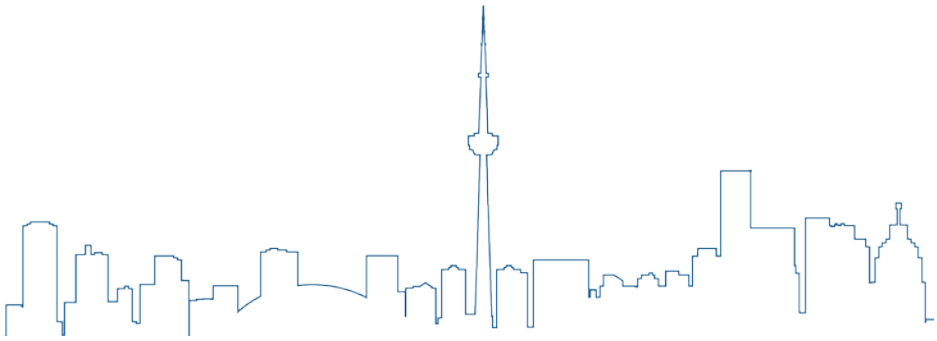
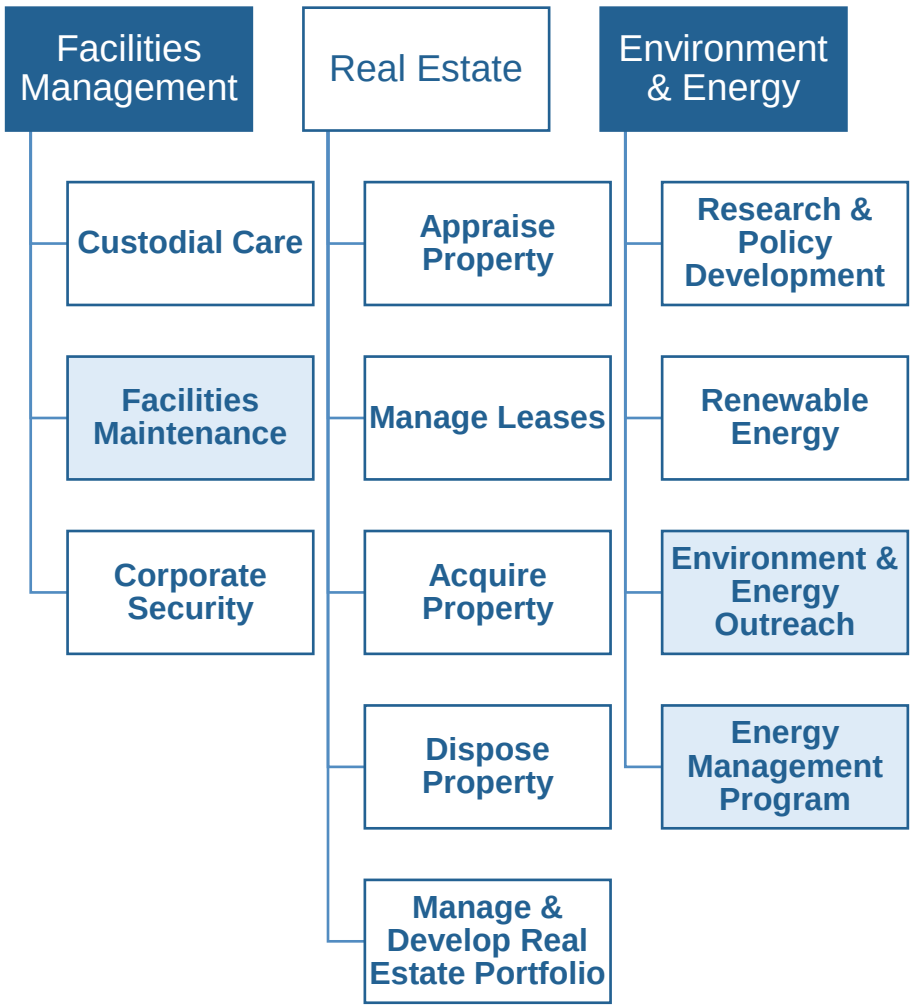
TORONTO



FACILITY SERVICES

PROGRAM MAP

Facilities, Real Estate & Environment and Energy



Shaded boxes reflect the activities covered in this report

Facilities Management, Real Estate, and Environment & Energy (FREEE) work across the City with clients and stakeholders to deliver a comprehensive range of facility management, real estate services and environmental sustainability programs in an efficient and effective manner that maximizes the City's property assets and delivers service excellence. Facilities Management provides custodial, building maintenance, security, energy and construction services to City Divisions and select agencies in accordance with service level agreements.

