



General Committee Meeting Agenda

**Tuesday, June 18, 2019
7 p.m.**

**Council Chambers
Aurora Town Hall**



Town of Aurora General Committee Meeting Agenda

Tuesday, June 18, 2019
7 p.m., Council Chambers

Councillor Gilliland in the Chair

1. Approval of the Agenda

Recommended:

That the agenda as circulated by Legislative Services be approved.

2. Declarations of Pecuniary Interest and General Nature Thereof

3. Community Presentations

4. Delegations

5. Consent Agenda

Items listed under the Consent Agenda are considered routine or no longer require further discussion, and are enacted in one motion. The exception to this rule is that a Member may request for one or more items to be removed from the Consent Agenda for separate discussion and action.

Recommended:

That the following Consent Agenda items, C1 to C3 inclusive, be approved:

C1. FS19-021 – 2019 Interim Forecast Update – as at April 30, 2019

Recommended:

1. That Report No. FS19-021 be received for information.

C2. OPS19-016 – Aurora Family Leisure Complex (AFLC) Skate Park

Recommended:

1. That Report NO. OPS19-016 be received; and
2. That this report satisfy Council's conditional approval of Capital Project No. 72281 – AFLC Skate Park in the amount of \$600,000.

C3. OPS19-017 – Lake-to-Lake Cycling and Walking Trail Agreement

Recommended:

1. That Report NO. OPS19-017 be received; and
2. That the Mayor and Town Clerk be authorized to execute the Agreement between the Town of Aurora and the Regional Municipality of York for the operation, maintenance and replacement of the Lake-to-Lake Cycling and Walking Trail within the Regional right-of-way once constructed.

6. Advisory Committee Meeting Minutes

Recommended:

That the following Advisory Committee Meeting Minutes item, A1, be received:

A1. Finance Advisory Committee Meeting Minutes of May 22, 2019

Recommended:

1. That the Finance Advisory Committee meeting minutes of May 22, 2019, be received for information.

7. Consideration of Items Requiring Discussion (Regular Agenda)

R1. CS19-022 – Entry onto Private Property Protocol

Recommended:

1. That Report No. CS19-022 be received; and
2. That the revised Entry onto Private Property Protocol as outlined in Attachment #1 providing property owners with notification of entry and removing the requirement to obtain a search warrant for investigation purposes, be endorsed.

R2. FS19-020 – 2020-2022 Operating and 2020 Capital Budget Development Direction

Presentation to be provided by Jason Gaertner, Manager, Financial Planning.

Recommended:

1. That Report No. FS19-020 be received; and
2. That the updated Council Budget Principles and Process be approved; and
3. That the key principles for the 2020 to 2022 multi-year operating budget development be endorsed.

R3. FS19-023 – 2018 Year End Budget Report – as at December 31, 2018

Recommended:

1. That Report No. FS19-023 be received for information.

R4. PDS19-051 – Energy Conservation and Demand Management (ECDM) Plan Update 2019-2023

Presentation to be provided by Joken Chiu, Energy Analyst, WalterFedy.

Recommended:

1. That Report No. PDS19-051 be received; and
2. That the Corporate Energy Conservation and Demand Management (ECDM) Plan Update for 2019 to 2023 (Attachment #1), be endorsed.

R5. CMS19-016 – 2019 Capital Project – Outdoor Field Development Strategy

Recommended:

1. That Report No. CMS19-016 be received; and
2. That this report satisfy Council's conditional budget approval for Capital Project No. 73317 – Outdoor Field Development Strategy, in the amount of \$55,000.

R6. CS19-026 – Licensing By-law Amendments – Second Hand Goods

Recommended:

1. That Report No. CS19-026 be received; and
2. That a by-law be brought forward to amend Schedule 12 of the Town's Licensing By-law No. 5630-14 to reflect current business models for Second Hand Goods stores.

8. Notices of Motion

(a) Mayor Mrakas

Re: Response to Regional Governance Review

9. New Business

10. Closed Session

11. Adjournment



**Town of Aurora
General Committee Report**

No. FS19-021

Subject: 2019 Interim Forecast Update – as at April 30, 2019
Prepared by: Tracy Evans, Financial Analyst
Department: Financial Services
Date: June 18, 2019

Recommendation

- 1. That Report No. FS19-021 be received for information.**

Executive Summary

This report presents to Council the information necessary to effectively monitor the financial performance of the corporation's operating budget presented as of April 30, 2019. As of this date, the corporation is forecasted to conclude the fiscal year with favourable variances from its tax levy and utility rate funded operations.

- A surplus of \$975,800 from tax levy funded operations is forecasted
- A utility operations surplus of \$415,100 is anticipated

As it is still early in the fiscal year, these forecasted variances may be subject to change over the remainder of the fiscal year. Should any operational budget excesses or short-falls remain at year end they will be contributed to or transferred from the appropriate reserves as will be defined in the town's 2019 surplus control by-law.

Background

To assist Council in fulfilling its roles and responsibilities with respect to Town finances and accountability, the Financial Services Department has worked with all departments to review the corporation's operating budget financial performance to date. Each Director has reviewed their respective department's operating budget versus its results to date and remaining outstanding plans, and forecasted an expected year end position. Finance staff have reviewed each submission and performed the necessary consolidation.

Staff have similarly reviewed the results of the Town's utility operations to date and the year end forecasted positions for the water, wastewater, and storm water service lines estimated.

Items of note are presented by department in the Analysis section below. The forecasts and representations are those of each Director, and have not been revised by Financial Services staff. Each Director is charged with delivering their approved portfolio of municipal services within their approved budget. They may manage issues encountered throughout the year by reallocating approved financial resources amongst their budget detailed line items, so as to best deliver their overall service portfolio in the circumstances of an ever changing community, operating environment and economic conditions. In some instances a departmental pressure may be addressed at a corporate level as per the Executive Leadership Team's direction.

Analysis

A surplus of \$975,800 from tax levy funded operations is forecasted

Staff currently forecast that the Town's tax levy funded operations will finish the year with an anticipated surplus of \$975,800. A detailed break-down of the Town's current forecasted variance by department can be found in Attachment #1. This report has been simplified to show only the net budget amount, the forecasted ending position for each item, and the variance. Overall, the Town's approved budget for 2019 includes \$67,454,900 in approved expenditures, funded by \$20,196,400 in revenues consisting of user fees, charges, and investment income, and a total "Town purposes" tax levy for the year of \$47,258,500.

The key drivers of this forecasted surplus are healthier than projected development driven revenues and salary savings. This forecast is based upon the best information and estimates available at this time. Accordingly, the forecast will continue to be subject to change over the remainder of the fiscal year, meaning there will continue to be influencing variables that are difficult for staff to estimate, such as development driven revenues and investment income, as well as the ultimate level of Town services that will be consumed by fiscal year end.

Historically the Town has budgeted a "salary gapping savings" amount of \$150,000 under the corporate expenses section of the budget. This provision is to recognize that while salaries in all departments are based on 100% usage, with no staff departures, in reality there is some staff turnover and periodic vacancies that arise naturally during the year. For 2019 a share of this amount has now been formally allocated to each operating department on a pro-rata basis.

June 18, 2019

Page 3 of 7

Report No. FS19-021

CAO and Council

Council and the Office of the CAO are forecasting to conclude the fiscal year with a minor favourable variance on a net operating budget of \$1,908,200. This variance relates to advertising savings in Corporate Communications.

Corporate Services

Corporate Services is forecasting to finish the fiscal year in an overall balanced budget position. This variance is attributable to the inclusion of the Town's project management office (PMO) under Corporate Services, offset by savings in animal control shelter costs and higher than budgeted parking violation revenues. Capital project funding is available for the funding of the PMO. As there is currently sufficient forecasted savings available within the Town's operating budget, staff are presently not forecasting to draw upon these available funds.

Financial Services

Financial Services is forecasting a \$109,600 (6.0 percent) favourable variance on a net operating budget of \$1,838,500 driven almost wholly by salary savings resulting from vacant position gapping.

Fire Services

Central York Fire Services (CYFS) is forecasting a surplus of \$629,000 (2.4 percent) on a total budget of \$27,214,800 as of March 31, 2019. This surplus is mostly attributable to gapping for retirements, leave of absences, new hires, and other vacancies. Aurora's share of this budget and its resultant surplus was \$11,062,800 and \$254,600, respectively. This noted CYFS surplus was offset by a contribution to the shared CYFS Reserve, thus leaving the Town's forecasted Fire Services requirements as budgeted.

Operational Services

Operational Services excluding water, wastewater & storm water services is forecasting a minor overall variance on a net operating budget of \$9,996,100. Key contributors to this variance are a deficit in snow management resulting from larger than anticipated contract and salary costs due to a larger than anticipated number of snow events at the beginning of 2019 offset by contract, salary and operating material cost savings in park and road network operations, as well as waste management. If required, the snow management reserve may be accessed in order to balance any funding short-falls arising from snow management.

Operational Services' salaries and wages are split between tax levy and rate (water,

June 18, 2019

Page 4 of 7

Report No. FS19-021

wastewater & storm water services) funded programs. In any given year, the extent of operational service staff support of tax levy or rate funded programs is difficult to predict; consequently some variability in this regard is not unusual.

Community Services

Community Services is forecasting a \$353,400 (3.7 percent) favourable variance on a net operating budget of \$9,429,700. The key contributors to this noted variance are salary savings, projected town facility contract and utility savings.

Also included in this variance are anticipated revenue surpluses totalling \$38,450 from new adult/seniors programs, increase in fitness participation, increased sponsorship, advertising and grant revenue.

Planning & Development Services

The Planning & Development Services department is forecasting a surplus of \$505,300. The key contributing factor to this favourable variance was healthier than expected development driven revenue such as engineering fees for lot grading, subdivisions and site plans. It should be noted that the majority of these revenues arise at the 'front end' of a development; consequently, as the Town has almost reached build out for its designated greenfield areas, these revenues can be expected to decline in future years.

Not included in this variance is a projected Building Services' surplus of \$214,100, as it is a self-funded function as per provincial legislation. If it is unable to recognize sufficient revenues to offset its expenses in a given fiscal year, it will draw from its dedicated reserve in order to balance its operating budget. If it recognizes excess revenues, these revenues are utilized to replenish its reserve. This year's forecasted surplus results from salary savings. As the majority of Building Services' revenues arise more towards the 'back end' of a development, these associated revenues are expected to continue to be strong into the short term as development initiated earlier through Planning & Development Services runs its course towards conclusion.

Corporate Revenues & Expenses

Corporate Revenues and Expenses is forecasting a minor surplus on a net operating budget of \$4,378,100. The primary driver of this noted variance is a surplus in penalties on unpaid property taxes, offset by higher bank charges and contributions to reserves.

Aurora Public Library Contribution

The Aurora Public Library remains on track to spend its full planned requisition from the

June 18, 2019

Page 5 of 7

Report No. FS19-021

Town.

Total Tax Levy

Staff have confirmed that the Town will collect a total of \$47,258,500 in tax levy revenue in 2019, equal to what was budgeted.

Operating Summary

Overall, the Town of Aurora general municipal operations is forecasting a surplus of \$975,800 with no noticeable adverse impacts to service levels. As it is still early in the 2019 fiscal year, this forecasted surplus is at a high risk of being subject to change prior to year end. Should any surplus remain at fiscal year-end, it will be transferred to the appropriate town reserve(s) as will be set out in the town's 2019 surplus control bylaw.

The Operating Budget Summary can be found in Attachment 1.

A utility operations surplus of \$415,100 is anticipated.

Utility operations is currently projected to close the year with a favourable budget variance of \$415,100, primarily attributable to anticipated increased revenues and contract savings. This forecasted variance will continue to be subject to change, particularly over the summer months, as the average daily temperature and level of rainfall received have a direct relationship to the volume of water consumed.

The utility operations service line budgets are comprised primarily of fixed operational costs, funded by the net proceeds from the sale of water, waste water and storm water services. These fixed operational costs include staff and service maintenance costs related to maintaining the infrastructure systems, water quality testing, and the billing and customer service functions. These costs are not directly impacted by the volume of water flowing through the system. The fixed costs relating to water and waste water are funded from the net revenues earned by these services which are variable in nature due to the fact that they are based upon metered water consumption volumes. Storm water revenues are not subject to the same volatility as the water and waste water service lines.

Should any utility service line surpluses remain at fiscal year-end, they will be moved to their respective stabilization reserve funds as will be set out in the town's 2019 surplus control bylaw.

The utility operations summary can be found in Attachment 2.

June 18, 2019

Page 6 of 7

Report No. FS19-021

Advisory Committee Review

Not applicable.

Legal Considerations

Nil

Financial Implications

The actual resultant annual surplus or deficit in the general operating budget and water / wastewater budgets will be allocated by Council to / from various reserves at fiscal year-end as per the Town's surplus control bylaw. There are no other immediate financial implications arising from this report. Council fulfills its role, in part, by receiving and reviewing this financial status report on the operations of the municipality relative to the approved budget.

Communications Considerations

This report will be posted to the Town's Budget and Financial Information web page for transparency and accountability.

Link to Strategic Plan

Outlining and understanding the Town's present financial status at strategic intervals throughout the year contributes to achieving the Strategic Plan guiding principle of "Leadership in Corporate Management" and improves transparency and accountability to the community.

Alternative(s) to the Recommendation

None

Conclusions

Having completed four months of operations, the management team is presently forecasting to end the year with a favourable budget variance from its tax levy funded operations of \$975,800. This forecast is based upon the best information and estimates

June 18, 2019

Page 7 of 7

Report No. FS19-021

available at this time. Accordingly, the forecast will continue to be subject to change over the remainder of the fiscal year, meaning there will continue to be influencing variables that are difficult for staff to estimate, such as development driven revenues and investment income, as well as the ultimate level of town services that will be consumed by fiscal year end. Staff remain vigilant to continue to realize budget savings whenever possible in an effort to continue to end the year in a surplus position.

Utility operations are currently projected to conclude the fiscal year with a favourable budget variance of \$415,100.

Any remaining surpluses at fiscal year-end will be contributed to the Town's reserve(s) as will be defined in the town's 2019 surplus control by-law.

Attachments

Attachment #1 – Tax Levy Net Operating Forecast Update

Attachment #2 – Utility Net Operating Forecast Update

Previous Reports

None

Pre-submission Review

Agenda Management Team review on May 29, 2019

Departmental Approval



For Rachel Wainwright-van Kessel, CPA, CMA
Director of Finance

Approved for Agenda



Doug Nadorozny
Chief Administrative Officer

**Town of Aurora
Tax Levy Net Operating Forecast Update
as at April 30, 2019**

Shown in \$,000's	NET ADJUSTED BUDGET	FORECAST	Variance Favourable / (Unfavourable)	
<u>COUNCIL</u>				
Council Administration	\$ 564.1	\$ 559.3	\$ 4.8	0.9 %
Council Programs/Grants	4.0	4.0	-	-
Advisory Committees	8.0	8.0	-	-
Council Office Total	\$ 576.1	\$ 571.3	\$ 4.8	0.8 %
<u>CHIEF ADMINISTRATIVE OFFICE</u>				
CAO Administration	\$ 545.6	\$ 545.7	\$ (0.1)	(0.0 %)
Communications	786.5	780.5	6.0	0.8 %
Chief Administrative Office Total	\$ 1,332.1	\$ 1,326.2	\$ 5.9	0.4 %
Council and C.A.O. Combined	\$ 1,908.2	\$ 1,897.5	\$ 10.7	0.6 %
<u>CORPORATE SERVICES</u>				
Corporate Services Administration	\$ 407.7	\$ 555.0	(147.3)	(36.1 %)
Legal Services	1,487.0	1,517.8	(30.8)	(2.1 %)
Legislative & Administrative Services	709.8	677.6	32.2	4.5 %
Human Resources	836.4	828.7	7.7	0.9 %
Elections	92.5	105.6	(13.1)	(14.2 %)
Information Technology	2,043.7	1,952.9	90.8	4.4 %
Telecommunications	165.1	171.6	(6.5)	(3.9 %)
By-law Services	561.2	521.8	39.4	7.0 %
Animal Control	259.2	239.1	20.1	7.8 %
Customer Service	874.6	867.7	6.9	0.8 %
Emergency Preparedness	35.7	35.7	-	-
Corporate Services Total	\$ 7,472.9	\$ 7,473.5	\$ (0.6)	(0.0 %)
<u>FINANCIAL SERVICES</u>				
Policy & Planning Administration	\$ 342.2	\$ 231.1	\$ 111.1	32.5 %
Accounting & Revenue	469.7	450.7	19.0	4.0 %
Financial Planning	517.4	522.8	(5.4)	(1.0 %)
Procurement Services	508.2	523.3	(15.1)	(3.0 %)
Financial Services Total	\$ 1,837.5	\$ 1,727.9	\$ 109.6	6.0 %

**Town of Aurora
Tax Levy Net Operating Forecast Update
as at April 30, 2019**

Shown in \$,000's	NET ADJUSTED BUDGET	FORECAST	Variance Favourable / (Unfavourable)	
<u>FIRE SERVICES</u>				
Central York Fire	11,188.1	11,188.1	-	-
Total Fire Services	11,188.1	11,188.1	-	-
<u>Operational Services</u>				
Operational Services Administration	\$ 258.4	\$ 280.9	\$ (22.5)	(8.7 %)
Fleet & Equipment	758.8	724.4	34.4	4.5 %
Snow Management	1,584.1	1,733.1	(149.0)	(9.4 %)
Road Network Operations	2,721.6	2,679.4	42.2	1.6 %
Parks/Open Spaces	2,603.8	2,543.0	60.8	2.3 %
Waste Collection & Recycling	2,069.4	2,049.6	19.8	1.0 %
Operational Services Total	\$ 9,996.1	\$ 10,010.4	\$ (14.3)	(0.1 %)
<u>Community Services</u>				
Community Services Administration	\$ 1,135.1	\$ 1,121.4	\$ 13.7	1.2 %
Business Support	(426.0)	(451.5)	25.5	6.0 %
Recreational Programming/Community Dev.	1,939.3	1,771.4	167.9	8.7 %
Facilities	6,781.3	6,635.0	146.3	2.2 %
Community Services Total	\$ 9,429.7	\$ 9,076.3	\$ 353.4	3.7 %
<u>PLANNING & DEVELOPMENT SERVICES</u>				
Development Planning	\$ (321.5)	\$ (520.7)	\$ 199.2	62.0 %
Long Range & Strategic Planning	879.3	826.2	53.1	6.0 %
Engineering Service Operations	490.0	237.0	253.0	51.6 %
Net Building Department Operations	\$ 390.8	\$ 176.7	214.1	54.8 %
Contribution from Building Reserve	(390.8)	(176.7)	(214.1)	(54.8 %)
Total Building Services	-	-	-	-
Planning & Development Services Total	\$ 1,047.8	\$ 542.5	\$ 505.3	48.2 %

**Town of Aurora
Tax Levy Net Operating Forecast Update
as at April 30, 2019**

Shown in \$,000's	NET ADJUSTED BUDGET	FORECAST	Variance Favourable / (Unfavourable)	
<u>CORPORATE REVENUE & EXPENSE</u>				
Supplementary Taxes & Payments-in-Lieu	\$ (1,050.3)	\$ (1,050.3)	\$ -	-
Contribution of Excess SUPPs to reserves	400.0	400.0	-	-
Penalties on Unpaid Property Taxes	(900.0)	(1,000.0)	100.0	11.1 %
Overhead Cost Re-allocation to Water & Building	(1,815.3)	(1,815.3)	-	-
All Other Revenue	(5,879.6)	(6,102.6)	223.0	3.8 %
Cash to Capital	5,263.9	5,263.9	-	-
All Other Expense	8,359.4	8,670.9	(311.4)	(3.7 %)
	<u>\$ 4,378.1</u>	<u>\$ 4,366.6</u>	<u>\$ 11.6</u>	<u>0.3 %</u>
<u>TOTAL TAX LEVY FUNDED OPERATIONS</u>	<u>\$ 47,258.5</u>	<u>\$ 46,282.8</u>	<u>\$ 975.8</u>	<u>2.1 %</u>
<u>TOTAL TAX LEVY</u>	<u>\$ (47,258.5)</u>	<u>\$ (47,258.5)</u>	<u>\$ 0.1</u>	<u>0.0 %</u>
<u>OPERATING (SURPLUS) DEFICIT</u>	<u>0.0</u>	<u>\$ (975.7)</u>	<u>\$ 975.8</u>	<u>1.5 %</u>
		Surplus	Surplus	

**Town of Aurora
Final Utility Net Operating Report
as at April 30, 2019**

Shown in \$,000's	ADJUSTED BUDGET	FORECAST	Variance Favourable / (Unfavourable)	
<u>Water Services</u>				
Retail Revenues	(11,105.4)	(11,171.5)	\$ 66.1	0.6 %
Penalties	(175.0)	(191.5)	16.5	9.4 %
Other	(210.1)	(210.7)	0.6	0.3 %
Total Revenues	(11,490.5)	(11,573.7)	\$ 83.2	0.7 %
Wholesale water purchase	7,151.0	7,081.5	69.5	1.0 %
Operations and maintenance	847.2	878.7	(31.5)	(3.7 %)
Administration and billing	899.5	718.9	180.6	20.1 %
Corporate overhead allocation	892.8	953.7	(60.9)	(6.8 %)
Infrastructure sustainability reserve contributions	1,700.0	1,700.0	-	-
Total Expenditures	11,490.50	11,332.8	\$ 157.7	1.4 %
Net Operating Water Services	-	(240.9)	\$ 240.9	n/a
<u>Waste Water Services</u>				
Retail Revenues	(13,839.1)	(13,972.5)	\$ 133.4	1.0 %
Penalties	-	-	-	n/a
Other	(90.0)	(75.2)	(14.8)	(16.4 %)
Total Revenues	(13,929.1)	(14,047.7)	\$ 118.6	0.9 %
Sewer discharge fees	10,944.0	10,651.5	\$ 292.5	2.7 %
Operations and maintenance	797.6	827.0	\$ (29.4)	(3.7 %)
Administration and billing	261.4	261.4	\$ -	-
Corporate overhead allocation	626.1	834.8	(208.7)	(33.3 %)
Infrastructure sustainability reserve contributions	1,300.0	1,300.0	-	-
Total Expenditures	13,929.1	13,874.7	\$ 54.4	0.4 %
Net Operating Waste Water Services	-	(173.0)	\$ 173.0	n/a
Total Water and Waste Water Services	-	(413.9)	\$ 413.9	n/a

Storm Water Services

Retail Revenues	(2,069.1)	(2,097.2)	\$ 28.1	1.4 %
Penalties	-	-	-	n/a
Other	-	-	-	n/a
Total Revenues	(2,069.1)	(2,097.2)	\$ 28.1	1.4 %
Operations and maintenance	460.2	452.6	7.6	1.7 %
Administration and billing	105.4	105.4	-	-
Corporate overhead allocation	103.5	138.0	(34.5)	(33.3 %)
Infrastructure sustainability reserve contributions	1,400.0	1,400.0	-	-
Total Expenditures	2,069.1	2,096.0	\$ (26.9)	(1.3 %)
Net Operating Storm Water Services	-	(1.2)	\$ 1.2	n/a
OPERATING (SURPLUS) DEFICIT	-	\$ (415.1)	\$ 415.1	1.7 %
		Surplus	Surplus	



**Town of Aurora
General Committee Report No. OPS19-016**

Subject: Aurora Family Leisure Complex (AFLC) Skate Park
Prepared by: Sara Tienkamp, Manager Parks & Fleet
Department: Operational Services
Date: June 18, 2019

Recommendation

- 1. That Report No. OPS19-016 be received; and**
- 2. That this report satisfy Council's conditional approval of Capital Project No. 72281 – AFLC Skate Park in the amount of \$600,000.**

Executive Summary

This report provides information to satisfy the conditional approval of Capital project No.72281 and seeks Council approval to proceed with AFLC Skate Park replacement.

- Engineering consultant retained in 2018 to investigate deterioration of AFLC Skate Park recommends replacement.
- Skate park facility highly utilized and will continue to pose safety risk to users if not mitigated.

Background

In November 2013, the Town of Aurora engaged Jasper Construction to commence renovation work at the AFLC. The work included the construction of a new large skate park facility. After delays and various issues associated with the project, the skate facility was opened to the public in spring of 2015.

Following the winter of 2015, issues with the concrete surfacing of the skate park appeared almost immediately after construction including:

- significant cracking believed to be the retention of water underneath the concrete surface;

- delaminating of concrete surface;
- water was not draining properly through drains; and
- poor grading and possible incorrect installation of facility.

Analysis

Engineering Consultant retained in 2018 to investigate deterioration of AFLC Skate Park recommends replacement.

In 2018, the Community Services Department retained the services of Greenview Environmental Management Ltd. to investigate the deterioration and provide remedial alternatives and associated costs.

The research by Greenview included reviewing the design and construction documents, subsurface analysis, measuring of groundwater, concrete sampling and strength testing and overall construction methods. This research found critical deficiencies related to design and construction:

- an insufficient layer of free-draining aggregate material to avoid the collection of water underneath the concrete slab;
- an insufficient amount of rebar reinforcement installed in the concrete; and
- concrete not meeting the required strength requirements.

As such, Greenview recommended the Town replace the skate park with a properly engineered and constructed structure to ensure safe, long term, recreational use of the facility with minimal ongoing maintenance costs and risk.

Skate park facility highly utilized and will continue to pose safety risk to users if not mitigated.

The skate park receives a high amount of traffic daily as it is a large facility, designed to provide users with different abilities, challenges in the sport.

The cracking and delaminating of the concrete lend to an uneven and rough skate surface, increasing the risk of injury to users, as skateboard wheels require a smooth level surface to travel. In addition pooling water also poses a threat to patrons.

Staff continue to patch and grind the concrete deficiencies, utilizing various measures and methods to help mitigate the ongoing problems and reduce risk to users. The

June 18, 2019

Page 3 of 4

Report No. OPS19-016

concrete issues will persist from the frost, till the water, drainage and concrete strength/ reinforcement are rectified.

The skate park is inspected daily, April through November by parks staff ensuring the facility is safe for use as per the Park Maintenance Standard Service Levels.

Advisory Committee Review

Not applicable.

Legal Considerations

The Town has a duty to maintain the Skate Park. Failure to do so may result in claims against the Town. To date, the Town has not received any claims in regard to the Skate Park.

Financial Implications

The AFLC Skate Park project received conditional budget approval and funding in the 2019 Capital Budget. This report is to lift the condition, allowing the project to commence.

Communications Considerations

The Town of Aurora will inform the public of any closures as a result of the capital project by posting to social media, the Town website and having appropriate signage at the site.

Link to Strategic Plan

This project supports the Strategic Plan Goal of Supporting an Exceptional Quality of Life for all by improving transportation, mobility and connectivity. This project maintains a well-managed and fiscally responsible Municipality.

Alternative(s) to the Recommendation

1. Council may chose not to approve Capital Project No 72281 for the replacement of the skate park. This will pose ongoing safety concerns and lead to the potential

June 18, 2019

Page 4 of 4

Report No. OPS19-016

closure of the facility when the deficiencies cannot be effectively managed to mitigate risk.

2. Council may chose to approve the repair the skate park, considered to be potentially short term and may not fully address all deficiencies as per the Greenview Environmental Managements report. This could lead to additional funding requirements for ongoing repairs and/or full replacement in the future.

Conclusions

Staff recommends that Capital Project No. 72281, AFLC Skate Park replacement project be approved.

Attachments

Attachment #1 – Capital Project No. 72281 AFLC Skate Park
Attachment #2 – Aurora Skate Park Review Report – Sep30-18

Previous Reports

None.

Pre-submission Review


Agenda Management Team Review on May 29, 2019

Departmental Approval



**Allan D. Downey
Director of Operations
Operational Services Department**

Approved for Agenda



**Doug Nadorozny
Chief Administrative Officer**

Attachment #2



Skate Park Review Report Aurora Family Leisure Complex

**135 Industrial Parkway North
Aurora, Ontario**

September 30, 2018

Greenview File: 166.18.008



13 Commerce Court
Bancroft, Ontario
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Executive Summary

The Skate Park at the Town of Aurora's Family Leisure Complex on Industrial Parkway North was constructed in 2014. In recent years, the Town has observed cracking of the concrete and water ponding issues.

The Town of Aurora retained Steenhof Mechanical and Electrical Services Inc. and subconsultant Greenview Environmental Management Limited as their civil and structural subconsultant specialist, to investigate the observed issues, and provide remedial alternatives and associated cost estimates to address the issues.

The deficiency investigations included: background information review, design and construction documentation review, subsurface investigations, groundwater measurements, in-situ concrete sampling and strength testing, and in-situ scanning of the existing concrete's construction. The results of the investigations and testing indicate a number of critical deficiencies related to both the design and construction of the Skate Park.

The design failed to account for the underlying frost-susceptible soils and did not provide adequate engineering controls to permit drainage from under the Skate Park's concrete works to suitable outlets. As a result, cracking from frost heaving and/or resultant settlement of the concrete has occurred. The concrete's strength (i.e. concrete class) was incorrectly specified as compared to acceptable standards.

The deficiencies in construction include the failure to install sufficient free-draining, non-frost-susceptible granular bedding below the concrete, insufficient concrete reinforcement per the design, the failure to supply and install the designed thickness and/or strength of concrete required for the intended use, and the failure to manage local stormwater infiltration on and around the vicinity of the Skate Park. Based on background records provided by the Town, monitoring and inspection of the construction was absent.

The observed deficiencies and associated findings of the investigation and testing work could be addressed in one of two approaches. Remedial efforts could be undertaken to the existing Skate Park to mitigate further issues and deterioration of site conditions, with enhanced maintenance. The initial remedial cost for repairs is estimated in the range of \$200,000 to \$300,000. Due to the nature of the Skate Park's existing construction, the repairs are not expected to address all issues, and may not fully address all deficiencies in the long-term.

The replacement of the Skate Park, including the establishment of drainage measures to manage surface flows from adjacent areas, would address all deficiencies and provide a long-term solution with the cost estimated in the range of \$400,000 to \$600,000.

Greenview recommends that the Town replace the Skate Park, and in doing so, implement the proper engineering controls and standard that would provide the Town with safe, long-term, recreational use of the facility with minimal ongoing maintenance cost and risk.

Table of Contents

1.0	Introduction	1
1.1	Background	1
1.2	Purpose and Scope	1
2.0	Methodology	2
2.1	Background	2
2.2	Site Investigations and Testing	2
2.2.1	General Approach	2
2.2.2	Subsurface Investigation	3
2.2.3	In-Situ Material Investigation	3
3.0	Results	4
3.1	General	4
3.2	Subsurface Investigations	4
3.2.1	Borehole Investigations	4
3.2.2	Groundwater Investigations	4
3.3	In-Situ Materials	4
3.3.1	Concrete Investigations	5
3.3.2	Base Materials	5
4.0	Discussion	6
4.1	General	6
4.2	Remedial Alternatives	7
4.2.1	Repair Skate Park	7
4.2.2	Replace Skate Park	7
5.0	Recommendations	9
6.0	Closing	10

Skate Park Review Report
Aurora Family Leisure Complex
Town of Aurora

List of Figures

- Figure 1 Regional Location Plan
- Figure 2 Borehole and Sampling Location Plan

List of Appendices

- Appendix A Geotechnical Investigation and Concrete Core Testing Assessment of Skate Park Concrete Cracking, Aurora Family Leisure Complex, 135 Industrial Parkway North, Town of Aurora, Soil Engineers Ltd., August 2, 2018
- Appendix B Photograph Log
- Appendix C Statement of Qualifications and Limitations

1.0 Introduction

1.1 Background

The Skate Park is part of the Town of Aurora's (Town) Aurora Family Leisure Complex, located on Industrial Parkway North in the Town of Aurora (Figure 1). The Skate Park was constructed in 2014 as part of a major renovation of the Complex. The area surrounding the Skate Park consists of a site access road and sidewalk to the west, a parking lot to the south, a landscaped area to the east and the Complex building and entrance sidewalk to the north (Figure 2).

Since construction in 2014, the Town has observed significant cracking of the in-situ concrete and water pooling within the Skate Park. The Town retained Steenhof Mechanical & Electrical Services (SMES) as prime consultant, whom retained Greenview Environmental Management Limited (Greenview) as a civil/structural subconsultant, to investigate and determine the cause of the deficiencies and make recommendations for remedial measures.

As a preliminary phase in reviewing the observed deficiencies at the facility, Greenview provided an initial report identifying several potential issues associated with the design and construction of the Skate Park (Deficiency Review, June 14, 2018). Greenview's initial report recommended that site intrusive investigations and destructive testing be undertaken to qualify and quantify the extent of the deficiencies identified, prior to recommending remedial alternatives.

1.2 Purpose and Scope

Greenview was retained to identify the cause of the observed deficiencies within the Skate Park and provide remedial alternatives and associated cost estimates for the Town's consideration in addressing the deficiencies.

The scope of this report is summarized generally as follows:

1. Describe the methodology employed for intrusive investigations and destructive testing for the project.
2. Summarize the results of the intrusive investigations and related testing.
3. Discuss the results of the in-field testing and identify causation of the deficiencies observed.
4. Identify remedial alternatives to address the deficiencies within the Skate Park.
5. Provide cost estimates for the remedial alternatives identified.
6. Provide recommendations to the Town to address the Skate Park's deficiencies.

2.0 Methodology

2.1 Background

As noted above, Greenview has undertaken an initial review of the deficiencies observed at the Skate Park, and the results and recommendations are presented in that report.

For this more comprehensive study, the provided background and design documentation for the initial study has been referenced. The documentation provided includes:

1. Site photographs taken post-construction on May 16, 2018 (refer to attached Photograph Log).
2. Drawings by Hardcore Skateparks dated July 31, 2013.
3. Detailed Skate Park drawings sealed by GS Engineering Consultants Inc. dated August 25, 2014.
4. Issued for Construction site servicing plan (SS-1) and removal and grading plan (G-1) prepared by Gerrits Engineering dated July 12, 2013.
5. Field density test results letter prepared during construction by Soil Engineers Ltd. dated April 23, 2014.
6. Contract change notice documentation for site servicing addendum dated May 2014.
7. Site servicing inspection reports prepared during construction by Gerrits Engineering dated March 2014 to April 2014.
8. Site meeting minutes prepared during construction by Jasper Construction dated February 2014 to February 2015.
9. Additional selected as-built drawings provided by the Town.
10. Site photographs taken during Skate Park construction as provided by the Town.

2.2 Site Investigations and Testing

2.2.1 General Approach

The general methodology employed for on-site investigations and testing is as follows:

1. On-site, advance three (3) boreholes, and in these locations construct three (3) groundwater piezometers around the perimeter of the Skate Park at select locations, to a maximum depth of 5.0m below ground surface.
2. Advance and collect up to ten (10) concrete cores and underlying granular/soil samples at locations across the concrete surfaces of the Skate Park, with primary focus on the two (2) bowl areas and any other areas of concern.
3. Measure/document the location of the new boreholes/piezometers, and concrete core locations, using established survey control at the site, provided by the Owner/Client.
4. Analyse soil, concrete, and other collected materials for their properties, classifications, strength and related characteristics pertinent to the objectives of the study.

Upon acceptance of the consultant recommendation by the Town, Greenview retained Soil Engineers Ltd. to assist with the above noted testing and provide focused geotechnical and material testing recommendations. Soil Engineers issued a report of their findings dated August 2, 2018 (Appendix A).

2.2.2 Subsurface Investigation

The subsurface investigations were performed on-site on June 25, 2018, which included advancing boreholes in overburden for analysis and to install piezometers for groundwater level measurement and monitoring. Three (3) boreholes were advanced around the perimeter of the Skate Park in locations dictated by Greenview, located as shown on Figure 2. The boreholes were advanced to a typical minimum depth of 5.0m below ground surface and representative soil samples were obtained at specific intervals for laboratory testing and classification. A Standard Penetration Test was performed at each interval, as outlined in the geotechnical report (Appendix A). A 25mm piezometer was installed in each of the three boreholes, for groundwater elevation monitoring. The water level in each piezometer was measured twice daily during the three days of field investigations, and again on July 17, 2018. Greenview surveyed the top of each piezometer casing, referencing on-site benchmarks from background documentation, to convert measured groundwater levels to elevations.

2.2.3 In-Situ Material Investigation

The in-situ material investigations performed on-site on June 26, 2018 and June 27, 2018, included scanning the existing concrete skate park works for encased reinforcement (rebar), collecting concrete core samples for measurement and testing, and observing the in-situ material below the concrete. A sub-scanner detection tool was used to identify the location and depth of rebar within the Skate Park's concrete slabs and structures. General reinforcement layout was noted. Nine (9) concrete core samples were obtained across the Skate Park in pre-selected locations by Greenview. Once cored, the concrete samples were measured and visually inspected on-site and taken to the laboratory for compressive strength testing. The base material below the concrete at each core location was visually reviewed on-site. The base granular material was generally noted, and its thickness was measured, and the sub-base material was also noted.

3.0 Results

3.1 General

This section summarizes the key findings from the subsurface and in-situ material investigations performed at the Skate Park facility. The results summarized in this section are a combination of Greenview's field measurements and observations, and laboratory test results provided by Soil Engineers (refer to Appendix A). Results have been compared to the original design drawings provided by the Owner, and other applicable standards.

3.2 Subsurface Investigations

The subsurface investigations performed on-site, included drilling boreholes for soil collection and analysis, and the installation of piezometers for groundwater level monitoring. Section 3.2.1 summarizes the properties and classification of the soil collected in each of the three boreholes. Section 3.2.2 lists the static ground water elevations measured in the piezometers.

3.2.1 Borehole Investigations

The results of the borehole investigations indicated that a silty-clay fill material was encountered below the surficial topsoil (Appendix A). The fill material was underlain by a very stiff, native clay material. Silty clay is highly frost-susceptible and has low permeability. The moisture content of the soil in each borehole was very moist to wet.

3.2.2 Groundwater Investigations

Following the installation of the piezometers, groundwater levels were measured twice daily from June 25 to 27, 2018. Further, on July 17, 2018, representative static groundwater levels were measured, and are presented in Table 1 below. From the measured groundwater levels and converted elevations, the interpreted direction of groundwater flow is from west to east. Based on the groundwater elevation data in Table 1 and the site elevation data provided by the Town (Figure 2), the static groundwater table exceeds 2m below the Skate Park existing ground surface.

Table 1: Static Ground Water Elevations - Measured July 17, 2018

Location	Ground Elevation (m)	Static Groundwater Elevation (m)	Difference (m)
BH-1	256.26	253.26	3.0
BH-2	257.02	253.12	3.9
BH-3	255.78	252.98	2.8

3.3 In-Situ Materials

The in-situ material investigations performed on-site included scanning the concrete for reinforcement, collecting concrete core samples for measurements and testing, and visual review of the base granular materials below the concrete.

3.3.1 Concrete Investigations

Scanning the concrete for the location, orientation and embedment of the reinforcement revealed that the existing rebar layout does not conform to the layout specified in the drawings. The drawings specified 305mm (12”) spacing of rebar in both directions in the curved sections of the concrete bowls and ramps; however, there is limited to no rebar in these areas. The reinforcement layout within the floor areas of the Skate Park appeared to generally reflect the required layout indicated on the drawings. It is noted from the design drawings that the curved ramp sections of the Skate Park were to be pre-cast elements; however, photographs taken during construction show cast-in-place concrete construction (Appendix B).

As noted in Greenview’s initial report, there was a discrepancy in the required strength of concrete to be used for the Skate Park’s construction. Table 2 summarizes the results of the compressive strength testing and the measured, as-constructed, concrete thickness. The compressive strength varies significantly, with the lowest strength being 28.7MPa and highest being 66.8MPa. Further, the thickness of the concrete varies, with cores in the areas of CH-7 and CH-8 being less than the design requirement of 150mm.

Table 2: Concrete Core Results

Sample	Compressive Strength (MPa)	Concrete Thickness (mm)	Base Thickness (mm)	Comments
CH-1	51.9	180	170	Predominantly silty clay base
CH-2	49.4	175	85	Predominantly silty clay base
CH-3	47.7	180	210	Predominantly silty clay base
CH-4	36.7	190	170	Predominantly silty clay base
CH-5	33.8	165	215	Predominantly silty clay base
CH-6	28.7	180	0	Predominantly silty clay base
CH-7	50.9	140	210	Predominantly silty clay base
CH-8	66.8	130	210	Predominantly silty clay base
CH-9	39.3	155	195	Predominantly silty clay base

3.3.2 Base Materials

The base materials observed directly below the concrete appeared to be a mix of aggregate, concrete chips and silty clay. No base material was encountered directly below the concrete slab in the south ramp, in the location of CH-6. From field observations, it appears that the specific installation of a free-draining granular base material was absent across the Skate Park area.

4.0 Discussion

4.1 General

Based on the results summarized in Section 3.0, provided documentation and visual observations, Greenview provides the following summary related to the predominant sources of the observed deficiencies at the Skate Park.

