridges

The 104 road network projects were in various phases throughout 2022:

- 23 in the study phase (includes Master Plans, Environmental Assessments, Feasibility Studies, Pre-Design, etc.)
- 17 in the detailed design phase
- 27 in the construction phase
- 37 were completed

Some of the key projects include:

- Bass Pro Mills Drive Extension Environmental Assessment
- Block 59 – Street F and G
- Canada Drive – America Bridge preliminary design completion to facilitate the procurement of a design-builder in 2023
- Kirby Road Extension (Dufferin Street to Bathurst Street) preliminary design completion and issuance of tender to retain a design-builder
- Kirby Road Widening Environmental Assessment
- Teston Road Operational Environmental Assessment
- Woodbridge Avenue Improvements Project – Bridge rehabilitation

**An investment of \$44.49 million in 49 projects was made to the City's water, wastewater, and stormwater network**

The water, wastewater and stormwater asset class consist of a network of water and sewer mains and associated assets to provide the safe conveyance of drinking water, sanitary and storm water. This asset class also includes residential and commercial service connections, maintenance holes, and storm water management ponds.

Overall, the water network includes the following assets:

- Watermains
- Chambers
- Hydrants
- Junctions
- Service connections
- Valves
- Water Booster Stations

Overall, the wastewater network includes the following assets:

- Sanitary sewer mains
- Maintenance Holes
- Pump Stations
- Service Connections

Overall, the stormwater network includes the following assets:

- Stormwater mains
- Catch basins
- Inlet/Outlet Structures
- Maintenance Holes
- Management Ponds
- Service Connections

The 49 water, wastewater and stormwater network projects were in various phases throughout 2022:

- 5 in the study phase (includes Master Plans, Environmental Assessments, Feasibility Studies, Pre-Design, etc.)
- 9 in the detailed design phase
- 10 in the construction phase
- 25 were completed

Some of the key projects include:

- Black Creek Renewal, Edgeley Park and Pond
- Keele Street Watermain Replacement
- Old Maple Area Infrastructure Improvements
- Woodland Acres Infrastructure Improvements
- Stormwater Management Facility Improvements (SWMF)
  - Blackburn, Franklin and Pondview Ponds
  - Fieldstone and Ashbridge Circle Ponds
- Watermain Replacement Program
  - Malmo Court, Rodinea Drive and Teston Road

**An investment of \$47.94 million in 90 projects was made to the City's facilities assets**

Facilities asset class consists of all buildings owned by the City of Vaughan to serve citizens, businesses, and City staff.

Overall, the facilities network includes the following assets:

- Administration Buildings
- Community Centres
- Fire Stations
- Heritage Buildings
- Libraries
- Operations Yards
- Sport/Senior Clubs/Other

The 90 facilities projects were in various phases throughout 2020:

- 6 in the study phase (includes Master Plans, Environmental Assessments, Feasibility Studies, Pre-Design, etc.)
- 10 in the detailed design phase
- 29 in the construction phase
- 45 were completed

Some of the key projects include:

- New! Carrville Community Centre, Library and District Park

- Courtyard Fountain Renovation – Vaughan City Hall
- Facility Renewals and Upgrades
  - Al Palladini Community Centre: arena board cladding replacement, gymnasium floor refurbishment
  - Dufferin Clark Community Centre: gymnasium refurbishment
  - North Thornhill Community Centre: pool changeroom showers
  - Sports Village: pathway lighting and trail replacement
  - Vellore Village Community Centre: new drainage pit installation
  - Woodbridge Pool and Memorial Arena: refrigeration upgrades
- New! Fire Station 7-12 – advancing through design phase with construction to begin in 2023
- Garnet A. Williams Community Centre major renovation
- Heritage Site Renewals and Improvements
  - Beaverbrook Home: basement waterproofing and structural reinforcement
  - Vellore Hall: main floor refresh and basement structural reinforcement
- LED Lighting Retrofit Program
  - City Playhouse Theatre, Dufferin Clark Library, Maple Community Centre, and North Thornhill Community Centre Maple Library and Community Centre renovation
- New! Main Service Counter at Vaughan City Hall – Service Vaughan Project
  - Construction of a new main service counter, private and semi-private meeting rooms and a digital service area at City Hall

**An investment of \$39.45 million in 96 projects was made to the City's Parks and Open Spaces Assets**

The parks and open space asset class consist of play spaces and amenities for residents as well as linear open spaces that either expand on the park system or create enhanced linkages between the system of parks and open spaces.