SUMMARY OF PERFORMANCE MEASUREMENT RESULTS

Question	Indicator/Measure	Internal Comparison of Toronto's 2017 vs. 2016 Results	External Comparison to Other Municipalities (MBNC) By Quartile for 2017	Chart & Page Ref.
How much electricity is used in headquarter buildings?	Electricity Consumption (kWh) for Headquarter Buildings per Square Foot (Community Impact)	Decrease Electricity consumption decreased from the previous year (Community Impact)	4 Higher electricity consumption compared to the MBNC median (Community Impact)	8.1 8.2 pg. 4
How much natural gas is used in headquarter buildings?	Natural Gas Consumption in Equivalent kwh in Headquarter Buildings per Square Foot (Community Impact)	Increase Natural gas consumption increased compared to the previous year (Community Impact)	3 Natural gas consumption was higher compared to other municipalities (Community Impact)	8.3 8.4 pg. 5
How much water is used in headquarter buildings?	Water Consumption (m^3) for Headquarter Building per Square Foot (Community Impact)	Decrease Water consumption decreased compared to the previous year (Community Impact)	4 Water consumption was higher compared to other municipalities (Community Impact)	8.5 8.6 pg. 6
How much does it cost to maintain a Municipal Headquarter Building?	Total Cost of Facility Operations for Headquarter Building (HQ) per Square Feet of HQ Building (Efficiency)	Increase Total Cost of Facility Operations for Headquarter Building (HQ) per Square Feet of HQ Building increased in 2017. (Efficiency)	4 Higher Cost to Maintain HQ Building compared to others (Efficiency)	8.7 8.8 Pg. 7/8

SUMMARY OF OVERALL RESULTS

Internal Comparison of Toronto's 2017 vs. 2016 Results	Internal Comparison of Toronto's 2017 vs. 2016 Results	External Comparison to Other Municipalities (MBNC) By Quartile for 2017	External Comparison to Other Municipalities (MBNC) By Quartile for 2017
Service Level Indicators (Resources) N/A	Performance Measures (Results) 2 - Favourable 0 - Stable 2- Unfavorable 50% favourable or stable	Service Level Indicators (Resources) N/A	Performance Measures (Results) 0 - 1st quartile 0 - 2nd quartile 1 - 3rd quartile 3 - 4th quartile 0% in 1st and 2nd quartile

For an explanation of how to interpret this summary and the supporting charts, please see the Guide to Toronto's Performance Results. These quartile results are based on a maximum sample size of 16 municipalities.

COMMUNITY IMPACT

As a corporation, the City of Toronto has a significant energy and environmental impact associated with its own operations. The City is working towards reducing energy use in its buildings in order to help the environment and reduce energy costs. One way of measuring this objective is to report on the amount of electricity, natural gas and water that is used by headquarter type buildings such as City Hall and Civic Centres.

8.1 –HOW MUCH ELECTRICITY IS USED IN CITY HEADQUARTER BUILDINGS?

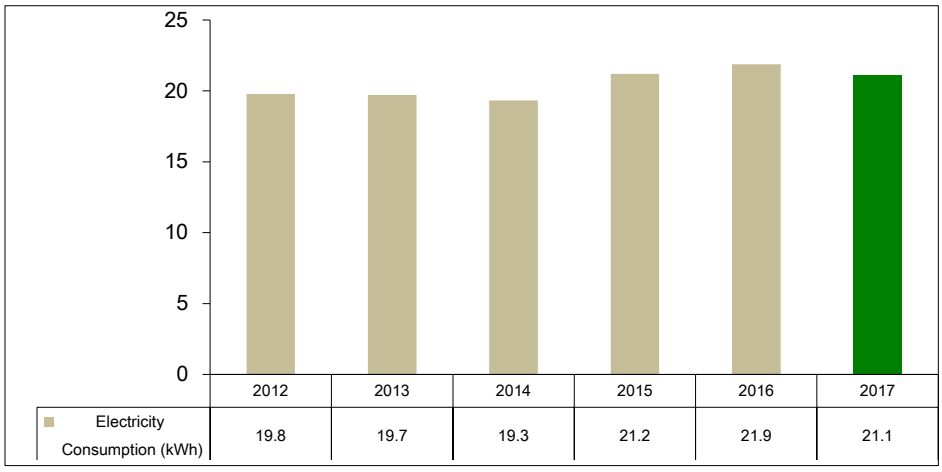


Chart 8.1 (City of Toronto) Electricity Consumption (kWh) for Headquarter Buildings per Square Foot