The results of the geotechnical investigation for the soil materials indicate that the soil below the Skate Park, is primarily silty clay. Silty clay is a poorly-draining, highly frost-susceptible soil and is not typically used as a base material in climates where frost/freezing occurs. Silty clay expands when saturated or frozen, and contracts when drained or thawed. A structure built on silty clay will, therefore, be subject to heave and settlement, based on climatic conditions. A sufficiently thick, free-draining base layer is required below a concrete structure to minimize the effects of the expanding and contracting soil. The investigations reveal that the base material in several areas below the concrete is less than the specified 200mm thickness, leaving the concrete susceptible to the silty clay soil's heaving and settlement action, which can result in concrete damage. It is noted that the background design documentation indicates some level of granular base to be installed below the concrete; however, its specification and extent is inconsistent and unclear.

The subsurface investigations also considered the potential effects of groundwater relative to the Skate Park deficiencies. Groundwater elevation data measured from the piezometer locations around the perimeter of the Skate Park revealed that the static groundwater level is approximately 2m below the Skate Park surface. This information indicates that groundwater does not likely have a negative impact on the Skate Park. The water pooling observed on top of the concrete the south west corner of the Skate Park is likely due to seepage out of the adjacent landscaped area, after precipitation events.

With respect to the concrete, scanning of the in-situ concrete for the presence of reinforcement resulted in a significant discrepancy between as-built conditions and design drawings. As noted in Section 3.3.1, there is limited to no rebar in sections of the concrete. Without reinforcement, any heaving or settlement of the structure would most likely result in concrete cracking. Further, there are areas of the Skate Park where the concrete does not meet the minimum concrete compressive strength requirements in accordance with CSA A23.1 which dictates that the concrete's compressive strength should be a minimum of 30MPa (Class F-1 or C-1 exposure classes), as the Skate Park is subject to freeze-thaw action, and the concrete was to be reinforced. The concrete test results indicated that the south ramp area (CH-6, Figure 2) does not meet this minimum requirement. The design drawings, however, indicate that concrete slabs were to meet a strength of 4000psi (28MPa), which was met in all areas of the Skate Park. It is also noted that the concrete strength varies significantly, from 28.7MPa to 66.8MPa, which indicates a lack of quality control.

Underlying the concrete, there should have been a sufficient layer of free-draining aggregate material that would permit the flow of any moisture/water occurring below the slab to be drained, to avoid collection and subsequent frost impacts on the overlying concrete. The results of the study indicate that there was minimal to no free-draining base aggregate material installed below the concrete, which would result in the opportunity for moisture to collect underneath the concrete and freeze during cold conditions. The resultant frost heaving action would then be imposed on the concrete above, and settlement during thaw conditions. The heaving and settlement action, coupled with a lack of concrete reinforcement, would result in cracking of the concrete.

Adjacent to the Skate Park itself, are the larger facility's concrete sidewalks along the north and west sides. These sidewalks are sloped to the south and east respectively, directing precipitation towards the Skate Park. The north and west sides of the Skate Park have open landscaped areas, which would permit infiltration of the precipitation into the ground, and beneath the Skate Park itself.

Overall, the key conclusions with respect to the cause of the observed deficiencies at the Skate Park are as follows.

1. Based on provided information, the design and engineering of the materials underlying the concrete Skate Park are flawed. The design generally fails to provide the necessary engineering controls to limit the potential impacts of freeze-thaw conditions on the materials specified for the Skate Park.
2. The overall quality of construction of the Skate Park does not meet an acceptable standard. The noted absences of granular base material below the concrete, and concrete reinforcement are a significant contributor to the observed deficiencies.
3. The absence of proper site grading and stormwater management works adjacent and related to the Skate Park, and the resultant infiltration of precipitation into the Skate Park soils is the primary source of moisture, and resultant cracking from concrete heaving and settlement due to frost.

4.2 Remedial Alternatives

Based on the determined causation of the deficiencies, Greenview offers the following remedial alternatives for the Town's consideration.

4.2.1 Repair Skate Park

The repair of the Skate Park is possible, however, is considered to be potentially short-term and may not fully address all noted deficiencies. The repairs could include:

1. The construction of stormwater management works/measures that would intercept and/or collect and direct water away from the Skate Park. The interceptor feature would be constructed along the perimeter of the Skate Park such that it would intercept overland flows from adjacent areas (sidewalks, etc.), and direct it to a proper outlet feature. Further, subsurface water collection features could be installed in strategic locations under the concrete to promote underslab drainage and permit water to outlet away from the Skate Park.
2. Complete superficial concrete repairs such as sealing cracks and patching delaminated surfaces.

This repair remedial option is not expected to fully address all noted issues within the Skate Park. The concrete reinforcement deficiencies, and the practical inability to properly install a free-draining material below all concrete areas will not fully address the impacts of frost heaving and subsequent settlement. The effectiveness of the repairs would be evaluated via visual inspection, and any observed changes in the existing cracking or other issues.

Subject to a design review, Greenview estimates the cost to undertake the noted measures, and repairs in the range of \$200,000 to \$300,000.

4.2.2 Replace Skate Park

As noted above, the repair of the Skate Park is not expected to address all noted (and potential future) deficiencies. To address all issues, the alternative of replacing the Skate Park is proposed, which would include:

1. Removal all concrete structures and slabs, and ancillary elements (retaining walls, etc.) within the Skate Park area.
2. Modify existing stormwater/drainage works near the Skate Park to account for existing drainage patterns and issues.
3. Remove unsuitable soils within the Skate Park to the appropriate extents to promote subsurface drainage, restrict the impacts of frost, and support the finish Skate Park facility, as designed.
4. Reconstruct the Skate Park (existing or new design) with appropriate construction quality controls and assurance monitoring.

Skate Park Review Report
Aurora Family Leisure Complex
Town of Aurora

5. For all of the above, provide the appropriate design and engineering drawings, specifications, and related expectations to ensure the replacement facilities can be used as intended, and meet their anticipated service life.

With the understanding of the existing issues, the replacement remedial alternative is expected to address all existing (and future potential) deficiencies of the existing facility.

The Town's original cost to construct the existing facility was reported as \$325,270 at the end of construction in 2014. With demolition and new facility construction, including design, engineering, and contract administration, the estimated cost for replacement is estimated in the range of \$400,000 to \$600,000.

Skate Park Review Report
Aurora Family Leisure Complex
Town of Aurora

5.0 Recommendations

Based on the extent of the deficiencies and the anticipated cost of maintaining the existing facility for continued and safe use by the public, Greenview recommends that the Town replace the existing Skate Park.

Skate Park Review Report
Aurora Family Leisure Complex
Town of Aurora

6.0 Closing

We trust this submission meets with your expectation in considering alternatives to move this project forward. Greenview would be pleased to meet with you to review the content of this report and recommended next steps.

This report and its findings are governed by the attached statement of service qualifications and limitations (Appendix C).

All respectfully submitted by,

Greenview Environmental Management Limited

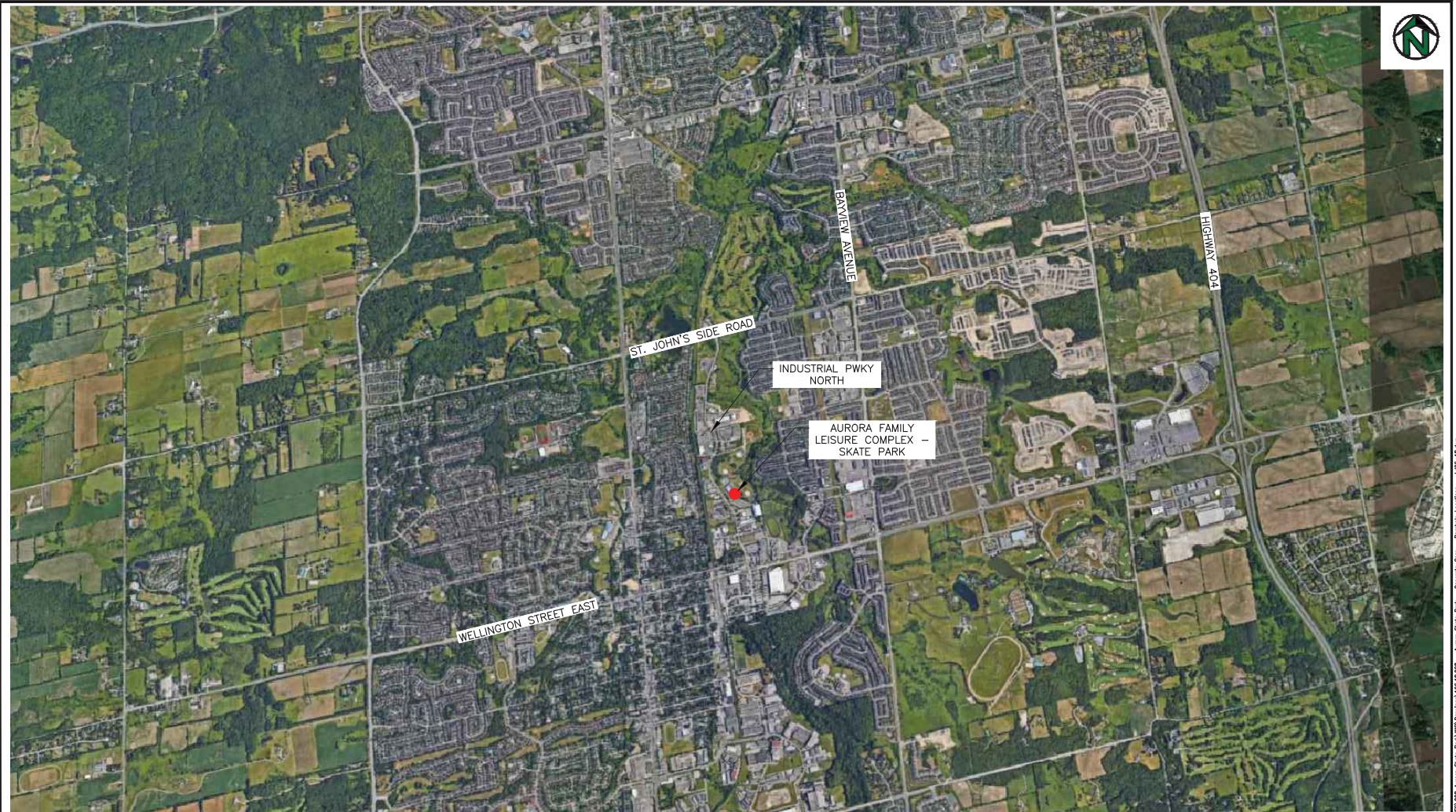


Tyler H. Peters, P.Eng.
Senior Project Engineer



Figures





Map 18-02 - AUR - Industrial Location - Aurora Skate Park - Concrete Core - 00001189118000 - Aurora Skate Park Plan - AUR - 18-02 - 00001189118000 - 00001189118000 - 00001189118000

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No.	DATE	BY	REMARKS
1	SEP30-18	NAF	ISSUED FOR FINAL REPORT
0	AUG03-18	EDR	DRAFT FOR CLIENT REVIEW

DRAWN BY:	CHECKED BY:	CLIENT:	PROJECT:
EDR	THP		
DESIGNED BY:	APPROVED BY:		
-	THP		
SCALE:	DATE:		
NTS	AUG 2018		

REGIONAL LOCATION PLAN
AURORA FAMILY LEISURE COMPLEX SKATE PARK
TOWN OF AURORA

PROJECT No:
166.18.008

FIGURE:
1
1 OF 2

Appendix A





Soil Engineers Ltd.

CONSULTING ENGINEERS

GEOTECHNICAL • ENVIRONMENTAL • HYDROGEOLOGICAL • BUILDING SCIENCE

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August 2, 2018

Reference No. 1806-S126

Page 1 of 10

Greenview Environmental Management
13 Commerce Court
Bancroft, Ontario
K0L 1C0

Attention: Mr. Tyler Peters, P.Eng.

**Re: Geotechnical Investigation and Concrete Core Testing
Assesment of Skate Park Concrete Cracking
Aurora Family Leisure Complex
135 Industrial Parkway North
Town of Aurora**

Dear Sir:

Further to your authorization sent by email dated June 20, 2018, and Purchase Order No. 166.18.008-01, a geotechnical investigation and concrete core samples extraction have been carried out at the subject site to assist in the investigation of concrete cracking of the existing skate park. Our findings and recommendations are presented herein.

FIELD WORK

The field work, consisting of three (3) boreholes to a depth 5.1 m and nine (9) concrete cores was performed on June 25 to 27, 2018, at the locations shown on the Borehole and Corehole Location Plan, Drawing No. 1. Upon completion of the borehole drilling and sampling, three (3) 25-mm piezometers were installed to a depth of 4.5 m below the prevailing ground surface, for groundwater monitoring.



Greenview Environmental Management
August 2, 2018

Reference No. 1806-S126
Page 2 of 11

The boreholes were advanced at intervals to the sampling depths by a compact, track-mounted continuous-flight power-auger machine equipped for soil sampling. Standard Penetration Tests, using the procedures described on the enclosed “List of Abbreviations and Terms”, were performed at the sampling depths. The test results are recorded as the Standard Penetration Resistance (or ‘N’ values) of the subsoil. The relative density of the granular strata and the consistency of the cohesive strata are inferred from the ‘N’ values. Split-spoon samples were recovered for soil classification and laboratory testing.

The field work was supervised and the findings were recorded by a Geotechnical Technician.

The sampling depths and the depth of the soil strata changes were referred to the prevailing ground surface at each of the borehole locations.

SUBSURFACE CONDITIONS

Detailed description of the encountered subsurface conditions is presented on the Borehole Logs, Figures 1 to 3, inclusive. The revealed stratigraphy is plotted on the Subsurface Profile, Drawing No. 2.

The investigation has revealed that beneath a veneer of topsoil and a layer of earth fill extending to depths ranging from $2.5\pm$ to $4.5\pm$ m below the prevailing ground surface, the site is generally underlain by a stratum of firm to very stiff silty clay.

Topsoil (All Boreholes)

The revealed topsoil is 10 cm thick. The topsoil is dark brown in colour, indicating it contains appreciable amounts of roots and humus. These materials



Greenview Environmental Management
August 2, 2018

Reference No. 1806-S126
Page 3 of 11

are unstable and compressible under loads; therefore, the topsoil is considered to be void of engineering value.

Earth Fill (All Boreholes)

The earth fill generally consists of silty clay with traces of sand, gravel, and topsoil. It extends to depths of $2.5\pm$ to $4.5\pm$ m below the prevailing ground surface.

The water content of the fill samples was determined, and the results are plotted on the borehole logs; the values range from 16% to 31%, with a median of 22%, indicating that the fill is in a very moist to wet, being generally in wet condition.

The obtained 'N' values range from 2 to 25, with a median of 11 blows per 30 cm of penetration, indicating that the relative density of the fill is loose to compact, being generally compact. The loose density is restricted to the surficial layer of the fill.

Grain size analyses were performed on 3 representative samples of the fill material and the results are plotted on Figure 4.

The engineering properties of the inorganic fill are generally similar to those of the silty clay discussed in the following section.

Silty Clay (All Boreholes)

The silty clay was contacted below the earth fill. It is laminated with silt and occasional fine sand layers, showing that the soil is a lacustrine deposit.



Greenview Environmental Management
August 2, 2018

Reference No. 1806-S126
Page 4 of 11

The obtained 'N' values range from 7 to 21, with a median of 18 blows per 30 cm of penetration. This indicates that the consistency of the clay is firm to very stiff, being generally very stiff.

The Atterberg Limits of a representative sample and the natural water content of all the samples were determined. The results are plotted on the Borehole Logs and summarized below:

Liquid Limit	26%
Plastic Limit	16%
Plasticity Index	10%
Natural Water Content	21% to 27% (median 24%)

The above results show that the silty clay is a cohesive material with low plasticity. The natural water content of the samples was found to be between its liquid and plastic limits, confirming the consistency of the clay as determined by the 'N' values.

A grain size analysis was performed on a representative sample; the result is plotted on Figure 5.

Based on the above, the soil engineering properties pertaining to the project are given below:

- High frost susceptibility and soil-adfreezing potential.
- Low water erodibility.
- Low permeability, with an estimated coefficient of permeability of 10^{-8} cm/sec, an estimated percolation rate of more than 80 min/cm and runoff coefficients of:



Greenview Environmental Management
 August 2, 2018

Reference No. 1806-S126
 Page 5 of 11

Slope

0% - 2%	0.15
2% - 6%	0.20
6% +	0.28

- A cohesive-frictional soil, its shear strength is derived from consistency and augmented by the internal friction of the silt. Its shear strength is moisture dependent.
- A very poor pavement-supportive material, with an estimated California Bearing Ratio (CBR) value of less than 3%.
- Moderately high corrosivity to buried metal, with an estimated electrical resistivity of 2500 ohm·cm.

GROUNDWATER CONDITIONS

The boreholes were checked for the presence of groundwater, groundwater seepage and/or the occurrence of cave-in upon the completion of the field work. The levels are plotted on the Borehole Logs and listed in the following table.

BH No.	Borehole Depth (m)	Soil Colour Changes Brown to Grey	Seepage Encountered During Augering		Measured Groundwater/ Cave-in* Level On Completion
		Depth (m)	Depth (m)	Amount	Depth (m)
1	5.1	5.1+	1.5	Some	1.8
2	5.1	5.1+	3.0	Some	2.8
3	5.1	5.1+	-	-	Dry



Greenview Environmental Management
August 2, 2018

Reference No. 1806-S126
Page 6 of 11

As shown above, groundwater was measured at depths of $1.8\pm$ m and $2.8\pm$ m from the prevailing ground surface upon completion of the field work in Boreholes 1 and 2. Borehole 3 remained dry upon completion of the field work. The measured levels are derived from infiltrated precipitation trapped in the voids of the earth fill, as well as from the groundwater regime of the site and are subject to seasonal fluctuations.

The groundwater yield from the silty clay, due to its low permeability, is expected to be small in rate and limited in quantity

CONCRETE CORES

Nine (9) concrete cores have been extracted from the skate park floor slab for unconfined compressive strength test. The core locations are shown on the Borehole and Corehole Location Plan, Drawing No. 1. The cores have been tested in accordance with CSA – A23.2 – 9C/14C. The test results are summarized in the following table and are enclosed in the Appendix.



Greenview Environmental Management
 August 2, 2018

Reference No. 1806-S126
 Page 7 of 11

Corehole No.	Corrected Compressive Strength (MPa)	Average Core Depth and Remarks		Subgrade
		Depth (mm)	Remarks	
1	51.9	180	Concrete	Silty Clay Fill
		170	Granular	
		350	Total	
2	49.4	175	Concrete	Silty Clay Fill
		85	Granular	
		260	Total	
3	47.7	180	Concrete	Silty Clay Fill
		210	Granular	
		390	Total	
4	36.7	190	Concrete	Silty Clay Fill
		170	Granular	
		360	Total	
5	33.8	165	Concrete	Silty Clay Fill
		215	Granular	
		380	Total	
6	28.7	180	Concrete	Silty Clay Fill
		0	Granular	
		180	Total	
7	50.9	140	Concrete	Silty Clay Fill
		210	Granular	
		350	Total	
8	66.8	130	Concrete	Silty Clay Fill
		210	Granular	
		340	Total	
9	39.3	155	Concrete	Silty Clay Fill
		195	Granular	
		350	Total	



Greenview Environmental Management
August 2, 2018

Reference No. 1806-S126
Page 8 of 11

ASSESSMENT AND RECOMMENDATIONS

Based on the findings, the geotechnical considerations pertaining to the assessment and/or remediation of the skate park concrete cracking concerns are presented herein:

- The subgrade generally consists of silty clay material which is high in frost heave and soil-adfreezing potential, and one must realize that the ground will heave during the cold weather. Therefore, the slab-on-grade in open areas should be designed to tolerate frost heave. In areas where ground movement due to frost heave cannot be tolerated, the slab-on-grade, must be constructed on a free-draining granular base, 0.3 to 1.2 m thick, depending on the degree of tolerance for movement. Alternatively, the slab-on-grade, should be insulated with 50-mm Styrofoam, or equivalent.
- The grading around the skate park slab-on-grade must be such that it directs runoff away from the structure.
- A proper drainage, consisting of filter-sleeved weepers should be installed beneath the floor slab, and should be connected to catch basins and storm manholes. The invert of the subdrains should be at least 0.3 m beneath the underside of the granular base and should be backfilled with free-draining granular material. Along the perimeter where surface runoff may drain onto the pavement, an intercept subdrain should be installed to prevent seepage into the granular bases, since this may weaken the subgrade and will inflict frost damage on the concrete slab.
- A Modulus of Subgrade Reaction of 20 MPa/m can be used for the design of the concrete slab constructed on a 200 mm thick granular base of 20-mm Crusher-Run Limestone, or equivalent.



Greenview Environmental Management
 August 2, 2018

Reference No. 1806-S126
 Page 9 of 11

SOIL PARAMETERS

The recommended soil parameters for the project design are given in Table 6.

<u>Unit Weight and Bulk Factor</u>			
	Unit Weight (kN/m³)	Estimated Bulk Factor	
	Bulk	Loose	Compacted
Earth Fill	21.0	1.20	1.00
Silty Clay	20.5	1.30	1.05

<u>Lateral Earth Pressure Coefficients</u>			
	Active K_a	At Rest K_o	Passive K_p
	Earth Fill (compacted) and Silty Clay	0.40	0.50

LIMITATIONS OF REPORT

This report was prepared by Soil Engineers Ltd. for the account of Greenview Environmental Management, and review by the designed agents, financial institutions, and government agencies. Use of the report is subject to the conditions and limitations of the contractual agreement. The material in the report reflects the judgment of Basim Al Ali, P.Eng., and Daniel Man, P.Eng., in light of the information available to it at the time of preparation. Any use which a Third Party makes of this report, and/or any reliance on decisions to be made based on it are the responsibility of such Third Parties. Soil Engineers Ltd. accepts no responsibility for damages, if any, suffered by any Third Party as a result of decisions made or actions based on this report.



Greenview Environmental Management
August 2, 2018

Reference No. 1806-S126
Page 10 of 11

We trust the above satisfies your present requirements. Should you have any further queries, please feel free to contact this office.

Yours very truly,
SOIL ENGINEERS LTD.

Basim Al-Ali, P.Eng.



Daniel Man, P.Eng.
BAA/DM:dd



ENCLOSURES

Borehole Logs	Figures 1 to 3
Grain Size Distribution Graphs	Figures 4 and 5
Borehole and Corehole Location Plan.....	Drawing No. 1
Subsurface Profile	Drawing No. 2
Cores Unconfined Compressive Strength Test Results.....	Appendix

c. Soil Engineers Ltd. (Newmarket)
Attn.: Mr. Stephen Lee, Branch Manager

LIST OF ABBREVIATIONS AND DESCRIPTION OF TERMS

The abbreviations and terms commonly employed on the borehole logs and figures, and in the text of the report, are as follows:

SAMPLE TYPES

- AS Auger sample
- CS Chunk sample
- DO Drive open (split spoon)
- DS Denison type sample
- FS Foil sample
- RC Rock core (with size and percentage recovery)
- ST Slotted tube
- TO Thin-walled, open
- TP Thin-walled, piston
- WS Wash sample

SOIL DESCRIPTION

Cohesionless Soils:

<u>'N'</u> (blows/ft)	<u>Relative Density</u>
0 to 4	very loose
4 to 10	loose
10 to 30	compact
30 to 50	dense
over 50	very dense

Cohesive Soils:

PENETRATION RESISTANCE

Dynamic Cone Penetration Resistance:

A continuous profile showing the number of blows for each foot of penetration of a 2-inch diameter, 90° point cone driven by a 140-pound hammer falling 30 inches.

Plotted as '—●—'

Standard Penetration Resistance or 'N' Value:

The number of blows of a 140-pound hammer falling 30 inches required to advance a 2-inch O.D. drive open sampler one foot into undisturbed soil.

Plotted as '○'

- WH Sampler advanced by static weight
- PH Sampler advanced by hydraulic pressure
- PM Sampler advanced by manual pressure
- NP No penetration

Undrained Shear Strength (ksf)

less than 0.25
0.25 to 0.50
0.50 to 1.0
1.0 to 2.0
2.0 to 4.0
over 4.0

'N' (blows/ft)

0 to 2
2 to 4
4 to 8
8 to 16
16 to 32
over 32

Consistency

very soft
soft
firm
stiff
very stiff
hard

Method of Determination of Undrained Shear Strength of Cohesive Soils:

x 0.0 Field vane test in borehole; the number denotes the sensitivity to remoulding

△ Laboratory vane test

□ Compression test in laboratory

For a saturated cohesive soil, the undrained shear strength is taken as one half of the undrained compressive strength

METRIC CONVERSION FACTORS

1 ft = 0.3048 metres
11b = 0.454 kg


1 inch = 25.4 mm
1ksf = 47.88 kPa



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JOB NO.: 1806-S126		LOG OF BOREHOLE NO.: 1			FIGURE NO.: 1			
PROJECT DESCRIPTION: Skate Park Concrete Cracking Investigation				METHOD OF BORING: Flight-Auger				
PROJECT LOCATION: Aurora Family Leisure Complex 135 Industrial Parkway North, Town of Aurora				DRILLING DATE: June 25, 2018				
El. (m)	SOIL DESCRIPTION	SAMPLES			Depth Scale (m)	Atterberg Limits		WATER LEVEL
		Number	Type	N-Value		PL	LL	
Depth (m)					● Dynamic Cone (blows/30 cm) X Shear Strength (kN/m ²) ○ Penetration Resistance (blows/30 cm)	10 30 50 70 90 50 100 150 200 10 30 50 70 90		● Moisture Content (%) 10 20 30 40
0.0	Ground Surface							
0.0	10 cm TOPSOIL							
0.1	Brown/grey	1	DO	2	0		30	 W.L. @ depth of 1.8 m on completion
	SILTY CLAY FILL some sand traces of gravel and topsoil — seepage	2	DO	11	1			
		3	DO	25	2		22	
		4	DO	9	2.3		24	
	Brown, firm to very stiff	5	DO	7	3		27	
		6	DO	18	5.1		25	
	END OF BOREHOLE Installed 25 mm Ø piezometer to 4.5 m completed with 1.5 m screen Sand backfill from 2.7 m to 4.5 m Bentonite seal from 0.0 m to 2.7 m Provided with a protective flush-mount cover				4			
					5			
					6			
					7			
					8			
				9				
				10				



JOB NO.: 1806-S126

LOG OF BOREHOLE NO.: 2

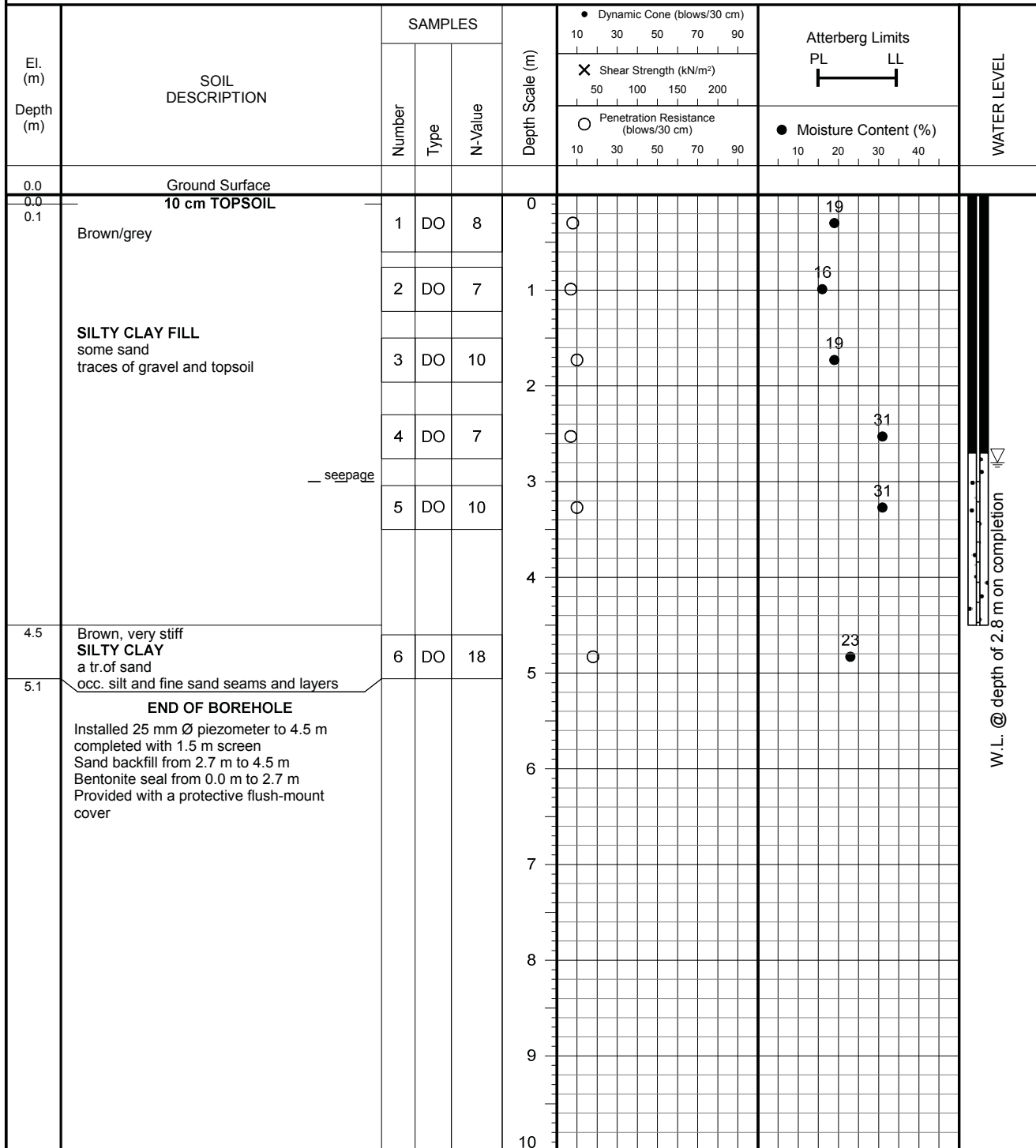
FIGURE NO.: 2

PROJECT DESCRIPTION: Skate Park Concrete Cracking Investigation

METHOD OF BORING: Flight-Auger

PROJECT LOCATION: Aurora Family Leisure Complex
 135 Industrial Parkway North, Town of Aurora

DRILLING DATE: June 25, 2018



JOB NO.: 1806-S126

LOG OF BOREHOLE NO.: 3

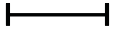

FIGURE NO.: 3

PROJECT DESCRIPTION: Skate Park Concrete Cracking Investigation

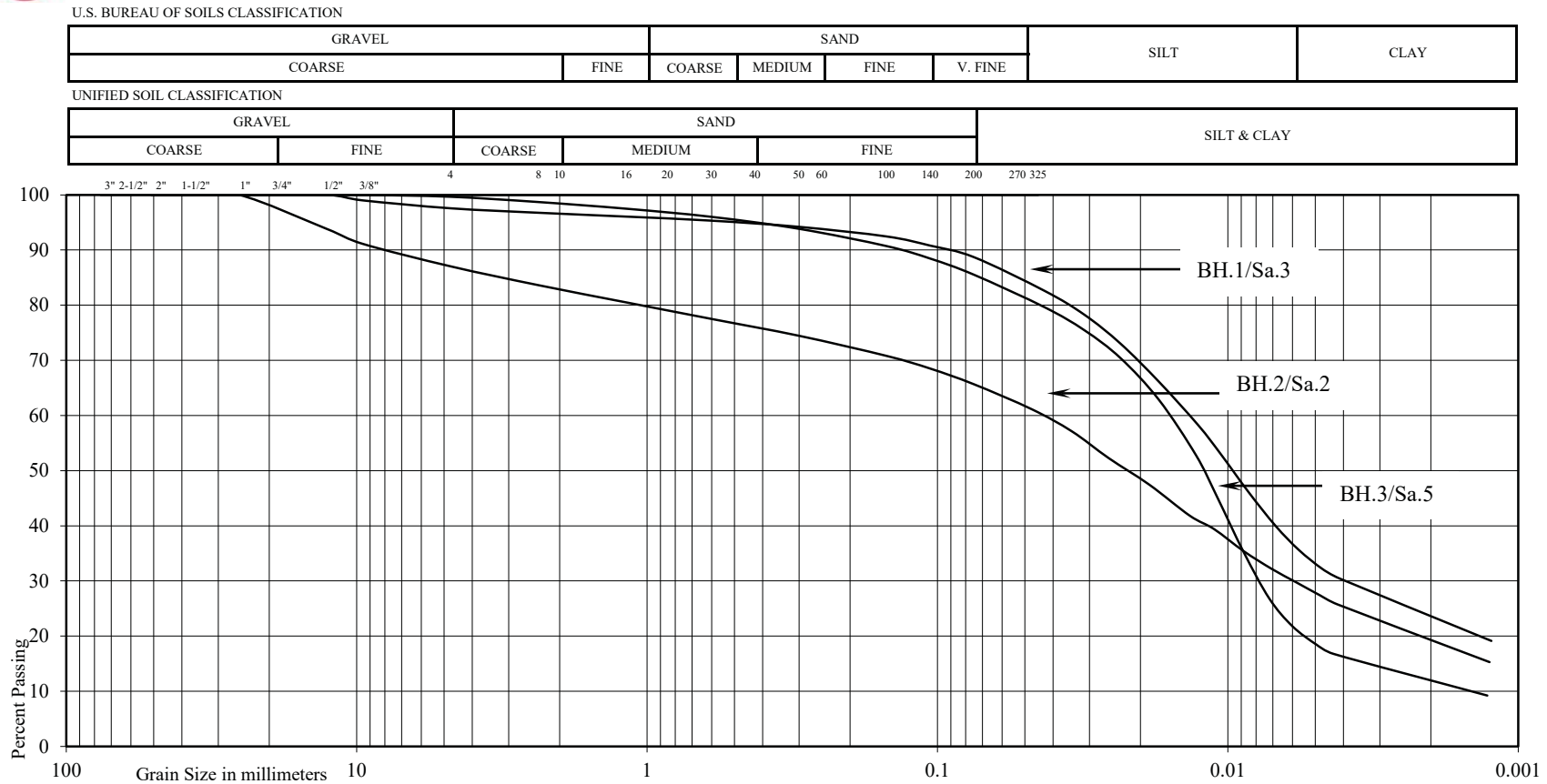
METHOD OF BORING: Flight-Auger

PROJECT LOCATION: Aurora Family Leisure Complex
 135 Industrial Parkway North, Town of Aurora

DRILLING DATE: June 25, 2018

El. (m) Depth (m)	SOIL DESCRIPTION	SAMPLES			Depth Scale (m)	● Dynamic Cone (blows/30 cm) 10 30 50 70 90 X Shear Strength (kN/m ²) 50 100 150 200 ○ Penetration Resistance (blows/30 cm) 10 30 50 70 90	Atterberg Limits PL LL 	WATER LEVEL
		Number	Type	N-Value		● Moisture Content (%) 10 20 30 40		
0.0	Ground Surface							
0.0 0.1	10 cm TOPSOIL Brown/grey SILTY CLAY FILL some sand traces of gravel and topsoil	1	DO	19	0	○	● 17	 Dry on completion
		2	DO	13	1	○	● 18	
		3	DO	11	2	○	● 23	
		4	DO	11	3	○	● 22	
		5	DO	13	4	○	● 24	
					5			
4.5	Brown, very stiff SILTY CLAY a tr. of sand	6	DO	21	5	○	● 21	
5.1	occ. silt and fine sand seams and layers END OF BOREHOLE Installed 25 mm Ø piezometer to 4.5 m completed with 1.5 m screen Sand backfill from 2.7 m to 4.5 m Bentonite seal from 0.0 m to 2.7 m Provided with a protective flush-mount cover				6			
					7			
					8			
					9			
					10			





Project: Skate Park Concrete Cracking Investigation
 Location: Aurora Family Leisure Complex
 135 Industrial Parkway North, Town of Aurora

Borehole No:	1	2	3
Sample No:	3	2	5
Depth (m):	1.8	1.0	3.3
Elevation (m):	-	-	-

BH./Sa.	1/4	2/2	6/4
Liquid Limit (%) =	-	-	-
Plastic Limit (%) =	-	-	-
Plasticity Index (%) =	-	-	-
Moisture Content (%) =	10	8	7
Estimated Permeability (cm./sec.) =	10 ⁻⁷	10 ⁻⁷	10 ⁻⁶

Classification of Sample [& Group Symbol]:	BH.1/Sa.3 and BH.2/Sa.2 - SILTY CLAY FILL, a trace of sand to sandy and a trace to some gravel
	BH.3/Sa.5 - FILL, SILT, some sand

Figure: 4

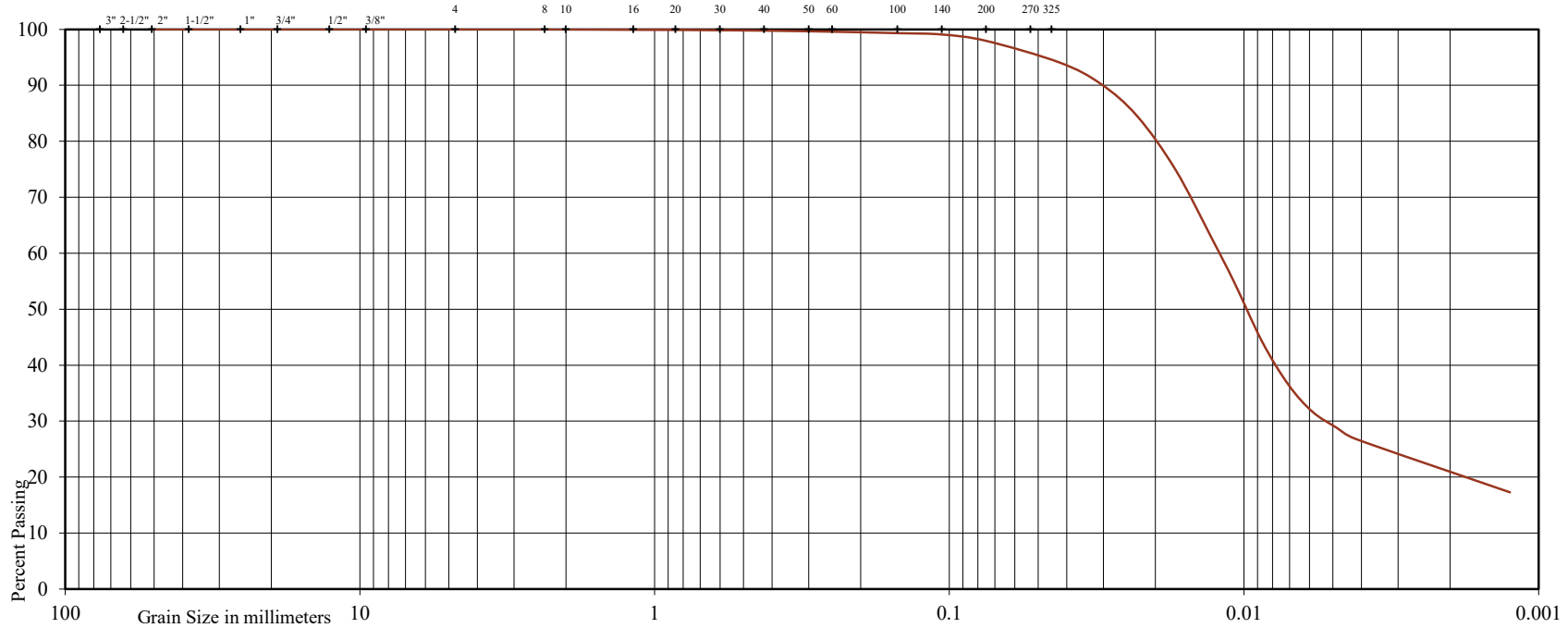


U.S. BUREAU OF SOILS CLASSIFICATION

GRAVEL			SAND				SILT	CLAY
COARSE		FINE	COARSE	MEDIUM	FINE	V. FINE		

UNIFIED SOIL CLASSIFICATION

GRAVEL		SAND			SILT & CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	

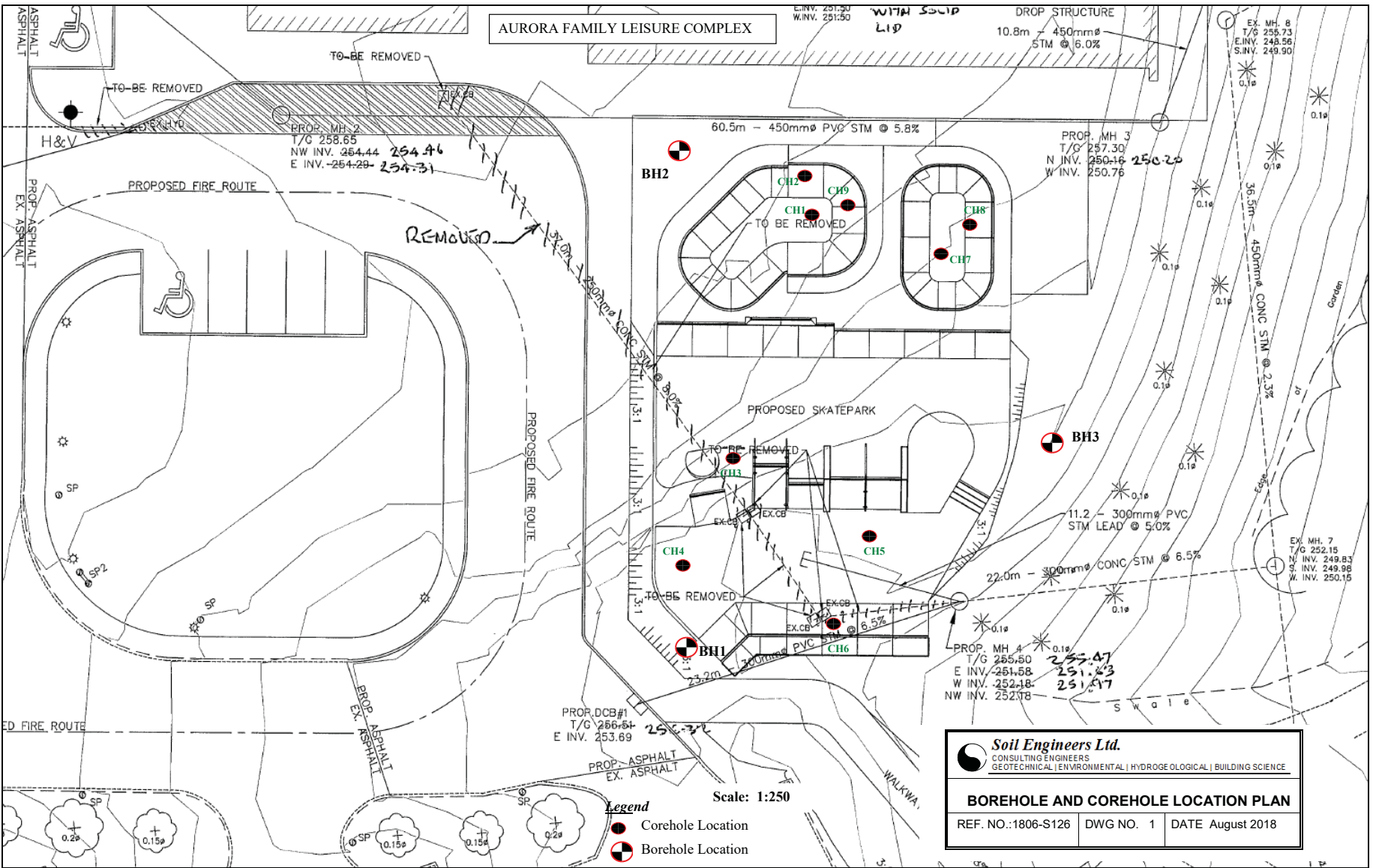


Project: Skate Park Concrete Cracking Investigation
 Location: Aurora Family Leisure Complex
 135 Industrial Parkway North, Town of Aurora
 Borehole No: 1
 Sample No: 6
 Depth (m): 4.8
 Elevation (m): -

