



Town of Newmarket
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State of the Infrastructure Report and Report Cards Staff Report to Council

Report Number: 2020-76

Department(s): Corporate Asset Management

Author(s): Lisa Ellis, Manager Asset Management

Meeting Date: October 19, 2020

Recommendations

1. That the report entitled State of the Infrastructure Report and Report Cards dated October 19, 2020 be received.

Purpose

The purpose of this report is to provide an overview of the State of the Infrastructure Report Cards that have been prepared by the Corporate Asset Management Office in collaboration with Engineering, Public Works Services, Financial Services and Communications.

Background

In 2012, a collective group of organizations came together to create the first ever National State of the Infrastructure Report Card. The collective included: the Association of Consulting Engineering Companies Canada (ACEC), the Canadian Construction Association (CCA), the Canadian Parks and Recreation Association (CPRA), the Canadian Public Works Association (CPWA), the Canadian Society for Civil Engineering (CSCE), the Canadian Urban Transit Association (CUTA), the Canadian Network of Asset Managers (CNAM), and the Federation of Canadian Municipalities (FCM).

The report card provided an assessment of the condition of four primary asset categories of municipal infrastructure: drinking-water systems, wastewater and stormwater networks, and municipal roads raising awareness of how each service area was performing. This was the first assessment of its kind in Canada, and featured the most comprehensive analysis and reporting on Canada’s municipal infrastructure. The report highlighted how critical it is to continue building and renewing the infrastructure that is key to our continued economic vitality as a country. This tool has since been adopted by many municipalities and is being used as the basis to further discussions and decisions surrounding asset management and investment.

The Town of Newmarket continues to share its data with this project. With the Town’s continued focus on financial sustainability, now is the perfect opportunity to share our own State of the Infrastructure Report Card.

As owners of more than \$2 billion of infrastructure, the Town of Newmarket is focused on the cost and quality of the services the Town’s infrastructure provides. The sustainability of Town infrastructure depends on effective management, maintaining a state of good repair, and ensuring the optimal use of limited funds. Asset management delivers the framework for achieving these outcomes and will provide mechanisms for balancing performance, cost, and risk as capabilities develop.

Discussion

This is the Town’s first-ever Infrastructure Report Card and includes all “core” assets (as defined by the Province) – roads, bridges, water mains, wastewater systems, and stormwater facilities. It provides the baseline for the discussion of infrastructure and is intended as a prologue to the updated Asset Management Plan that will be delivered in accordance with regulatory requirements before July 1, 2021.

Projects like the Infrastructure Report Card demonstrate the value of asset management and the Town’s commitment to financial sustainability.

Bringing together the analysis of each service area, the results of the infrastructure report cards answer three pivotal questions:

1. What Do We Own?

The Town owns and is responsible for maintaining a large number of assets. The assets captured in this report card include:



249 Kilometers of Roads



68 Bridges and Culverts



303 Kilometers of Watermain



262 Kilometers of Wastewater Sewers



284 Kilometers of Storm Sewers and 47 Storm Ponds

2. What Is It Worth?

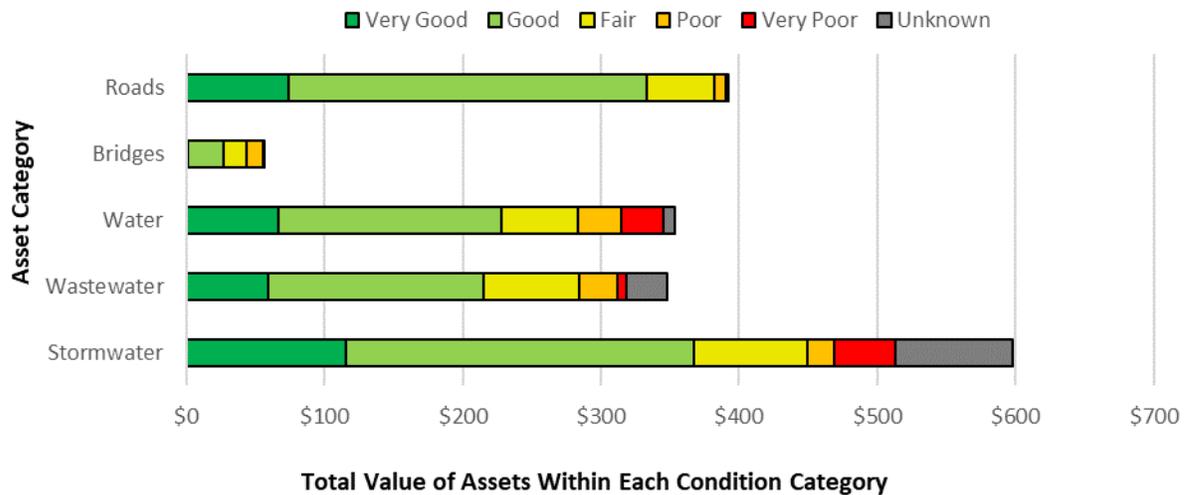
The assets within the scope of this Report Card are estimated to cost \$1.75 Billion (2020 valuation). When non-core assets are considered, the asset valuation increases by \$408 Million to reach an estimated total of \$2.16 Billion. The valuation of \$2.16 Billion represents the 2020 total contracted cost of replacing each asset the Town owns and does not consider staff time, maintenance, growth, climate change, service enhancements, or other cost factors. This valuation demonstrates that the Town has made an important investment in infrastructure, and has a significant obligation to ensure the maximum return on this investment.