Chart 8.1 shows Toronto City Hall's electricity consumption per square foot decreased to 21.1 kWh / Square foot of HQ Building in 2017. The 2017 Energy consumption data came from the Energy Cap database. There was a decrease in the result due to lighting retrofits that occurred throughout the latter half of 2017.

8.2 –HOW DOES ELECTRICAL USE IN TORONTO'S HEADQUARTER BUILDINGS COMPARE TO OTHER MUNICIPALITIES?

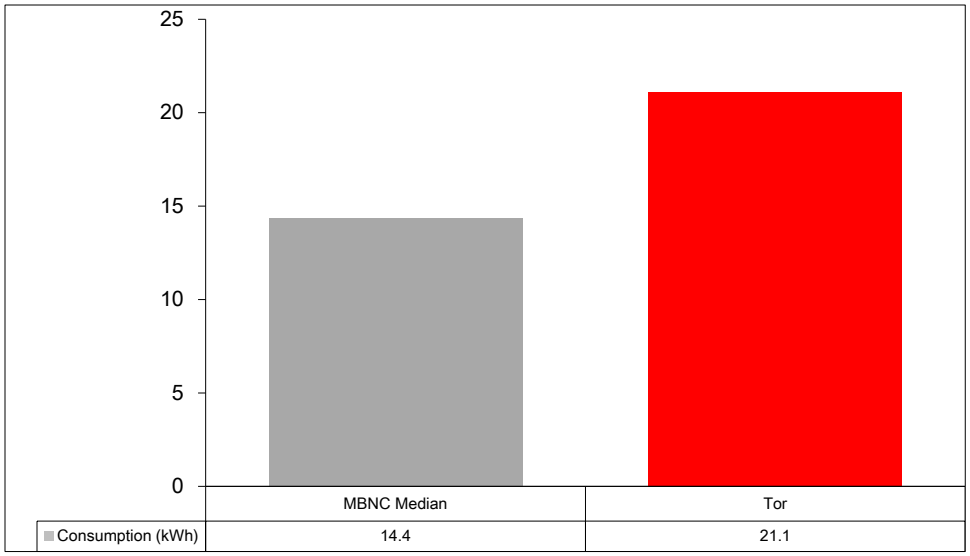


Chart 8.2 (MBNC 2017) Electricity Consumption (kWh) for Headquarter Buildings per Square Foot

Chart 8.2 compares Toronto's 2017 electricity consumption to the MBNC median. In terms of the lowest electricity consumption per square foot, the MBNC median ranked lower than Toronto.

8.3 – WHAT IS THE NATURAL GAS CONSUMPTION FOR HEADQUARTER BUILDINGS IN TORONTO?