Liquid Limit (%) = 26
 Plastic Limit (%) = 16
 Plasticity Index (%) = 10
 Moisture Content (%) = -
 Estimated Permeability
 (cm./sec.) = 10^{-8}

Classification of Sample [& Group Symbol]: SILTY CLAY, a trace of fine sand

Figure: 5





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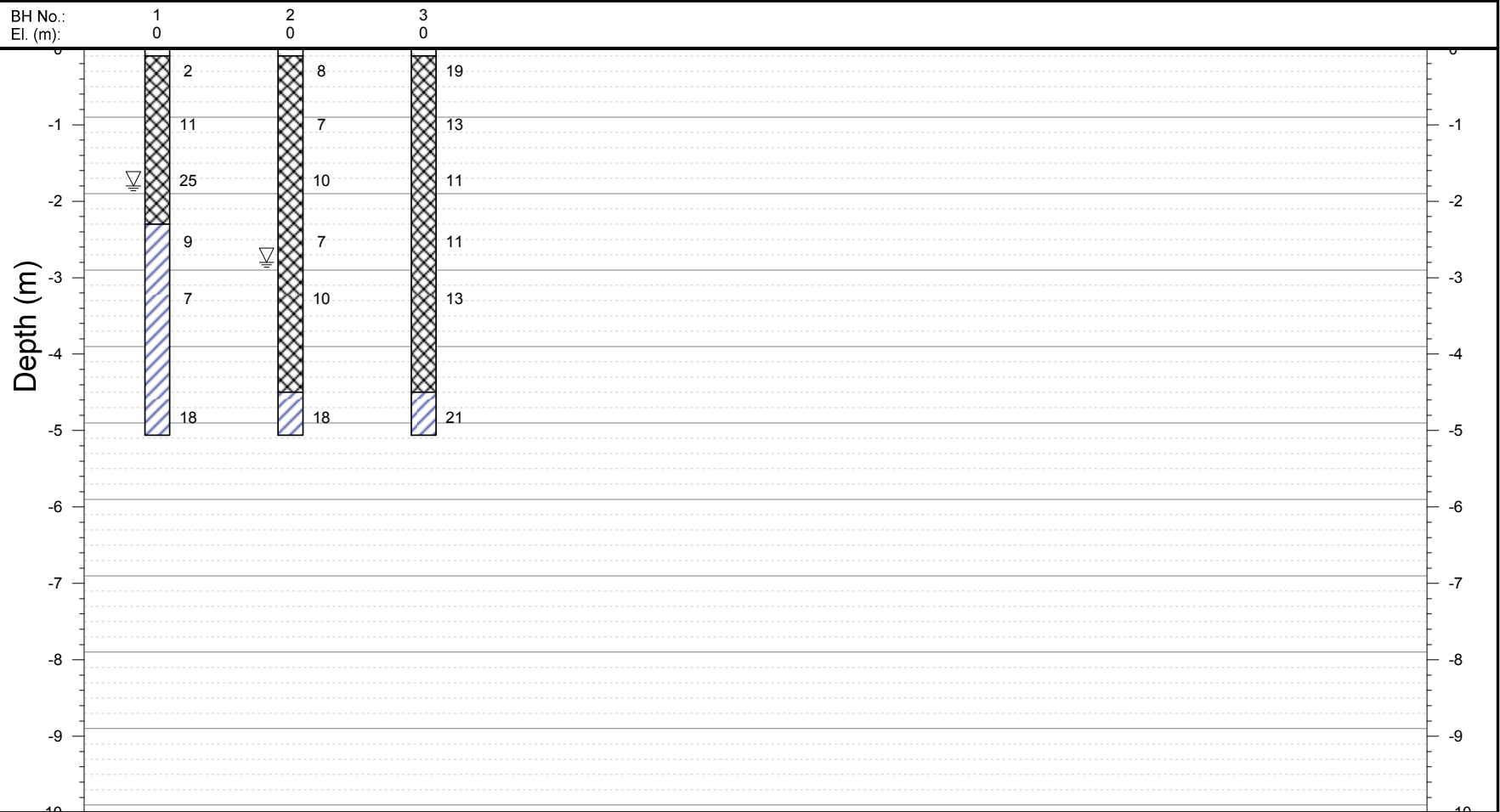
SUBSURFACE PROFILE
DRAWING NO. 2
SCALE: AS SHOWN

JOB NO.: 1806-S126
REPORT DATE: August 2018
PROJECT DESCRIPTION: Skate Park Concrete Cracking Investigation
PROJECT LOCATION: Aurora Family Leisure Complex
 135 Industrial Parkway North, Town of Aurora

LEGEND

TOPSOIL FILL SILTY CLAY

WATER LEVEL (END OF DRILLING) CAVE-IN WATER LEVEL (STABILIZED)





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FAX: (705) 721-7864	FAX: (905) 542-2769	FAX: (905) 725-1315	FAX: (905) 881-8335	FAX: (705) 684-8522	FAX: (905) 725-1315	FAX: (905) 542-2769

APPENDIX

CORES UNCONFINED COMPRESSIVE STRENGTH TEST RESULTS

REFERENCE NO. 1806-S126



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Job Name: Aurora Family Leisure Complex

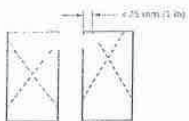
Reference No: 1806-S126

Date: June 28, 2018

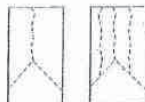
Test in accordance with CSA - A23.2 -9C/14C

Core Number	1	2	3	4	5
Type of Structure	Skate Slab				
Location	As per attached drawing				
Date Poured	-	-	-	-	-
Date Cored	June 26, 2018	June 26, 2018	June 26, 2018	June 26, 2018	June 27, 2018
Date Tested	June 28, 2018	June 28, 2018	June 28, 2018	June 28, 2018	June 28, 2018
Age at Testing (days)	Over 28 days				
Core Diameter (mm)	96	96	100	100	100
Core Height (mm)	144	144	150	150	100
L/D Ratio	1.50	1.50	1.50	1.50	1
Density (kg / m ³)	2247	2271	2371	2358	2399
Maximum Load (lbs)	87941	83794	87686	67503	68614
Type of fracture (ASTM C39)	1	4	1	4	1
Compressive Strength (Mpa)	54.0	51.5	49.6	38.2	38.8
Correction Factor	0.96	0.96	0.96	0.96	0.87
Corrected Compressive Strength (Mpa)	51.9	49.4	47.7	36.7	33.8
Specified Compressive Strength (Mpa)	-	-	-	-	-

Sample Fracture Type:



Type 1



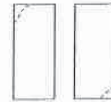
Type 2



Type 3



Type 4



Type 5



Type 6

Technician :



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Job Name: Aurora Family Leisure Complex

Reference No: 1806-S126

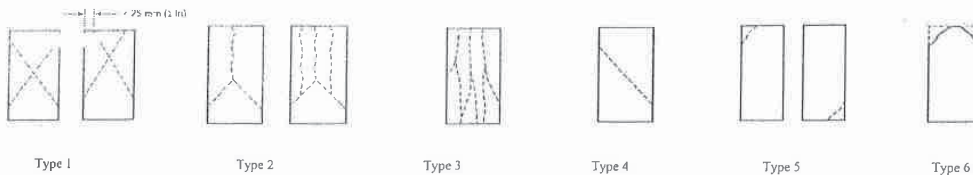
Date: June 28, 2018

Test in accordance with CSA - A23.2 -9C/14C

Core Number	6	7	8	9	
Type of Structure	Skate Slab				
Location	As per attached drawing				
Date Poured	-	-	-	-	
Date Cored	June 27, 2018	June 27, 2018	June 27, 2018	June 27, 2018	
Date Tested	June 28, 2018	June 28, 2018	June 28, 2018	June 28, 2018	
Age at Testing (days)	Over 28 days				
Core Diameter (mm)	100	100	100	100	
Core Height (mm)	150	100	100	100	
L/D Ratio	1.50	1.00	1.00	1.00	
Density (kg / m ³)	2382	2375	2429	2437	
Type of fracture (ASTM C39)	1	1	1	1	
Compressive Strength (Mpa)	29.9	58.5	76.8	45.2	
Correction Factor	0.96	0.87	0.87	0.87	
Corrected Compressive Strength (Mpa)	28.7	50.9	66.8	39.3	
Specified Compressive Strength (Mpa)	-	-	-	-	

Remarks: Core # 6 found to have some honeycombs
Core # 9 found to have 10mm Reinforcement bar

Sample Fracture Type:



Technician :

Appendix B



Photograph Log



Photo 1 (Looking N): General view of Skate Park.



Photo 2 (Looking S): General view of Skate Park.

Photograph Log



Photo 3 (Looking N): Extensive concrete cracking visible in large bowl.



Photo 4 (Looking E): Extensive concrete cracking visible in south section of Skate Park.

Photograph Log



Photo 5 (Looking S): Water ponding observed in the southwest corner of the Skate Park.



Photo 6 (Looking NW): Geotechnical crew advancing BH-2 in northwest landscaped area.

Photograph Log



Photo 7 (Looking N): Geotechnical crew advancing BH-1 along south perimeter of Skate Park.

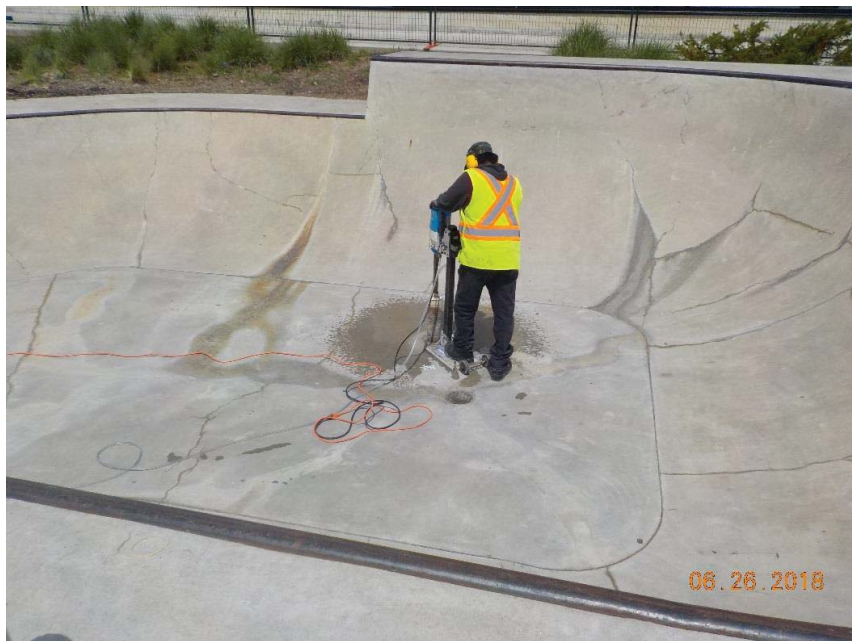


Photo 8 (Looking N): Concrete core sample (CH-2) removed from large bowl.

Photograph Log



Photo 9 (Looking S): Silty clay found directly below concrete slab in south ramp after CH-6 was removed.



Photo 10 (Looking NW): Rebar sample taken within CH-9.

Photograph Log



Photo 11 (Looking E, Date Unknown): Skate Park during construction. Photo provided by Town.



Photo 12 (Looking E, Date Unknown): Skate Park during construction. Photo provided by Town.

Appendix C





Statement of Service Conditions and Limitations

Provision of Services and Payment

Upon documented acceptance of Greenview's proposed services, costs and associated terms by the client, Greenview may commence work on the proposed services directly. Upon retention of Greenview's services related to this project, the client agrees to remit payment for the services rendered for the specified period within (30) days of receipt as invoiced by Greenview on a typical monthly basis, unless otherwise arranged between the client and Greenview. In the event of non-payment by the client, Greenview reserves the right, without external influence or expense, to discontinue services and retain any documentation, data, reports, or other project information until such time as payment is received by Greenview.

Warranty, Limitations, and Reliance

Greenview relies on background and historical information from the client to determine the appropriate scope of services to meet the client's objectives, in accordance with applicable legislation, guidelines, industry practices, and accepted methodologies.

Greenview provides its services under the specific terms and conditions of a specific proposal (and where necessary formal contract), in accordance with the above requirements and the *Limitations Act 2002*, as amended, only.

The hypotheses, results, conclusions, and recommendations presented in documentation authored by Greenview are founded on the information provided by the client to Greenview in preparation for the work. Facts, conditions, and circumstances discovered by Greenview during the performance of the work requested by the client are assumed by Greenview to be part of preparatory information provided by the client as part of the proposal stage of the project. Greenview assumes that, until notified or discovered otherwise, that the information provided by, or obtained by Greenview from, the client is factual, accurate, and represents a true depiction of the circumstances that exist related to the time of the work.

Greenview relies on its clients to inform Greenview if there are changes to any related information to the work. Greenview does not review, analyze or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. Greenview will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to or that are concealed from Greenview during the period that services, work, or documentation preparation was performed by Greenview.

Facts, conditions, information and circumstances may vary with time and locations and Greenview's work is based on a review of such matters as they existed at the particular time and location indicated in its documentation. No assurance is made by Greenview that the facts, conditions, information, circumstances or any underlying assumptions made by Greenview in connection with the work performed will not change after the work is completed and documentation is submitted. If any such changes occur or additional information is obtained, Greenview should be advised and requested to consider if the changes or additional information affect its findings or results.

When preparing documentation, Greenview considers applicable legislation, regulations, governmental guidelines and policies to the extent they are within its knowledge, but Greenview is not

qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations, not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

Greenview's services, work and reports are provided solely for the exclusive use of the client which has retained the services of Greenview and to which its reports are addressed. Greenview is not responsible for the use of its services, work or reports by any other party, or for the reliance on, or for any decision which is made by any party using the services or work performed by or a report prepared by Greenview without Greenview's express written consent. Any party that uses, relies on, or makes a decision based on services or work performed by Greenview or a report prepared by Greenview without Greenview's express written consent, does so at its own risk. Except as set out herein, Greenview specifically disclaims any liability or responsibility to any third party for any loss, damage, expense, fine, penalty or other such thing which may arise or result from the use of, reliance on or decision based on any information, recommendation or other matter arising from the services, work or reports provided by Greenview.

Site Reviews and Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Greenview's work or report considers any locations or times other than those from which information, sample results and data were specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those based on extrapolations.

Only conditions, and substances, at the site and locations chosen for study by the client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the client. Any physical or other aspects of the site that were not chosen for study by the client, or any other matter not specifically addressed in a report prepared by Greenview, are beyond the scope of the work performed by Greenview and such matters have not been investigated or addressed.

Confidentiality

Greenview provides proposals, reports, assessments, designs, and any other work for the sole party identified as the client or potential client in the case of proposals.

For proposals specifically, the information contained therein is confidential, proprietary information, and shall not be reproduced or disclosed to any other party than to that of the addressee of the original proposal submission, without prior written permission of Greenview.



**Town of Aurora
General Committee Report No. OPS19-017**

Subject: Lake-to-Lake Cycling and Walking Trail Agreement
Prepared by: Sara Tienkamp, Manager Parks & Fleet
Department: Operational Services
Date: June 18, 2019

Recommendation

- 1. That Report No. OPS19-017 be received; and**
- 2. That the Mayor and Town Clerk be authorized to execute the Agreement between the Town of Aurora and the Regional Municipality of York for the operation, maintenance and replacement of the Lake-to-Lake Cycling and Walking Trail within the Regional right-of-way once constructed.**

Executive Summary

This report provides information for Council to direct staff to make application, to the Region, to cost share in the streetscape improvements, and to enter into a formal Agreement:

- Lake-to-Lake Trail supported by Town of Aurora policies.
- Agreement required with York Region for the Town of Aurora to maintain Lake-to-Lake Trail within right-of-way.
- Lake-to-Lake Trail works to be completed on Bayview Avenue by fall 2019.

Background

The concept of the Lake-to-Lake route originated as part of the York Region Pedestrian and Cycling Master Plan (the Plan) in 2008. The Plan recommended the creation of an on-road and off-road cycling route/walking trail from Lake Simcoe at the northern edge of the Region of York through the City of Toronto to Lake Ontario in the south. York Region completed a comprehensive Feasibility and Design Study in 2013 that resulted in the selection of a preferred route.

The Lake-to-Lake route within Aurora will use the existing Tim Jones Trail from the northern Newmarket/Aurora border to Vandorf Sideroad. The proposed new portion of Lake-to-Lake will be constructed south of Vandorf Sideroad, on the west side of Bayview Avenue to Bloomington Road.

Analysis

Lake-to-Lake Trail supported by Town of Aurora policies.

The Trails Master Plan identifies the preferred Lake-to-Lake route as part of the interconnected trails network, as well as part of the existing trail (Tim Jones Trail).

The Parks and Recreation Master Plan also provides an overview of trails and the development of this new connection route is consistent with the strategic priority of placing a high importance on trail development and maintenance.

Lake-to-Lake Trail works to be completed on Bayview Avenue by fall 2019.

The Region will be undertaking the works for the new multi-use trail in the summer of 2019. This will include tree removal within the trail alignment, construction of a multi-use three (3) metre wide asphalt trail, tree planting and enhancement of the intersection at Vandorf Sideroad for accessibility.

Agreement required with York Region for the Town of Aurora to maintain Lake-to-Lake Trail within right-of-way.

The ongoing operation, maintenance and replacement of the proposed trail within the Region's road allowance will be the responsibility of the Town of Aurora's Operation staff once constructed. This is the condition that the Lake-to-Lake route and the Pedestrian and Cycling Municipal Partnership Program are based upon. As such, it will be necessary for the Town of Aurora and York Region to enter into a formal agreement.

Advisory Committee Review

Not applicable.

Legal Considerations

Legal Services will assist in the preparation of the agreement, which will include clauses that deal with the Town's obligations to maintain, repair and replace the proposed improvements. The Agreement will also contain insurance and indemnification clauses.

Financial Implications

York Region has committed to fully fund the construction of the Lake-to-Lake trail, including the section of the trail that falls within the Town of Aurora's borders.

At this time, staff feel that the Town's existing Operating Budget is sufficient in funding any incremental operating costs arising from the new trail system; however, as York Region and impacted municipalities continue to negotiate the on-going obligation for the day-to-day operation and longer term repair and replacement of the trail, additional operating and capital funding may be required. Upon execution of an Agreement, staff will update the Town's operating and Ten (10) Year Capital requirements accordingly.

Communications Considerations

There is no external communication required.

Link to Strategic Plan

This project supports the Strategic Plan Goal of Supporting an Exceptional Quality of Life for all by improving transportation, mobility and connectivity. This project maintains a well-managed and fiscally responsible Municipality.

Alternative(s) to the Recommendation

None.

Conclusions

Staff recommends that the Town enter into an operation and maintenance agreement with York Region for the Lake to Lake Cycling and Walking Trail along Bayview Ave between Vandorf Sideroad and Bloomington Road.

June 18, 2019

Page 4 of 4

Report No. OPS19-017

Attachments

Attachment #1 – York Region Notice Lake-to-Lake Bayview Avenue

Previous Reports

Pre-submission Review

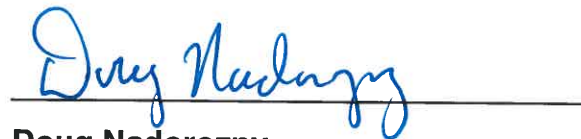
Agenda Management Team Review on May 29, 2019

Departmental Approval

A handwritten signature in blue ink, appearing to read "Allan D. Downey", written over a horizontal line. To the right of the signature, the text "per:" is written.

Allan D. Downey
Director of Operations
Operational Services Department

Approved for Agenda

A handwritten signature in blue ink, appearing to read "Doug Nadorozny", written over a horizontal line.

Doug Nadorozny
Chief Administrative Officer

Bayview Avenue Transportation Improvements

Town of Aurora

Winter 2019

Attachment #1
GREAT STREETS
Building Roads that Build Community 2019

Email roads.ea@york.ca with
"Send me Bayview Avenue Lake to
Lake enews" to receive project updates
straight to your inbox.

The Regional Municipality of York is investing in building a safe, efficient and reliable Regional transportation network for all users.

Improving Bayview Avenue

To enhance our Regional road network for all travellers, improvements will be made to Bayview Avenue between Bloomington Road and Vandorf Sideroad in the Town of Aurora.

Once completed in fall 2019, improvements will:

- **Provide new opportunities for cyclists and commuters to use active forms of transportation** to explore York Region by travelling on dedicated and comfortable cycling and pedestrian trails. A 2.2 kilometre asphalt Lake to Lake Cycling Route and Walking Trail will be built on the west side of Bayview Avenue from Bloomington Road to Vandorf Sideroad (see description below).
- **Improve the condition of our Regional roads for motorists** by repaving Bayview Avenue
- **Meet the needs of our communities today and into the future** by enhancing intersection accessibility at Vandorf Sideroad. Improvements include installing zebra markings, gradual slope transitions, accessible pedestrian signals and tactile walking surface indicators. These flat bumps, detectable under foot when walking, alert pedestrians with low or no vision they are at the edge of the roadway



Upcoming construction

To install the trail, select trees close to the proposed trail area will be removed. This work is scheduled to take place in March 2019. As with all construction, some work may be rescheduled due to weather and advance notice will be provided whenever possible. Trees that have been removed will be replaced with new trees once the trail is built.

Major trail construction and additional road improvements are scheduled to take place in summer 2019.

About the Lake to Lake Cycling Route and Walking Trail

The Lake to Lake Cycling Route and Walking Trail is a 121-kilometre recreational and commuter trail that will connect Lake Ontario in the south to Lake Simcoe in the north.

This transformative project is an important part of York Region and the City of Toronto's active transportation network, connecting to trails such as the Greenbelt Route, PanAm Path and Waterfront Trail, destinations like transit hubs and other attractions such as beaches, community centres and parks.

For more information, please visit york.ca/laketolake

We're here to answer your questions. Accessible formats of this newsletter or communication supports are available upon request.

YORK REGION

Transportation Services

General Inquiries:

Lindsey Adlam

Communications and Community Engagement Specialist

Office: 1-877-464-9675 ext. 75923

Email: lindsey.adlam@york.ca

After hours emergency: 1-877-464-9675 ext. 75200

Construction Activity:

Abdus Sobahan

Construction Administrator

Office: 1-877-464-9675 ext. 75930

Email: abdus.sobahan@york.ca





**Town of Aurora
Finance Advisory Committee
Meeting Minutes**

Date: Wednesday, May 22, 2019

Time and Location: 5:30 p.m., Holland Room, Aurora Town Hall

Committee Members: Councillor Michael Thompson (Chair), Councillor John Gallo, and Mayor Tom Mrakas

Member(s) Absent: None

Other Attendees: Bruce Gorman, CEO, Aurora Public Library, Julie Rocca, Administrative Co-ordinator, Aurora Public Library, Marie Rankel and Adam Mobbs, Aurora Public Library Finance Sub-Committee Members, Doug Nadorozny, Chief Administrative Officer, Jason Gaertner, Acting Director of Financial Services/Treasurer, Karen Oreto, Financial Analyst, Tracy Evans, Financial Analyst, Budget, and Ishita Soneji, Council/Committee Coordinator

The Chair called the meeting to order at 5:30 p.m.

1. Approval of the Agenda

**Moved by Councillor Gallo
Seconded by Mayor Mrakas**

That the agenda as circulated by Legislative Services be approved.

Carried

Finance Advisory Committee Meeting Minutes
Wednesday, May 22, 2019

Page 2 of 4

2. Declarations of Pecuniary Interest and General Nature Thereof

There were no declarations of pecuniary interest under the *Municipal Conflict of Interest Act, R.S.O. 1990, c. M.50.*

3. Receipt of the Minutes

Finance Advisory Committee Meeting Minutes of April 30, 2019

**Moved by Mayor Mrakas
Seconded by Councillor Gallo**

That the Finance Advisory Committee meeting minutes of April 30, 2019, be received for information.

Carried

4. Delegations

None

5. Consideration of Items

1. Memorandum from Acting Director of Financial Services Re: Updated Draft Council Budget Principles and Processes Direction Documents

Staff provided a brief overview of the updated Council Budget Principles and Processes documents. The Committee inquired about the next steps of the budget process and staff noted that upon approval from Council, staff would work towards the budget milestones as identified at the previous Committee meeting.

**Moved by Councillor Gallo
Seconded by Mayor Mrakas**

1. That the memorandum regarding Updated Council Budget Principles and Processes Direction Documents be received; and

2. That the updated Council Budget Principles and Processes documents be brought to a future General Committee meeting.

Carried

**2. Review of Detailed Financial Budget Information
Re: Aurora Public Library**

Mr. Bruce Gorman, CEO of the Aurora Public Library provided details of the line-by-line analysis and year-to-date comparison of the budget for the Aurora Public Library including details on the 2017 and 2018 surpluses, explanations regarding the highlighted items, impacts of the Provincial funding cuts to the library, means of maintaining funds allocated in the capital reserve, various cost avoidance strategies, budget pressures, and accomplishments. It was mentioned that the Library is awaiting a response regarding next steps from the Southern Ontario Library Service (SOLS) regarding provincial funding cuts.

The Committee and Library staff discussed about the means of utilizing surpluses and the Library staff noted that they are working towards a growth accommodation study that would contribute to their development of a ten year capital plan for the Library that would further demonstrate their intentions for established reserve balances.

**Moved by Mayor Mrakas
Seconded by Councillor Gallo**

1. That the comments and suggestions of the Review of Detailed Financial Budget Information for Aurora Public Library be received and referred to staff for consideration and action as appropriate.

Carried

**3. Memorandum from Project Management Office
Re: Town's Major Capital Projects Update**

Staff provided a brief update on the status of Town's current major capital projects and noted that all projects are meeting the budget targets.

**Moved by Councillor Gallo
Seconded by Mayor Mrakas**

1. That the memorandum regarding Town's Major Capital Projects Update be received for information.

Carried

**4. Distribution and Introduction of Detailed Financial Budget Information
Re: Aurora Historical Society**

Staff noted that additional budget information for the Aurora Historical Society (AHS) is forthcoming, and that representatives from AHS will be present at the next meeting to review the information.

**Moved by Mayor Mrakas
Seconded by Councillor Gallo**

1. That the detailed financial budget information for Aurora Historical Society be received and deferred for discussion and detailed review at the June 26, 2019 meeting of the Finance Advisory Committee.

Carried

6. New Business

Staff referred to Report No. FS19-018 – Capital Close Report as of December 31, 2019, that was referred to the Finance Advisory Committee by General Committee at its meeting of May 7, 2019, and sought Committee's input on any items of interest that require further detail. Staff noted that the report would be brought to a future Committee meeting for discussion.

7. Adjournment

**Moved by Mayor Mrakas
Seconded by Councillor Gallo**

That the meeting be adjourned at 6:45 p.m.

Carried



**Town of Aurora
General Committee Report No. CS19-022**

Subject: Entry onto Private Property Protocol
Prepared by: Alexander Wray, Manager of Bylaw Services
Department: Corporate Services
Date: June 18, 2019

Recommendation

- 1. That Report No. CS19-022 be received; and**
- 2. That the revised Entry onto Private Property Protocol as outlined in Attachment #1 providing property owners with notification of entry and removing the requirement to obtain a search warrant for investigation purposes, be endorsed.**

Executive Summary

The purpose of this report is to update Council on the 1-year Entry onto Private Property pilot project that was enacted at the council meeting of April 10, 2018. Bylaw Services is seeking to obtain approval to enact a notification process and immediate access protocol where entry to private property is required to determine compliance with Municipal Bylaws.

Residents have a strong expectation of service when requesting the assistance of a Municipal Bylaw Enforcement Officer to ensure the overall community standards are maintained.

- Power of Entry provisions are granted by the Province and intended to provide municipalities with the necessary tools to carry out inspections while ensuring public health and safety.

Obtaining search warrants to conduct investigations is a cumbersome and resourcefully strenuous process.

- Power of Entry provisions do not infringe upon a person's rights under the *Canadian Charter of Rights and Freedoms*.

June 18, 2019

Page 2 of 10

Report No. CS19-022

- The decision to grant or deny a request for a search warrant by a Justice of the Peace or Judge is based on the standard of reasonable and probable grounds.
- Providing a notification process and protocol will balance the rights of residents, improve relations and maintain efficiencies with residents while ensuring public safety is not compromised.
- For efficient and effective municipal enforcement it is considered best practice to enact a Power of Entry By-law passed under the *Municipal Act, 2001* that applies to the Town as a whole.

Background

At the meeting of March 28, 2017 Council adopted the following motion:

Now Therefore Be It Resolved That staff report back to Council with a notification process to private property owners where rights of entry to properties will be exercised.

Be It Further Resolved That staff provide the options available for when a property owner refuses permission or is absent, including the option of requiring a warrant, to ensure public health and safety, and the protection of property and/or the environment; and

Be It Further Resolved That staff shall identify protocols where immediate access to property is required to ensure public health and safety and protection of property and/or the environment.

Staff report CS17-018 was discussed at the Council meeting of September 12, 2017 and was referred back to staff for further clarification. Points of clarification and concern raised by Council are outlined below;

- Provide additional definitions for clarity
- Strengthen information from complainants and include provisions that will assist in managing frivolous and vexatious complaints while ensuring property violations are managed appropriately
- Provide a longer notice of intent to enter to allow property owners a more reasonable amount of time to respond
- Include a section on entry to dwelling units

June 18, 2019

Page 3 of 10

Report No. CS19-022

- Track and collect data to enable a comprehensive analysis of information and report back to Council in a year

Corporate Services report CS18-004 containing the above additional information was discussed at the General Committee of February 20, 2018 and was referred back to staff.

At the meeting of April 10, 2018 Council adopted the following motion:

1. That Report No. CS18-006 be received; and
2. That the standard operating guideline regarding entry onto private property and immediate access protocols (“SOG”) for Municipal Law Enforcement Officers as outlined on Attachment #1 be endorsed; and
3. That staff report back to Council after one year of implementation of the standard operating guideline with recommendations on the continuance of practice.

Analysis

Residents have a strong expectation of service when requesting the assistance of a Municipal Bylaw Enforcement Officer to ensure the overall community standards are maintained.

When residents contact Bylaw & Animal Services with a concern, they have a strong expectation that the issue will be resolved promptly. The existing policy creates significant challenges, time delays, and frustration for residents when Officers are trying to investigate a concern. Some examples faced during this pilot project are:

Animal Services

When addressing a dog running at large in a subdivision, Officers were not able to enter the rear yards of multiple properties without requesting permission from a Manager. Each individual property required a radio authorization, which significantly delayed Officer’s response times and put both the dog and members of the public at risk.

Noise Complaint

Bylaw Services received a noise complaint in a residential area for a loud outdoor pool party. Upon arrival, the Officers could hear the noise from the street. The Officers spoke with the complainant who provided a telephone number for their neighbors having the party. The Officers attempted to contact the number, knock on the door, and gain the owners attention with no success. In this situation, a Notice of Violation was left on the front door. The complainant was very frustrated and did not understand why Officers came out if they “can’t do anything to make it stop”.

Clean Yards

When Officers are investigating complaints regarding the Town’s Clean Yard’s By-Law and are required to conduct remedial action due to non-compliance. Officers are restricted to cutting and cleaning the front yard only. In many cases, neighboring property owners express frustration over this because the rear yards are left overgrown. Overgrowth of grass, bushes, and vegetation can cause infestation of rodents, insects and vermin.

Throughout the pilot project, Bylaw Officers investigated approximately 500 complaints which would have required Officers to access the side and rear yards of a property. There were no documented instances where staff were outright refused, however there were instances where Officers were not able to obtain consent for entry and therefore community expectations were not being met. Additionally, Officers would try to obtain the evidence from a neighboring property where feasible. Often times the neighboring property was that of the complainant who would become frustrated with the process of obtaining evidence out of fear of losing their anonymity.

Power of Entry provisions are intended to provide municipalities with the necessary tools to carry out inspections ensuring public health and safety.

The *Municipal Act, 2001* and other legislation provide a framework within which the Town may pass by-laws permitting Town Officials to enter upon property for purposes of inspection, without consent and without a warrant, subject to certain conditions. Attachment #2 provides an overview of the Power of Entry provisions under specific legislation. Power of Entry provisions have evolved over time to provide Municipalities and their Officers the necessary tools to be effective and efficient in carrying out their duties as Peace Officers, Municipal Law Enforcement Officers, Building Inspectors or other appointed officials of the Town.

June 18, 2019

Page 5 of 10

Report No. CS19-022

Power of Entry provisions enable municipal officials to monitor and inspect property for compliance with municipal by-laws, licensing requirements, standards, directions and Orders while at the same time respecting privacy rights in a home. This is accomplished by enabling Officials to enter upon a person's property without the need for consent or a warrant **unless** the place being entered is a "room or place actually being used as a dwelling".

Power of Entry into dwelling units is considerably more restrictive. In general, the consent of the occupier is required for an Officer/Inspector to gain entry into a dwelling unit. It should be noted that the consent of the occupier does not require the consent of the property owner. This is intended to provide occupiers with the ability to ensure their living conditions meet regulatory standards. If consent of the occupier to enter the dwelling unit is not obtained, a warrant must be obtained, unless the presence of immediate danger exists such that entry is necessary to terminate the danger.

Obtaining search warrants to conduct investigations is a cumbersome and resourcefully strenuous process.

Recently, Animal Services Officers conducted a search warrant to seize a dangerous dog in relation to a charge under the *Dog Owners Liability Act*. The process to obtain the warrant began in March 2019 and required multiple site visits, emails, telephone conversations, and meetings with Regional Prosecutors. Once the determination was made that a search warrant was the appropriate course of action, the investigating Officer spent approximately 5 working days compiling all evidence, appendixes, and information to present to a Justice of the Peace for approval. After waiting for approximately 3 hours for the Justice of the Peace to review the evidence and information, the Officer was granted permission to execute the warrant 2 days later. In order to execute the warrant to the requirements outlined, the Officer required the assistance of 4 York Regional Police Officers, 1 Veterinarian, 1 Lock Smith, and 2 By-Law Officers. During this time, staff resources were reallocated to ensure coverage and service standards were continued to be met.

Additionally, staff encountered a cost of approximately \$1,000.00 to execute the warrant to pay for the services of the veterinarian and lock smith.

Power of Entry provisions do not infringe upon a person's rights under the *Canadian Charter of Rights and Freedoms (the "Charter")*

Section 8 of the *Charter* states that everyone has the right to be secure against unreasonable search or seizure. Power of Entry provisions found in the various

legislation and in municipal by-laws have been held by the Courts to be reasonable in that the legislation and by-laws state that entry onto the property is to be done at any reasonable time and in a reasonable manner.

In *Davis v. Guelph (City)*, 2011 ONCA 761, the judge stated that there is a clear difference between a private dwelling and a person's backyard in that there is a significantly reduced expectation of privacy in a person's backyard. This is seen by the very fact that the legislation specifies that there is no explicit right to enter into a dwelling unless there is consent from the occupier or a warrant.

The decision to grant or deny a request for a search warrant by the Justice of the Peace or Judge is based on the standard of reasonable and probable grounds.

Warrants for the purpose of municipal activities are issued by a provincial Judge or a Justice of the Peace ("JP"). The Officer gathers and prepares information for the request of a search warrant and presents the information under oath. The information should include the following:

The informant's name, municipality and occupation

A description of the alleged offence

The section/number of the Act

A concise indication of what is to be searched

The name of the property owner and municipal address

A clear description of the evidence to be obtained

The grounds for the search

Statements by the complainants

Staff met with a Regional Senior Justice of the Peace at the Newmarket Courthouse who advised that there are two Intake Courts in York Region for the processing of search warrants. Requests are assigned to a JP who will prioritize requests based on the nature of the request and workload. Requests for search warrants that are property complaint driven and do not pose an immediate danger would likely be a low priority and could take more than a week to process.

June 18, 2019

Page 7 of 10

Report No. CS19-022

The JP will base their decision to grant or deny the request based on the information provided. There are three possible outcomes:

The request is denied based on the fact the legislation provides Officers Power of Entry.

The request is denied based on insufficient information to support reasonable grounds for the issuance.

The request is approved. In this case the information submitted would have to support reasonable and probable grounds which may include obtaining documented statements from the complainants or gathering evidence such as photographs from an adjacent property such as the complainant or public land.

Providing a notification process and protocol will balance the rights of residents, improve relations and maintain efficiencies with residents while ensuring public safety is not compromised.

The current process to notify residents that Bylaw Services has attended the property is to leave a door knocker indicating the nature of the visit, e.g. property standards, zoning, long grass, etc. The process is informal and does not necessarily provide residents and/or property owners an official notification that Bylaw is requesting entry to property for the purpose of investigating a complaint.

A formal notification process and protocol would be beneficial for many reasons including:

Balance the privacy of residents and property owners with the Town's rights to enter.

Allows property owners to schedule appointments with the Officers if they would like to be present for the inspection.

Promotes initial conversations to occur that are not offensive and lead to better relations and improved cooperation for voluntary compliance.

Provides a safer working environment for our Officers

For efficient and effective municipal enforcement it is considered best practice to enact a Power of Entry bylaw passed under the *Municipal Act, 2001* that applies to the Town as a whole.

Under section 438 of the *Municipal Act, 2001*, municipalities have the right to pass Power of Entry bylaws, giving the municipality the power to undertake inspections in particular circumstances.

The purpose of a Power of Entry bylaw is to assist by-law officers in carrying out property inspections when the property owner is not available to ensure public safety. Although the *Building Code Act* and *Planning Act, 1992* already provide inspectors with the power to enter onto land to conduct certain inspections, having a general Power of Entry bylaw facilitates inspections regarding matters of health and safety. This general bylaw would apply to all bylaws passed under the *Municipal Act, 2001*.

Advisory Committee Review

None.

Legal Considerations

The Legal considerations are throughout the report.

Financial Implications

There are no direct financial implications related to implementing a notification process. However, there would be indirect cost implications if staff were required to obtain a search warrant when denied a right of entry, as it is a very lengthy and time consuming process to complete the documentation required to submit the information to the Courts.

Communications Considerations

Bylaw will work with Corporate Communications to ensure citizens are aware of any changes to the bylaw. This communication will be done via social media, the Town website and Council Highlights.

Communications will also work with Bylaw Services to ensure that resident handouts contain information on Power of Entry provisions.

Link to Strategic Plan

This report supports the strategic goal of **Supporting an Exceptional Quality of Life for All** By ensuring valid complaints are being addressed while respecting property owners by providing them with notification of inspection.

Alternative(s) to the Recommendation

1. That the existing protocol remains in place. In this case understanding community frustration and a continued reduction in service.
2. That Officers are permitted to conduct investigation in accordance with the existing provisions outlined in various Provincial Acts.
3. That council provide direction.

Conclusions

Bylaw Services receives hundreds of property-related complaints each year. Determining the validity of a complaint requires an inspection of the property and further follow-up inspections if there is a bylaw violation. Power of Entry provisions are contained in various statutes and are exercised with the best intention to ensure public health and safety. Staff recommends the attached notification process be implemented to ensure the process is reasonable without compromising public safety and expectations.