Overall, Parks and Open Space includes the following assets:

- Playgrounds
- Skate areas
- Soccer and Baseball fields
- Splash Pads/Waterplay areas
- Tennis and Basketball courts

The 96 parks and open space projects were in various phases throughout 2022:

- 14 in the study phase (includes Master Plans, Environmental Assessments, Feasibility Studies, Pre-Design, etc.)
- 35 in the detailed design phase
- 11 in the construction phase
- 36 were completed



Some of the key projects include:

- Bartley Smith Greenway Trail Feasibility Study
- Glen Shields Park Redevelopment
- Local Off-leash Dog Park Area
- Land acquisition for future parkland
- North Maple Regional Park
- Martin Tavares Park (Block 18 District Park)

### **An investment of \$11.34 million in 24 projects was made to the City's Active Transportation network**

The Active Transportation asset class consists of walking and cycling infrastructure and facilities offering residents recreational transportation and feasible transportation alternatives to the automobile.

Overall, the active transportation network includes the following assets:

- Sidewalks
- Multi-Use Pathways
- Cycle Tracks
- Bike Lanes
- Multi-use Recreational Trails
- Pathways

The 24 Active Transportation network projects were in various phases throughout 2022:

- 6 in the study phase (includes Master Plans, Environmental Assessments, Feasibility Studies, Pre-Design, etc.)
- 8 in the detailed design phase
- 4 in the construction phase
- 6 were completed

Some of the key projects include:

- Advance active transportation infrastructure
- Courtland Avenue Multi-use Pathway
- Exemplify fiscal responsibility with \$14.5M in grant funding
- Jane Street Uptown Loop (from Portage Parkway to Teston Road)
- New Westminster Drive (Atkinson Avenue to Hilda Street)

### **The Infrastructure Development portfolio continues to develop long-range infrastructure planning studies to support future growth**

The portfolio works closely with the Planning and Growth Management portfolio to develop important infrastructure plans to help support and guide future growth within the

City. Infrastructure Development oversees a number of long-range master plans, strategies and studies, which integrate infrastructure requirements with environmental assessments and planning principles.

The team is committed to protecting the City's interests and needs as it oversees third party projects, plans and initiatives which may impact Vaughan's linear infrastructure. Some of the key projects include:

- Bass Pro Mills Extension Environmental Assessment (Highway 400 to Weston Road)
- Integrated Urban Water Plan
- Micromobility White Paper
- Promenade Centre Secondary Plan – Comprehensive Transportation Study
- Rutherford and Maple GO Mobility On-Request Pilot
- Teston Road Environmental Assessment (Pine Valley to Kleinburg Summit)
- Vaughan Transportation Plan

**The Real Estate Department continues to support the Growth-Related Projects, ensuring the timely delivery of infrastructure**

The Real Estate team supports city-wide initiatives by securing property rights such as Permissions to Enter, Temporary Easements and, where required, securing and/or disposing of land. In 2022, non-tax revenue of more than \$11 million was generated from the sale of surplus City lands and/or easements. More than 130 Development applications were reviewed and commented on, resulting in more than \$15 million cash-in-lieu of parkland revenue.

In 2022, real estate services contributed to the advancement of the following projects:

- Black Creek Renewal Initiative
- Future Block 59 District Park
- Kirby Road Extension (from Dufferin Street to Bathurst Street)
- North Urban Park Property in the VMC

In addition, Real Estate Services works with the Regional Municipality of York and the Province to secure property required for regional and provincial infrastructure initiatives in the city, including roads, sewers, transit, and rail.