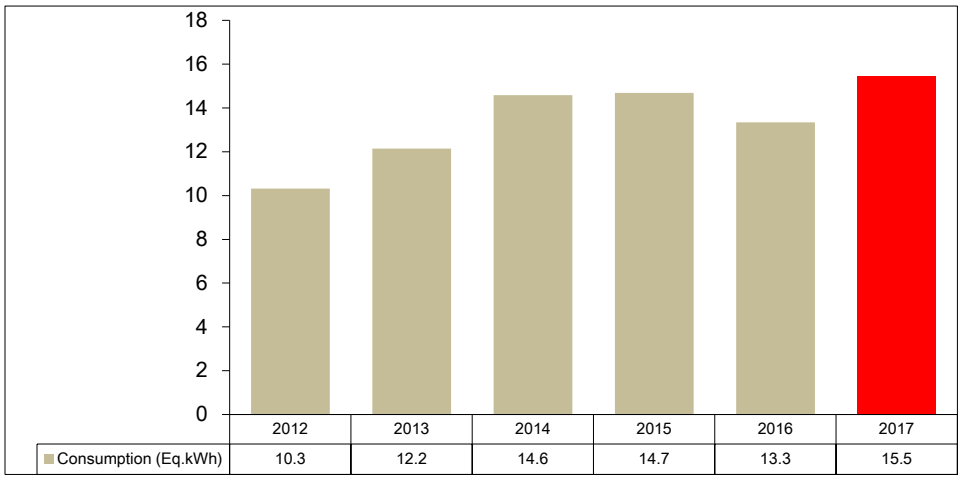


Chart 8.3 shows that for Toronto's City Hall, in 2017, the natural gas consumption per square feet increased by 15.8% compared to 2016. 2017 Energy consumption data came from the EnergyCap database.

Chart 8.3 (City of Toronto) Natural Gas Consumption in Equivalent kWh in Headquarter Buildings per Square Foot

It should be noted that Toronto City Hall does not use natural gas for heating, but uses a steam system and deep lake water cooling from Lake Ontario to cool. Steam consumption is reported in equivalent kilowatt tours (ekWh). The cooler temperatures in 2017 resulted in the higher steam consumption compared to the previous year.

8.4 – HOW DOES NATURAL GAS CONSUMPTION IN TORONTO COMPARE TO OTHER MUNICIPALITIES?

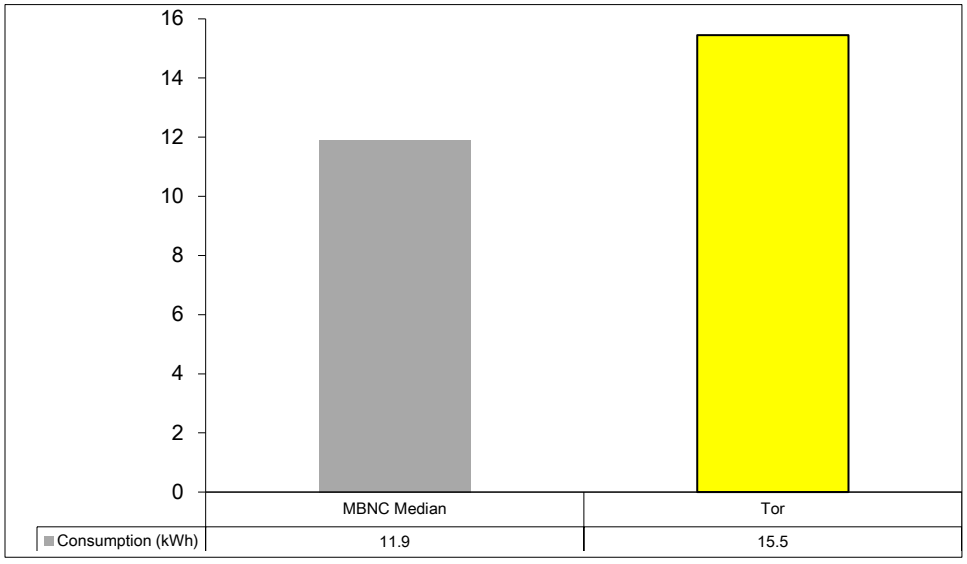


Chart 8.4 compares Toronto's natural gas consumption to the MBNC median. In terms of the lowest electricity consumption per square foot of the City Hall Building. In 2017, Toronto ranked above the MBNC median.

Chart 8.4 (MBNC 2017) Natural Gas Consumption in Equivalent kWh in Headquarter Buildings per Square Foot

According to Toronto's Annual Energy Consumption & Greenhouse Gas Emissions Report, Toronto City Hall uses chilled water from Lake Ontario (also known as deep lake water cooling) to cool the building during the summer, which reduces electricity use. In the winter, Toronto's

City Hall uses steam for space heating and domestic water heating. As mentioned, the colder temperatures in 2017 resulted in higher steam consumption.

8.5–WHAT IS THE WATER CONSUMPTION FOR HEADQUARTER BUILDINGS IN TORONTO?