Attachments

Attachment #1 – Standards Operating Guideline – Entry onto Private Property

Attachment #2 – Entry On To Property Authorities

Previous Reports

Report CS17-018 – Power of Entry, General Committee – September 5, 2017

Report CS18-004 – Power of Entry, General Committee – February 20, 2018

June 18, 2019

Page 10 of 10

Report No. CS19-022

Report CS18-006 – Entry onto Private Property Protocol, General Committee – April 3, 2018

Pre-submission Review

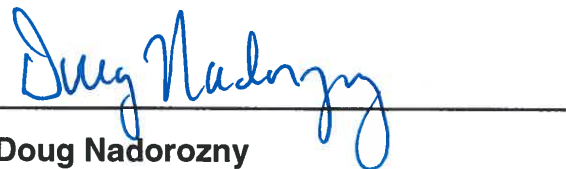
Agenda Management Team review on May 30, 2019

Departmental Approval



**Techa Van Leeuwen
Director
Corporate Services**

Approved for Agenda



**Doug Nadorozny
Chief Administrative Officer**



Attachment # 1

BYLAW SERVICES

Entry onto Private Property	
SOP # 4.10	Prepared by: Manager Bylaw Services
Date Revised: February 6, 2018	Approved by: Techa Van Leeuwen, Director CS

Purpose:

To ensure entry onto private property by a Provincial Offences Officer or Municipal Bylaw Officer is conducted in a manner that balances the Town's right to enter and an individual's right to privacy.

Scope:

This procedure applies to residential properties within the Town of Aurora where a property related complaint has been received and a by-law violation may be present. However, it does not apply to complaints related to construction activity that falls within the jurisdiction of the Building Code Act.

Definitions:

- **Forced Entry** means to enter onto private property by force using physical strength and/or destruction of property without the property owners or occupant's authorization.
- **Locked gate** means a gate which is secured by a device that requires a key or similar device or specialized knowledge such as a password to open.
- **Officer** means a Municipal Bylaw Officer or Provincial Offences Officer employed and appointed as such by the Town of Aurora
- **Private Property** means rear or side yards, whether or not they are fenced, but does not include a front yard or walkway to what appears to be the main entry to the principal habitable structure on the private property.
- **Risk to the health and safety of persons or domestic animal** (as defined in by-law xxx) means there is a potential source of harm or adverse health effect on a person or domestic animal. Examples include but are not limited to a compromised pool enclosure, decks or stairs without appropriate guards, unstable structures or animals in distress.
- **Risk of destruction of evidence** means evidence required for a successful prosecution has the potential of being destroyed, altered or removed from the property. Examples include but are not limited to cutting of trees without a permit, placement of fill without permit.
- **Risk of damage to adjacent property** means when the condition or state of a property may cause damage to an adjacent property. Examples include but are not limited to an unsafe tree, excavations that undermine adjacent footing and foundations.
- **Risk to environment** means there is a potential threat of adverse effects on living organisms and environment by effluents, emissions, and waste or resource depletion. Examples include but are not limited to placement of fill, dumping of chemicals.



Attachment # 1

BYLAW SERVICES

Entry onto Private Property	
SOP # 4.10	Prepared by: Manager Bylaw Services
Date Revised: February 6, 2018	Approved by: Techa Van Leeuwen, Director CS

Property Related Complaints

The Town will investigate all property-related complaints under the following circumstances

- the description of the complaint identifies a violation of a Town by-law may be present
- the complainant provides the Town with their name, address and contact information
- the complainant must reside within 120 metre radius of the property they are registering the complaint against
- If the complainant has registered two complaints with the Town on the same property and an investigation has revealed no violation, a third complaint by the same individual on the same property will require a second complainant who resides at a different property within 120 metres.

Procedure:

Provincial Offences Officers or Municipal Bylaw Officers employed by the Town of Aurora shall act in accordance with the following procedure when entering onto to private property in the course of his/her duties.

Immediate Entry

An Officer may enter onto private property without providing notification to the occupant or property owner when there is:

- Risk to the health and safety of persons or domestic animal.
- Risk of destruction of evidence
- Risk of damage to adjacent property
- Risk to environment

Before entering onto the private property, Officers must adhere to the following procedure:

1. The Officer shall knock on the door of the premises to advise that they will be entering onto the private property and for what purpose.
2. If no one answers the door and the occupant appears to be absent, the Officer may enter onto the private property only after discussing the issue with his/her Manager and both the Officer and the Manager concur that entry should be made based on information received from complainant and/or on-site observations.



Attachment # 1

BYLAW SERVICES

Entry onto Private Property	
SOP # 4.10	Prepared by: Manager Bylaw Services
Date Revised: February 6, 2018	Approved by: Techa Van Leeuwen, Director CS

3. When entering, the Officer shall verbally identify them-self and display their identification or provincial offences badge while entering.
4. The Officer shall remain on private property only for the purpose of mitigating risk, remediating an unsafe situation, securing the area or collecting and preserving evidence.
5. The Officer, in assessing the extent of a risk, may be accompanied by a person who has special or expert knowledge in relation to the risk. For example, an arborist may accompany an Officer to determine if a tree is unsafe or unstable.
6. The Officer shall leave a "Notice of Entry" on the main door or in a prominent place and shall notify the Manager of their findings after leaving the private property.

Immediate Danger - If the Officer is satisfied that an immediate danger to the health and safety of persons is present the Officer shall take action in accordance with applicable legislation including making an Emergency Order and taking any measures necessary to terminate the danger.

Entry for Investigation Purposes – Complaint Received, Initial Visit

Before entering onto private property to investigate the validity of a complaint received by the Town, the Officer must adhere to the following procedure:

1. The Officer shall knock on the door of the premises to advise the occupant of the reason for their visit and the nature of the complaint.
2. If no one answers the door, the Officer shall leave a "Notice of Intention to Enter" at the premises on the main door or in a prominent place. The Notice shall contain information related to the nature of the complaint with reference to Town By-laws. The Notice shall also be sent to the property owner by mail.
3. The Officer shall await contact from the occupant/owner to discuss the reasons for inspection and to arrange a time for the inspection where the occupant/owner may be present.
4. After 5 business days, if the occupant has not contacted the Officer, the Officer shall advise his/her Manager of their intent to enter onto private property and shall be accompanied by a second Officer for safety reasons.



BYLAW SERVICES

Entry onto Private Property	
SOP # 4.10	Prepared by: Manager Bylaw Services
Date Revised: February 6, 2018	Approved by: Techa Van Leeuwen, Director CS

5. Before entering, the Officers shall knock on the front door to attempt again to contact the occupant. If there is no answer, the Officers will enter onto the private property and identify themselves verbally while displaying their identification.
6. If the rear or side yard is secured by a locked gate, the Officer shall not use forced entry or gain entry by climbing over the fenced area. In this case the Officer shall consult with his/her Manager and Director to determine next steps and an appropriate course of action which may include asking adjacent property owner and/or complainant permission to access their property for the purpose of determining if a violation of Town By-laws exist.
7. The Officers shall only remain on private property for the purposes of investigation. Where an emergency condition is discovered, the Officers shall take any action necessary to remediate the emergency including securing the area or preserving evidence.
8. The Officers shall leave a "Notice of Entry" posted on the main door or in a prominent place to notify the occupant that entry had been gained and shall notify his/her Manager of their findings.

Entry for Inspection Purposes – Outstanding Violation

When an investigation of property reveals a non-compliance with a Town By-law and an Order to Comply and/or Notice of Violation has been issued, an Officer may enter onto private property for the purpose of re-inspection to determine the status of the Order/Notice.

The Officer shall make every effort to contact the property owner and arrange for a re-inspection. If the property owner is not co-operative or not responsive, the Officer shall discuss the case file with his/her Manager and may enter onto private property adhering to the following procedure.

1. The Officer shall knock on the door of the premises to advise that they will be entering onto the private property for the re-inspection purposes of an outstanding violation.
2. If no one answers the door and the occupant appears to be absent, the Officer may enter onto the private property and shall verbally identify them-self and display their identification or provincial offences badge while entering.
3. If the rear or side yard is secured by a locked gate, the Officer shall not use forced entry or gain entry by climbing over the fenced area. In this case the Officer shall consult with his/her Manager and Director to determine next steps and an appropriate course of action for achieving compliance which may include asking adjacent property owner and/or complainant permission



Attachment # 1

BYLAW SERVICES

Entry onto Private Property	
SOP # 4.10	Prepared by: Manager Bylaw Services
Date Revised: February 6, 2018	Approved by: Techa Van Leeuwen, Director CS

to access their property for the purpose of the investigation or seeking a search warrant if some evidence may be gathered in support of the search warrant.

4. The Officer shall remain on private property only for the purpose of determining compliance with an Order and/or Notice and collection of evidence.
5. The Officer shall leave a "Notice of Entry" on the main door or in a prominent place and shall document their findings and notify their Manager after leaving the private property.

Entry to Dwellings

Entry to dwellings is strictly regulated in various statutes including the Municipal Act and the Building Code Act (BCA).

In general, an Officer shall not enter or remain in any room or place actually being used as a dwelling unless the consent of the occupier is obtained, the occupier first having been informed that the right of entry may be refused.

If entry to a dwelling is refused, the Officer shall consult with their Manager and Director to review the specifics of the case and shall take the necessary action in accordance with the applicable statute to ensure the legal framework for entry to dwellings is upheld.

Legislation	Section	Comments on the section
<i>Building Code Act, 1992</i>	Each stage of construction (s. 10.2(2))	<ul style="list-style-type: none"> • right to enter is to inspect • inspector has the right to enter • trigger – the inspector must have received a notice from the owner that the construction is ready to be inspected • mandatory inspection (“shall”)
	Building Permit (s. 12(1))	<ul style="list-style-type: none"> • right to enter is to inspect • inspector has the right to enter • trigger – permit must be issued or there must at least be an application for a permit • upon lands and into buildings • at any reasonable time without a warrant • discretionary inspection (“may”)
	Property Standards By-law (s. 15.2)	<ul style="list-style-type: none"> • right to enter is to inspect • officer (i.e. property standards officer who has been assigned responsibility of administering and enforcing property standards by-laws) has the right to enter • trigger – a property standards by-law must be in effect • upon any property • at any reasonable time without a warrant • officer must produce proper identification • discretionary inspection (“may”)
	Emergency Orders – Non-conformity Property Standards (s. 15.7(3))	<ul style="list-style-type: none"> • right to enter is to terminate the danger • officer (i.e. property standards officer who has been assigned responsibility of administering and enforcing property standards by-laws) has the right to enter • order may be made if upon inspection, the officer is satisfied that there is non-conformity with the property standards by-law to such extent as to pose an immediate danger to the health of safety of any person • trigger – order must have been made (but does not have to have been served) • upon the property • without a warrant • discretionary remediation (“may”)

Legislation	Section	Comments on the section
<i>Building Code Act, 1992 (continued)</i>	Unsafe Building (s. 15.9)	<ul style="list-style-type: none"> • right to enter is to inspect • inspector has the right to enter • upon lands and into buildings • at any reasonable time without a warrant • discretionary inspection (“may”) • to determine whether the building is unsafe or whether an unsafe building order has been complied with
	Unsafe Building (s. 15.9(7))	<ul style="list-style-type: none"> • right to enter is to remediate • inspector has the right to enter • upon lands and into buildings • at any reasonable time without a warrant • may cause the building to be renovated, repaired or demolished to remove the unsafe condition or take such other action as he or she considers necessary for the protection of the public • discretionary inspection and remediation (“may”)
	Emergency Orders – where immediate danger 15.10(3))	<ul style="list-style-type: none"> • right to enter is to terminate the danger • inspector has the right to enter • order may be made if upon inspection, the officer is satisfied that there is non-conformity with the property standards by-law to such extent as to pose an immediate danger to the health of safety of any person • trigger – order must have been made (but does not have to have been served) • upon the property • without a warrant • discretionary remediation (“may”)
	Maintenance inspections (s. 15.10.1)	<ul style="list-style-type: none"> • right to enter is to inspect • inspector has the right to enter • upon land and into buildings • at any reasonable time without a warrant • to conduct a maintenance inspection

Legislation	Section	Comments on the section
<i>Building Code Act, 1992</i> (continued)	Entry to dwellings (s. 16)	<ul style="list-style-type: none"> • applies to inspectors and officers • no right to enter a room or place actually being used as a dwelling UNLESS: • consent • warrant • delay to obtain warrant or consent would result in an immediate danger to the health or safety of any person • necessary to terminate a danger under Emergency Orders • notice is given and entry is necessary to remove a building, restore a site, remove an unsafe condition or repair/demolish
<i>Planning Act</i>	Zoning By-law (s. 49)	<ul style="list-style-type: none"> • right to enter is to inspect • officer has the right to enter • trigger – officer believes on reasonable grounds that ZBL is being contravened • upon any property • all reasonable times • officer must produce proper identification • discretionary inspection (“may”)
<i>Municipal Act, 2001</i>	Municipal By-laws (s. 436) Examples include: Animal Control By-law Clean Yards By-law Debris By-law Fences By-law Open air burning By-law Garbage Disposal By-law Noise By-law	<ul style="list-style-type: none"> • right to enter is to inspect • employee, officer or agent of a municipality have the right to enter • trigger – right to enter needs to be in the by-law or in a blanket by-law (i.e. by-law needs to include a clause) • on land • at any reasonable time • purpose of carrying out an inspection • discretionary inspection (“may”)
	Municipal By-laws (s. 437)	<ul style="list-style-type: none"> • no right to enter a room or place actually being used as a dwelling UNLESS: • consent • order • warrant • delay to obtain warrant or consent would result in an immediate danger to the health or safety of any person • notice is given and entry is authorized under another section (79, 80, 446)

Attachment # 2

Legislation	Section	Comments on the section
<i>Municipal Act, 2001</i> (continued)	Municipal By-laws (s. 446) Examples include: Animal Control By-law Clean Yards By-law Debris By-law Fences By-law Fires and open air burning By-law Garbage Disposal By-law Noise By-law	<ul style="list-style-type: none"> • right to enter is to remediate • officer has the right to enter • the Town may enter on the property to remediate the property if the owner doesn't do so • discretionary remediation (“may”)
Drainage Catchbasins Other engineering requirements pertaining to subdivision development	Document is registered on title	<ul style="list-style-type: none"> • depends upon wording in the easement, but typically right to inspect, maintain, repair, alter, etc., at a reasonable time, may include that notice must be provided



**Town of Aurora
General Committee Report**

No. FS19-020

Subject: 2020-22 Operating and 2020 Capital Budget Development Direction
Prepared by: Jason Gaertner, Acting Director of Financial Services - Treasurer
Department: Financial Services
Date: June 18, 2019

Recommendation

- 1. That Report No. FS19-020 be received; and**
- 2. That the updated Council Budget Principles and Process be approved; and**
- 3. That the key principles for the 2020 to 2022 multi-year operating budget development be endorsed.**

Executive Summary

Firstly, this report seeks Council's approval of its updated Budget Principles and Process documents which form the foundation upon which the Town's operating and capital budgets are built. In addition, this report provides budget development directions and guidance to staff as they prepare the draft 2020 to 2022 multi-year operating budget for presentation to the Budget Committee during the fall of 2019.

- Council's Budget Principles and Process documents have been updated as per the Finance Advisory Committee's direction.
- The Finance Advisory Committee has commenced its detailed reviews of departmental and service partner core operating budgets.
- Council's key 2020 to 2022 budget principles and direction provide important guidance to staff.

Background

It is a normal practice for the Town's Finance Advisory Committee (FAC) to undertake a review of Council's Budget Principles and Process documents early in its term. Over the course of its review of these documents, the FAC recommended the following key changes:

June 18, 2019

Page 2 of 11

Report No. FS19-020

- i. In acknowledgement of the possibility that the inflation in a given budget year may reach thresholds that are not tolerable to Council, some flexibility in this regard should be woven into these documents.
- ii. In light of the many advantages offered from a multi-year budgeting framework, staff should proceed with the update of these documents to allow for the Town's adoption of a multi-year budget framework.
- iii. In an effort to improve the Town's capital budget process an adjustment was proposed to allow for the Budget Committee's review and approval of the Town's Repair and Replacement Capital budget and the receipt of the Town's updated Ten Year Capital Plan earlier in the fiscal year.

In preparation for staff's creation of the Town's draft 2020 to 2022 multi-year operating budget, it is important for Council to set out its expectations with respect to acceptable tax impacts to residents and businesses for each year of the multi-year budget. Such direction has allowed the town to recognize considerable efficiency gains in its past budget processes. Staff have regularly presented draft budgets to Council that were within Council's defined tax impact targets resulting in only minor changes to the presented draft budget being necessary. Typically Council has only made additions to the draft budget relating to new priority special projects or initiatives. These additions have consistently been accommodated within Council's defined targets as well.

Analysis

Council's Budget Principles and Process documents have been updated as per the Finance Advisory Committee's direction

Staff have made multiple adjustments to Council's budget principles and process documents in order to address the noted FAC recommendations. The key adjustments include:

1. Inflation flexibility: In an effort to provide Council with some flexibility in instances where a given year's inflation rate exceeds its comfort level, Clause 16 of Council's budget principles document has been updated to include the following new requirement - "Should a given fiscal year's inflation rate exceed two percent, staff will present Council with options for the mitigation of any inflation in excess of two percent for its consideration."

June 18, 2019

Page 3 of 11

Report No. FS19-020

2. Multi-year budgeting: Staff have made multiple updates to both of Council's direction documents in order to integrate the recommended multi-year budget framework. The majority of the modifications made relate to Council's Budget Process document. Some of the key changes include:
 - The update of Council's annual operating budget review and approval to reflect a review and approval of a single budget and the receipt of 3 forecasted outlook years in the first year of Council's term. Then subsequently, in its second year the approval of a three year operating budget with each of its future year approved operating budgets being re-affirmed prior to their commencing; and
 - The allowance for material adjustments at the time of re-affirmation of each future year budget; and
 - The key budget process milestones updated accordingly.
3. Update of capital components and process milestones: Staff have made multiple updates to Council's Budget Process document to reflect the Town's current key capital components and process milestones, principally being:
 - The Town's newly approved Strategic Asset Management Policy, including its strong linkage to the Town's Asset Management Plan; as well as the Ten Year Capital Investment Plan; and
 - The approval of the Town's upcoming year's repair and replacement budget and receipt of the updated Ten Year Capital Investment Plan in July of each fiscal year.

The Finance Advisory Committee has commenced its detailed reviews of departmental and service partner core operating budgets

As per its budget process document, the Finance Advisory Committee has commenced its detailed reviews of each department and service partner's core operating budgets thus allowing for more strategic reviews of the Town's draft operating budgets by the Budget Committee. During the course of these reviews any arising budget concern areas are explored and addressed as part of future town budgets.

To date, the committee has completed its review of the Aurora Public Library and is scheduled to undertake its detailed review of the Aurora Historical Society at its June 26th meeting. The Advisory Committee will conclude 2019 with its detailed review of Corporate Services. At the conclusion of its term, the Finance Advisory Committee will

have completed a detailed review of all of the Town's departments and its service partners.

Council's key 2020 to 2022 budget principles and direction provide important guidance to staff

While all of Council's budget principles outlined under attachment #1 are important, some of the key principles include the following. The numbering of these noted principles correspond to their position within Council's budget principles document.

- 1) The Town's Budget Process shall include opportunities for input from members of the public and community groups. All feedback, comments and suggestions received through solicitation tools such as email, website, surveys or others, will be conveyed to General Committee – Budget (Budget Committee) as they are received throughout the budget review process.
- 8) Council will not rely on budget surplus from one year to support or mitigate budget pressures in the following budget year.
- 10) Council and staff will continually look to implement changes in technique, tools, or approaches in delivering all services and functions which would reduce cost or improve efficiency or effectiveness of our work.
- 12) Council is committed to adequately fund infrastructure renewal through annual increases to infrastructure reserve contributions. These additional increases will be part of the fiscal strategy budget, and may require overall budget increases beyond inflation for the residents of the Town.
- 13) Council recognizes that budget decisions made in one year may impact future budget years. To ensure open and public awareness, the Town has adopted a multi-year budgeting framework where Council approves the first year's budget of its term and receives an accompanying forecast of the next three budgets. In the second year of its term, Council will approve a three year operating budget, including all related tax impacts. Using multi-year budgets and forecasts improves fiscal health and service delivery through:
 - a. better coordination of budgeting and strategic priorities,
 - b. greater certainty for departments in managing expenditures and service levels,
 - c. improved fiscal discipline of the organization,

June 18, 2019

Page 5 of 11

Report No. FS19-020

- d. streamlined budget reviews that focus on key changes in assumptions and the reasons driving such changes,
- e. allowing staff to develop budgets with fixed targets in place; allowing early response to circumstances and budget constraints of such targets,
- f. reducing uncertainty about future year tax levies, and
- g. providing longer term outlook to outside organizations that rely upon the Town for a share of their funding, which enables them to plan and deliver their programs more effectively.

In addition, when considering a new capital investment, Council will also consider the anticipated incremental operating costs that the new investment will produce.

- 14) A separate Special Phasing Budget will be used to address significant permanent tax pressures. These pressures will be mitigated through a phase-in over multiple fiscal years, using tax stabilization reserves where necessary. Foreseen significant pressures, such as the operating costs for a facility under construction, will be phased-in in advance where possible. Unforeseen pressures will be phased-in as promptly as appropriate. Phasing of such tax pressures may result in tax rate increases which are in excess of inflation so as not to adversely impact the delivery of existing services and facilities. Where appropriate, growth revenues will be allocated toward new costs such as these.
- 16) Council and our taxpayers recognize that annual tax increases approximating inflation are necessary to support the perpetuation of existing services, facilities and operations, while accommodating new growth in population and the demand for more of these same levels of services, facilities and operations that such growth creates.

Should the inflation rate for a given fiscal year exceed two percent, Staff will present Council with options for the mitigation of any inflation in excess of two percent for its consideration.

- 18) While the Town is intent on advancing all strategic priorities, it is likely not possible to advance all issues in every year. Council will need to make these key priority decisions in a scarce resource environment.
- 19) Innovation, efficiencies, maintaining service excellence and service improvements come through the continuous learning and development of our staff. Training and development funding will be provided in the budget.

June 18, 2019

Page 6 of 11

Report No. FS19-020

- 20) The Town will continue to establish a separate Fiscal Strategy to:
- a. Eliminate its infrastructure funding gap, and
 - b. Reduce reliance upon unsustainable revenue sources, such as supplementary tax and other development driven revenues, by the operating budget.

Recommended budget preparation directions for 2020 to 2022

Based on the highlighted budget principles, it is recommended that the following budget directions be endorsed for the preparation of the multi-year 2020 to 2022 Operating Budget:

Public Consultation

- 1) Individuals and groups will be afforded an opportunity to provide suggestions, advice or requests to the Budget Committee regarding the 2020 to 2022 Operating budgets or 2020 Capital budget on June 18, 2019.

Base Operating Budget

- 1) The overall Aurora net residential tax bill increase for the Base Operating budget will be limited to the reported June 1st to May 31st Consumer Price Index (CPI) for the Toronto Area for the 2020 budget. In the absence of available inflation projections for 2021 and 2022, an equivalent rate to the 2020 rate will be assumed for these years.
- 2) All fees, rates and charges are to be indexed by the same CPI reported value, and new revenue sources identified.
- 3) New taxes from new community growth will be incorporated into the base budget and be used to extend existing services to these new communities, residents and businesses.
- 4) For strategic priorities separately identified by Council, a further levy increase may be considered for such new funding. Council may also consider a multi-year phased approach to increasing service levels.
- 5) The Treasurer is to provide the Library Board, the Aurora Cultural Centre Board, and the Historical Society with a clear budget funding allocation less than or

equivalent to inflation for 2020, 2021 and 2022 early in the budget development stage for their consideration when preparing their business plans.

- 6) The three year operating budget will include a staffing needs analysis.

Phase-In Budget

- 7) The phase-in budget strategy currently approved for the Fire Services expansion will be funded from within the inflationary and growth components of the base operating budget, as applicable, with any excess planned increase being a separate component of the overall tax increase.

Fiscal Strategy Budget

- 8) In addition to the base budget increase for inflation, a dedicated Fiscal Strategy tax levy increase will be imposed in each year of the multi-year operating budget to fund additional contributions to infrastructure reserves in accordance with the long range fiscal strategies adopted in the recent Ten Year Capital and Asset Management Plan, and to reduce budgetary reliance on unsustainable levels of development driven revenues.

For the past seven years the Town has levied an additional one percent in support of its fiscal strategies. In order for the Town to close or maintain its infrastructure renewal gaps, a fiscal strategy tax levy increase of one percent will continue for each year of the multi year operating budget.

Capital Budget

The 2020 capital budget will be developed based upon the foundational principles as set out in the town's approved strategic asset management policy and asset management plan (AMP), as well as its Ten Year Capital Investment Plan, in an effort to maintain existing capital asset service standards and to accommodate our growing community needs. Council will undertake an annual review of the Town's Ten Year Capital Investment Plan that will be built based upon these noted foundational principles.

Expected Budget Timing for Council

Period	Budget Milestone
January to September	Annual Finance Advisory Committee (FAC) detailed departmental budget reviews (rotating)
June	Public stakeholder consultation
July	Receipt of next year's ten year capital investment plan
	Approval of next year's repair & replacement plan
October	Approval of next year's growth & new plan
	Approval of next year's studies & other plan
November to December	Year 2: Approval of 2020 to 2022 multi-year budget
	Year 3/4: Re-confirmation of next year's previously approved operating budget.

Advisory Committee Review

The Finance Advisory Committee reviewed this draft of the updated Council Budget Principles & Process at its May 22nd meeting.

Legal Considerations

As the proposed 2020 to 2022 multi-year operating and capital budget relate wholly to the current Council's term, they are authorized under subsection 291 of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended (hereinafter the "Act") to approve these complete budgets. However, subsection 291(4) of the Act requires that for the second and each subsequent year to which a multi-year budget applies, the municipality shall, in the year or the immediately preceding year, re-affirm the approved budget.

Financial Implications

It is anticipated that the Town's assessment base growth from new structures (not reassessment increases) will remain strong for another year, following which growth is anticipated to begin to decline. New revenue from growth is necessary funding to extend existing services at their same levels to these new residents and businesses which results in additional costs, and in some cases, additional staffing requirements. Generally, growth revenue is not used to fund service enhancements to the whole community.

Inflation is a reality that if not accommodated on the full revenue side (taxes and all other revenue sources) dilutes funding available for the provision of base services at their existing service levels, resulting in dilution of service. Operating cost increases exceed inflation for such cost items such as insurance, benefits plans, minimum wage increments, petrochemicals, other fuels and electricity, among others. Accordingly, inflationary increases to taxes and service fees are necessary and should be expected by Council and taxpayers to maintain services year to year.

In its Budget Principles document, Council has made very transparent that its reference inflationary indicator is the June 1st to May 31st annual CPI published by Statistics Canada for the Toronto area. This public declaration eliminates use of different CPI values by staff or others during the budget review process. The CPI value for the end of May is expected to be published by Statistics Canada in late June or July. Should the inflation indicator exceed two percent, staff will present Council with options for the mitigation of any value over and above two percent.

In addition to inflation, residents and Council need to recognize that infrastructure sustainability funding is currently insufficient for maintaining the service levels from our aging infrastructure. This is a reality facing most municipalities across Canada. Accordingly, increased funding for infrastructure should be expected to be funded as an incremental beyond a base operating budget inflationary adjustment.

As of the end of April, the CPI was projected to be 2.0%. As per the principles set out above, the Base Budget would have a 2.0% tax increase, plus a 1.0% increase for Fiscal strategy. Any new services introduced by Council will add further increase pressure. Therefore the potential tax rate impact for 2020 would be approximately 3.0% depending upon the existence of any new services and the final CPI when published in June. In the absence of any other available information, a similar potential tax rate impact would be assumed for the 2020 and 2021 operating budgets. The possible tax increases for each year of the multi-year plan are set out in Figure 1.

Figure 1

	2020	2021	2022
Inflation	2.0%	2.0%	2.0%
Fiscal strategy	1.0%	1.0%	1.0%
Total	3.0%	3.0%	3.0%

Communications Considerations

The budget directions of Council are primarily aimed at staff as they prepare the draft 2020 to 2022 multi-year operating budget. However, in forthcoming pieces, the Communications Division will include some information which will advise residents of Council's budget expectations and the resultant increase to taxes and fees.

A strong communications plan in regards to the development of the Town's 2020 to 2022 operating and 2020 capital budgets is absolutely critical. Consequently, staff will develop a clear communication strategy for the entire 2020 budget cycle. This communication strategy will utilize all communication tools available to the Town, including its social media channels.

The public consultation process is scheduled to take place on June 18th at 6pm.

Link to Strategic Plan

Developing the annual budget supports all aspects of the Strategic Plan. Specifically, this report supports the Plan principles of Leadership in Corporate Management, Leveraging Partnerships, and Progressive Corporate Excellence and Continuous Improvement, by setting out the approach to be taken in the development of the 2020 to 2022 multi-year operating and 2020 capital budget.

The approval of the 2020 to 2022 operating and 2020 capital budgets provides funding support and approval for all initiatives, services and operations of the Town, all of which support and advance the Strategic Plan's objectives. Overall, these budgets lead to an improvement in the quality of life for the community that we serve.

Alternative(s) to the Recommendation

Council may choose to endorse alternate budget preparation direction to staff.

Conclusions

Clear budget preparation directions have assisted immensely in ensuring a smooth and highly successful budget process in previous years. The Town's entire budget development cycle is supported by Council through its approved foundational documents, being the Council Budget Principles and Council Budget Process. Members of the public and Council are reminded that in-depth budget discussions with each

June 18, 2019

Page 11 of 11

Report No. FS19-020

individual department and service partner continue off-line throughout the year on a rotating basis by the Finance Advisory Committee as set out in the Council Budget Process document. The Budget Directives recommended in this report are anticipated to result in a fair, progressive and affordable operating budget for the Town for 2020 to 2022.

Attachments

Attachment #1 – Updated Council Budget Principles Document

Attachment #2 – Updated Council Budget Process Document

Attachment #3 – Summary of Council Budget Principles and Process Documents
Changes

Previous Reports

Nil

Pre-submission Review

Agenda Management Team review on May 29, 2019

Departmental Approval



**Rachel Wainwright-van Kessel, CPA, CMA
Director of Finance**

Approved for Agenda



**Doug Nadorozny
Chief Administrative Officer**

Attachment #1



Council Budget Principles

The Council of the Town of Aurora is responsible for two key elements in carrying out their duties. Council must represent and advance the interests, needs and actively plan for the future, and serve the residents and businesses of the community of the Town of Aurora, while also responsibly managing a large municipal corporation, including its future, resources, assets, needs and interests. The funding raised and used by the corporation comes primarily from within the community, and must be used wisely, obtaining good value and cared for responsibly. Within the context of annual corporation budgets, Council is committed to remain engaged with the community and continually strengthen the municipal corporation's overall fiscal sustainability, balanced with the need for Aurora's property taxation levels and water rates to remain comparable and affordable within the context of the Greater Toronto Area.

In exercising its budget setting duties, Council should be mindful that the primary funding source is from taxpayers, and it is Council's duty to be responsible in this regard, making fiscally responsible decisions with respect to services offered, service levels offered, and other uses and application of the taxpayers' funding, being mindful of the long term and short term impacts to both the corporation and the taxpayer.

Council recognizes that there are many different external influences which have impacts to the Town's budgets, costs and services. The following items each cause tax increase pressures upon the budgets of the Town. Council is committed to address each of these issues in a manner which respects the taxpayer, the financial health of the municipal corporation and our staff serving Aurora:

- New and emerging legislative compliance requirements increasing demand on municipal resources and staffing
- Growth of the community, and the resultant volumetric increase in demand for services and facilities provided and available. Such costs are normally offset by growth in base revenues arising from the new residents and businesses.
- Community expectations for newer, evolving and additional services and facilities over and above today's existing service levels
- The need to develop the financial capacity to meet current and future capital infrastructure replacement needs to provide reasonable service levels in a sustainable manner. Infrastructure sustainability funding has historically been a low priority for municipal governments across the country. Aging and deteriorating infrastructure requiring urgent repair or replacement has now brought this issue to the forefront for all levels of government.

Attachment #1

- Economic pressures such as interest rate fluctuations and inflationary pressures
- Cost increases in some supply sectors which exceed inflation, such as electricity
- Pressures on wage and benefits costs, including collective agreements
- Service and supply contract renewals and existing committed multi-year contracts

Council recognises that during every budget debate, various perspectives and interests are represented and raised at the Council table. To assist in these prospective discussions, Council has reviewed and agreed on a consensus basis that the following principles will guide the development, review and approval processes of each budget for the Town. These Budget Principles will be reviewed by Council in the first year of each Council term, and at any other time as requested by Council.

The following principles will guide the preparation, review and evaluation for approvals of the Annual Operating, Capital and Utility budgets for the Town:

Open and Transparent Process

1. The Town's Budget Process shall include opportunities for input from members of the public and community groups. All feedback, comments and suggestions received through solicitation tools such as email, website, surveys or others, will be conveyed to General Committee – Budget (Budget Committee) as they are received throughout the budget review process.
2. The Town's Budget Process should include a formalized system or survey for community input, as determined by the Finance Advisory Committee.
3. All meetings of the Budget Committee shall be open to the public, except those aspects which are permitted and appropriate to be held in closed session, such as but not limited to discussions regarding collective agreement negotiation provisions, personnel matters, or litigation.
4. Budget materials, presentations, disclosures and Budget Committee review processes shall be open and transparent. All materials will be prepared with the intended audience being a member of the general public where reasonable and practical. A specific section of the Town's website will contain all relevant budget materials, presentations, summaries and reports throughout the process, and updated to reflect the final approved budgets.
5. Council will undertake to complete the review and approval of operating budgets prior to the commencement of each the new budget year. For a budget in respect of the year following a municipal general election, the budget review process will begin early in the new budget year, as required by statute.

Attachment #1

6. In making comparisons to other municipalities in respect to processes, performance, service levels, cost, revenue rates or any other basis, the Town shall have regard to, at minimum, the following municipalities:
 - a. All other lower tier municipalities of York Region.
 - b. Municipalities in the Durham Region, Peel Region, and Region of Halton Hills which have populations within 30% of the Town's population.
 - c. York Region where applicable.
 - d. Ontario Municipal Benchmarking Initiative materials where applicable.

Budgets to be Fiscally Responsible

7. The Town will prepare a traditional municipal balanced budget. Ontario Regulation 284/09 allows for exclusion from such budget certain accounting estimates such as amortization, and post-employment benefit liabilities. The impact of these excluded items will be presented separately as part of the budget submission as required of the Regulation.
8. The Town will not use or rely upon prior year operating surpluses to fund or balance the Operating Budget.
9. The Town will not rely on one-time or short-term temporary funding sources to fund or balance the Operating Budget, unless directly associated with corresponding temporary expenses for events or special purpose programs.
10. Council and staff will continually look to implement changes in technique, tools or approaches to delivering all services and functions which will reduce costs, or improve the efficiency or effectiveness of our work and programs. Where necessary, capital investments required to achieve such improvements will be prioritized.
11. The annual operating budget will not be impacted by year to year fluctuations of the actual capital budget approval. Rather a singular, stable and predictable funding transfer to Infrastructure Sustainability Reserves will be included.
12. Council is committed to adequately fund infrastructure repair, replacement and improvements through annually evaluating the future funding needs, and when indicated, increase annual contributions to infrastructure sustainability reserves. Such increases will be included in the Fiscal Strategy budget area. Additionally, the Town will ensure that its capital repair and replacement program remains in alignment with the approved asset management plan while attempting to replace assets at the optimal point in time to ensure the efficient and effective use of scarce capital funding as per the Ten Year Capital Investment Plan.
13. Council recognizes that budget decisions made in one year may impact future budget years. To ensure open and public awareness, the Town has adopted a multi-year budgeting framework where Council approves the first year's budget of its term and receives an accompanying forecast of the next three budgets. In the second year of its term, Council will approve a three year operating budget, including all

Attachment #1

related tax impacts. Using multi-year budgets and forecasts improves fiscal health and service delivery through:

- a. better coordination of budgeting and strategic priorities,
- b. greater certainty for departments in managing expenditures and service levels
- c. improved fiscal discipline of the organization
- d. streamlined budget reviews that focus on key changes in assumptions and the reasons driving such changes
- e. allowing staff to develop budgets with fixed targets in place, allowing early response to circumstances and budget constraints of such targets.
- f. reduces uncertainty about future year tax levies
- g. provides longer term outlook to outside organizations that rely upon the Town for a share of their funding, which enables them to plan and deliver their programs more effectively.

In addition, when considering a new capital investment, Council will also consider the anticipated incremental operating costs that the new investment will produce.

14. A separate Special Phasing Budget will be used to address significant permanent tax pressures. These pressures will be mitigated through a phase-in over multiple fiscal years, using tax stabilization reserves where necessary. Foreseen significant pressures, such as the operating costs for a facility under construction, will be phased-in in advance where possible. Unforeseen pressures will be phased-in as promptly as appropriate. Phasing of such tax pressures may result in tax rate increases which are in excess of inflation so as not to adversely impact the delivery of existing services and facilities. Where appropriate, growth revenues will be allocated toward new costs such as these.
15. In the event that previously established operating budget directives are sought to be reduced by Budget Committee or Council, a balanced approach will be used whereby roughly 50% of such amount will be through internal cost reductions which have minimal impact on service levels, with the remaining amount through new revenue streams, fee increases exceeding inflation, or definitive service or program reductions identified by Budget Committee.

Inflation is a Reality for both the community and the Corporation

16. Council and our taxpayers recognize that annual tax increases approximating inflation are necessary to support the perpetuation of existing services, facilities and operations, while accommodating new growth in population and the demand for more of these same levels of services, facilities and operations such growth creates. For reference, Council will refer to the annual 12 month CPI index for the Toronto Area, as reported by Statistics Canada for the period June 1st to May 31st, ending in the year prior to the budget under review.
Should the inflation rate for a given fiscal year exceed two percent, Staff will present Council with options for the mitigation of any inflation in excess of two percent for its

Attachment #1

consideration.

17. It is reasonable to expect that administrative support overhead type costs are necessary, and should remain in a consistent ratio to the cost of core front line services and operations. The growth of the community and demand for Town services affects both the core front line and administrative functions of the corporation.

The Town will Advance Priorities

18. Council is committed to advancing the strategic priorities as set out in the Town's Strategic Plan, balanced with affordable and coordinated advancements of the goals and objectives set out in our various Master Plans, including but not limited to:
 - a. Strategy Plan
 - b. Communications Strategic Plan
 - c. Corporate Administrative Plan
 - d. Corporate Environmental Action Plan
 - e. Cultural Master Plan
 - f. Downtown Revitalization Plan
 - g. Economic Development Master Plan
 - h. Information Technology Strategic Plan
 - i. Long Range Asset Management and Investment Plan
 - j. Official Plan (community growth plan)
 - k. Parks Master Plan
 - l. Promenade Plan
 - m. Pursuit of Top 100 Employer status
 - n. Servicing Master Plan
 - o. Trails and Open Spaces Master Plan
 - p. Transportation Master Plan

It is recognized that it may not be financially possible to make advancement in all areas each year. Council will annually identify and prioritize such items during the annual budget review process.

19. Innovation, efficiencies, service excellence, maintaining public safety, and service level improvements come through the continuous learning and development of our staff. Training and development funding will be provided in the budget in the range of 1% to 3% (to be determined) of the Total Salaries and Benefits costs. In the first year of each term of Council, data from the comparator municipalities will be presented to confirm the Town's percentage allocation.

Historical Underfunding must be addressed

20. A separate annual Fiscal Strategy budget is intended to:

Attachment #1

- a. Eliminate the infrastructure funding gap which arose from a long history of underfunding the costs of wear & tear on (consumption of) our infrastructure.
- b. Reduce reliance upon unsustainable revenue sources by the operating budget, such as supplementary tax and other development driven revenues.

The driver for the need for current tax increases in this regard is a historical underfunding of contributions to infrastructure reserves, and the provincially mandated new municipal asset management regulation. The impact of these factors is more pronounced as a Town's capital infrastructure ages. This situation is being experienced in virtually all municipalities across Canada, particularly by those municipalities such as Aurora who implemented long periods without increasing taxes. The "no tax increase" years actually made matters worse for each of these municipalities, as the core operations experience inflationary pressures every year, as does the cost of rehabilitation and replacement of infrastructure.

Current service levels of the base operating budget should not suffer due to the need to address this historical funding issue. Council is committed to increase property taxes in order to increase its contributions to reserves for funding necessary infrastructure rehabilitation and renewal. Both the Town's approved strategic asset management policy and asset management plan which outline asset service levels and the Town's strategy for meeting them; as well as the Town's Ten Year capital Investment Plan are reviewed and updated on a regular basis.

It is understood that the Fiscal Strategy budget will normally push the tax rate impact to the resident beyond inflation rates when combined with the Operating Budget.