3. What Condition Is It In?

Using the method of most Infrastructure Report Cards, assets are assigned condition ratings on a 5-point scale. Ratings are assigned based on age and life expectancy. Age is an industry-accepted benchmark for the high-level analysis of infrastructure portfolios. While it is suitable for financial analysis, staff do not rely on age when making tactical decisions – instead, they use actual field observations with respect to condition. The methodology presented aligns with the Canadian Infrastructure Report Card, which provides benchmarks for how to use age data in the absence of condition observations collected by field professionals. The exceptions to this approach are roads, bridges, and stormwater ponds, which had comprehensive condition information from recent inspections.

The Town's assets are at varying stages of their lifecycle. Assets are rated from Very Good to Very Poor. Having "Fair" to "Poor" rated assets before they are replaced is not necessarily bad. However, failure to maintain a state of good repair is likely to lead to increased reactive maintenance, inefficient replacements, and drops in service levels.

Figure 2: Breakdown of Replacement Cost and Condition by Asset Category



Current Capital Spending

The Infrastructure Report Card is a snapshot in time showing the financial health of the assets. To add context to the condition ratings, the amount spent on capital reinvestment for these reports is based on the 2015 to 2019 5-year average spend not including staff time.

Reinvestment Ratio

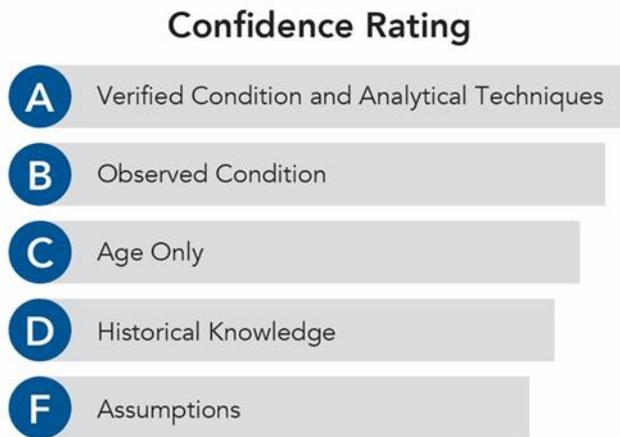
The reinvestment ratio benchmarks the financial health of the infrastructure by comparing annual budgets to total replacement value. The ratio follows the principles of age and expected service life. As an example, a 2% reinvestment rate would be needed to maintain assets on a 50-year cycle, on average.

The Canadian Infrastructure Report Card recommends the following range for Core Assets. For context, the Town’s current performance is also provided:

| Core Asset Classes | Town of Newmarket | Canada Infrastructure Report Card Recommendations | |
|--------------------|---|---|---------------------------|
| | Capital Budget Reinvestment (2015 - 2019 Average) | Minimum Reinvestment Target | Upper Reinvestment Target |
| Roads | 0.84% | 2.00% | 3.00% |
| Bridges | 0.66% | 1.00% | 1.50% |
| Water | 0.47% | 1.00% | 1.30% |
| Wastewater | 0.18% | 1.00% | 1.30% |
| Stormwater | 0.09% | 1.00% | 2.00% |

Data Confidence Ratings

As the Town’s capabilities advance, resources grow, and data improves, so too will the confidence in data and the ability to forecast or predict the cost. The scale presented below is a simplified measure of confidence based on the type of data that was used in the analysis. The scale shows how layers of analysis and data add to our confidence. As an example, if the Town has condition data (a “B” rating), this does not mean age and historical knowledge are ignored.



The Confidence Level Rating is based on principles of the Ministry’s Guide to Municipal Asset Management Plans, Federal Gas Tax Agreement Requirements, ISO 55000, and International Infrastructure Management Manual (IIMM).

Conclusion

The intention of the first Report Card is to report on Core-Assets as defined by the Provincial Legislation. This information will form the base of the Asset Management Plans that will be before Council in Q2 2021. Report Cards for non-core assets will be forthcoming in accordance with provincial regulatory timelines in 2023.

At this time the Infrastructure Report Card has not been incorporated into Council’s Dashboard on Strategic Priorities. There will be a link from the dashboard under the Financial Sustainability Pillar to the Asset Management/Infrastructure Report card webpage.

Business Plan and Strategic Plan Linkages

The development of the Town’s First Infrastructure Report cards is supportive of Council’s Long-Term Financial Sustainability priority. The information contained within this report and accompanying report card will support the development of comprehensive up-to-date Asset Management Plans.

Consultation

Engineering Services, Public Works Services, Financial Services and Corporate Communications were all consulted at regular intervals to support the creation of the Town's first State of the Infrastructure Report Card.

Human Resource Considerations

None.

Budget Impact

None.

Attachments

State of Infrastructure Report Card

Approval

Peter Noehammer, Commissioner of Development & Infrastructure Services

Contact

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