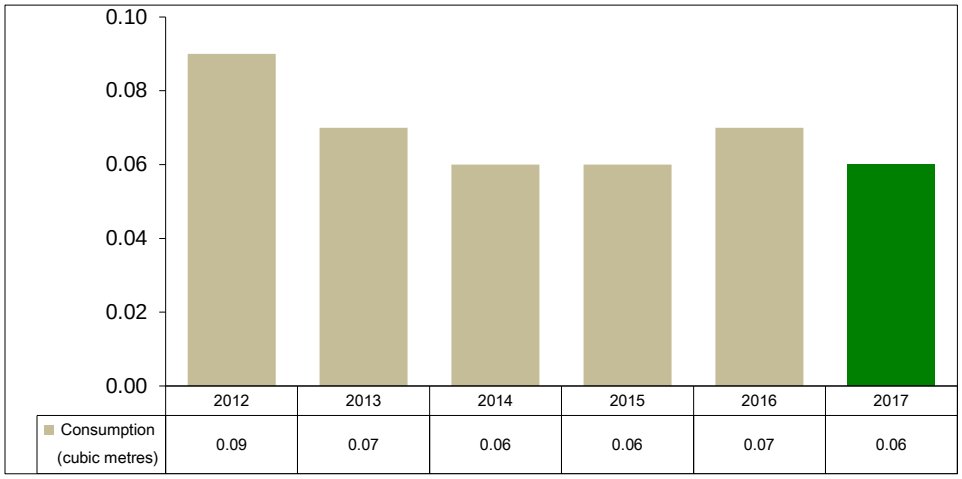


Chart 8.5 shows that for Toronto's City Hall, in 2017, the water consumption per square feet of City Hall (in cubic meters) decreased from 2016. The 2017 Energy consumption data came from the EnergyCap database.

Chart 8.5 (City of Toronto) Water Consumption for Headquarter Building per Square Foot

In 2017, the decrease in water consumption would be a result of fixture retrofits and staff awareness of environment and resources.

8.6–HOW DOES THE WATER CONSUMPTION IN TORONTO COMPARE TO OTHER MUNICIPALITIES?