21. Historically the Province has provided "tax room" to municipalities. Since 1998, the Province of Ontario has generally held education tax rates revenue neutral for existing properties each year, resulting in a decline of the portion of the property tax bill going toward education. Some of these reductions have been offset by increased regulatory compliance requirements which have directly or indirectly added costs to the municipalities. Overall, it needs to be recognized that due to the historical net zero tax increases for education taxes, the province annually opens "tax room" on the bill for municipalities to address funding pressures such as infrastructure and compliance costs. Council and the community need to recognize that to access this tax room, the local taxes need to increase by more than general inflationary levels. Failing to access this tax room in one year is difficult to recapture in future years.



Council Budget Review and Approval Process

Operating Budget

Council recognizes that budget decisions made in one year may impact future budget years. To ensure open and public awareness, the Town has adopted a multi-year budgeting framework where Council approves the first year's budget of its term and receives an accompanying forecast of the next three budgets. In the second year of its term, Council will approve a three year operating budget, including all related tax impacts.

Each year's presented budget will be built in accordance to any directives received from Council as well as the principals outlined in Council's budget principal's document. Through a multi-year budget methodology staff are able to more effectively plan multi-year programs, revenue streams and staffing. As per the Municipal Act Council will be required to re-affirm each individual future year approved budget. Any variations in future year approved budgets from what was originally approved by Council need to be fully explained at the time of re-affirmation.

Using multi-year budgets and forecasts improves fiscal health and service delivery through:

- better coordination of budgeting and strategic priorities,
- greater certainty for departments in managing expenditures and service levels
- improved fiscal discipline of the organization
- streamlined budget reviews that focus on key changes in assumptions and the reasons driving such changes
- allowing staff to develop budgets with fixed targets in place, allowing early response to circumstances and budget constraints of such targets.
- reduces uncertainty about future year tax levies
- provides longer term outlook to outside organizations that rely upon the Town for a share of their funding, which enables them to plan and deliver their programs more effectively.

It is important to note that the Budget Committee or Council are able to make adjustments to any future year approved budgets at the time re-affirmation. These adjustments may include, but are not limited to;

- a) Legislation changes
- b) Unplanned service level changes
- c) Unplanned incremental operating costs arising out of capital investments
- d) Material changes to the projected inflation rate
- e) Material changes to labour agreements
- f) Changes to assessment growth projections

Attachment #2

All budget adjustments made to an operating budget subsequent to Council's original approval of the budget will be communicated to Council as part of each budget's re-affirmation report.

Identified required budget increase adjustments

Firstly, regardless of the materiality of an identified required budget increase adjustment, staff will strive to accommodate the adjustment within Council's previously approved operating budget for the year.

If the cumulative value of the portions of identified increase adjustments that cannot be accommodated within the existing approved budget is material, the applicable year's budget will be formally opened. Staff will consequently prepare a budget decision unit business case outlining the requested increase to the currently approved budget for Council's consideration. A material change arises when the cumulative value of all unfunded identified adjustments reach a value that will have an impact equal to or greater than 1% on the property tax budget (or approximately \$460,000).

Otherwise, if the unaccommodated cumulative portion of any applicable identified adjustments is not material it will be excluded from the budget or managed through a draw from the Town's rate stabilization reserve.

Identified required budget decrease adjustments

Firstly, regardless of the materiality of an identified required budget decrease adjustment, staff will utilize any resultant savings to fund unfunded identified budget increase adjustments.

If the cumulative value of all identified required budget decreases that remain after all unfunded required budget increase adjustments have been funded is material, the applicable year's budget will be formally opened. Staff will consequently prepare a budget decision unit business case outlining the requested decrease to the currently approved budget for Council's consideration.

If an identified required budget decrease adjustment is material, the year's budget will be formally opened. Staff will consequently prepare a budget decision unit business case outlining the requested decrease to the previously approved budget for Council's consideration.

Otherwise, any cumulative value remaining after all identified required budget increase adjustments have been offset will be re-allocated within the currently approved budget to contingency budget. This contingency budget will form the first funding source for the accommodation of any newly arising required budget increase adjustments.

Year end operating budget variances

Attachment #2

Should an annual operating budget conclude the fiscal year in a surplus position, any excess funds remaining will be allocated to the Town's reserve funds as per the Town's annual surplus control bylaw. Conversely, under this same bylaw should an operating budget conclude the fiscal year in a deficit position, it will be topped up from reserves accordingly.

Budget review and approval process

In conducting its operating budget review and approval process, the Budget Committee will consider the following components:

- The overall tax levy funded operating budget, including the Building Services Budget
- Aurora Public Library Board funding request
- Aurora Cultural Centre Board funding request (as per performance agreement)
- Aurora Historical Society funding request (as per performance agreement)
- Central York Fire Services Budget (as recommended by Joint Council Committee)
- Annual Fiscal Strategy Budget
- Annual Special Phasing Budget
- Water, Wastewater and Storm Water rate funded Budgets

Once these budget components have been reviewed by Budget Committee, Committee will recommend adoption to Council. All meetings of the Budget Committee are open to the public.

Every operating budget will be supported at a minimum by the following:

- Comprehensive departmental business plans outlining successes achieved in the previous year as well as priorities and resource requirements for the upcoming fiscal year(s).
- A summary of key core, growth and other budget pressures that the draft budget is addressing.
- Budget decision unit items for any budget pressures that have not been addressed within the proposed / previously approved operating budget.
- Multi-year staffing plan

Budget Communications Strategy and Key Messages

Following recommendation for adoption of a single or multi-year operating budget, Budget Committee will discuss and provide direction to staff regarding key messages and budget highlights, including any specific statements or strategies to be included in media releases, website and other communications regarding the approval of the budget.

Capital Budget

Attachment #2

Every four years at the beginning of its term in office, Council will undertake a review and approval of the Town's Strategic Asset Management Policy and Asset Management Plan (AMP). The strategic asset management policy guides the development of the AMP; the AMP forms the foundational rationale upon which the Town's Ten Year Capital Investment Plan is built and maintained.

On an annual basis, in July, Council will undertake a review and approval of the Ten Year Capital Investment Plan prior to the budget year in question commencing. At this time Council will also review and approve the Town's upcoming year's repair and replacement capital plan. Council will review and approve the remaining components (Growth & New and Studies & Other) of the upcoming capital plan in October. This timing allows for the pricing advantage of early tendering, as well as allowing for the integration of the capital plan into the operational plans, capacities and requirements of the affected business units within the Operating Budget as applicable. Budget Committee will recommend adoption to Council. Funding allocations approved in the annual capital budget will be effective January 1 of the budget year, unless otherwise specifically approved by Council.

Rotating Annual Departmental Detailed Budget Reviews

Separate from the Town's normal budget approval process, the Finance Advisory Committee (FAC) will undertake a detailed line by line review of the core operational budgets for each Town department or service partner on a rotating basis, with an intent of completing a review of all departments and service partners at least once by the end of Council's term in office. Any recommended material adjustments coming out of these reviews will be presented to Council for its consideration as a possible budget adjustment item to the following year's operating budget.

This rotating approach balances the need to review the details of each departmental budget with the expectation of efficient and effective use of Committee time commitment for the annual budget process. Detailed review of every department every year is not practical. The rotational approach allows for ongoing assurance by Council, new members to Council, and the general public that all areas of the budget have been reviewed in extensive detail within the last few years by a committee of Council, and that such reviews continue on a regular basis on a fixed schedule. This approach ensures that the Town's regular budget review of the overall corporate budget submission can remain at a higher level of consolidation, focusing on service levels, performance indicators and overall compliance with budget directives.

The rotation of detailed reviews will be as follows (calendar year of term):

- | | |
|--------|---|
| Year 1 | Aurora Public Library
Aurora Historical Society
Corporate Services |
| Year 2 | Community Services
Planning & Development Services
Aurora Cultural Centre |

Attachment #2

	Finance & Corporate Accounts
Year 3	Operational Services Water, Wastewater & Storm Water CAO/ Administration
Year 4	None due to municipal election

The detailed review will include, but is not limited to:

- the current approved operating budget, with provided expanded details;
- all related fees and rates charged;
- activities, services and service levels provided by the department;
- open capital projects and status
- the area's related content details within the Ten Year Capital Investment plan
- adequacy of staffing and funding to meet mandatory activities, services, commitments, and approved non-mandatory services, activities and programs and general expectations of Council;

Council Budget Review and Approval Process Flow

Year 1

January to March

- Council Review and Approval of Strategic Asset Management Policy, Asset Management Plan; receipt of Ten Year Capital Investment Plan and approval of single year capital budget.
- Council Review and Approval of single year operating budget, plus receipt of three outlook years for first year of term.

June

- Council budget direction to staff with regards to the next three years

July

- Receipt of next year's Ten Year Capital Investment Plan
- Approval of next year's Repair & Replacement Capital Plan

January to September

- Annual Finance Advisory Committee detailed departmental budget reviews (rotating)

October to November

- Approval of next year's Growth & New Capital Plan
- Approval of next year's Studies & Other Plan

Attachment #2

November to December

- Receipt and approval of Year 2, Year 3 and Year 4 operating budgets

Years 2 to 3

July

- Receipt of next year's Ten Year Capital Investment Plan
- Approval of next year's Repair & Replacement Capital Plan

January to September

- Annual Finance Advisory Committee detailed departmental budget reviews (rotating)

October to November

- Approval of next year's Growth & New Capital Plan
- Approval of next year's Studies & Other Plan

November to December

- Re-affirmation of next year's previously approved operating budget
 - Annual adjustment process

Summary of Council Budget Principles Document Changes

Clause	Explanation	2016	2019
12	Wording clarification.	Additionally, the Town will ensure the planned capital program attempts to replace assets at the optimal point in time for efficient and effective use of scarce capital funding in accordance with the Ten Year Asset Management and Investment Plan, balancing this with meeting community expectations, and the need for maintaining reliable services.	Additionally, the Town will ensure that its capital repair and replacement program remains in alignment with the approved asset management plan while attempting to replace assets at the optimal point in time to ensure the efficient and effective use of scarce capital funding as per the Ten Year Capital Investment Plan.
13	Update to align with Town’s desired multi-year budgeting framework; as well as to document the Town’s best practice to consider any resulting incremental operating costs arising as a result of a new capital investment decision.	Council recognizes that budget decisions made in one year may have ripple-type impacts to future budget years. To ensure open and public awareness, for each annual operating budget presented for tax funding, an accompanying forecast of the next three budgets and related tax impacts shall also be presented. These forecasts will be updated as budget decisions are made during review. The forecasts presented will always include three or more years for consistency of vision. Using multi-year budgets and forecasts improves fiscal health and service delivery through: a. better coordination of budgeting and strategic priorities, b. greater certainty for departments in managing expenditures and service levels	Council recognizes that budget decisions made in one year may impact future budget years. To ensure open and public awareness, the Town has adopted a multi-year budgeting framework where Council approves the first year’s budget of its term and receives an accompanying forecast of the next three budgets. In the second year of its term, Council will approve a three year operating budget, including all related tax impacts. Using multi-year budgets and forecasts improves fiscal health and service delivery through: a. better coordination of budgeting and strategic priorities, b. greater certainty for departments in managing expenditures and service levels

		<p>c. improved fiscal discipline of the organization d. streamline annual budget reviews to focus on key changes in assumptions and outlooks, and the reasons driving such changes e. allow staff to develop budgets with fixed targets in place, allowing early response to circumstances and budget constraints of such targets.</p>	<p>c. improved fiscal discipline of the organization d. streamlined budget reviews that focus on key changes in assumptions and the reasons driving such changes e. allowing staff to develop budgets with fixed targets in place, allowing early response to circumstances and budget constraints of such targets. f. reduces uncertainty about future year tax levies g. provides longer term outlook to outside organizations that rely upon the Town for a share of their funding, which enables them to plan and deliver their programs more effectively.</p> <p>In addition, when considering a new capital investment, Council will also consider the anticipated incremental operating costs that the new investment will produce.</p>
<p>16</p>	<p>Included new wording to offer flexibility to Council in instances where the required inflation increase exceeds comfort levels.</p> <p>To facilitate this new flexibility, the twelve month inflation</p>	<p>Nil</p> <p>For reference, Council will refer to the annual 12 month CPI index for the Toronto Area, as reported by Statistics</p>	<p>Should the inflation rate for a given fiscal year exceed two percent, Staff will present Council with options for the mitigation of any inflation in excess of two percent for its consideration</p> <p>For reference, Council will refer to the annual 12 month CPI index for the Toronto Area, as reported by Statistics</p>

	<p>calculation period was adjusted backwards by one month to better align with the timing of Council’s direction report to staff thus allowing staff to notify Council if the required inflation increase will exceed the newly defined threshold and consequently offer mitigation measures.</p>	<p>Canada for the period July 1 to June 30, ending in the year prior to the budget under review.</p>	<p>Canada for the period June 1st to May 31st, ending in the year prior to the budget under review.</p>
19	<p>The previous ‘X’ percentages of total salaries and benefits were replaced with the common values being utilized in practice.</p> <p>This principal and its accompanying values will not be finalized until such time that a formal training and development policy is approved for the Town.</p>	<p>Innovation, efficiencies, service excellence, maintaining public safety, and service level improvements come through the continuous learning and development of our staff. Training and development funding will be provided in the budget in the range of x% to x% (to be determined) of the Total Salaries and Benefits costs. In the first year of each term of Council, data from the comparator municipalities will be presented to confirm the Town’s percentage allocation.</p>	<p>Innovation, efficiencies, service excellence, maintaining public safety, and service level improvements come through the continuous learning and development of our staff. Training and development funding will be provided in the budget in the range of 1% to 3% (to be confirmed by Council) of the Total Salaries and Benefits costs. In the first year of each term of Council, data from the comparator municipalities will be presented to confirm the Town’s percentage allocation.</p>
20	<p>Removal of Hydro Investment Reserve Funds from wording as the Town is no</p>	<p>b. Reduce the reliance upon unsustainable revenue sources by the Operating budget, such as interest from the Hydro Investment Reserve Funds.</p>	<p>b. Reduce reliance upon unsustainable revenue sources by the operating budget, such as supplementary tax and other development driven revenues.</p>

	<p>longer reliant upon hydro investment reserve funds.</p> <p>Wording was updated to reflect clearer direction that has subsequently been received from the Province in regards to asset management best practices.</p>	<p>The driver for the need for current tax increases in this regard is a historical underfunding of contributions to infrastructure reserves, and the recently mandated detailed planning and forecasting taking place for the management of capital asset infrastructure.</p> <p>The Town’s Ten Year Asset Management and Investment Plan outlines and updates this strategy each year.</p>	<p>The driver for the need for current tax increases in this regard is a historical underfunding of contributions to infrastructure reserves, and the provincially mandated new municipal asset management regulation. The impact of these factors is more pronounced as a Town’s capital infrastructure ages.</p> <p>Both the Town’s approved strategic asset management policy and asset management plan which outline asset service levels and the Town’s strategy for meeting them; as well as the Town’s Ten Year capital Investment Plan are reviewed and updated on a regular basis.</p>
<p>21</p>	<p>Wording was updated in an effort to clarify the intent of this principle.</p>	<p>The Province has quietly been providing “tax room” to municipalities since 1998: Since the substantial changes of property taxes with the introduction of Current Value Assessment in Ontario in 1998, the Province of Ontario has generally held education tax rates revenue neutral for existing properties each year, resulting in a decline of the portion of the property tax bill going toward education. Together with recent uploading from the Region of</p>	<p>Historically the Province has provided “tax room” to municipalities. Since 1998, the Province of Ontario has generally held education tax rates revenue neutral for existing properties each year, resulting in a decline of the portion of the property tax bill going toward education. Some of these reductions have been offset by increased regulatory compliance requirements which have directly or</p>

Attachment #3

		<p>York and others of the Social Pooling allocation, and other social and provincial responsibilities, the Province has continually reduced their burden on the property tax bill incrementally each year. Some of these reductions have been offset by increased regulatory compliance requirements which have directly or indirectly added costs to the municipalities.</p> <p>Overall, it needs to be recognized that due to the net zero tax increases for education taxes, the province annually opens “tax room” on the bill for municipalities to address funding pressures such as infrastructure and compliance costs. Council and the community need to recognize that to access this tax room, the local taxes need to increase by more than general inflationary levels. Failing to access this tax room in one year is difficult to recapture in future years.</p>	<p>indirectly added costs to the municipalities. Overall, it needs to be recognized that due to the historical net zero tax increases for education taxes, the province annually opens “tax room” on the bill for municipalities to address funding pressures such as infrastructure and compliance costs. Council and the community need to recognize that to access this tax room, the local taxes need to increase by more than general inflationary levels. Failing to access this tax room in one year is difficult to recapture in future years.</p>
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**Town of Aurora
General Committee Report**

No. FS19-023

Subject: 2018 Year End Budget Report – as at December 31, 2018
Prepared by: Jason Gaertner, Acting Director, Financial Services - Treasurer
Department: Financial Services
Date: June 18, 2019

Recommendation

- 1. That Report No. FS19-023 be received for information.**

Executive Summary

This report presents the year-end financial performance of the Town's tax levy and utility rate funded operations. In addition, information is provided on the disposition of the Town's tax funded operating surplus, as well as the management of its rate funded operating deficit in accordance with the 2018 Surplus Control By-law 6137-18.

- The Town's Tax levy funded operations budget ended the year with a surplus of \$896,300
- Utility operations closed the fiscal year with an operating deficit of \$321,300

All year-end surpluses or deficits were addressed in accordance with the Town's 2018 surplus control by-law.

Background

In an effort to keep Council informed as to the financial status of the Town's operating budgets, it was presented with interim forecast updates on a quarterly basis over the course of 2018. Now that the Town's external audit is substantially complete, this allows Finance staff to finalize this report of the 2019 fiscal results for the Town of Aurora.

It should be noted that the audited financial statements are presented in a format consistent with the Public Sector Accounting Standards (PSAS), whereas this report is presented in a format consistent with the "traditional balanced municipal budget" approach.

Analysis

On December 18, 2018, the Surplus Control By-law 6137-18 was passed. This by-law authorizes the CAO and Treasurer to allocate portions of a year-end surplus to specific reserve accounts, or to offset a year-end operating deficit through a draw from specific reserve accounts as part of the year-end accounting processes. This is done in an effort to separate a previous year's budget variance from that of the upcoming year's budget. Any surplus allocations are to be made according to a specific formula set out in the by-law and are to be reported back to Council.

The Town's Tax levy funded operations budget ended the year with a surplus of \$896,300

Actual total expenditures for 2018 were \$67,840,200 which was 5.8 percent or \$3,715,100 above the established budget of \$64,125,100. Total 2018 revenues (including the \$44,175,100 tax levy) were \$68,736,500, which was 7.2 percent or \$4,611,400 higher than the \$64,125,100 budgeted for total revenue. These two variances result in the net \$896,300 surplus.

The 2018 approved operating budget provided for \$64,125,100 of expenses, offset by various revenue sources. Before the offsetting overall surplus contribution to reserves of \$896,300 has been applied, the following significant variances contributed to the year end results:

	Budget Variance Favourable / (Unfavourable)
Engineering fees revenues	690,500
Penalties on unpaid property taxes	338,400
Membership fees revenues	128,000
One-time streetlight conversion to LED rebates/credits	100,200
Ice and other rentals	85,900
Various other development driven fees	67,400
Tax levy short-fall	(278,200)
Development driven application fees	(119,200)
Sub-total – unplanned revenues	1,013,000

Salary & benefits	510,800
Electricity – Town Facilities / Parks	190,200
Electricity – Streetlights	49,700
Road maintenance contracts	83,800
Debenture Payment funded from operations	(315,500)
Snow management operating materials / contract	(244,500)
Tax assessment appeal decisions	(187,500)
Other facility operating material & supplies	(181,100)
Fleet vehicle repairs & fuel costs	(113,700)
All other net operating savings	91,100
2018 Operating Surplus	\$ 896,300

Overall, the Town's municipal operations closed the fiscal year in a surplus position of \$896,300. This surplus was attributable to favorable variances arising from development as well as other uncontrollable revenue sources. The most significant expenditure contributor to the reported operating surplus was unplanned staff turnover.

In general, salary and benefits requirements came in under their established budgets by a total of \$660,800. Of this amount, \$150,000 in savings relating to vacant position gapping was projected within the approved budget, taking the form of a credit that was applied to the budget. Upon application of this credit, the net salary savings recognized by the Town was \$510,800. Another key driver of these salary savings was the Town's strategy of budgeting for the impacts of Bill 148 for a full twelve month period rather than for just the partial period for which the Bill's impacts became effective in 2018. The intent of this strategy was to minimize the associated annualization pressure requirements in the new year.

The Town completed its conversion of its streetlights to LED in 2017 and continues to convert its parks and facility lighting to LED. The resultant energy savings are now being recognized by the Town; energy savings contributed to the \$239,900 in electricity savings that were recognized in 2018. All streetlight energy savings are utilized to fund the associated debenture payments.

Rising contract and operating material unit costs and demand for those contracted services and materials contributed to the 2018 operating budget short-falls experienced by snow and fleet management services.

June 25, 2019

Page 4 of 10

Report No. FS19-023

Many of the variance items noted in the table above are generally not directly controllable by the Town and are difficult to budget for. As a consequence, these items have an ability to become significant contributors to the budget variances experienced at year end.

CAO and Council

The Council and CAO budgets ended 2018 with a \$73,100 (4.0 percent) favourable variance on a net operating budget of \$1,846,300. This variance was the result of some savings experienced from conferences, contracts and consulting.

Corporate Services

Corporate Services ended the fiscal year with a \$283,000 (3.8 percent) favorable variance on a net operating budget of \$7,393,900. This variance is mostly attributable to temporary position vacancies, as well as contract and operating material savings.

Financial Services

Financial Services ended the year with a \$263,500 (14.2 percent) unfavourable variance on a net operating budget of \$1,856,400 due to employee departures and a miscoded contribution to reserves. The short-fall relating to the contribution to reserves is offset by an equivalent value revenue surplus under the Town's corporate revenues.

Fire Services

Central York Fire Services (CYFS) experienced a surplus of \$736,800 from a total approved operating budget of \$25,069,800, mostly attributable to gapping for retirements, leave of absences, new hires, and other vacancies. Aurora's share of this budget and resultant surplus was \$10,490,400 and \$299,500 respectively. This noted CYFS surplus was offset by a contribution to the shared CYFS Reserve, leaving the Town's portion as budgeted. The reported year end minor deficit of \$12,200 is the result of timing differences in the Town's draft fire budget creation and the final budget being approved by the Joint Council Committee (JCC).

Operational Services

Operational Services, excluding water, wastewater & storm water services, ended 2018 with a \$134,200 (1.4 percent) unfavourable variance on a net operating budget of \$9,875,500. This deficit had multiple service line contributors which included snow management, as well as fleet management. These deficits were partially offset by surpluses in road network and parks operations resulting from contract, operating materials and salary savings.

June 25, 2019

Page 5 of 10

Report No. FS19-023

Operational Services' salaries and wages are split between tax levy and rate (water, wastewater & storm water services) funded programs. In any given year, the extent of operational service staff support of tax levy or rate funded programs is difficult to predict; consequently, some variability in this regard is not unusual. Overall the department's salaries and benefits for tax supported programs finished the year over their established budgets by \$98,900. Within this variance, a salary short-fall of \$229,800 was recognized relating to a lower than budgeted amount of staff's time being spent on rate funded programs, partially offset by park operations salary savings.

The key contributors to the deficits recognized in fleet and snow management services relate to greater than anticipated operating material / supply costs. The higher snow management costs are primarily attributable to a greater than planned number of snow events. Increased 3rd party fleet repair costs were the key contributor to the funding short-falls experienced in fleet management services.

Community Services

Community Services closed the year with a favourable variance of \$723,500 (8.4 percent) on a net operating budget of \$8,624,600. Some of the key contributors to this variance were larger than anticipated ice rental revenues relating to a new process that promotes last minute ice availability, stronger membership fee revenues from fitness, aquatics and seniors; as well as community program delivery contract and salary savings.

The Town's strategy of budgeting for the impacts of Bill 148 for a full twelve month period rather than for just the partial period for which the Bill's impacts became effective in 2018 was a material contributor to these noted salary savings. These related savings were more pronounced in Community Services as a much larger proportion of its staff were impacted by the labour legislation changes that resulted from Bill 148.

Another contributor to this favourable variance was facility electricity cost savings as the Town begins to recognize energy savings resulting from its continued conversion of all its facilities to LED lighting. This conversion continues into 2019.

Planning & Development Services

The Planning & Development Services department ended the year with a surplus of \$463,000. The key contributing factor to this favourable variance was healthier than expected development driven revenues such as engineering fees for lot grading, subdivisions and site plans. These surplus revenues were partially offset by lower

June 25, 2019

Page 6 of 10

Report No. FS19-023

than anticipated revenues relating to condominium development. It should be noted that the majority of these revenues arise at the 'front end' of a development; consequently, as the Town has almost reached its build out capacity, these revenues can be expected to begin to decline in future years.

Not included in this variance is a Building Services' deficit of \$985,800, as it is a self-funded function as per provincial legislation. Consequently, if it is unable to recognize sufficient revenues to offset its expenses in a given fiscal year, it will draw from its dedicated reserve in order to balance its operating budget. If it recognizes excess revenues, these revenues are utilized to replenish its reserve. This year's deficit results from lower than planned building permit revenues being recognized. As the majority of Building Services' revenues arise more towards the 'back end' of a development, these associated revenues are likely to continue to be strong into the short term as development initiated earlier through Planning & Development services runs its course towards completion.

Corporate Revenues & Expenses

Corporate Revenues and Expenses ended 2018 with a \$41,800 (1.0 percent) favourable variance on a net operating budget of \$4,071,300. The primary driver of this noted variance was unplanned one-time rebate revenues relating to the Town's conversion of its streetlights to LED, larger than anticipated tax penalty revenues, and provincial labour legislation salary savings, offset by the unplanned first payment toward the Town's JOC debenture and larger than anticipated tax account write-offs. On an ongoing basis, all future JOC debenture payments will not impact the tax levy, rather they will be funded through development charge revenues.

Aurora Public Library Contribution

The Aurora Public Library experienced a surplus of \$396,000 from a total approved net operating budget of \$3,843,100, mostly attributable to salary savings. This net operating budget is equivalent to the Town's 2018 contribution to the Aurora Library Board. This noted surplus was contributed to the Library Board's general capital reserve, leaving the Town's planned contribution as budgeted.

Total Tax Levy

The Town collected a total of \$44,175,100 in tax levy revenue, excluding supplementary tax revenues, which was \$278,200 less than what was budgeted. These lower than anticipated revenues relate to the Town's overestimate of its 2018 growth in its tax assessment base; the budget anticipated an assessment growth of 3.10% while the final assessed growth for 2018 was 2.81%. In an effort to achieve an approved

June 25, 2019

Page 7 of 10

Report No. FS19-023

operating budget for the upcoming year prior to the year commencing, the Town must estimate its tax assessment base growth for the upcoming year as the final figure is not yet available at the time of budget's creation. These additional funds were utilized to fund the delivery of growth related Town services in 2018. This shortfall was offset fully by other operating budget surpluses.

Operating Summary

Overall, the Town of Aurora general municipal operations ended the year with a surplus of \$896,300 with no noticeable adverse impacts to service levels. Under the guidelines as presented in the Surplus/Deficit Control By-law, as the rate stabilization reserve balance has reached its maximum ceiling of ten percent of the tax levy, the CAO and Treasurer have approved a contribution of this equivalent amount across the Town's repair & replacement reserves.

The final net tax levy funded operations results can be found in Attachment 1.

Utility operations closed the fiscal year with an operating deficit of \$321,300

Staff strive to better match revenues with expenses and to eliminate the historic reliance upon contributions from reserves in order to balance these programs and to ensure the sufficient replenishment of the underground infrastructure rehabilitation and replacement reserves. In addition, the annual contribution to underground infrastructure reserves continues to be responsibly increased each fiscal year. Staff have made progress in this regard, but more effort is required.

Water and wastewater services concluded the fiscal year with an unfavorable operating budget variance of \$185,000 as a result of surpluses arising from higher than projected retail revenues and contract savings, more than offset by higher wholesale water purchase and sewage discharge fees than planned, as well as the write off of some of the Town's uncollectable water receivables owing. The noted funding shortfalls in sewer discharge fees and wholesale water purchases demonstrate that further right sizing of these budgets is required. Consequently, staff continued to adjust these budgets within the now approved 2019 rate budget.

Storm water services ended the year with a deficit of \$136,300 driven predominately by higher than anticipated contract costs associated with an increase in the amount of required maintenance to the Town's storm water system and a revenue short-fall. Storm water costs are expected to continue to be under considerable pressure for the next three to five years as the Town strives to align its reserve balance with its

June 25, 2019

Page 8 of 10

Report No. FS19-023

associated infrastructure's renewal requirements.

The overall rate funded utility program experienced a deficit of \$321,300 which was brought to a balanced budget at year end through a draw from rate reserves.

The Water and Sewer Budget Summary can be found in Attachment 2.

Advisory Committee Review

Not applicable.

Legal Considerations

None

Financial Implications

There are no other immediate financial implications arising from this report. Council fulfills its role, in part, by receiving and reviewing this financial status report on the operations of the municipality relative to the approved budget.

The audited PSAB basis financial statements for 2018, as currently drafted, reflect an operating surplus of \$2,310,000. This amount reconciles to the internal report cumulative total general operating and water & wastewater program budget surplus of \$575,000 as follows:

Tax levy supported budget surplus	896,300
Rate supported budget deficit	<u>(321,300)</u>
Traditional Balanced Consolidated Budget Surplus	\$575,000
Add Back: Debt principal repaid included	773,400
Add: Transfers to/from reserves	12,486,000
Add: Capital assets assumed through development	4,306,000
Add: Gain on disposal of capital assets and land	6,036,700
Add: Investment income allocated directly to reserves	1,831,800
Add: Net capitalization of assets adjustment	1,505,600

June 25, 2019

Page 9 of 10

Report No. FS19-023

Add: Gain on disposal of capital assets and land	35,000
Deduct: Additional operating revenue	(215,200)
Deduct: Net Deferred Revenue Adjust – DC, CIL, FGT	(9,447,900)
Deduct: Amortization of capital assets	(14,948,000)
Net all other PSAB adjustments	<u>(628,400)</u>
PSAB 2018 “Annual Surplus”: Audited (Draft)	\$2,310,000

Communications Considerations

This report will be made available on the Town’s website in the Budget and Financial Information pages.

Link to Strategic Plan

The 2018 Final Budget Report provides an update on the surplus/deficit of the corporation and outlines the strategy for managing the identified surplus/deficit. Outlining and understanding the Town’s financial results contributes to achieving the Strategic Plan guiding principle of “Leadership in Corporate Management” and improves transparency and accountability to the community.

Alternative(s) to the Recommendation

Not applicable; this report is for information only.

Conclusions

The general operating results show a year-end surplus of \$896,300 arising primarily from larger than anticipated development driven revenues such as engineering fees for lot grading, subdivisions and site plans and salary & benefit savings. These surpluses have been partially offset by larger than planned operating material and contract costs and a new debenture cost. The net Water & Wastewater and Storm water Program Budget results reflect an overall deficit of \$321,300.

The above noted year end surpluses were then adjusted by transfers from/to reserves in accordance with the 2018 surplus control by-law as follows:

June 25, 2019

Page 10 of 10

Report No. FS19-023

Transfer TO Roads R&R reserve fund	\$ 572,700
Transfer TO Facilities R&R reserve fund	207,100
Transfer TO Parks R&R reserve fund	49,300
Transfer TO Equipment R&R reserve fund	35,900
Transfer TO IT R&R reserve fund	22,400
Transfer TO Discretionary R&R reserve fund	8,900
Transfer FROM Water reserve fund	(237,800)
Transfer TO Waste Water reserve fund	52,800
Transfer FROM Storm reserve fund	<u>(136,300)</u>
	\$ 575,000

Attachments

Attachment #1 – Operating Budget Summary Report

Attachment #2 – Water Budget Summary Report

Previous Reports

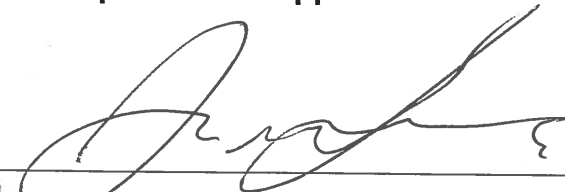
None

Pre-submission Review

Agenda Management Team review on May 29, 2019

Departmental Approval

Approved for Agenda


FOR Rachel Wainwright-van Kessel, CPA, CMA
Director of Finance


Doug Nadorozny
Chief Administrative Officer

**Town of Aurora
Final NET Tax Levy Funded Operations Results
as at December 31, 2018**

Shown in \$,000's	NET ADJUSTED BUDGET	FINAL ACTUAL	Variance Favourable / (Unfavourable)	
<u>COUNCIL</u>				
Council Administration	\$ 610.5	\$ 588.0	\$ 22.5	3.7 %
Council Programs/Grants	4.0	4.0	-	-
Advisory Committees	18.0	15.2	2.8	15.6 %
Council Office Total	\$ 632.5	\$ 607.2	\$ 25.3	4.0 %
<u>CHIEF ADMINISTRATIVE OFFICE</u>				
CAO Administration	\$ 521.0	\$ 483.5	\$ 37.5	7.2 %
Communications	692.8	682.5	10.3	1.5 %
Chief Administrative Office Total	\$ 1,213.8	\$ 1,166.0	\$ 47.8	3.9 %
Council and C.A.O. Combined	\$ 1,846.3	\$ 1,773.2	\$ 73.1	4.0 %
<u>CORPORATE SERVICES</u>				
Corporate Services Administration	\$ 438.1	\$ 415.3	22.8	5.2 %
Legal Services	860.7	922.1	(61.4)	(7.1 %)
Legislative & Administrative Services	1,280.7	1,127.2	153.5	12.0 %
Human Resources	741.4	730.9	10.5	1.4 %
Elections	109.0	117.0	(8.0)	(7.3 %)
Information Technology	2,008.3	1,909.9	98.4	4.9 %
Telecommunications	263.4	265.9	(2.5)	(0.9 %)
By-law Services	696.2	678.8	17.4	2.5 %
Animal Control	101.1	93.3	7.8	7.7 %
Customer Service	871.7	835.5	36.2	4.2 %
Emergency Preparedness	23.3	15.0	8.3	35.6 %
Corporate Services Total	\$ 7,393.9	\$ 7,110.9	\$ 283.0	3.8 %
<u>FINANCIAL SERVICES</u>				
Policy & Planning Administration	\$ 341.3	\$ 538.7	\$ (197.4)	(57.8 %)
Accounting & Revenue	541.2	622.5	(81.3)	(15.0 %)
Financial Planning	502.5	499.0	3.5	0.7 %
Procurement Services	471.4	459.7	11.7	2.5 %
Financial Services Total	\$ 1,856.4	\$ 2,119.9	\$ (263.5)	(14.2 %)

**Town of Aurora
Final NET Tax Levy Funded Operations Results
as at December 31, 2018**

Shown in \$,000's	NET ADJUSTED BUDGET	FINAL ACTUAL	Variance Favourable / (Unfavourable)	
<u>FIRE SERVICES</u>				
Central York Fire	10,484.2	10,496.4	(12.2)	(0.1 %)
Total Fire Services	10,484.2	10,496.4	(12.2)	(0.1 %)
<u>Operational Services</u>				
Operational Services Administration	\$ 533.5	\$ 480.0	\$ 53.5	10.0 %
Fleet & Equipment	625.7	867.1	(241.4)	(38.6 %)
Snow Management	1,500.8	1,767.2	(266.4)	(17.8 %)
Road Network Operations	2,558.5	2,362.7	195.8	7.7 %
Parks/Open Spaces	2,464.0	2,360.4	103.6	4.2 %
Waste Collection & Recycling	2,193.0	2,172.3	20.7	0.9 %
Operational Services Total	\$ 9,875.5	\$ 10,009.7	\$ (134.2)	(1.4 %)
<u>Community Services</u>				
Community Services Administration	\$ 1,043.9	\$ 1,070.8	\$ (26.9)	(2.6 %)
Business Support	(440.8)	(556.9)	116.1	26.3 %
Recreational Programming/Community Dev.	1,719.6	1,325.8	393.8	22.9 %
Facilities	6,301.9	6,061.4	240.5	3.8 %
Community Services Total	\$ 8,624.6	\$ 7,901.1	\$ 723.5	8.4 %
<u>PLANNING & DEVELOPMENT SERVICES</u>				
Development Planning	\$ (261.4)	\$ (713.6)	\$ 452.2	173.0 %
Long Range & Strategic Planning	606.5	660.3	(53.8)	(8.9 %)
Engineering Service Operations	(44.0)	(108.6)	64.6	146.8 %
Net Building Department Operations	\$ (531.3)	\$ 454.5	(985.8)	(185.5 %)
Contribution from Building Reserve	531.3	(454.5)	985.8	185.5 %
Total Building Services	-	-	-	-
Planning & Development Services Total	\$ 301.1	\$ (161.9)	\$ 463.0	153.8 %

Attachment 1

**Town of Aurora
Final NET Tax Levy Funded Operations Results
as at December 31, 2018**

Shown in \$,000's	NET ADJUSTED BUDGET	FINAL ACTUAL	Variance Favourable / (Unfavourable)	
<u>CORPORATE REVENUE & EXPENSE</u>				
Supplementary Taxes & Payments-in-Lieu	\$ (1,044.4)	\$ (2,605.1)	\$ 1,560.7	149.4 %
Contribution of Excess SUPPs to reserves	400.0	1,963.2	(1,563.2)	(390.8 %)
Penalties on Unpaid Property Taxes	(850.0)	(1,188.4)	338.4	39.8 %
Overhead Cost Re-allocation to Building Services	(1,694.2)	(1,629.7)	(64.5)	(3.8 %)
All Other Revenue	(5,248.2)	(7,056.9)	1,808.7	34.5 %
Cash to Capital	5,053.4	5,053.4	-	-
All Other Expense	7,454.7	9,493.0	(2,038.3)	(27.3 %)
	\$ 4,071.3	\$ 4,029.5	\$ 41.8	1.0 %
<u>TOTAL TAX LEVY FUNDED OPERATIONS</u>	\$ 44,453.3	\$ 43,278.8	\$ 1,174.5	2.6 %
<u>TOTAL TAX LEVY</u>	\$ (44,453.3)	\$ (44,175.1)	\$ (278.2)	(0.6 %)
OPERATING (SURPLUS) DEFICIT	-	\$ (896.3)	\$ 896.3	1.5 %
		Surplus	Surplus	

**Town of Aurora
Final Utility Net Operating Report
as at December 31, 2018**

Shown in \$,000's	ADJUSTED BUDGET	FINAL ACTUAL	Variance Favourable / (Unfavourable)	
<u>Water Services</u>				
Retail Revenues	(9,764.0)	(9,821.8)	\$ 57.8	0.6 %
Penalties	(175.0)	(182.6)	7.6	4.3 %
Other	(310.0)	(173.6)	(136.4)	(44.0 %)
Total Revenues	(10,249.0)	(10,178.0)	\$ (71.0)	(0.7 %)
Wholesale water purchase	5,865.5	6,572.8	(707.3)	(12.1 %)
Operations and maintenance	1,439.3	1,031.3	408.0	28.3 %
Administration and billing	472.5	340.0	132.5	28.0 %
Corporate overhead allocation	771.7	771.7	0.0	0.0 %
Infrastructure sustainability reserve contributions	1,700.0	1,700.0	-	-
Total Expenditures	10,249.00	10,415.8	\$ (166.8)	(1.6 %)
Net Operating Water Services	-	237.8	\$ (237.8)	n/a
<u>Waste Water Services</u>				
Retail Revenues	(12,121.2)	(12,568.2)	\$ 447.0	3.7 %
Penalties	-	-	-	n/a
Other	(89.0)	(89.1)	0.1	0.1 %
Total Revenues	(12,210.2)	(12,657.3)	\$ 447.1	3.7 %
Sewer discharge fees	9,039.0	10,246.5	\$ (1,207.5)	(13.4 %)
Operations and maintenance	1,104.1	290.9	\$ 813.2	73.7 %
Administration and billing	261.4	261.4	\$ -	-
Corporate overhead allocation	555.7	555.7	-	-
Infrastructure sustainability reserve contributions	1,250.0	1,250.0	-	-
Total Expenditures	12,210.2	12,604.5	\$ (394.3)	(3.2 %)
Net Operating Waste Water Services	-	(52.8)	\$ 52.8	n/a
Total Water and Waste Water Services	-	185.0	\$ (185.0)	n/a

Storm Water Services

Retail Revenues	(1,752.4)	(1,621.7)	\$ (130.7)	(7.5 %)
Penalties	-	-	-	n/a
Other	-	-	-	n/a
Total Revenues	(1,752.4)	(1,621.7)	\$ (130.7)	(7.5 %)
Operations and maintenance	415.7	421.3	(5.6)	(1.3 %)
Administration and billing	105.4	105.4	-	-
Corporate overhead allocation	81.3	81.3	-	-
Infrastructure sustainability reserve contributions	1,150.0	1,150.0	-	-
Total Expenditures	1,752.4	1,758.0	\$ (5.6)	(0.3 %)
Net Operating Storm Water Services	-	136.3	\$ (136.3)	n/a
OPERATING (SURPLUS) DEFICIT	-	\$ 321.3	\$ (321.3)	(1.3 %)
		Deficit	Deficit	



**Town of Aurora
General Committee Report No. PDS19-051**

Subject: Energy Conservation and Demand Management (ECDM) Plan Update 2019 - 2023

Prepared by: Anca Mihail, Manager of Engineering and Capital Delivery

Department: Planning and Development Services

Date: June 18, 2019

Recommendation

- 1. That Report No. PDS19-051 be received for information;**
- 2. That Council endorse the Corporate Energy Conservation and Demand Management (ECDM) Plan Update for 2019 to 2023 (Attachment #1).**

Executive Summary

The purpose of this report is to present and obtain Council's endorsement for the Corporate Energy Conservation and Demand Management (ECDM) Plan Update for 2019 - 2023. The key points of the ECDM plan are:

- The Town's Facilities overall goal is to reduce electricity consumption by 10.5% (990,963kWh), natural gas consumption by 9.7% (119,584 cu.m.) and GHG emissions by 8.3% (268 mtCO₂e) of the 2018 baseline by the end of 2023.
- Town's Water and Wastewater Facilities' contribution to the overall energy consumption and GHG emissions is negligible compared to other Town facilities.
- The Town's fleet vehicles overall goal is to improve the average fuel efficiency to 23L/100km and to reduce GHG emissions by 50% (245 mtCO₂e) of the 2018 baseline by the end of 2023.
- The Town's overall goal (facilities and fleet combined) is to reduce the energy consumption by 10.5% (990,963kWh), natural gas consumption by 9.7% (119,584 cu.m.) and GHG emissions by 15.9% (514 mtCO₂e) of the 2018 baseline by the end of 2023 with an expected investment in ECDM measures of \$628,842.