**Development Engineering joined the Infrastructure Development portfolio in January 2022, further standardizing City-wide Capital Delivery**

With the City of Vaughan's new Organizational Structure introduced in January 2022, the portfolio welcomed the Development Engineering department. The team is responsible for the expeditious review, approval, inspection and processing of municipal

services for land development. The addition of the department to the Infrastructure Development portfolio will help ensure that the vast majority of infrastructure is delivered in a standardized manner. Synergies between the infrastructure planning and delivery groups will allow for a coordinated and efficient approach to growth-related infrastructure projects.

### **2022 Intake Summary**

- 457 Pool Permits
- 1,979 Grading Permits
- 10,494 Inspections Performed

The following is a summary of municipal infrastructure delivered through the development approval process and growth-related projects that were assumed by the City of Vaughan:

### **2022 Assumption Summary**

- 15 Land Development projects with a value of \$15M
  - 11.5 lane kilometres of road
  - 6.3 kilometres of watermain
  - 4.8 kilometres of sanitary sewer
  - 5.7 kilometres of sidewalk
  - 4.8 kilometres of storm sewers
  - 160 streetlights
  - 1 stormwater management pond

Some of the key projects include:

- Barons Street Extension to Nashville
- Garnet Williams Way Extension
- Block 27 Municipal Class Environmental Assessment for development of road network and servicing
- Block 34 East development of roads and services

### **A consolidated delivery approach was developed in 2021 and continued in 2022 to ensure effective and efficient capital delivery**

Following a rigorous review of the capital delivery approach (from project initiation to project completion), a delivery approach was developed to ensure that capital delivery was standardized. The Delivery Approach is guided by the Program Management Process (PMP), governance, and reporting, coupled with resources, procedures, tools and templates.

## **Program Management Office (PMO)**

The PMO is responsible for overseeing the entire Program Management Process. The PMO oversees selection of delivery approach, charter development and prioritization; facilitates monthly reporting and project change approvals; provides staff with the methodology, tools and systems needed to support the Program Management Process; performs quality checks on project artifacts; and applies a gated approach to ensure compliance to the methodology.

## **Program Management Process Governance and Oversight**

Program management process governance is provided through the Program Management Committee. The committee is made up of all of the Senior leadership members of the Infrastructure Development team. The committee is responsible for:

- Aligning projects with the 2018-2022 Term of Council Strategic Plan
- Prioritizing capital project funding submissions
- Approving project changes
- Providing oversight on all delivery projects and programs.

## **Communications for all projects were significantly enhanced in 2022**

Throughout 2022, Infrastructure Development — in collaboration with City departments, consultants and our partners in Corporate and Strategic Communications — developed and executed comprehensive communications strategies to promote awareness and support vital connections with clients, stakeholders, City Council, staff and the community. There was a total of 630 project communications to support the 2022 capital program. These communications included:

- Project memos
- Newsletters
- Notices
- Public service announcements
- Meetings/consultations
- reports

## **Financial Impact**

There are no immediate financial impacts associated with this report.

## **Operational Impact**

There is no immediate operational impacts associated with this report.

## **Broader Regional Impacts/Considerations**

There are no broader regional impacts associated with this report

## **Conclusion**

The significant achievements, as identified within this report, demonstrates that the portfolio remains focus on Capital Delivery. Advancing project management processes and technology has allowed the portfolio to achieve over \$165M in Capital Delivery with a 104% “cashflow rate”, the percentage of actual vs. forecasted cashflow. The framework has been developed to undertake larger more complex City Building projects in all asset classes.

**For more information**, please contact: Vince Musacchio, Deputy City Manager, Infrastructure Development, ext. 8311

## **Attachment**

1. Infrastructure Development 2022 Delivery Report

## **Prepared by**

Vince Musacchio, Deputy City Manager, Infrastructure Development, ext. 8311

## **Approved by**



Vince Musacchio, Deputy City Manager,  
Infrastructure Development

## **Reviewed by**



Nick Spensieri, City Manager