- Strategies needed to achieve the 2019 ECDM Plan's goals

Background

Ontario Regulation 507/18 of the *Electricity Act, 1998* requires public agencies, including municipalities, to update their Energy Conservation and Demand Management (ECDM) Plan every five years. The latest ECDM Plan must be made publicly available on or before July 1, 2019. In March 2019, the Town hired WalterFedy, a consulting company specialized in energy conservation projects aimed at reducing the energy consumption and carbon footprint, to update the Town's ECDM Plan as required. The Plan focuses on Town's buildings and services and excludes broader community's energy conservation measures and GHG emissions, which will be captured in the future Community Energy Plan.

This ECDM Plan provides a road map for energy management in the Town of Aurora for the next five years (2019 – 2023). The main objectives of this plan are:

- Presenting historical energy consumption and GHG emissions, as well as energy conservation measures (ECMs) that have been implemented since the 2014 ECDM plan.
- Assessing whether the goals of the 2014 ECDM plan have been met.
- Setting goals for the 2019 ECDM plan to be met by 2024.
- Presenting the ECMs planned for the future in order for the Town to meet the goals established within this plan.

All these objectives form a complete road map, which will determine priorities, technologies, projects and opportunities for the Town in order to meet corporate energy and GHG goals.

The 2014 ECDM Plan identified a number of actions to be implemented by 2019. These are summarized in Attachment 2 – Town of Aurora 2014 ECDM Plan Actions Summary.

Although staff has implemented a number of ECDM actions from 2014 to 2018, there are still some opportunities remaining due to lack of funding and resources. These opportunities will be included in the current plan when moving forward.

Analysis

Town's Facilities overall goal is to reduce the electricity consumption by 10.5% (990,963kWh), natural gas consumption by 9.7% (119,584cu.m.) and GHG emissions by 8.3% (268 mtCO₂e = metric tonnes of carbon dioxide) of the 2018 baseline by the end of 2023.

Since 2014, a number of energy conservation measures (ECMs) have been implemented in an effort to achieve the goals set out in the plan. Some of the completed ECMs had their estimated capital costs and energy savings documented in energy audits, while others were simply implemented. The Town has made use of numerous government incentives available to implement these projects. In 2017, the Town received a total of \$473,294 in government grants and qualified for \$39,577 in hydro incentives as follows:

- Canada 150 Grant for improvements at SARC (\$126,152) and ACC (\$116,142).
- Canada 150 Intake II Grant for improvements at ACC (\$132,000) and Aurora Public Library (\$99,000).
- Hydro incentive for LED lighting retrofits at SARC (\$13,880), ACC (\$14,280) and Aurora Public Library (\$11,417).

In addition to the ECMs already implemented, there are a number of measures, which are already in progress or included in the Town's 10-year Capital Program to be implemented by 2021.

Energy audits were completed for all Town's facilities in 2017. These energy audits evaluated various ECMs and estimated their energy savings and implementation costs. However, not all ECMs evaluated are financially feasible, which means having a simple payback of less than 10 years. The 2019 ECDM Plan highlights all financially feasible ECMs that will provide good value to the Town and recommends their implementation between 2019 and 2023.

In addition, the 2019 ECDM Plan includes a benchmarking analysis to show the facilities' electricity use intensity (EUI) and greenhouse gas intensity (GHGI) from 2014 to 2018, and compares them to similar facilities in the largest municipalities in Southern Ontario. This benchmarking analysis can help determine which facilities are performing poorly compared to similar facilities in other Ontario municipalities. The Town will use this analysis when determining which facilities to prioritize for the ECMs implementation.

The completion of the overall goal for facilities is expected to require an estimated investment of approximately \$628,842, which is included in the Town's capital plan for facilities from 2019 to 2023. The Town's facilities goal summary is presented in Attachment #3 and the estimated investment for the proposed ECMs is in Table 1, below. The ECMs included in the 2019 Budget are shown in Table 2

Table 1: Estimated investment for the proposed ECMs in-progress and planned 2019-2023.

Facility	Cost
Aurora Cultural Centre	\$28,300
Aurora Community Centre (ACC)	\$13,335
Aurora Family Leisure Complex (AFLC)	\$238,400
Aurora Public Library (APL)	\$34,207
Aurora Seniors Centre (ASC)	\$13,200
Stronach Aurora Recreation Complex (SARC)	\$155,900
Aurora Town Hall	\$143,800
Victoria Hall	\$1,700
Total Estimated Investment	\$628,842

Table 2: ECMs included in 2019 Budget

Facility	Energy Conservation Measure (ECM)	Year	Cost
Aurora Cultural Centre	Interior LED retrofit	2019	\$20,000
Aurora Family Leisure Complex (AFLC)	LED retrofit - arena, pool, interior	2019	\$134,000
Aurora Seniors Centre (ASC)	Interior and exterior LED retrofit	2019	\$13,000
Aurora Town Hall	LED interior lighting retrofit	2019	\$87,200
Total Investment			\$254,200

Town's Water and Wastewater Facilities' Contribution to the overall energy consumption and GHG emissions is negligible compared to other Town Facilities.

The total annual electricity consumption (in KW/h) for Town's water and wastewater facilities from 2014 to 2018 is presented in the report. The energy consumption at these facilities is very small compared to other Town's facilities (e.g. administrative offices, public facilities and indoor recreation facilities) and they do not consume natural gas.

As the Town's water/wastewater facilities contribute an insignificant amount to the Town's overall energy consumption and GHG emissions, it is not recommended to have energy audits completed or have ECMs implemented at these facilities at this time. Going forward, the goal for these facilities is to monitor the overall electricity consumption over the next five years as new facilities are brought on line.

Town's Fleet Vehicles overall goal is to improve average fuel efficiency to 23 L/Km and reduce GHG emissions by 50% (245 mtCO₂e) of the 2018 baseline by the end of 2023.

The current average fuel efficiency, based on the annual distance traveled from December 2017 to December 2018, is 46 L/100km.

The goal for the Town's fleet vehicles is to improve average fuel efficiency from 46 L/100km to 23L/100km and reduce GHG emissions by 50% (245 mtCO₂e).

GHG emissions are directly related to the amount of fuel consumed. As a result, reducing the fuel consumed by improving the average fuel efficiency will reduce GHG emissions proportionally. Vehicles in Canada have an average highway-city combined fuel efficiency of approximately 10L/100km. Town's fleet vehicles are city driven the majority of the time but should still be able to achieve an average fuel efficiency of 23L/100km through driver/operator training and by implementing anti-idling initiatives. Attachment #4 summarizes the current fleet vehicles' efficiency and the goal to be achieved by the end of 2023.

The Town's overall goal (facilities and fleet combined) is to reduce the energy consumption by 10.5% (990,963KWh), natural gas consumption by 9.7% (119,584 cu.m.) and GHG emissions by 15.9% (514 mtCO₂e) of the 2018 baseline by the end of 2023 with an expected investment in ECDM measures of \$628,842.

The energy consumption and GHG emissions reduction goals to be achieved by the Town at the end of 2023 compared to the 2018 baseline are presented in Attachments #5 and #6.

Funding for the ECMs proposed to be implemented from 2020 to 2023 will be presented to Council part of the future capital and operating budgets. As mentioned above, some ECMs are being implemented in 2019, please see Table no.2.

Strategies needed to achieve the ECDM Plan's goals

In order to achieve the goals of the 2019 ECDM the following strategies are proposed over the next five years:

Energy Conservation Measures (ECM) Implementation

- Formalize criteria and metrics for prioritizing energy efficiency projects based on life-cycle costs, available incentives, impact on occupant comfort, regulatory requirements, ease of implementation and energy savings impact.

Organization energy policies

- Develop guidelines and policies for energy management to be followed by all Town of Aurora facilities.

New buildings/equipment

- Develop minimum energy efficiency requirements for equipment replacement and new equipment.
- Develop formal guidelines for considering energy at all stages of new building design.
- Develop procurement policies, which favors life cycle costs over lowest first costs.
- Ensure all new buildings and equipment are properly commissioned.

Energy management

- Investigate potential to adopt an energy management system to monitor and analyze energy consumption across Town of Aurora facilities.
- Formalize methodology to monitor and track progress of ECMs.
- Create annual report documentation progress of energy efficiency initiatives.

Training

- Provide general training on energy efficiency for operation and maintenance (O&M) staff.
- Provide targeted training for O&M staff as needed.
- Energy and Climate Change Analyst (and other staff as required) to keep up to date on industry trends and best practices.

Internal communication/staff engagement

- Improve communication of energy initiatives to staff and public.
- Develop staff engagement strategy to encourage a corporate culture of sustainability.
- Host online suggestion box/survey for staff to provide commentary on potential energy efficiency opportunities.

Advisory Committee Review

Not Applicable.

Legal Considerations

Not Applicable.

Financial Implications

The Town's overall goal in reducing energy, natural gas consumption and GHG emissions will require an investment of approximately \$628,842 by the end of 2023. Some of the energy conservation measures are already scheduled to be implemented in 2019 as were part of the 2019 budget request. Funding for the energy conservation measures proposed to be implemented from 2020 to 2023 will be presented to Council part of the capital and operating budgets for each respective year.

Communications Considerations

Not Applicable.

Link to Strategic Plan

This report supports the Strategic Plan goal of ***Supporting an Exceptional Quality of Life for All*** through its accomplishment in satisfying requirements in the following key objective within this goal statement:

Invest in sustainable infrastructure: Maintain and expand infrastructure to support forecasted population growth through technology, waste management, roads, emergency services and accessibility.

Alternative(s) to the Recommendation

None.

Conclusions

Ontario Regulation 507/18 of the *Electricity Act, 1998* requires public agencies, including municipalities, to update their Energy Conservation and Demand Management (ECDM) Plan every five years. The latest ECDM Plan must be made publicly available on or before July 1, 2019.

This report seeks Council's endorsement for the 2019 Corporate Energy and Demand Energy Plan that presents a road map, which will determine priorities, technologies, projects and opportunities for the Town in order to meet corporate energy and GHG goals.

Attachments

Attachment #1 – Town of Aurora, Energy Conservation and Demand Management Plan Update 2019-2023

Attachment #2 – Town of Aurora 2014 ECDM Plan Action Summary

Attachment #3 – Facilities Goal Summary

June 18, 2019

Page 9 of 9

Report No. PDS19-051

Attachment #4 – Current and Proposed Fleet Vehicles' Efficiency

Attachment #5 – Town of Aurora 2018 Baseline and 2023 Goals Summary

Attachment #6 – Comparison of baseline and projected consumption values of 2018 and 2023

Previous Reports

- Report PDS19-022, dated April 2, 2019.

Pre-submission Review

Agenda Management Team review on May 29, 2019

Departmental Approval



**David Waters, MCIP, RPP, PLE
Director
Planning and Development Services**

Approved for Agenda



**Doug Nadorozny
Chief Administrative Officer**

Attachment #1

**ENERGY CONSERVATION AND DEMAND
MANAGEMENT PLAN UPDATE 2019-2023**

TOWN OF AURORA

June 3, 2019



Prepared by **WALTERFEDY**

Town of Aurora
Energy Conservation and Demand Management Plan Update 2019-2023

Table of Contents

	Page
EXECUTIVE SUMMARY	1
1 INTRODUCTION	2
2 FACILITIES	2
2.1 Baseline	2
2.1.1 Energy Consumption	2
2.1.2 GHG Emissions	4
2.2 Energy Conservation Measures	4
2.2.1 Completed ECMs.	4
2.2.2 In-Progress ECMs	5
2.2.3 Planned ECMs	6
2.3 Goals	7
3 WATER/WASTE WATER FACILITIES	8
3.1 Baseline	8
3.1.1 Energy Consumption	8
3.1.2 GHG Emissions	8
3.2 Energy Conservation Measures	9
3.2.1 Completed ECMs.	9
3.2.2 In-Progress ECMs	9
3.2.3 Planned ECMs	9
3.3 Goals	9
4 FLEET	10
4.1 Baseline	10
4.2 Proposed GHG Reduction Measures	10
4.3 Goals	11
5 RENEWABLE GENERATION	11
6 GOALS SUMMARY	12
6.1 Previous	12
6.2 Current	13
6.3 Action Plan	16
6.4 Additional Strategies	16
6.4.1 Previous	16
6.4.2 Current	16
APPENDICES	
Benchmarking Analysis	
Best-in-class Review	
Framework	
Communication Strategy	



EXECUTIVE SUMMARY

The Ontario Provincial Government has committed to help public agencies better understand and manage their energy consumption. As part of this commitment, Ontario Regulation 507/18 under the Electricity Act requires public agencies, including municipalities, municipal service boards, school boards, universities, colleges and hospitals to report on their energy consumption and greenhouse gas (GHG) emissions annually, to develop and implement an Energy Conservation and Demand Management (ECDM) Plan, and to update their ECDM Plan every five years.

The Town of Aurora is committed to developing and executing on strategies to reduce environmental impact, utility costs, and ensure regulatory compliance in accordance with Ontario Regulation 507/18.

Table 1 summarizes the energy consumption and GHG emissions for the Town of Aurora facilities and fleet for 2018. This is the baseline which the current goal will be based on.

Table 1: Town of Aurora 2018 energy consumption and GHG emissions summary

		Administrative Offices	Public Facilities	Indoor Recreation Facilities	Water/Waste Water Facilities	Fleet	Total
Electricity Consumption	[kWh]	1,299,380	1,220,316	6,761,361	118,358	-	9,399,415
Natural Gas Consumption	[m ³]	193,359	119,928	921,252	-	-	1,234,539
GHG Emissions	[mtCO ₂ e]	421	279	2,030	5.1	491	3,226

Table 2 summarizes the energy consumption and GHG reduction goals that the Town of Aurora plans to meet by 2024.

Table 2: Town of Aurora 2023 goals summary

		Administrative Offices	Public Facilities	Indoor Recreation Facilities	Water/Waste Water Facilities	Fleet	Total
Electricity Consumption Reduction	[kWh]	173,937	313,257	503,769	-	-	990,963
Electricity Consumption Reduction	[%]	1.9	3.3	5.4	-	-	10.5
Natural Gas Consumption Reduction	[m ³]	2,589	26,894	90,101	-	-	119,584
Natural Gas Consumption Reduction	[%]	0.21	2.2	7.3	-	-	9.7
GHG Emissions Reduction	[mtCO ₂ e]	12	64	192	-	245	514
GHG Emissions Reduction	[%]	0.38	2	5.9	-	7.6	15.9
Implementation Cost	[\$]	143,800	77,407	407,635	-	-	628,842

*Reductions based on 2018 energy consumption and GHG emissions.

* Water/Waste water facilities contributed the least to energy consumption and GHG emissions of all Town of Aurora facilities (Table 1). As such, goals for energy consumption and GHG emissions reductions were focused on other facilities.

The overall goal is to reduce electricity consumption by **10.5%** (990,963 kWh), natural gas consumption by **9.7%** (119,584 m³), and GHG emissions by **15.9%** (514 mtCO₂e) of the 2018 baseline by the end of 2023. This is expected to require an investment of approximately **\$628,842**.

1 INTRODUCTION

This Energy Conservation & Demand Management (ECDM) plan was created in accordance with the requirements described in Ontario Regulation 507/18 under the Electricity Act. It provides a roadmap for energy management in the Town of Aurora for the next five years (2019 - 2023). The main objectives of this plan are:

- Examining historical energy consumption and GHG emissions, as well as energy conservation measures (ECMs) that have been implemented since the 2014 ECDM plan.
- Examining whether the goals of the 2014 ECDM plan have been met, and sets goals for the 2019 CDM plan to be met by 2024.
- Examining what ECMs are already planned for the future, as well as additional ECMs which should be completed from 2019 - 2023 in order for the Town of Aurora to meet the goals established within this plan.

All three objectives are vital and will come together to form a complete roadmap which will determine the priorities, technologies, projects, and opportunities required to achieve the Town of Aurora's corporate energy and GHG goals.

2 FACILITIES

2.1 Baseline

A list of the facilities included in this section are summarized in Table 3.

Table 3: Town of Aurora facilities list

Building	Category	Address	Year	Area [sqft]
Aurora Town Hall	Administrative offices	100 John West Way	1991	49,280
Joint Operations Centre (JOC)	Administrative offices	229 Industrial Parkway N	2016	63,152
Aurora Community Centre (ACC)	Indoor recreation facility	1 Community Centre Lane	1966, 1996	81,100
Aurora Family Leisure Complex (AFLC)	Indoor recreation facility	135 Industrial Parkway North	1985	61,000
Stronach Aurora Recreation Complex (SARC)	Indoor recreation facility	1400 Wellington Street East	2007	104,000
Armoury	Public facility	89 Mosley Street	1874	8,400
Aurora Cultural Centre	Public facility	22 Church Street	1885	17,500
Aurora Public Library	Public facility	15145 Yonge Street	2000	44,375
Aurora Seniors Centre	Public facility	90 John West Way	2005	13,934
McMahon Clubhouse	Public facility	76 Maple Street	1930, 1970	1,400
Victoria Hall	Public facility	27 Mosley Street	1883	900

2.1.1 Energy Consumption

Figure 1 summarizes the Town of Aurora's annual electricity and natural gas consumption from 2014 - 2018. Data from 2014 - 2018 was provided by the Town of Aurora.

It can be seen that the annual electricity consumption has an increasing trend from 2014 - 2016, but decreases slightly from 2016 onwards (mainly due to reduced electricity consumption in indoor recreation facilities). The annual natural gas consumption had a significant decrease from 2014 - 2015 but increases every year afterwards.

An increase in annual electricity consumption for administrative offices in 2016 can be seen due to the new Joint Operations Centre being newly operational. However, the building was not heated significantly until 2017 (as shown by the increase in annual natural gas consumption). There were no facilities added or removed otherwise.



Figure 1: Annual electricity and natural gas consumption



2.1.2 GHG Emissions

GHG emissions is typically measured in metric tonnes of carbon dioxide (mtCO₂e). To illustrate, a typical passenger vehicle emits approximately 4.6 mtCO₂e per year. GHG emissions can be broken down into three categories - Scope 1, Scope 2, and Scope 3.

Scope 1 emissions are defined as direct emissions from sources owned or controlled by the organization. An example of this would be the emissions from the burning of natural gas or propane in on-site equipment. This is typically the second largest contributor to a facility's GHG emissions.

Scope 2 emissions are defined as indirect emissions from sources owned or controlled by the organization. An example of this would be the downstream emissions from electricity purchased from the grid for use in on-site equipment. This is typically the smallest contributor to a facility's GHG emissions.

Scope 3 emissions are defined as emissions from sources not owned or directly controlled by the organization. An example of this would be emissions from vehicles used in employee travel and commuting. Scope 3 emissions were not included in this inventory as it is difficult to quantify, and data is not readily available. However, this would typically be the largest contributor to a facility's GHG emissions.

Figure 2 summarizes the Town of Aurora's GHG emissions from 2014 - 2018. It is separated into Scope 1 and 2 emissions. It can be seen that Scope 1 and 2 emissions can be directly tied to a facility's electricity and natural gas consumption.

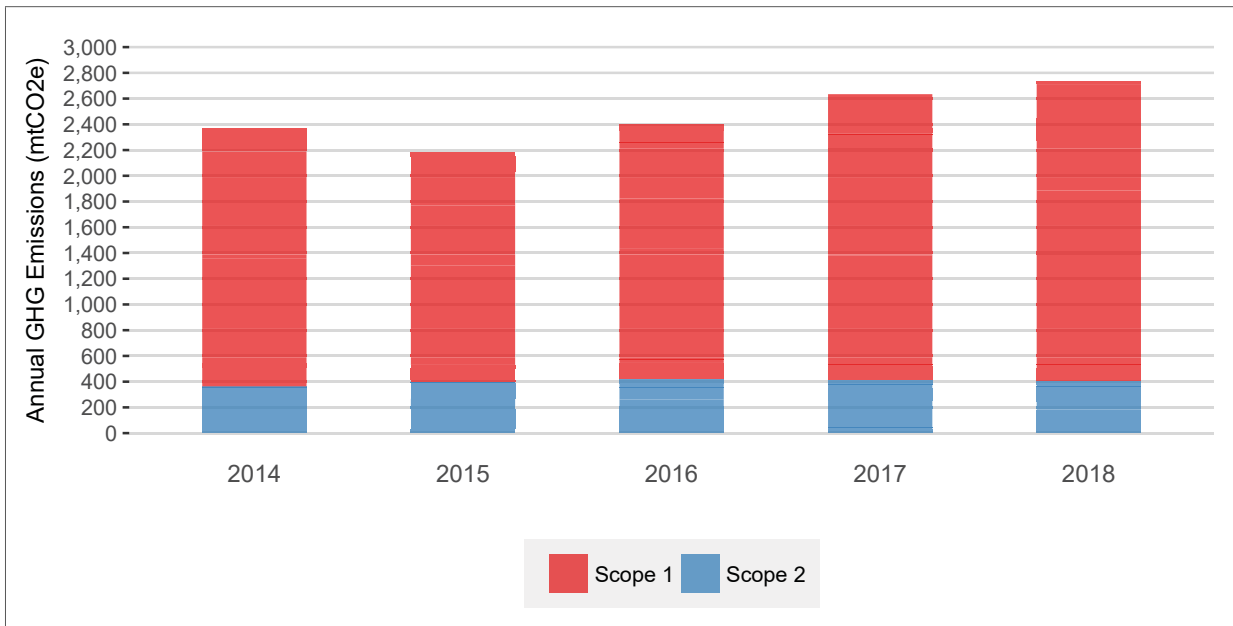


Figure 2: Annual GHG emissions

2.2 Energy Conservation Measures

2.2.1 Completed ECMs

A number of energy conservation measures (ECMs) have been implemented since the 2014 CDM plan was completed in an effort to achieve the goals set out in the plan. A list of the ECMs implemented to date is summarized in Table 4.

Town of Aurora
Energy Conservation and Demand Management Plan Update 2019-2023

5

Some of the completed ECMs had their estimated capital costs and energy savings documented in energy audits, while others were simply implemented. All energy and cost estimates available were obtained from the completed energy audits.

The Town of Aurora has made use of numerous government incentives available to implement these projects. In 2017 alone, the Town of Aurora received a total of \$473,294 in government grants and qualified for \$39,577 in hydro incentives.

Table 4: Completed ECMs summary table

Building	ECM	Year Completed	Electricity Savings [kWh]	Natural Gas Savings [m ³]	Capital Cost [\$]
Aurora Family Leisure Complex (AFLC)	LED parking lot lights	2014			
Aurora Town Hall	LED parking lot lights	2014			
Stronach Aurora Recreation Complex (SARC)	LED parking lot lights	2014			
Aurora Community Centre (ACC)	Interior LED Retrofit	2017	172,576	-15,949	78,152
Aurora Community Centre (ACC)	Arena LED Retrofit	2017	6,599	0	50,823
Aurora Community Centre (ACC)	Upgrade ice plant motor controls, replace shell and tube chillers	2017			
Aurora Community Centre (ACC)	Installation of new condensers and hot water boilers	2017			
Stronach Aurora Recreation Complex (SARC)	Interior LED Retrofit	2017	139,995	0	22,000
Stronach Aurora Recreation Complex (SARC)	Arena LED Retrofit	2017	293,599	0	143,000
Stronach Aurora Recreation Complex (SARC)	Pool MH to LED	2017	240,416	0	90,000
Stronach Aurora Recreation Complex (SARC)	LED retrofit: exterior	2017			
Stronach Aurora Recreation Complex (SARC)	Replace screw compressor	2017			
Stronach Aurora Recreation Complex (SARC)	Replacement of pool liner	2017			
Aurora Public Library	Interior Lighting Retrofit	2018	182,784	-2,352	103,000
Stronach Aurora Recreation Complex (SARC)	Low-flow Lavatories and Showerheads	2018	0	91,459	2,600

Note: Costs and energy savings provided by Stantec energy audits.

2.2.2 In-Progress ECMs

In addition to the ECMs already implemented, there are a number of ECMs which are already in-progress to be implemented. A list of the in-progress ECMs is summarized in Table 5. All energy and cost estimates available were obtained from the completed energy audits.

Table 5: In-Progress ECMs summary table

Building	ECM	Year Completed	Electricity Savings [kWh]	Natural Gas Savings [m ³]	Capital Cost [\$]
Aurora Cultural Centre	Interior LED Retrofit	2019	10,035	229	20,000
Aurora Family Leisure Complex (AFLC)	Interior LED Retrofit	2019	57,624	-3,606	67,000
Aurora Family Leisure Complex (AFLC)	Pool LED Retrofit	2019	28,048	-2,211	27,000
Aurora Family Leisure Complex (AFLC)	Arena LED retrofit	2019	45,000	0	40,000
Aurora Seniors Centre	Interior CFL and T8 to LED Retrofit	2019	43,041	-2,628	9,000
Aurora Seniors Centre	Exterior LED Retrofit	2019	5,790	0	4,000
Aurora Town Hall	T8 Light to LED	2019	88,917	-2,719	85,000
Aurora Town Hall	CFL pot light to LED	2019	11,729	-2,719	2,200
Stronach Aurora Recreation Complex (SARC)	Replace screw compressor	2019			
Aurora Community Centre (ACC)	Replace fan coil units	2020			
Aurora Family Leisure Complex (AFLC)	Replace humidicon equipment	2020			
Aurora Family Leisure Complex (AFLC)	Arena low-e ceiling	2020	125,000	0	59,000
Aurora Family Leisure Complex (AFLC)	Exterior LED retrofit	2020	21,440	0	27,000
Stronach Aurora Recreation Complex (SARC)	Replace plumbing fixtures in arena change rooms	2020	0	45,730	23,800
Stronach Aurora Recreation Complex (SARC)	Low-E ceilings	2020	123,000	0	117,000
Aurora Community Centre (ACC)	Replace compressors	2021			
Aurora Community Centre (ACC)	Replace two heating boilers	2021			
Aurora Family Leisure Complex (AFLC)	Upgrade of climate control	2021			
Aurora Public Library	Replace rooftop HVAC	2021			
Aurora Public Library	LED exterior lighting retrofit	2021	194,520	0	23,000
Aurora Town Hall	Replace forced air and gas furnaces	2021			
Aurora Town Hall	LED exterior lighting retrofit	2021	17,957	0	39,000

Note: Costs and energy savings provided by Stantec energy audits.

2.2.3 Planned ECMs

There are a number of energy conservation opportunities across the facilities in the Town of Aurora. This section describes the ECMs which are planned to be implemented from 2019 - 2023.

A number of energy audits were completed for many of the Town of Aurora's facilities in 2017. These energy audits evaluated various ECMs and estimated their energy savings and implementation costs. A list of all ECMs evaluated in these energy audits is summarized in Table 6. ECMs with no simple payback period cost more in energy than what they are able to save and are therefore not good conservation projects.

Table 6: Facilities planned ECMs summary table

Building	ECM	Electricity Savings [kWh]	Natural Gas Savings [m³]	Capital Cost [\$]	Simple Payback [Years]
Aurora Community Centre (ACC)	Low-flow lavatory and shower	0	19,487	800	0.0
Aurora Community Centre (ACC)	Optimum start/stop	-10,166	10,585	5,835	2.7
Aurora Community Centre (ACC)	Occupancy sensors	10,945	-309	6,700	4.4
Aurora Community Centre (ACC)	Exterior LED retrofit	6,599	0	50,823	51.3
Aurora Community Centre (ACC)	Demand control ventilation	-934	2,778	6,800	
Aurora Cultural Centre	Occupancy sensors	14,536	20,685	4,800	0.4
Aurora Cultural Centre	Programmable thermostat	26,771	2,969	3,500	0.6
Aurora Cultural Centre	Exterior LED retrofit	2,369	0	5,000	11.3
Aurora Cultural Centre	Demand control ventilation	1,478	2,244	2,600	15.6
Aurora Family Leisure Complex (AFLC)	Low-flow lavatory and shower	0	9,867	2,200	0.1
Aurora Family Leisure Complex (AFLC)	Optimum start/stop	9,655	1,645	6,400	3.1
Aurora Family Leisure Complex (AFLC)	Demand control ventilation	6,862	8,383	9,800	3.2
Aurora Public Library	Occupancy sensors	12,447	-281	5,100	2.8
Aurora Public Library	Optimum start/stop	3,588	3,894	6,107	3.1
Aurora Public Library	Boiler replacement	10	6,757	127,464	53.3
Aurora Public Library	Demand control ventilation	-7,038	2,541	7,400	
Aurora Seniors Centre	Low-flow lavatories	0	1,710	200	0.1
Aurora Seniors Centre	Demand control ventilation	2,924	2,188	5,500	13.5
Aurora Seniors Centre	Occupancy sensors	12,570	-1,081	6,600	16.2
Aurora Seniors Centre	VVT systems	-514	800	10,900	42.7
Aurora Town Hall	Low-flow lavatory and shower	16,850	0	500	0.1
Aurora Town Hall	Demand control ventilation	29,108	5,820	5,100	0.9
Aurora Town Hall	Optimum start/stop	9,376	2,207	12,000	5.4
Aurora Town Hall	Low-flow toilet fixtures	0	0	19,000	8.9
Aurora Town Hall	Occupancy sensors	1,068	519	15,000	44.4
Stronach Aurora Recreation Complex (SARC)	Daylighting	78,472	-381	11,000	1.0
Stronach Aurora Recreation Complex (SARC)	Optimum start/stop	7,889	911	4,100	2.9
Victoria Hall	Low-flow lavatory fixtures	916	0	100	0.5
Victoria Hall	Programmable thermostat	76	420	300	1.2
Victoria Hall	Occupancy sensors	224	0	200	4.4
Victoria Hall	Interior LED retrofit	1,313	-104	1,100	4.6

Note: Costs and energy savings provided by Stantec energy audits.

However, not all ECMs evaluated are financially feasible (simple payback < 10 years). Table 7 summarizes ECMs evaluated in the energy audits which had a simple payback of less than 10 years. This ensures that the planned ECMs are financially feasible and provide good value to the Town of Aurora. These ECMs are planned to be implemented from 2019 - 2023.

Table 7: Facilities planned ECMs summary table

Building	ECM	Electricity Savings [kWh]	Natural Gas Savings [m ³]	Capital Cost [\$]	Simple Payback [Years]
Aurora Community Centre (ACC)	Low-flow lavatory and shower	0	19,487	800	0.0
Aurora Community Centre (ACC)	Optimum start/stop	-10,166	10,585	5,835	2.7
Aurora Community Centre (ACC)	Occupancy sensors	10,945	-309	6,700	4.4
Aurora Cultural Centre	Occupancy sensors	14,536	20,685	4,800	0.4
Aurora Cultural Centre	Programmable thermostat	26,771	2,969	3,500	0.6
Aurora Family Leisure Complex (AFLC)	Low-flow lavatory and shower	0	9,867	2,200	0.1
Aurora Family Leisure Complex (AFLC)	Optimum start/stop	9,655	1,645	6,400	3.1
Aurora Family Leisure Complex (AFLC)	Demand control ventilation	6,862	8,383	9,800	3.2
Aurora Public Library	Occupancy sensors	12,447	-281	5,100	2.8
Aurora Public Library	Optimum start/stop	3,588	3,894	6,107	3.1
Aurora Seniors Centre	Low-flow lavatories	0	1,710	200	0.1
Aurora Town Hall	Low-flow lavatory and shower	16,850	0	500	0.1
Aurora Town Hall	Demand control ventilation	29,108	5,820	5,100	0.9
Aurora Town Hall	Optimum start/stop	9,376	2,207	12,000	5.4
Stronach Aurora Recreation Complex (SARC)	Daylighting	78,472	-381	11,000	1.0
Stronach Aurora Recreation Complex (SARC)	Optimum start/stop	7,889	911	4,100	2.9
Victoria Hall	Low-flow lavatory fixtures	916	0	100	0.5
Victoria Hall	Programmable thermostat	76	420	300	1.2
Victoria Hall	Occupancy sensors	224	0	200	4.4
Victoria Hall	Interior LED retrofit	1,313	-104	1,100	4.6

Note: Costs and energy savings provided by Stantec energy audits.

A benchmarking analysis has been completed to show the facilities' electricity use intensity (EUI) and greenhouse gas intensity (GHGI) for 2014 - 2018, and compares them to similar facilities in the largest municipalities in Southern Ontario. This benchmarking analysis can help determine which facilities are performing poorly compared to similar facilities in other Ontario municipalities. This can be found in the Appendices.

The Town of Aurora will keep this analysis in consideration when determining which facilities to prioritize for ECM implementation.

2.3 Goals

Table 8 summarizes the energy and GHG emissions reductions that can be expected to be achieved if all ECMs shown in Table 5 and 7 are implemented.

Table 8: Town of Aurora facilities goal summary

		Administrative Offices	Public Facilities	Indoor Recreation Facilities	Total
Electricity Consumption Reduction	[kWh]	173,937	313,257	503,769	990,963
Electricity Consumption Reduction	[%]	1.9	3.3	5.4	10.5
Natural Gas Consumption Reduction	[m ³]	2,589	26,894	90,101	119,584
Natural Gas Consumption Reduction	[%]	0.21	2.2	7.3	9.7
GHG Emissions Reduction	[mtCO ₂ e]	12	64	192	268
GHG Emissions Reduction	[%]	0.38	2	5.9	8.3
Implementation Cost	[\$]	143,800	77,407	407,635	628,842

*Reductions based on 2018 baseline energy consumption and GHG emissions.

The overall goal for the Town of Aurora's facilities is to reduce electricity consumption by **10.5%** (990,963 kWh), natural gas consumption by **9.7%** (119,584 m³), and GHG emissions by **8.3%** (268 mtCO₂e) of the 2018 baseline by the end of 2023. This is expected to require an investment of approximately **\$628,842**.

3 WATER/WASTE WATER FACILITIES

3.1 Baseline

A list of the facilities included in this section are summarized in Table 9.

Table 9: Water/Waste water facilities list

Building	Address	Year	Area [sqft]
Vandorf Water Booster Station	85 Vandorf Sideroad	1998	1,000
Vandorf Lift Station	385 Vandorf Sideroad	1997	215
Ballymore Lift Station	560 St Johns Sideroad East	1996	102
Temperance Street Lift Station	15140 Yonge Street	2001	10
Brentwood Lift Station	3 Woodland Hills Boulevard	2003	215
State Farm Lift Station	24 State Farm Way	2006	460
Elderberry Trail Lift Station	12 Equestrian Drive	2006	460

3.1.1 Energy Consumption

Figure 3 summarizes the water/waste water facilities' annual electricity consumption from 2014 - 2018.

Electricity consumption for water/waste water facilities is dependent on the volume of water processed. Therefore the annual electricity consumption is typically expressed in kilowatts per volume processed. However, this information was not available for Town of Aurora's facilities so the total annual consumption is shown instead.

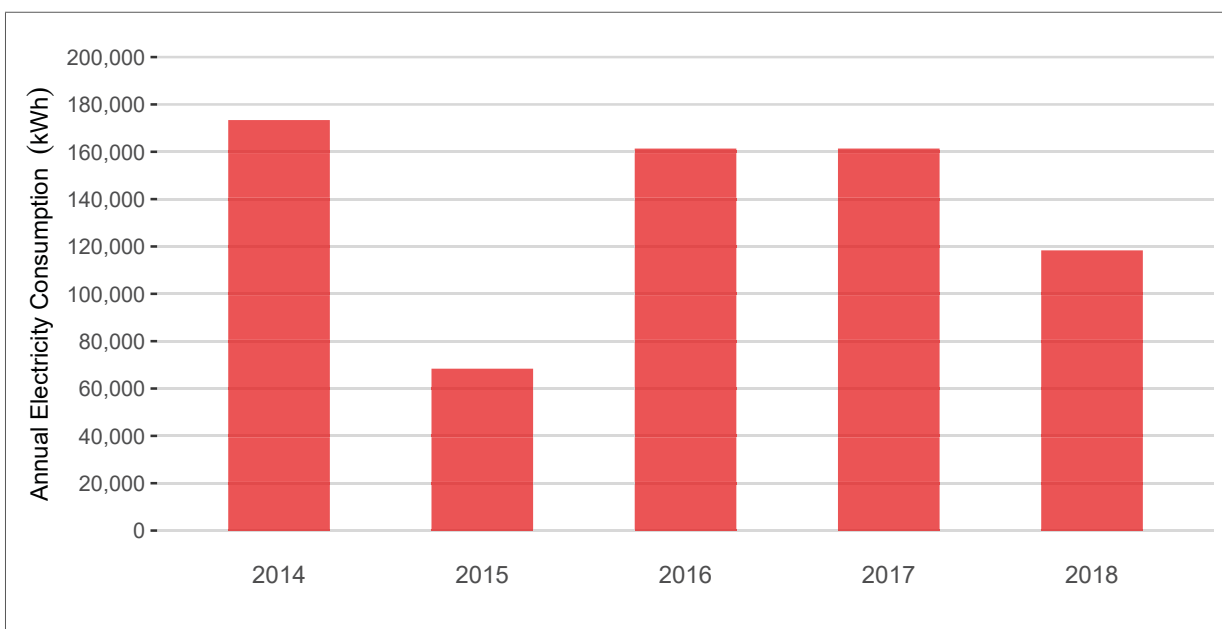


Figure 3: Annual electricity consumption for water/wastewater treatment facilities

3.1.2 GHG Emissions

Figure 4 summarizes the water/waste water facilities' GHG emissions from 2014 - 2018. It is separated by into Scope 1 and 2 emissions. Scope 1 and 2 emissions are directly tied to a facility's electricity and natural gas

consumption. However, these facilities do not consume natural gas and so annual GHG emissions consist only of Scope 2 emissions.

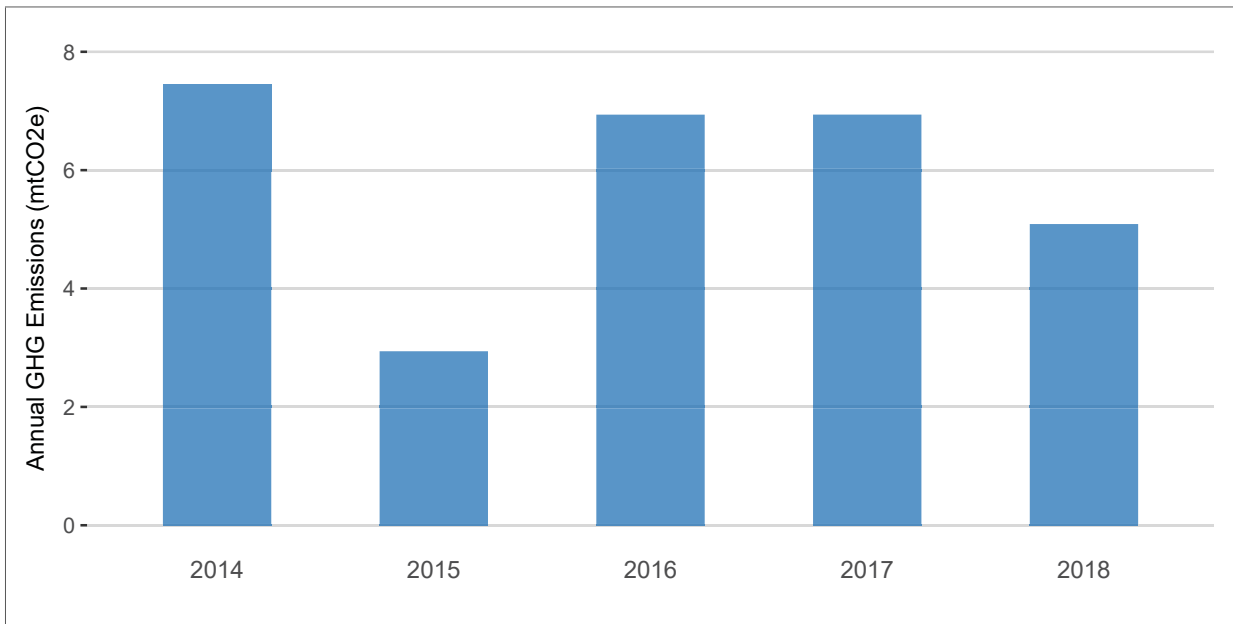


Figure 4: Annual GHG emissions for water/waste water facilities

3.2 Energy Conservation Measures

3.2.1 Completed ECMs

No ECMs have been completed for this category of facilities.

3.2.2 In-Progress ECMs

No ECMs are planned for this category of facilities.

3.2.3 Planned ECMs

As the water/waste water facilities contribute an insignificant amount to Town of Aurora's overall energy consumption and GHG emissions, it is not recommended to have energy audits completed or ECMs implemented at these facilities at this time.

3.3 Goals

It is difficult to define concrete electricity reduction goals for water/waste water facilities as there are no in-progress or planned ECMs for these facilities. As a result, the Town of Aurora will simply continue to monitor overall electricity consumption over the next five years as new facilities are brought online.

4 FLEET

4.1 Baseline

Figure 5 shows the distance traveled by each of Town of Aurora's fleet vehicles from December 2017 - December 2018.

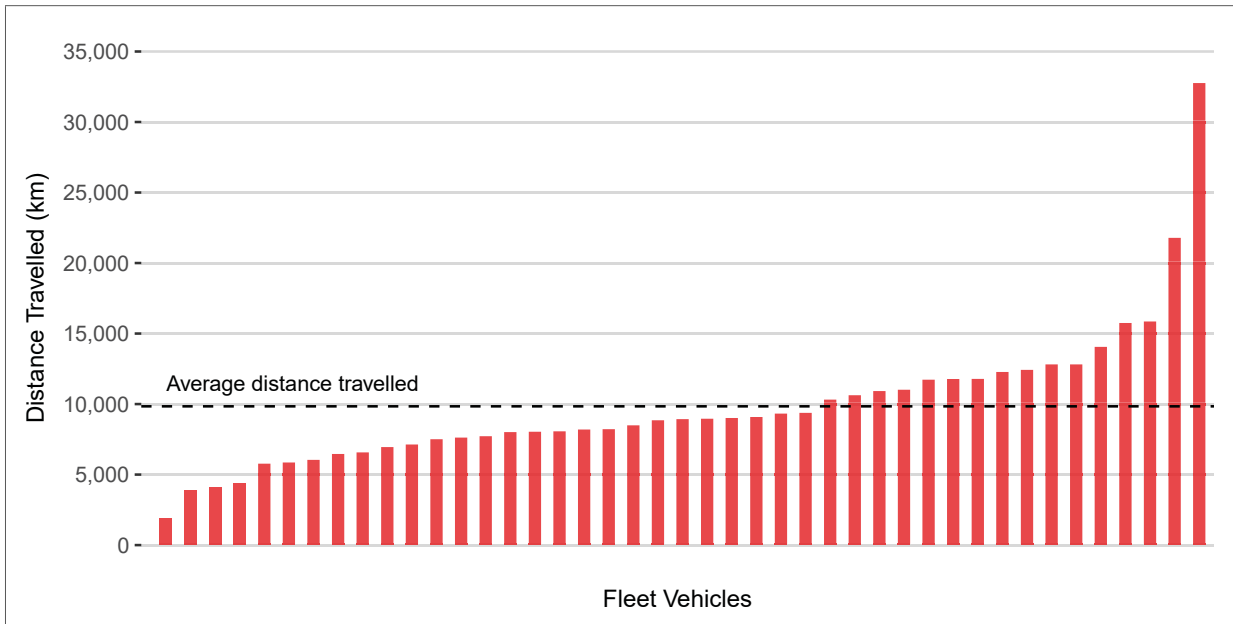


Figure 5: Distance travelled by fleet vehicles from December 2017 - December 2018

Table 10 summarizes the total distance traveled, fuel consumed, and GHG emissions. GHG emissions from fleet vehicles are categorized under Scope 1.

Table 10: Fleet vehicles annual summary

Annual Distance Traveled	[km]	423,135
Annual Gasoline Consumed	[L]	91,544
Annual Diesel Consumed	[L]	104,238
Average Fuel Efficiency	[L/100km]	46
Annual GHG Emissions*	[mtCO ₂ e]	491

*Based on 2.3 kg/L of gasoline and 2.7 kg/L of diesel consumed.

4.2 Proposed GHG Reduction Measures

The following actions were identified as per the June 2018 Corporate Environmental Action Plan (CEAP).

- **Develop a green fleet plan**

- Addresses new green fleet procurement and replacement of older fleet vehicles. The plan should consider alternative fuels, high efficiency vehicles, and hybrid/electric options.
- The Town of Aurora is aware that there would be extra maintenance costs, specialty equipment, and training and certifications for mechanics associated with hybrid/electric options. The Town of Aurora will keep these items in consideration when evaluating the benefits of hybrid/electric options.

- Develop an electric vehicle charging station usage fee policy and maintenance plan.
- **Implement an anti-idling initiative**
 - Will include working with schools to educate parents and public. This will also include the implementation of an anti-idling campaign for town staff and contractors.

The poor average fuel efficiency is likely a result of less efficient vehicles in the fleet and the idling of vehicles. It is recommended that these actions from the CEAP be implemented to reduce annual GHG emissions from fleet vehicles. An additional measure to consider is driver/operator training to provide education on the most efficient way to operate fleet vehicles.

4.3 Goals

GHG emissions are directly related to the amount of fuel consumed. As a result, reducing the fuel consumed by improving average fuel efficiency will reduce GHG emissions proportionally. Vehicles in Canada have an average highway-city combined fuel efficiency of approximately 10 L/100km. Fleet vehicles would likely be driving in the city the majority of the time, but should still be able to achieve an average fuel efficiency of 23 L/100km. Table 11 summarizes the goals for fleet vehicles if they were to improve their average fuel efficiency.

Table 11: Fleet vehicles goal summary

Average Fuel Efficiency	[L/100km]	23
Annual Fuel Savings	[L]	97,891
Annual GHG Emissions Reduction	[mtCO ₂ e]	245
Annual GHG Emissions Reduction	[%]	50

*Reductions based on 2018 baseline fuel consumption and GHG emissions.

The goal for fleet vehicles is to improve average fuel efficiency to **23 L/100km** and reduce GHG emissions by **50%** (245 mtCO₂e).

5 RENEWABLE GENERATION

Solar PV has been installed at a total of four facilities as a means of renewable generation. None of the electricity generated by these installations is used on site as they feed back into the grid through the IESO's Feed-in Tariff (FIT) program. Figure 6 summarizes the annual electricity generation from all sites from 2014 - 2018.

Table 12 summarizes the total electricity generated by the four facilities from 2014 - 2018.

Table 12: Solar PV generation summary

		Aurora Public Library	Aurora Town Hall	Joint Operations Centre	Stronach Aurora Recreation Complex	Total
Electricity Generated	[kWh]	28,474	47,950	76,093	1,352,648	1,505,165

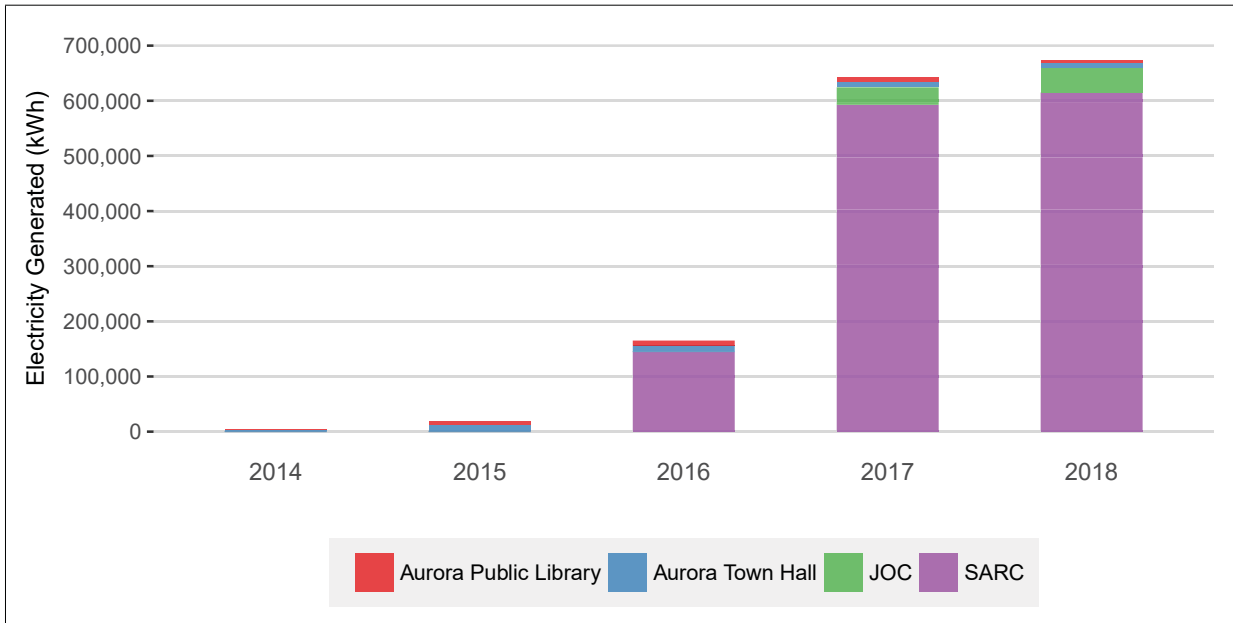


Figure 6: Annual solar PV electricity generation

6 GOALS SUMMARY

This section will summarize the Town of Aurora’s previous goals from the 2014 ECDM plan, current goals for the 2019 ECDM plan, an action plan on how to achieve the current goals, and some additional energy management strategies to consider.

6.1 Previous

The 2014 Corporate Energy Management Plan (CEMP) identified a number of actions to be achieved and implemented by 2019. These are summarized in Table 13.

Although the Town of Aurora has taken initiative in implementing a number of the above actions from 2014 - 2018, there are still many opportunities remaining. These opportunities should be kept in mind even when moving forward with the current plan.

Table 13: Town of Aurora 2014 ECDM plan actions summary

Action	Status
1. Implement all feasible energy efficiency improvements for existing town-owned facilities as outlined in Building Portfolio Energy Analyses and Assessments.	On-going
2. Conduct an audit of the five highest energy consuming town-owned buildings.	Addressed
3. Examine opportunities to expand the corporate O&M preventative maintenance program at town facilities.	On-going
4. Conduct a life-cycle audit of town-owned infrastructure and equipment, and assess opportunities for energy efficiency upgrades.	Addressed
5. Implement a minimum green building standard of LEED Silver for all new town facilities.	On-going
6. Consider opportunities to upgrade town-owned fleet vehicles to reduce costs and energy consumption.	Not financially feasible
7. Regularly communicate energy initiatives as part of the CEAP brand.	On-going
8. Conduct energy efficiency training for staff as required.	Not addressed
9. Include general training on energy and energy efficiency as part of the town's onboarding process.	Not addressed
10. Explore strategic partnerships with Energy Services Company (ESCO) to identify and fund energy efficiency projects.	Not addressed
11. Adopt energy efficiency standards to guide the procurement of town-owned equipment.	Not addressed
12. Continue to implement town-wide energy management system (EMS).	Not addressed
13. Conduct an assessment of the metering needs of each town-owned facility.	Not financially feasible
14. Document the savings achieved from energy efficiency projects and rolling out successful projects.	On-going
15. Develop corporate GHG emissions targets and corporate energy efficiency targets.	On-going
16. Develop consistent guidelines and policies for energy management.	On-going

6.2 Current

Table 14 summarizes the energy consumption and GHG emissions for Town of Aurora facilities and fleet for 2018. This is the baseline which the current goal will be based on.

Table 14: Town of Aurora 2018 baseline energy consumption and GHG emissions summary

		Administrative Offices	Public Facilities	Indoor Recreation Facilities	Water/Waste Water Facilities	Fleet	Total
Electricity Consumption	[kWh]	1,299,380	1,220,316	6,761,361	118,358	-	9,399,415
Natural Gas Consumption	[m ³]	193,359	119,928	921,252	-	-	1,234,539
GHG Emissions	[mtCO ₂ e]	421	279	2,030	5.1	491	3,226

The energy consumption and GHG emissions reduction goals Town of Aurora will achieve by 2023 are summarized in Table 15. Figure 7 summarizes the results of achieving the goals set in this plan. It compares the estimated 2023 energy consumption to the 2018 energy consumption.

The overall goal is to reduce electricity consumption by **10.5%** (990,963 kWh), natural gas consumption by **9.7%** (119,584 m³), and GHG emissions by **15.9%** (514 mtCO₂e) of the 2018 baseline by the end of 2023. This is expected to require an investment of approximately **\$628,842**.

Town of Aurora
Energy Conservation and Demand Management Plan Update 2019-2023

14

Table 15: Town of Aurora 2023 goals summary

		Administrative Offices	Public Facilities	Indoor Recreation Facilities	Water/Waste Water Facilities	Fleet	Total
Electricity Consumption Reduction	[kWh]	173,937	313,257	503,769	-	-	990,963
Electricity Consumption Reduction	[%]	1.9	3.3	5.4	-	-	10.5
Natural Gas Consumption Reduction	[m ³]	2,589	26,894	90,101	-	-	119,584
Natural Gas Consumption Reduction	[%]	0.21	2.2	7.3	-	-	9.7
GHG Emissions Reduction	[mtCO ₂ e]	12	64	192	-	245	514
GHG Emissions Reduction	[%]	0.38	2	5.9	-	7.6	15.9
Implementation Cost	[\$]	143,800	77,407	407,635	-	-	628,842

*Reductions based on 2018 baseline energy and GHG emissions.

* Water/Waste water facilities contributed the least to energy consumption and GHG emissions of all Town of Aurora facilities (Table 1). As such, goals for energy consumption and GHG emissions reductions were focused on other facilities.

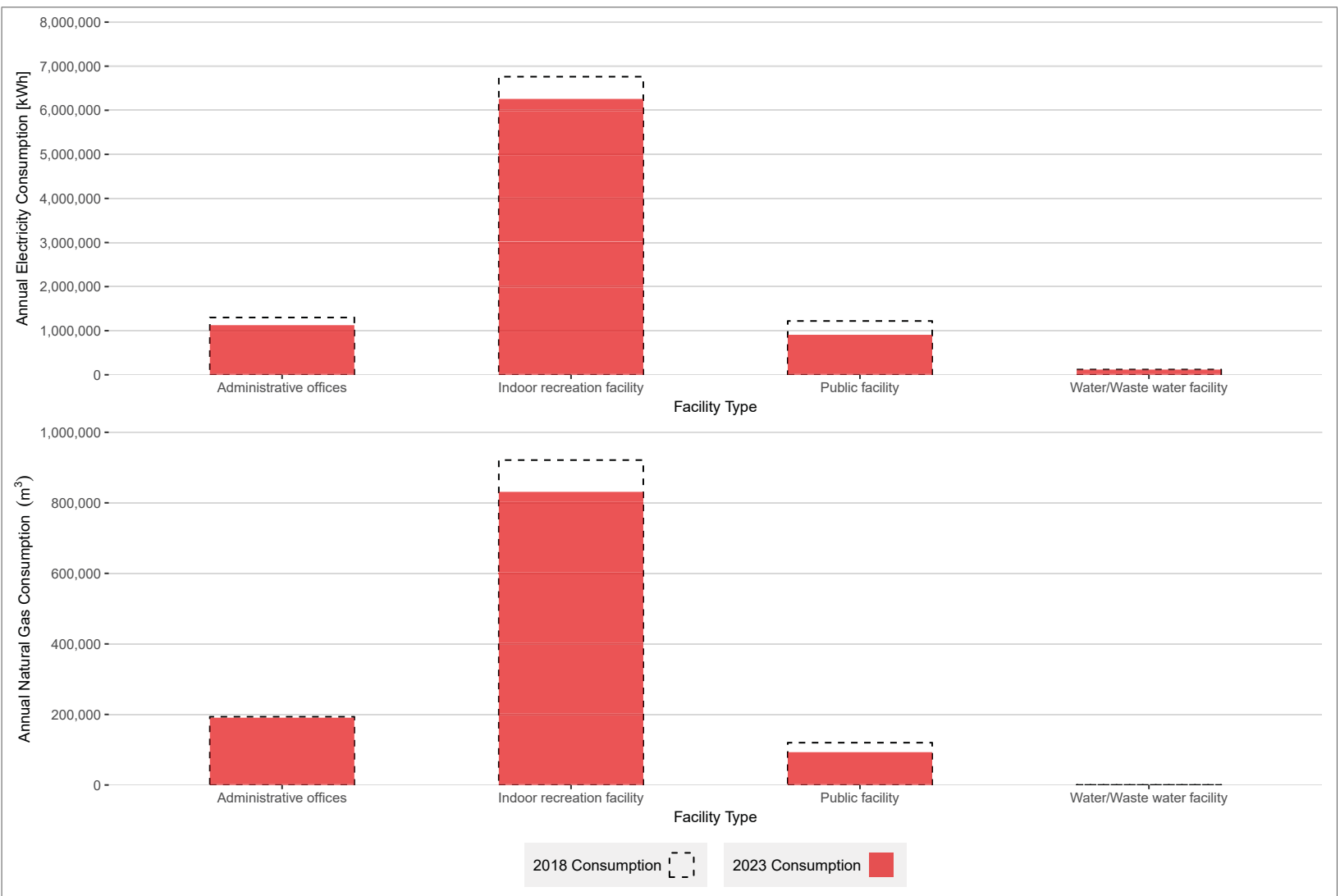


Figure 7: Comparison of baseline and projected consumption values of 2018 and 2023



6.3 Action Plan

Below are the actions that need to be taken in order to achieve the goals set in Section 6.2

- **Facilities**

1. Ensure all in-progress ECMs will be implemented by 2023.
2. Ensure all planned ECMs will be implemented by 2023. Prioritize poorest performing facilities (as identified by the benchmarking analysis), and ECMs with largest potential electricity and natural gas savings.
3. Obtain government and utility (IESO, Enbridge) incentives when implementing ECMs, and document estimated electricity and natural gas savings.
4. Have updated energy audits completed by 2023 to investigate potential measures for 2024 ECDM plan update.

- **Water/waste water facilities**

1. Continue to monitor and track electricity consumption as new facilities are brought online.

- **Fleet**

1. Develop green fleet plan, provide driver/operator training, and implement anti-idling initiative to improve fuel efficiency and reduce GHG emissions.
2. Measure distance traveled, fuel consumed, and average fuel efficiency of fleet vehicles at regular intervals to track progress.

6.4 Additional Strategies

6.4.1 Previous

A motion was put forth in a Town of Aurora council meeting on June 12, 2018 which recommended Town of Aurora employees to investigate/implement energy conscious behavioral changes. These changes are summarized as follows:

- A plan to diminish the use of lights in buildings and facilities during the night hours;
- Raise the temperature setting in Town of Aurora buildings by one degree in the summer months, and lower the temperature by one degree in the winter months;
- Decrease kitchen and bathroom hot water temperature settings;
- Mitigate the summer sun effect from the Town Hall Atrium and main floor south-facing windows; and
- Install automatic room timers on a five-minute empty room shut-off.

6.4.2 Current

The following strategies should also be considered from a strategic energy management perspective:

- Implement life cycle cost purchasing practices
 - Money spent achieving energy efficiency is often overlooked in the decision making process.
 - Make use of life cycle cost analysis on all new construction, major renovations and equipment over \$50,000 rather than simply evaluating first costs.
 - Consider energy efficiency upgrades during renovations or equipment replacements rather than purchasing "like for like".
- Establish purchasing specifications of energy efficiency equipment and services

- Establish efficiency specifications for standard equipment routinely replaced (e.g. lights, motors, HVAC equipment).
- Develop engineering tender documents that favour energy efficient equipment rather than lowest capital cost.
- Establish efficiency standards for design and construction, building operations, and maintenance services.
- Monitor, track, and reward progress
 - Record metrics (electricity consumption savings, natural gas consumption savings, capital costs, etc.) for all major ECM projects implemented.
 - Establish a reward/recognition program for successes to encourage participation.
- Improve communication and engagement
 - Leverage communication channels (e.g. Town of Aurora website, internal bulletins) to advertise successes of retrofit projects for staff and the public.
 - Implement specific training to O&M staff as needed (e.g. new technology, best practices).
 - Implement general training to all staff on energy efficiency best practices.

Appendix A: Benchmarking Analysis

This benchmarking analysis compares the 2018 electricity and GHG intensity (EUI and GHGI) of the Town of Aurora's facilities against the 2016 median EUI and GHGI for the largest 42 municipalities in southern Ontario. This analysis was completed for the following facility categories: administrative offices, public facilities, and indoor recreational facilities. Facilities performing worse than the Ontario median should be prioritized for implementation of energy conservation measures (ECMs).

Administrative Offices

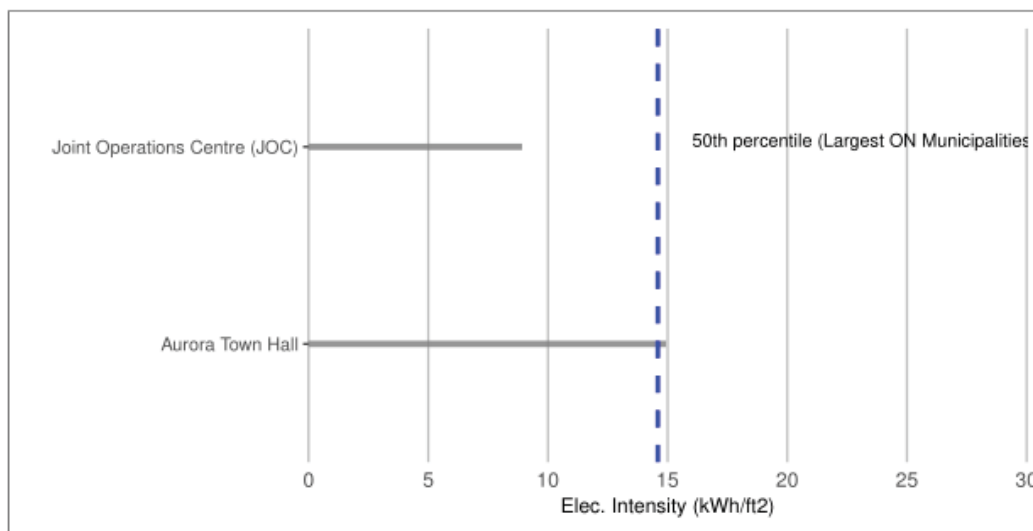


Figure 1: 2018 EUI for administrative offices

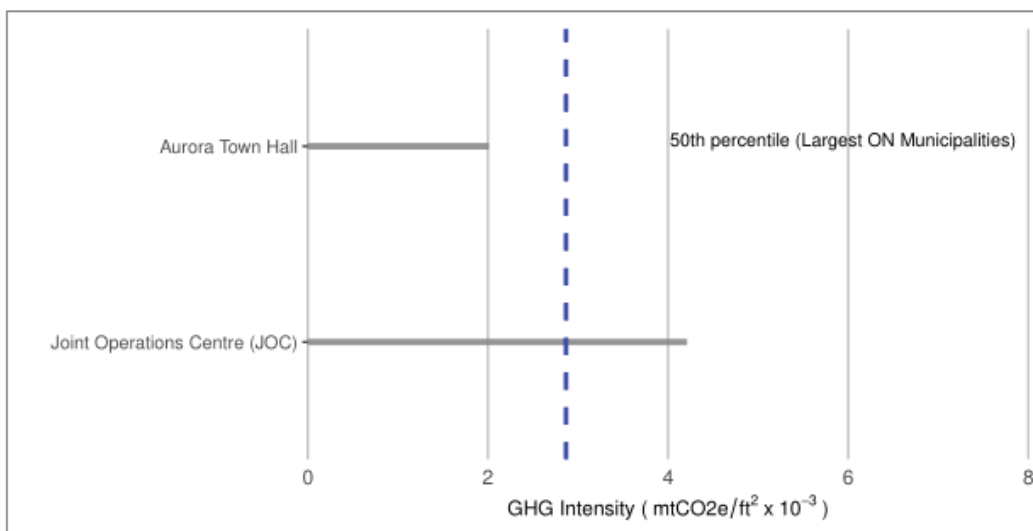


Figure 2: 2018 GHGI for administrative offices

As seen in Figure 1 and 2, the Town of Aurora’s administrative office facilities are performing near the Ontario median. However, the JOC has a slightly higher GHGI (due to higher natural gas consumption per unit area) than the Ontario median.

Public Facilities

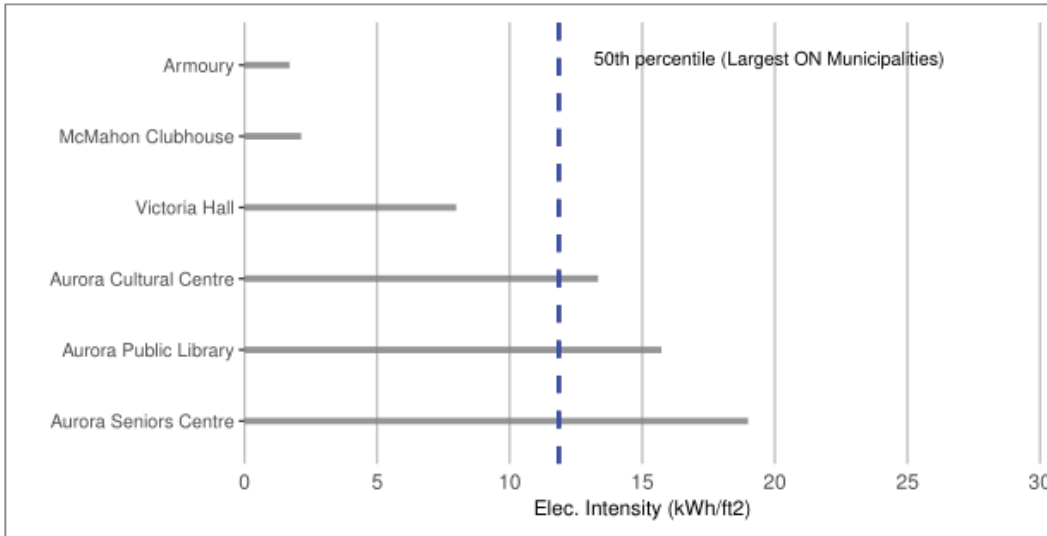


Figure 3: 2018 EUI for public facilities

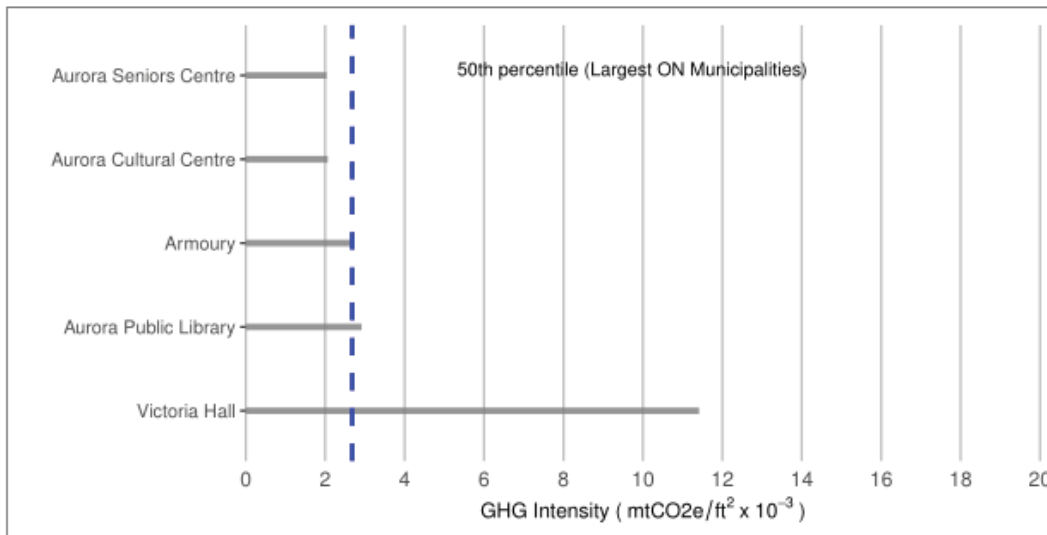


Figure 4: 2018 GHGI for public facilities

As seen in Figure 3 and 4, most of the Town of Aurora’s public facilities compare favourably against the Ontario median. However, the Aurora public library and Aurora Seniors Centre have higher electricity consumption (per unit area) than the Ontario median, and Victoria Hall has a significantly higher GHGI (due to higher natural gas consumption per unit area) than the Ontario median.

Indoor Recreational Facilities

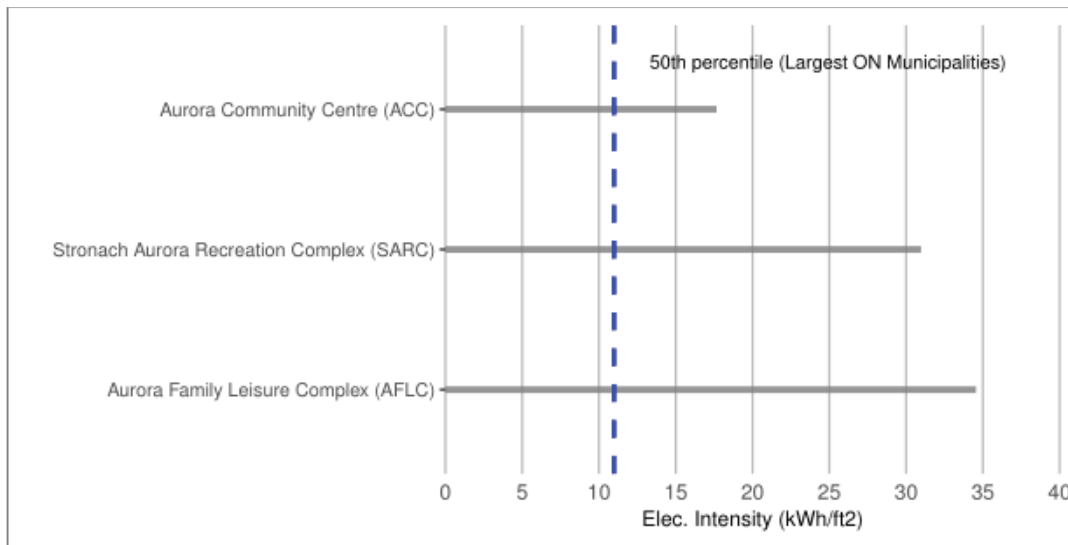


Figure 5: 2018 EUI For indoor recreational facilities

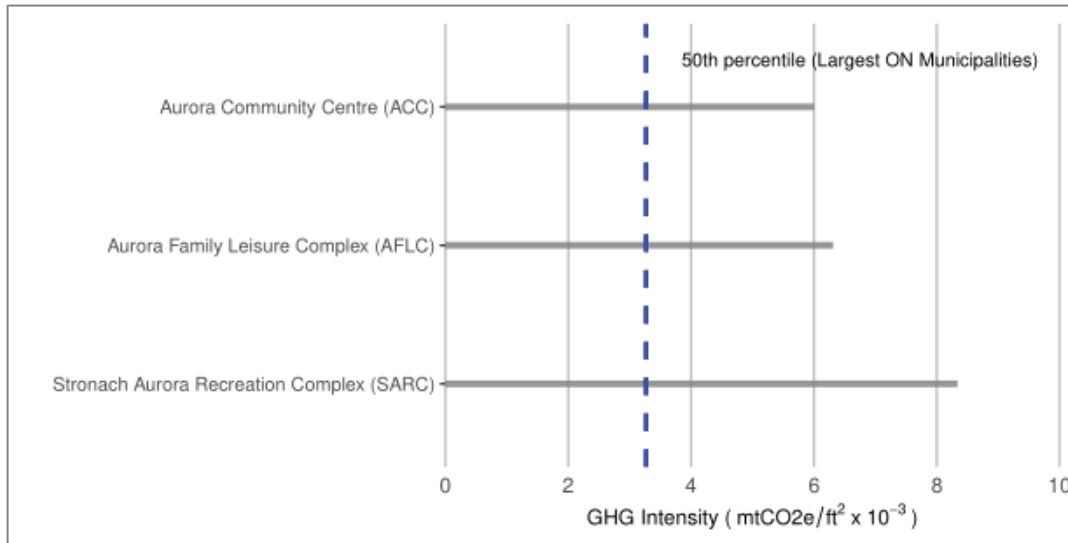


Figure 6: 2018 GHGI for indoor recreational facilities

As seen in Figure 5 and 6, most of the Town of Aurora's indoor recreational facilities compare poorly against the Ontario median. All of the Town of Aurora's indoor recreational facilities have higher electricity consumption (per unit area) and GHGI (due to higher natural gas consumption per unit area) than the Ontario median.

Appendix B: Best-in-class Review

1.0 Introduction

This best-in-class review examined the Energy Conservation and Demand Management (ECDM) plans of the most energy efficient municipalities in an effort to understand the strategies they are employing to achieve energy efficiency.

In order to complete this review, the most energy efficient municipalities had to be first identified. This was completed using the annual utility data published for each municipality under the Broader Public Sectors (BPS) reporting program.

The facilities in the largest 42 municipalities in Southern Ontario were first separated by building type (e.g. administrative offices, community centres, indoor recreation centres, etc.). The energy use intensity (EUI) (ekWh/sqft) was calculated for each facility and compared against the median EUI of all facilities in the dataset for that building type. This analysis was able to determine the “Top 5” most energy efficient municipalities for each building type.

The municipalities which had the most “Top 5” appearances were determined to be the most energy efficient. These municipalities are as follows, and their ECDM plans were reviewed to complete this document:

- City of Guelph
- Town of Halton Hills
- City of Kawartha Lakes
- City of Niagara Falls
- City of Vaughan

2.0 City of Guelph (2013 – 2018)

2.1 Goals

The City of Guelph ECDM plan did not outline a short term goal but they have a long term goal of reducing total energy use (electricity and natural gas) by 28% of 2011 values by 2031.

2.2 Completed

Completed energy initiatives were not discussed. However, the City of Guelph grades themselves on various areas of their Corporate Energy Management program each year and publishes their results. This evaluation provides an idea of how energy conscious the city is. Overall, their scores have historically been poor in most areas (< 2 on a scale of 1 – 4) but have shown improvement in recent years.

2.3 Planned

2.3.1 Organizational

There are a number of changes planned on the organizational level. The following is a summary of the planned actions at a high level:

- Create energy policies related to operations, capital replacement, and procurement.
 - o Consider life cycle analyses when purchases and investments have energy efficiency impacts.
 - o Require energy staff to comment on new build, refurbishment, and plant replacement projects.
- Obtain commitment of senior management to the environmental strategy.
- Improve corporate energy management system to track energy use.
- Increase use of communication channels to relay successes of energy efficiency projects.
- Ensure staff are well trained on energy efficiency. Ensure energy staff are up to date on best practices and industry trends.
- Continue to identify energy efficiency opportunities through energy audits and continuous commissioning.

2.3.2 Retrofit

Energy conservation measures (ECMs) were focused in the following areas:

- LED lighting retrofits.
- Arena refrigeration plant upgrades.
- Arena refrigeration plant controls.
- HVAC heating system upgrades.
- HVAC system controls.

2.4 Key Takeaways

The planned organizational changes are all strategies that should be considered. The planned retrofits are the typical “low hanging fruit” which are identified in energy audits. Conducting an annual review of a municipality’s Corporate Energy Management program is another item which should be considered.

3.0 Town of Halton Hills (2014 – 2018)

3.1 Goals

The Town of Halton Hills plans to reduce overall EUI (ekWh/sqft) by 16.7% and GHG emissions (kg) by 20.5% of 2011 values by 2019.

3.2 Completed

Completed initiatives were not discussed. However, energy audits on seven major of the town's facilities and a comprehensive review of past energy efficiency projects were completed prior to creating the plan.

3.3 Planned

3.3.1 Organizational

There are a number of changes planned on the organizational level. The following is a summary of the planned actions at a high level:

- Develop centralized energy facilities management role to be responsible for energy initiatives and Corporate Energy Plan.
- Develop energy efficiency policies for buildings and equipment. Consider life cycle cost analysis.
- Implement energy management system to track energy use.
- Measure and track results achieved from energy efficiency projects.
- Improve communication of energy management initiatives to staff and public.
- Develop employee engagement program.
- Improve energy efficiency training for staff (includes driver training to reduce GHG emissions).
- Examine feasibility of implementing renewable technologies.

3.3.2 Retrofit

Energy conservation measures (ECMs) were focused in the following areas:

- LED lighting retrofits.
- HVAC system optimization.
- DHW system optimization.
- VFD implementation.
- Recommissioning.

3.4 Key Takeaways

Large emphasis on ensuring the organization as a whole has energy efficiency as a part of their culture.

4.0 City of Kawartha Lakes (2016 – 2021)

4.1 Goals

The City of Kawartha Lakes plans to reduce EUI by 10% of 2015 values by 2021.

4.2 Completed

4.2.1 Organizational

There are a number of changes completed on the organizational level. The following is a summary of the completed actions at a high level:

- Developed Energy Stewards team whose key role is to champion the ECDM plan.
 - o Composed of team members from Community Services and Development Services departments.
- Developed Hydro Conservation champions program whose role is to initiate behaviour changes to reduce electricity consumption in municipal facilities.
 - o 62 members joined within the first year of inception.
 - o Members are provided some training on energy efficiency and energy management.
 - o Resulted in savings of \$116,000 annually and over 10% electricity consumption reduction in top 20 energy consuming facilities.

4.2.2 Retrofit

This was not discussed in the ECDM plan.

4.3 Planned

4.3.1 Organizational

There are a number of changes planned on the organizational level. The following is a summary of the planned actions at a high level:

- Implement energy supply chain management system to consolidate supplier information, consumption data, and cost, all in one location.
- Improve corporate communications to raise awareness on energy conservation and corporate energy initiatives.
- Make energy conservation a key pillar in corporate culture.
- Implement anti-idling policy.
- Provide vehicle training to outline how to operate vehicles efficiently.

4.3.2 Retrofit

Energy conservation measures (ECMs) were focused in the following areas:

- HVAC system retrofits.
- Reduce redundant facilities, consolidate multiple offices into one building.
- LED lighting retrofits.
- Collect methane from landfills.
- Tenant education programs.

4.4 Key Takeaways

Large emphasis on ensuring the organization as a whole has energy efficiency as a part of their culture.

5.0 City of Niagara Falls (2014 – 2018)

5.1 Goals

The City of Niagara Falls plans to reduce energy savings by 7.5% of the 2011 baseline by 2019.

5.2 Completed

5.2.1 Organizational

There are a number of changes completed on the organizational level. The following is a summary of the completed actions at a high level:

- Level 1 energy audits completed one year before ECDM plan.
- Detailed energy audit completed on City Hall and DES on equipment replacements and HVAC system upgrades (cooling plant).
 - o Led to completing HVAC system redesign.
- Municipal council plays a lead role in energy conservation by demonstrating interest in innovation and energy efficiency.

5.2.2 Retrofit

Energy conservation measures (ECMs) were focused in the following areas:

- Operational improvements at large arenas to reduce energy use by 12% (1,500,000 ekWh).
- Lighting retrofits at two fire halls and City Hall.
- Lighting retrofits at 19 smaller facilities.

5.3 Planned

5.3.1 Organizational

This was not discussed in the ECDM plan.

5.3.2 Retrofit

Energy conservation measures (ECMs) were focused in the following areas:

- LED lighting retrofits of street lights.
- LED lighting retrofits.
- HVAC system optimization.
- Boiler replacements.
- New transit/bus terminal designed to be energy efficient.
 - o Worked with architects to ensure this happened.
 - o Estimated to use 3,600,000 ekWh less annually than a base case building.

5.4 Key Takeaways

Commitment to energy efficiency at a council level can make a big difference in pushing forward energy efficiency initiatives. Energy audits and detailed engineering studies are greatly beneficial in identifying ECMs, but it is also important to bring energy efficiency into the design of new buildings as well.

6.0 City of Vaughan (2014 – 2018)

6.1 Goals

The City of Vaughan has plans to reduce the following:

- 10% overall energy consumption reduction for facilities on per person served basis (ekWh/sqft)
- 10% water consumption reduction for facilities on per person served basis (m3/sqft)
- 10% energy cost reduction for facilities (adjusted for utility escalation rate) (\$/sqft)
- 20% electricity consumption reduction for street lighting (kWh)

6.2 Completed

6.2.1 Organizational

This was not discussed in the ECDM plan.

6.2.2 Retrofit

This was not discussed in the ECDM plan.

6.3 Planned

6.3.1 Organizational

There are a number of changes completed on the organizational level. The following is a summary of the completed actions at a high level:

- Develop standard operating procedures for major electrical and mechanical systems in similar facilities (arenas, pools, libraries, etc.).
- Implement Energy Management System to monitor energy use.
 - o Will help identify anomalies in building operation and energy use.
 - o Will also help in benchmarking facilities.
- Consider continuous commissioning to bring old equipment back to factory performance.
- Provide energy efficiency training at all levels, from management to engineering supervisors to operators.
- Create internal team to be responsible for ECDM and guide activities in the plan.
- Raise awareness of the importance of energy efficiency to senior and middle management.

6.3.2 Retrofit

Energy conservation measures (ECMs) were focused in the following areas:

- Minimum energy efficiency standards for new buildings.

- Streetlight LED retrofits.
- LED lighting retrofits.
- HVAC system upgrades.
- HVAC system controls.
- Boiler upgrades.

6.4 Key Takeaways

Energy management system will be an important part of tracking energy performance and providing key performance indicators (KPI) of energy efficiency projects moving forward. Energy management must be a part of the organization culture – providing appropriate training to staff can help facilitate this.

7.0 Summary

The ECDM plans reviewed had varying goals and strategies on how to achieve those goals. However, there were a number of common themes between them, which can be taken as best practices based on what the most energy efficient municipalities are doing.

The common strategies employed on an organizational level include:

- Creating a culture of energy conservation within the organization through a combination of providing the appropriate training to staff, and increased communication on energy initiatives.
- Designate a team which is responsible for upholding the goals and strategies defined in the ECDM plan.
- Develop policies and procedures related to energy efficiency in areas such as capital projects and procurement. Consider life cycle cost analyses for new equipment. Consider minimum energy efficiency standards for new buildings.
- Measure and track the energy consumption of facilities and performance of implemented ECMs.
- Ensure utility incentives (Enbridge, IESO) are taken advantage of when completing ECMs. This decreases capital costs, but also ensures estimated energy savings are documented.
- Completing energy audits on major buildings shortly before the ECDM plan is required to be updated.

The common strategies employed on a retrofit level include:

- Target the largest energy consuming end uses such as lighting, HVAC, and refrigeration.
- LED lighting retrofits in buildings typically have low payback periods and can be partially funded by incentives.
- LED street lighting retrofits should be considered.
- HVAC system controls optimization can have significant energy savings impact for a relatively low cost.
- Refrigeration plants typically have a number of potential ECMS which can have significant energy savings impact (e.g. floating head pressure controls. They should be thoroughly investigated so the opportunities can be defined.

Guidance on how to employ these strategies is outlined in the “Energy Conservation and Demand Management Plan Update 2019 – 2023”, “Sustainability Framework, and “Communication Strategy”.

Appendix C: Sustainability Framework

The Sustainability Framework is designed to provide direction on actions which should be taken in order for the Town of Aurora to help accomplish any future sustainability objectives. This document will be used in conjunction with the “Energy Conservation and Demand Management Plan Update 2019 – 2023” (ECDM plan) and “Communication Strategy”.

This framework has not yet been adopted by the Town of Aurora but will be put into place in 2019 along with the ECDM plan and “Communication Strategy”. Milestones 1 – 2 have been completed, and Milestone 3 has been partially completed as part of the ECDM plan.

The Steering Committee, led by the Energy and Climate Change Analyst and developed as part of the “Communication Strategy”, will be responsible for upholding the Sustainability Framework. Their key role in the next five years will be to complete the remainder of Milestone 3, and Milestones 4 – 5.

Milestone 1: Create an energy and GHG emissions inventory and forecast

This inventory will be a baseline for which any future reductions will be measured against. This inventory includes all Town of Aurora owned facilities and fleet vehicles, and has been completed as part of the ECDM plan.

The forecast looks at the Town of Aurora’s baseline energy consumption and GHG emissions, and examines what they would look like in the next five years if no actions are taken. Due to population growth, these values will likely increase significantly. An analysis on utility costs will be done to quantify the impact on the Town of Aurora’s operating budget if no action is taken to reduce energy consumption and GHG emissions.

Milestone 2: Set reduction targets

This exercise has been completed as part of the ECDM plan. Corporate energy and GHG reduction goals have been set taking the following factors into account:

- Number of feasible energy conservation measures (ECMs) identified in energy audits completed for Town of Aurora facilities.
- Estimated budget to implement energy efficiency projects.
- Review of goals set by the most energy efficient municipalities in Ontario.

Milestone 3: Develop action plan

The ECDM plan identified ECMs and organizational strategies which should be implemented in the next five years in order to achieve the goals described in the plan. The action plan takes this one step further

and determines the years which these actions will be taken as well as the parties responsible for taking these actions.

Milestone 4: Implement action plan

Although planning is an important step in this framework, following through with implementation of ECMs and organizational strategies is equally important. The Town of Aurora will actively seek out financial incentives from the government and local utility providers to help implement actions defined in the action plan. Sufficient support from Senior Management/Council will be imperative to complete this milestone.

Milestone 5: Monitor progress and reporting results

Perhaps the most important step is to track the implementation of ECMs, and document the resulting energy consumption and GHG emissions reductions. The Town of Aurora identified this to be an area that could use significant improvement.

The Town of Aurora will employ the following strategies moving forward to track energy consumption and GHG reductions as a result of the completed ECMs:

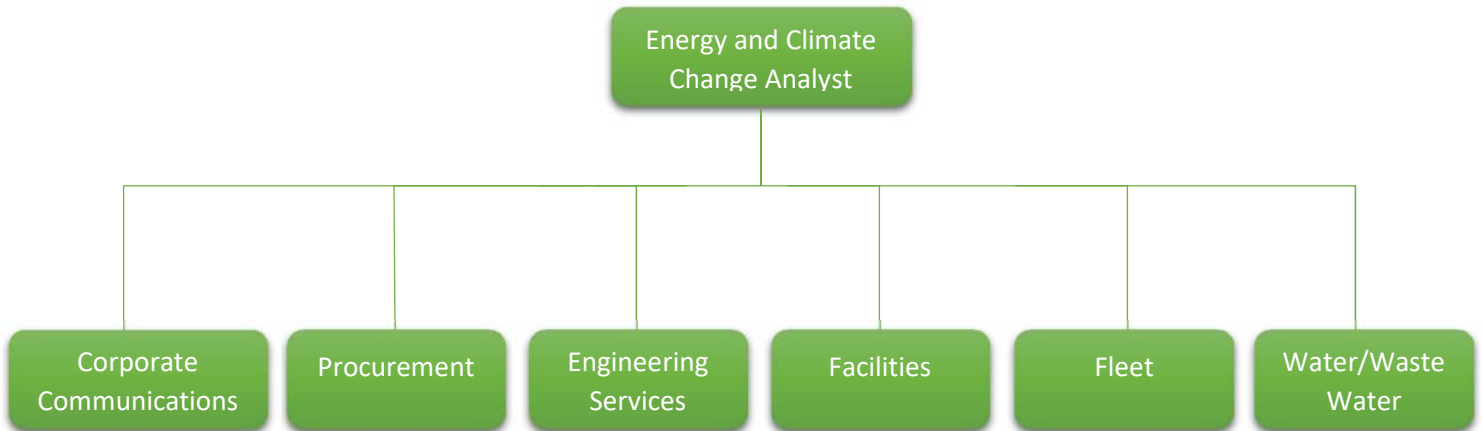
1. Complete ECMs based on recommendations from energy audits and engineering feasibility studies. These reports will have detailed estimates on energy consumption and GHG emissions savings as a result of implementing each ECM.
2. Leverage incentives from local utility distribution companies to implement ECMs. Estimates on energy savings are typically required to be eligible for these incentives. This will ensure energy savings are documented.
3. Energy and Climate Change Analyst will monitor hourly and monthly energy consumption of facilities before and after ECMs are implemented to estimate energy consumption and GHG emissions savings.

Appendix D: Communication Strategy

This Communication Strategy is designed to guide the Town of Aurora in the creation of a Steering Committee which will ensure the successful implementation of the “Energy Conservation and Demand Management Plan Update 2019 – 2023” (ECDM plan) and “Sustainability Framework”.

This committee will meet on a quarterly basis to discuss work in progress and tracking towards the goals established in the ECDM plan.

The Steering Committee will be made up of individuals in the following roles:



The following table outlines some of the responsibilities of the Steering Committee in detail.

Member	Responsibilities
Energy and Climate Change Analyst	<ol style="list-style-type: none"> 1. Oversee energy management within all facilities, and acts as a central resource and contact for energy efficiency matters. 2. Monitor and track energy use in Town of Aurora facilities. 3. Lead implementation of energy conservation measures (ECMs) identified in the ECDM plan and otherwise. 4. Facilitate implementation of staff training programs and employee engagement strategies.
Water/Waste Water Supervisor	<ol style="list-style-type: none"> 1. Assist with monitoring and tracking of energy consumption. 2. Request input from Steering Committee Lead on decisions which may have energy impact.

	<ol style="list-style-type: none"> 3. Advise Energy and Climate Change Analyst on strategies to reduce energy consumption and GHG emissions. 4. Assist Energy and Climate Change Analyst with implementation of ECMs.
Fleet Supervisor	<ol style="list-style-type: none"> 1. Assist with monitoring and tracking of energy consumption. 2. Request input from Steering Committee Lead on decisions which may have energy impact. 3. Advise Energy and Climate Change Analyst on strategies to reduce energy consumption and GHG emissions. 4. Assist Energy and Climate Change Analyst with implementation of ECMs. 5. Assist with implementation of anti-idling policy. 6. Assist with implementation of driver training program.
Facilities Manager	<ol style="list-style-type: none"> 1. Assist with monitoring and tracking of energy consumption. 2. Request input from Steering Committee Lead on decisions which may have energy impact. 3. Advise Energy and Climate Change Analyst on strategies to reduce energy consumption and GHG emissions. 4. Assist Energy and Climate Change Analyst with implementation of ECMs.
Engineering and Capital Delivery Manager	<ol style="list-style-type: none"> 1. Request input from Steering Committee Lead on decisions which may have energy impact. 2. Advise Energy and Climate Change Analyst on strategies to reduce energy consumption and GHG emissions. 3. Assist Energy and Climate Change Analyst with implementation of ECMs. 4. Assist with development of energy efficiency oriented procurement policies.
Procurement Manager	<ol style="list-style-type: none"> 1. Assist with development of energy efficiency oriented procurement policies.
Corporate Communications Manager	<ol style="list-style-type: none"> 1. Assist with improving communication of energy efficiency initiatives within the organization. 2. Assist with implementing staff engagement strategies.

Organizational strategies for the Steering Committee to consider for the next five years are:

1. ECM implementation
 - a. Formalize criteria and metrics for prioritizing energy efficiency projects. This should take into account life-cycle costs, available incentives, impact on occupant comfort, regulatory requirements, ease of implementation, and energy savings impact.
2. Organization energy policies
 - a. Develop guidelines and policies for energy management to be followed by all Town of Aurora facilities.
3. New buildings/equipment
 - a. Develop minimum energy efficiency requirements for equipment replacement and new equipment.
 - b. Develop formal guidelines for considering energy at all stages of new building design.
 - c. Develop procurement policies which favours life cycle costs over lowest first costs.
 - d. Ensure all new buildings and equipment are properly commissioned.
4. Energy management
 - a. Investigate potential to adopt an energy management system to monitor and analyze energy consumption across Town of Aurora facilities.
 - b. Formalize methodology to monitor and track progress of ECMs.
 - c. Create annual report documentation progress of energy efficiency initiatives.
5. Training
 - a. Provide general training on energy efficiency for operation and maintenance (O&M) staff.
 - b. Provide targeted training for O&M staff as needed.
 - c. Energy and Climate Change Analyst (and other staff as required) to keep up to date on industry trends and best practices.
6. Internal communication/staff engagement
 - a. Improve communication of energy initiatives to staff and public.
 - b. Develop staff engagement strategy to encourage a corporate culture of sustainability.
 - c. Host online suggestion box/survey for staff to provide commentary on potential energy efficiency opportunities.

7. External communication/public engagement
 - a. Hosting public engagement sessions to educate residents on energy efficiency initiatives being undertaken at the Town of Aurora (e.g. speaker series).
 - b. Town of Aurora staff to attend public events (e.g. trade shows, expos) as networking and knowledge sharing opportunities with other organizations and municipalities.
 - c. Leverage social media channels and Town of Aurora website to advertise successes of energy efficiency initiatives.
 - d. Host online suggestion box/survey for residents to provide commentary on potential energy efficiency opportunities.

TOWN OF AURORA 2014 ECDM PLAN SUMMARY

Action	Status
1. Implement all feasible energy efficiency improvements for existing town-owned facilities as outlined in Building Portfolio Energy Analyses and Assessments	On-going
2. Conduct an audit of the five highest energy consuming town-owned buildings.	Addressed
3. Examine opportunities to expand the corporate O&M preventative maintenance program at town facilities.	On-going
4. Conduct a life-cycle audit of town-owned infrastructure and equipment, and assess opportunities for energy efficiency upgrades.	Addressed
5. Implement a minimum green building standard of LEED Silver for all new town facilities.	On-going
6. Consider opportunities to upgrade town-owned fleet vehicles to reduce costs and energy consumption.	Not financially feasible*
7. Regularly communicate energy initiatives as part of the CEAP brand.	On-going
8. Conduct energy efficiency training for staff as required.	Not addressed**
9. Include general training on energy and energy efficiency as part of the town's onboarding process.	Not addressed**
10. Explore strategic partnerships with Energy Services Company (ESCO) to identify and fund energy efficiency projects.	Not addressed**
11. Adopt energy efficiency standards to guide the procurement of town-owned equipment.	Not addressed**
12. Continue to implement town-wide energy management system (EMS).	Not addressed**
13. Conduct an assessment of the metering needs of each town-owned facility.	Not financially feasible*
14. Document the savings achieved from energy efficiency projects and rolling out successful projects.	On-going
15. Develop corporate GHG emissions targets and corporate energy efficiency targets.	On-going
16. Develop consistent guidelines and policies for energy management.	On-going

ATTACHMENT #2

PDS19-051

*Items that are not "financially feasible" are recommendations where the return of investment is greater than ten (10) years.

**Items that are "not addressed" are recommendations where there were a lack of resources to pursue



TOWN OF AURORA FACILITIES GOAL SUMMARY

Reduction Target	Facility	Administrative Offices	Public Facilities	Indoor Recreation Facilities	Total
Electricity Consumption Reduction	[kWh]	173,937	313,257	503,769	990,963
Electricity Consumption Reduction	[%]	1.9	3.3	5.4	10.5
Natural Gas Consumption Reduction	[m ³]	2,589	26,894	90,101	119,584
Natural Gas Consumption Reduction	[%]	0.21	2.2	7.3	9.7
GHG Emissions Reduction	[mtCO ₂ e]	12	64	192	268
GHG Emissions Reduction	[%]	0.38	2	5.9	8.3
Implementation Cost	[\$]	143,800	77,407	407,635	628,842

ATTACHMENT #3
PDS19-051



FLEET VEHICLES ANNUAL SUMMARY

Item Measured	Unit of Measure	Total
Annual Distance Travelled	[km]	423,135
Annual Gasoline Consumed	[L]	91,544
Annual Diesel Consumed	[L]	104,238
Average Fuel Efficiency	[L/100km]	46
Annual GHG Emissions*	[mtCO2e]	491

*Based on 2.3 kg/L of gasoline and 2.7 kg/L of diesel consumed

FLEET VEHICLES GOAL SUMMARY

Item Measured	Unit of Measure	Goal**
Average Fuel Efficiency	[L/100km]	23
Annual Fuel Savings	[L]	97,891
Annual GHG Emissions Reduction	[mtCO2e]	245
Annual GHG Emissions Reduction	[%]	50

**Reductions based on 2018 baseline fuel consumption and GHG emissions

ATTACHMENT #4
 PDS19-051



TOWN OF AURORA 2018 BASELINE ENERGY CONSUMPTION AND GHG EMISSIONS SUMMARY

Baseline Measurement	Facility	Administrative Offices	Public Facilities	Indoor Recreation Facilities	Water/Waste Water Facilities	Fleet	Total
Electricity Consumption	[kWh]	1,299,380	1,220,316	6,761,361	118,358	-	9,399,415
Natural Gas Consumption	[m ³]	193,359	119,928	921,252	-	-	1,234,539
GHG Emissions	[mtCO ₂ e]	421	279	2,030	5.1	491	3,226

TOWN OF AURORA 2023 GOALS SUMMARY

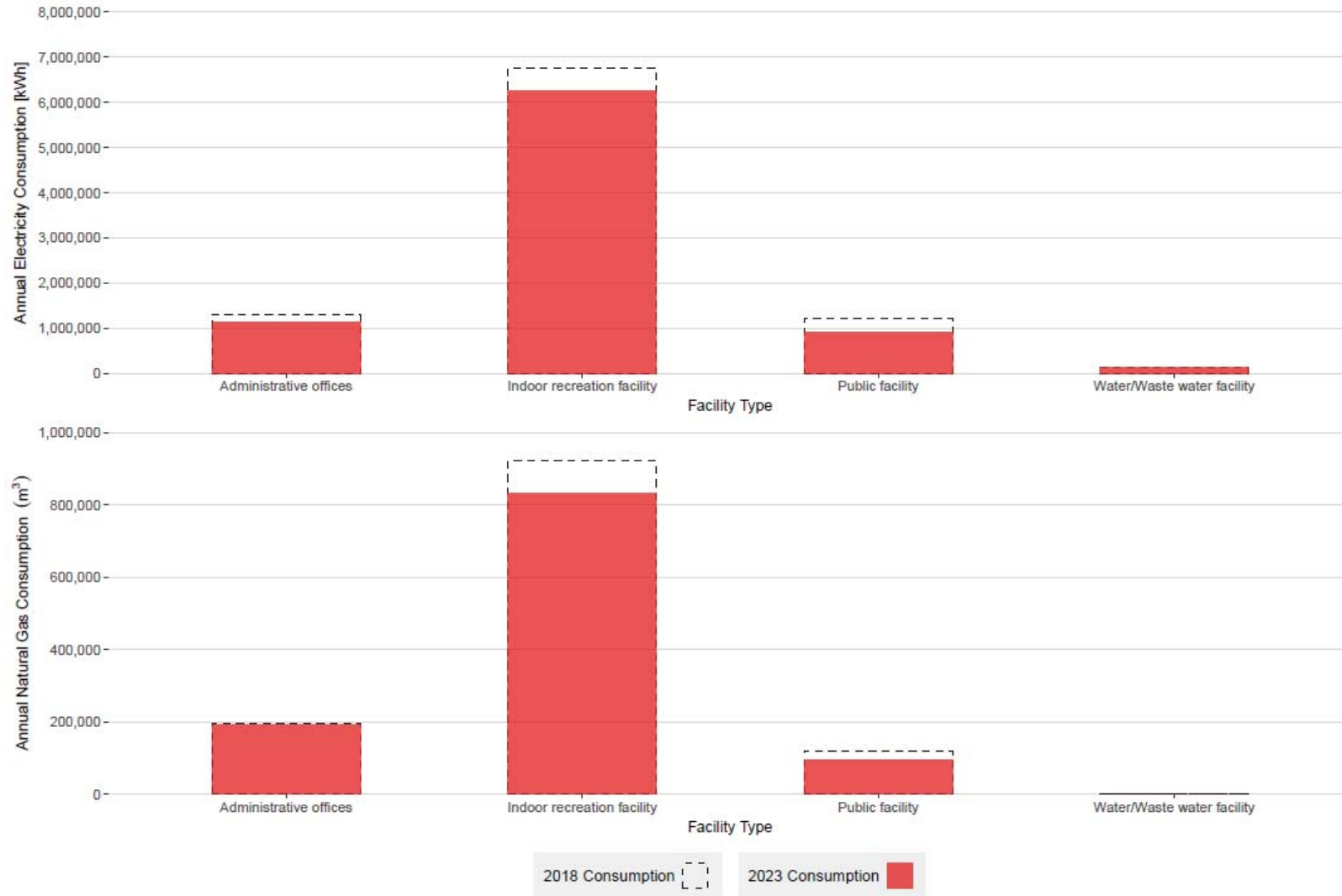
Reduction Target	Facility	Administrative Offices	Public Facilities	Indoor Recreation Facilities	Water/Waste Water Facilities*	Fleet	Total
Electricity Consumption Reduction	[kWh]	173,937	313,257	503,769	-	-	990,963
Electricity Consumption Reduction	[%]	1.9	3.3	5.4	-	-	10.5
Natural Gas Consumption Reduction	[m ³]	2,589	26,894	90,101	-	-	119,584
Natural Gas Consumption Reduction	[%]	0.21	2.2	7.3	-	-	9.7
GHG Emissions Reduction	[mtCO ₂ e]	12	64	192	-	245	514
GHG Emissions Reduction	[%]	0.38	2	5.9	-	7.6	15.9
Implementation Cost	[\$]	143,800	77,407	407,635	-	-	628,842

**ATTACHMENT #5
PDS19-051**

* Water/Waste water facilities contributed the least to energy consumption and GHG emissions of all Town of Aurora facilities. As such, goals for energy consumption and GHG emissions reductions were focused on other facilities.



COMPARISON OF BASELINE AND PROJECTED CONSUMPTION VALUES OF 2018 AND 2023



ATTACHMENT #6
 PDS19-051





**Town of Aurora
General Committee Report No. CMS19-016**

Subject: 2019 Capital Budget - Outdoor Field Development Strategy
Prepared by: John Firman, Manager, Business Support
Department: Community Services
Date: June 18, 2019

Recommendation

- 1. That Report No. CMS19-016 be received; and**
- 2. That this report satisfy Council's conditional budget approval for Capital Project No. 73317 – Outdoor Field Development Strategy, in the amount of \$55,000.**

Executive Summary

As a condition of approval of Capital Project No. 73317, Outdoor Field Development Strategy ("the strategy"), Council requested that staff provide details of the scope of work for the strategy, issue the RFP, and return to Council prior to awarding the contract. Based upon this report and the attached scope of work, staff believe that they have met Council's condition of approval and request that the condition be lifted, so that staff can proceed to award the contract.

- Council discussed the need for an Outdoor Field Development Strategy in 2018 during discussions regarding the development of the Hallmark lands
- A detailed scope of work was prepared to ensure the strategy includes appropriate inputs and provides appropriate recommendations for Council's consideration

Background

Capital project No. 73317 – Outdoor Field Development Strategy received conditional approval in the 2019 Capital Budget, pending a further report to Council outlining the scope of work.

A comprehensive field development strategy is needed to help ensure that the Town is properly positioned to meet the existing and future outdoor sports field needs for the community. This will help maximize opportunities with existing assets and provide informed recommendations for the acquisition/development of new assets. Thorough consultation with all stakeholders will ensure that all relevant input is considered in the development of this strategy.

Analysis

Council discussed the need for an Outdoor Field Development Strategy in 2018 during discussions regarding the development of the Hallmark lands

During Council deliberations and discussions with various sport field user groups regarding the development of the Hallmark Lands, Council identified the need for a comprehensive outdoor field development strategy. With conflicting information from user groups and extensive research required to properly develop a strategy, staff recommended an independent consultant be retained to conduct this research and develop a strategy.

In addition to existing challenges in meeting community sports field needs, other contributing factors toward the need for a comprehensive strategy include the fact that almost half of all sports fields are owned by third parties, with no guarantee of future availability to the Town. We also know that the 19 fields on the Stronach Group property (Magna fields) will be lost in the not too distant future and will need to be replaced.

A detailed scope of work was prepared to ensure the strategy included appropriate inputs and provide appropriate recommendations for Council's consideration

Staff have issued an RFP in accordance with the Procurement By-Law, which includes a scope of work to ensure that all appropriate inputs are received, including:

- Inventory of existing assets
- Community user group requirements
- Census, statistical and other relevant community data

The scope of work also ensures fulsome recommendations are provided as an outcome of the study, including:

- Recommendations for re-purposing existing assets
- Recommendations for the acquisition/development of new assets
- Recommendations for alternative strategies for multi-use assets, rather than one-for-one replacements
- Recommendations for the replacement of third party fields that are expected to be lost in the near future

The complete scope of work is outlined in attachment #2.

With Council approval to lift the conditional approval, the project is expected to commence July 2, 2019, with a recommendation report returning to Council in the Fall of 2019.

June 18, 2019

Page 3 of 4

Report No. CMS19-016

Advisory Committee Review

Not applicable

Legal Considerations

None

Financial Implications

A total of \$55,000 was conditionally approved by Council as part of the 2019 Capital Budget, funded from the Studies & Other reserve. Staff feel that this budget should be sufficient in funding the above noted scope of work.

Communications Considerations

Approval of the award of contract would be communicated to the general public through Council Highlights.

Link to Strategic Plan

An Outdoor Field Development Strategy supports the Strategic Plan goal of **Supporting an exceptional quality of life for all** in its accomplishment in satisfying requirements in the following key objective within this goal statement:

Objective 4: Encouraging an active and healthy lifestyle

Alternative(s) to the Recommendation

1. Council may choose not to approve staff's recommended scope of work.

June 18, 2019

Page 4 of 4

Report No. CMS19-016

Conclusions

A comprehensive outdoor field development strategy will help ensure that the Town is properly positioned to meet the future sports field needs for the community by maximizing opportunities with existing assets and providing informed recommendations for the acquisition of new assets. Thorough consultation with all stakeholders will ensure that all relevant input is considered in the development of this strategy.

Attachments

Attachment #1 – Capital Budget sheet – 73317 Outdoor Field Development Strategy

Attachment #2 – Scope of Work for RFP 2019-26-CMS-BE Sports Field Development Strategy

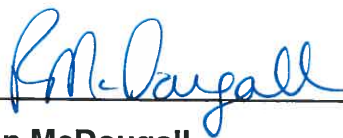
Previous Reports

None

Pre-submission Review

Agenda Management Team review on May 29, 2019

Departmental Approval



**Robin McDougall
Director
Community Services**

Approved for Agenda



**Doug Nadorozny
Chief Administrative Officer**

Town of Aurora

Attachment 1 - CMS19-016

Capital Projects

Project	73317 Outdoor Field Development Strategy		
Department	Community Services		
Version	Draft 1	Year	2019

Description
TARGET START DATE AND END DATE: Use format Q4 2017 - Q1 2018
Q1 - Q3
PROJECT DESCRIPTION:
Provide a brief overview of the project and include the key goals, objectives and performance measures.
To develop an outdoor field development strategy including: evaluating existing field utilization rates, assessing past, present and projected membership date for primary sports field user groups, consulting with sports field user groups regarding field use requirements, consideration of possible re-purposing of existing sports fields and recommendations for future sports field development.
PROJECT JUSTIFICATION/CAPITAL SERVICE LEVEL IMPACT:
Provide the reasons the project should be approved and what will be the impact of the project to service levels.
Council identified the need for a comprehensive field development strategy. As there is conflicting information from user groups and extensive research required to properly develop a strategy, staff are recommending an independent consultant be retained to conduct this research and develop a strategy. In addition to existing challenges in meeting community sports field needs, other contributing factors include the fact that almost half of all sports fields are owned by third parties, with no guarantee of future availability to the Town. We also know that the nineteen fields on Stronach Group property (Magna fields) will be lost in the next couple of years and will need to be replaced.
PROJECT BENEFITS:
Explain the benefits of the project which could include Citizen/Client, compliance, financial, internal, learning & growth or utility benefits.
A comprehensive field development strategy will help ensure that the Town is properly positioned to meet the future sports field needs for the community by maximizing opportunities with existing assets and providing informed recommendations for the acquisition of new assets. Thorough consultation with all stakeholders will ensure that all relevant input is considered in the development of this strategy.
IMPACT TO THE ORGANIZATION IF THE PROJECT WAS NOT APPROVED:
Please provide an explanation of what the outcomes would be if the project was not approved.
Should this project not be approved, staff can refer to the Parks and Recreation Master Plan and consult with user groups. Staff do not have the resources to conduct extensive research or exhaustive consultation and may not be able to provide the level of detail Council would like to see.

	Budget							
	Total	2019	2020	2021	2022	2023	2024	Future
Expenditures								
Estimated Expenditures								
CONSULTING	55,000	55,000						
	55,000	55,000						
Expenditures Total	55,000	55,000						
Funding								
Other Funding Sources								
STUDIES & OTHER RES CONT'N	55,000	55,000						
	55,000	55,000						
Funding Total	55,000	55,000						
Total Over (Under) Funded								

Attachment 2 – CMS019-016

PART 2 - THE REQUIREMENTS, DELIVERABLES AND TERMS OF REFERENCE

2.1 Introduction

The Town, with a current estimated population of 62,000 is a dynamic, progressive and diverse community. Aurora is centrally located within the Region of York (population of 1.11 million in 2016), resulting in the driving distance to be no more than 30 minutes in any direction within the region. The Town currently operates sixty five (65) rectangular sports fields, including approximately twenty five (25) fields not owned by the Town, and eighteen (18) ball diamonds, of various sizes and features.

Population growth, changing demographics, and changes in membership for various sport organizations requires a comprehensive review to determine the Town's sport field development needs in order to meet existing and future demands.

In addition, a one third (1/3) party-owned sports field complex consisting of nineteen (19) soccer fields of various sizes may no longer be available to the Town in future years.

The Town is seeking proposals from qualified recreation facility planning Consultants to undertake the necessary review in order to provide Council with recommendations for a Sport Field Development Strategy. Qualified Proponents are those who have a strong background and expertise in outdoor recreation facility programming, utilization, and development, along with experience in engaging community sport organizations, particularly in a municipal environment.

2.2 Scope of Study

The study shall be Town-wide and will consider all existing Town owned properties, including but not limited to those properties with existing sports fields. The study shall also consider the existing and future potential for use of third-party owned fields, the re-purposing of existing Town owned fields, and the potential need for property acquisition to develop future fields.

2.3 Project Schedule

The anticipated commencement date for this Contract is July 2, 2019. The work shall begin immediately upon award of the Contract.

Proponents shall provide timelines for each part of the project as identified in the terms of reference with the expectation that the draft report be complete by September 1, 2019 and a final report be completed by September 30, 2019.

The Proponent shall provide, as part of their proposal, a detailed critical path, outlining each task, indicating target dates for progress reports, meetings with the Town and others, analysis, submissions, and draft and final reports. The schedule shall be confirmed prior to the commencement of Work.

2.4 Resources

The following resources are to be utilized by the Consultant in the completion of this study:

- Town of Aurora Parks and Recreation Master Plan;
- Census data;
- Town of Aurora Sport Plan;
- Town of Aurora Official Plan;
- Local sport organizations consultation (including needs and trends);
- Town of Aurora staff consultation (including field inventory data);
- Town of Aurora parks and sports field maps; and
- Other resources as deemed appropriate.

2.5 Terms of Reference

2.5.1 Purpose

The purpose of this study is to:

1. Review the existing inventory of Town-owned and third party-owned sports fields and identify to what degree this inventory is meeting the needs of the community sports organizations, and options for re-purposing existing Town-owned fields.
2. Review the future needs of the community sports organizations and provide strategic directions on the size, type and amount of additional sports fields that may be required in future years to meet these needs, including the potential to re-purpose existing sports fields.
3. Provide strategic directions for the replacement of the nineteen (19) rectangular sports fields that may no longer be available to the Town.

2.5.2 Part 1

The first goal will be achieved through the following objectives:

1. Review the Town of Aurora community profile with the most recent available census data. This includes providing a historical demographic overview and a future demographic projection, and will include a socio-economic profile of the Town.
2. Meet with Town staff to obtain information to identify the existing inventory of Town-owned and third party-owned sports fields, utilization rates and opportunities to re-purpose existing fields.
3. Meet with/obtain information from community sports organizations to identify current and future needs and assess the degree to which those needs are being met with existing sport fields and what different and/or additional sports fields will be required to meet future needs.

2.5.3 Part 2

The second goal will be achieved through the following objectives:

1. Prepare a comprehensive listing of all existing Town-owned sports fields, identifying all opportunities for re-purposing sports fields, including:
 - a. All options for re-purposing sports fields at each location where re-purposing is feasible;
 - b. All limitations that would prevent the re-purposing of an existing sports field;
 - c. Additional considerations that may impact the ability to re-purpose a sports field.
2. Preparing a comprehensive listing of all anticipated future sports field needs, including;
 - a. Size and configuration of sports fields;
 - b. Field type (soccer, rugby, football, lacrosse, field hockey, baseball, softball);
 - c. Time frames for new field requirements.
3. Preparing a comprehensive strategy incorporating the findings from Part 1 and Part 2, to meet the future sports fields needs, including;
 - a. Recommendations for re-purposing existing sports fields; and
 - b. Recommendation for the development of new sports fields.

2.5.4 Part 3

The third goal will be achieved through the following objectives:

1. Assessing the impact of losing the specified nineteen-field complex on the overall sports field needs, both current and future.
2. Preparing a comprehensive strategy incorporating the findings from Part 1 and Part 2, for the replacement of these fields, including alternative options for;
 - a. Field sizes;
 - b. Field types (ie: grass fields vs. artificial turf); and
 - c. Configuration of fields (ie: larger fields lined to accommodate multiple field size uses).

2.5.5 Part 4

The Sports Field Development Strategy shall be completed by:

1. Incorporating all of the findings from Part 1 through Part 3.
2. Including separate strategies for Part 2 and Part 3.

3. Including a hybrid strategy combining Part 2 and Part 3.

2.6 Project Deliverables

The Consultant shall be responsible for the following deliverables:

2.6.1 Draft Report

The Consultant shall provide the Town with five (5) copies of each of the draft documents, including an executive summary that the Town will review prior to release of the final report.

2.6.2 Final Report

The overall purpose of this project is to create a report that will:

1. Include all findings from Part 1 through to Part 3 from the Terms of Reference.
2. Include a summary of the findings for Part 1 to identify the existing and future needs for outdoor sports fields.
3. Include a summary of the findings for Part 2 to identify all Town-owned and third party-owned sports fields, and all opportunities for re-purposing existing Town-owned sports fields.
4. Make recommendations regarding future sports field needs:
 - a. Recommendations for re-purposing existing sports fields and developing new sports fields to meet existing community user group needs;
 - b. Recommendations for re-purposing existing sports fields and developing new sports fields to meet future community user group needs, including time lines; and
 - c. Recommendations for potential partnerships with school boards and/or other organizations to achieve recommendations in a. and b.
5. Include a summary of all findings in Part 3 and make recommendations for the replacement of the specified nineteen (19) field, third party-owned complex.

The final report shall be provided in an electronic format (in PDF and in Microsoft application format) with at least twenty five (25) copies in printed form and one (1) unbound copy. In addition, there shall be an executive summary provided in Microsoft PowerPoint format.

The Consultant shall provide any related graphics or maps in Microsoft application format.

2.6.3 Presentation to Council

The Consultant shall provide and make a presentation to Council upon completion of the final report. The anticipated date of such presentation is October of 2019.

2.6.4 Meetings

The Consultant will be responsible for providing minutes of all meetings within one (1) week of each meeting. All meetings will be outlined in detail in the critical path and will be confirmed prior to the commencement of the project.



**Town of Aurora
General Committee Report No. CS19-026**

Subject: Licensing By-law Amendments – Second Hand Goods

Prepared by: Alexander Wray – Manager of Bylaw Services

Department: Corporate Services

Date: June 18, 2019

Recommendation

- 1. That Report No. CS19-026 be received; and**
- 2. That a by-law be brought forward to amend Schedule 12 of the Town's Licensing By-law No. 5630-14 to reflect current business models for Second Hand Goods Stores.**

Executive Summary

The purpose of this report is to seek council's approval to amend Schedule 12 of the Town's Licensing By-law No. 5630-14 providing businesses and residents increased flexibility when buying and selling Second Hand Goods.

- The amendments will provide the community with greater access to affordable goods.
- The proposed changes support waste diversion and recycling initiatives.
- All other sections of Schedule 12 will remain in effect.
- Staff have reviewed existing Municipal By-laws and the proposed changes will provide consistency between the Town's by-law and other GTA municipalities.

Background

The Town's Licensing By-law No. 5630-14, being a By-law to regulate licensing of business establishments, contains 14 Schedules. These schedules have received sporadic updates since the initial implementation of the By-law in 1998. Schedule 12 has not received any updates since 2001 and as such, is not reflective of the current needs of our growing community. Due to concerns brought forth from business owners, Bylaw Services conducted a review of Schedule 12 – Second Hand Goods.

Analysis

The amendments will provide the community with greater access to affordable goods.

The proposed changes to Schedule 12 of the Licensing By-law will support businesses that deal exclusively in one or more of the following second hand goods:

- Clothing
- Children's Toys
- Books
- Magazines
- Comics
- Appliances
- Musical Instruments (Not exceeding a value of \$250.00 CDN).

This change will provide residents affordable access to these items while streamlining processes for community business owners.

Second hand retailers who sell high value items will continue to be regulated under the Town's existing bylaw to ensure accountability and transparency.

The proposed changes support waste diversion and recycling initiatives.

The Recycling Council of Ontario estimates that the average person throws away 81 pounds of textiles annually, most of which ends up in landfills. Currently, it is estimated that 40% of people shop at second hand good stores. The proposed changes provide our residents an opportunity to divert landfill waste and support local businesses.

All other sections of Schedule 12 will remain in effect.

While reviewing Schedule 12, all other sections of the schedule were reviewed for accuracy. The proposed changes are specific to businesses dealing exclusively in the sale of second hands goods. There will be no effect on existing standards for businesses operating as salvage yards or pawnshops.

Staff have reviewed existing Municipal By-laws and the proposed changes will provide consistency between the Town's bylaw and other GTA municipalities.

June 18, 2019

Page 3 of 4

Report No. CS19-026

Bylaw Services reviewed existing by-laws in Guelph, Newmarket, and Oshawa when considering the proposed changes. Based on this detailed review, staff believe that the Town will be better aligned with surrounding municipalities moving forward.

Advisory Committee Review

None.

Legal Considerations

The Town's Licensing By-law No. 5630-14 - Schedule 12 must be amended to ensure Second Hand Goods retailers are compliant with the bylaw. All proposed changes are reviewed by the Town's Legal Services Division.

Financial Implications

None.

Communications Considerations

None.

Link to Strategic Plan

This report supports two elements of the Town's strategic plan by **Advancing the Economy** and **Building a Greener Community**.

Alternative(s) to the Recommendation

1. Make no changes to the existing By-law, limiting the operations of Second Hand Goods retailers in Town.

Conclusions

The existing requirements outlined in Schedule 12 of the Town's Licensing By-law No. 5630-14 do not reflect the needs of our residents and business communities. The proposed changes will allow for better access to affordable goods while supporting our thriving business community.

June 18, 2019

Page 4 of 4

Report No. CS19-026

Attachments

None.

Previous Reports

None.

Pre-submission Review

Agenda Management Team review on May 30, 2019

Departmental Approval



**Techa Van Leeuwen
Director
Corporate Services**

Approved for Agenda



**Doug Nadorozny
Chief Administrative Officer**



Notice of Motion	Mayor Tom Mrakas
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Date: June 18, 2019

To: Members of Council

From: Mayor Mrakas

Re: Response to Regional Governance Review

Whereas the Government of Ontario has announced a review of Ontario's eight regional municipalities (Durham, Halton, Muskoka District, Niagara, Oxford County, Peel, Waterloo, York), the County of Simcoe and their lower-tier municipalities by appointed Special Advisors; and

Whereas the provincially appointed Special Advisors are to provide advice and develop recommendations for the Minister of Municipal Affairs and Housing for the purpose of improving governance, decision-making and service delivery in the eight regions and Simcoe County and their lower-tier municipalities; and

Whereas the Association of Municipalities of Ontario (AMO) informed its members last August, that the Minister of Municipal Affairs and Housing began informal discussions on regional governance review, wishing to hear from municipalities about how this system of governance is working recognizing it was established in the 1970s; and

Whereas the provincially appointed Special Advisors have included within the scope of their review, consideration of moving to single-tier municipalities or amalgamating existing municipalities; and

Whereas the Town of Aurora welcomes all opportunities to improve both Regional and local municipal service delivery and achieve greater efficiencies and cost savings for all Aurora and York taxpayers and rate payers; and

Whereas York Region's municipal structure provides for Regional services throughout all local York municipalities, resulting in cost-effective, quality services that respond to the needs of the local municipalities and citizens, such as Children's and Court Services, Housing, Long Term Care, Paramedic and Police Services, Public Health, Social Assistance, Public Transit, Water and Waste Treatment, to name a few; and

Notice of Motion
Re: Response to Regional Governance Review
June 18, 2019

Page 2 of 2

Whereas the province requested feedback on the regional review through an online survey or written submission; and

Whereas the Town of Aurora has demonstrated its fiscal responsibility by embracing shared service arrangements like Central York Fire Services and also by reducing its Council size from 9 members to 7 before the 2018 Municipal Election;

1. Now Therefore Be It Hereby Resolved That it is recognized and factual that York Region was formed, effective January 1, 1971, at which time resulted in the consolidation of fourteen (14) former municipalities (previously under 'York County') into nine (9) new municipalities; and
2. Be It Further Resolved That the Council of the Town of Aurora endorses the effectiveness of the current two-tier municipal governance structure, with continued exploration and implementation of furthering efficiencies and partnerships, as has existed between York Region and our partner York local municipalities, since its inception in 1971; and
3. Be It Further Resolved That the Town of Aurora and its actively engaged citizens value the distinct identity of their community of communities and are committed to being proud hosts and stewards of the Oak Ridges Moraine, Greenbelt, Lake Simcoe and the Holland Marsh; and
4. Be It Further Resolved That this motion be forwarded to all municipalities of York Region, the Premier of Ontario, the Minister of Municipal Affairs and Housing, all local MPP's and the Association of Municipalities of Ontario.