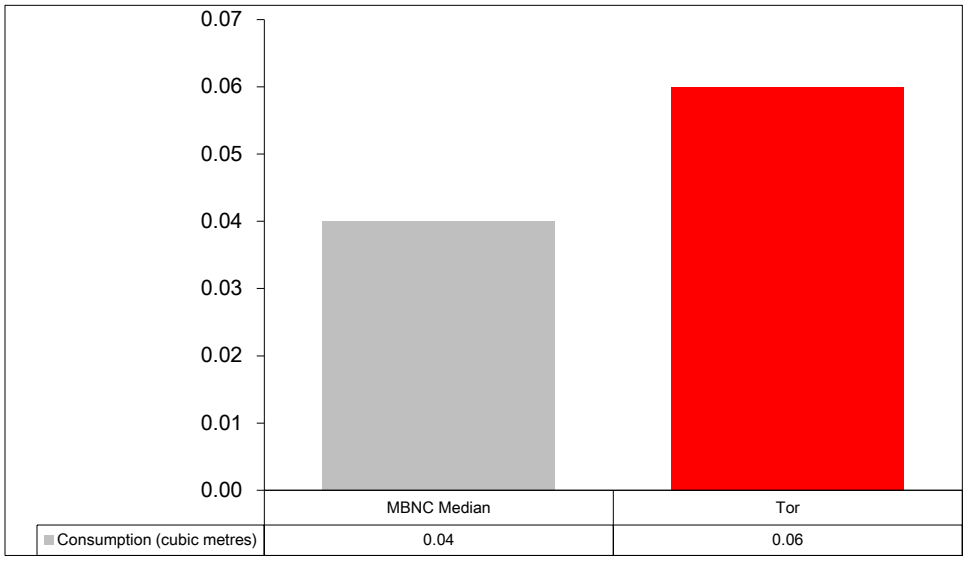


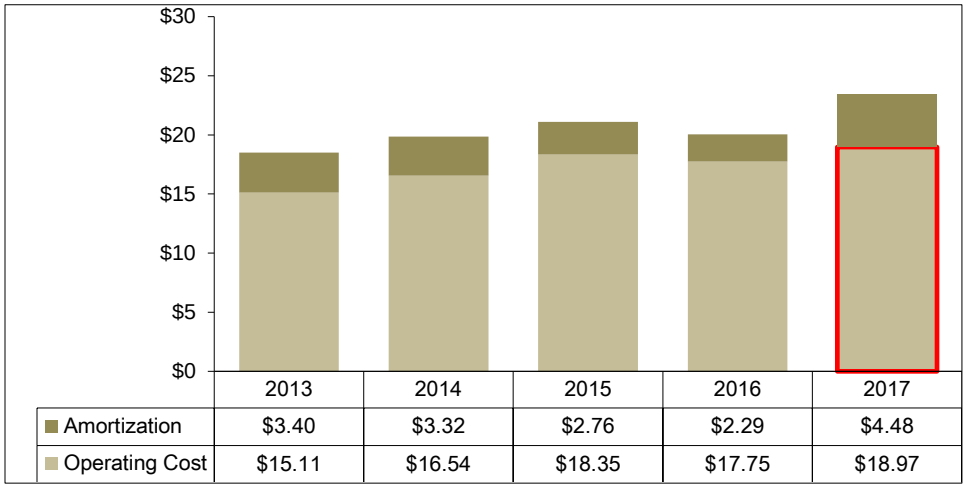
Chart 8.6 compares Toronto's water consumption to the median of other MBNC member cities.

In terms of the lowest water consumption per square foot of the City Hall building, Toronto ranked higher compared to the MBNC median.

Chart 8.6 (MBNC 2017) Water Consumption for Headquarter Building per Square Foot

EFFICIENCY

8.7 – WHAT IS THE TOTAL COST TO MAINTAIN A MUNICIPAL HEADQUARTER BUILDING IN TORONTO?



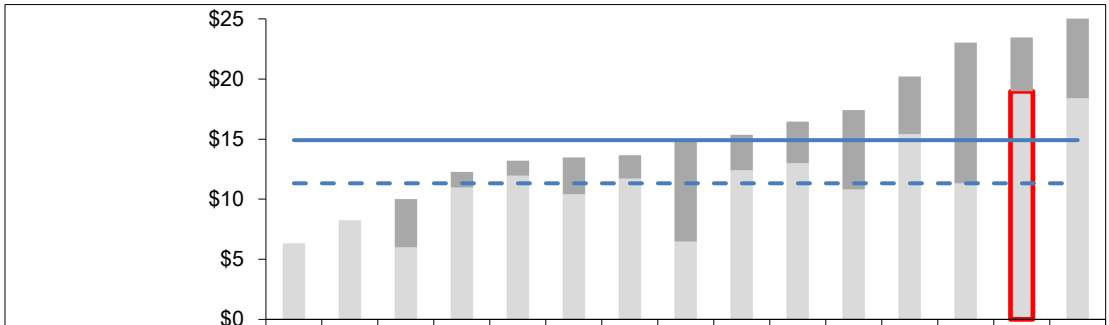
	2013	2014	2015	2016	2017
Amortization	$3.40	$3.32	$2.76	$2.29	$4.48
Operating Cost	$15.11	$16.54	$18.35	$17.75	$18.97

Chart 8.7 compares Toronto's cost to maintain a Municipal Headquarter Building to previous years.

Chart 8.7 (City of Toronto) Total Cost of Facility Operations for Headquarter Building (HQ) per Square Feet of HQ Building

Toronto's cost for Facility Operations for Headquarter Building (HQ) per Square Feet of HQ Building increased by 6.9% for operating costs and 17% for total costs. In 2017, factors of increased labour and materials costs and more maintenance work orders performed contributed to the increase in operating cost. The total cost also increased due to a significant increase in amortization expenses compared to the previous report year.

8.8 –HOW DOES THE TOTAL COST TO MAINTAIN A MUNICIPAL HEADQUARTER BUILDING IN TORONTO COMPARE TO OTHER MUNICIPALITIES?



	Wind	Lon	Wat	Reg	Sud	Hal	Winn	Niag	T-Bay	Dur	York	Mtl	Ham	Tor	Hfx
Total Cost	$6.33	$8.26	$10.00	$12.28	$13.20	$13.47	$13.66	$14.91	$15.36	$16.46	$17.41	$20.21	$23.04	$23.45	$44.53
Amortization	$-	$-	$4.00	$1.31	$1.24	$3.07	$1.95	$8.44	$2.95	$3.46	$6.60	$4.81	$11.72	$4.48	$26.14
Operating Cost	$6.33	$8.26	$6.00	$10.97	$11.96	$10.40	$11.71	$6.47	$12.41	$13.00	$10.81	$15.40	$11.32	$18.97	$18.39
Median - Total	$14.91	$14.91	$14.91	$14.91	$14.91	$14.91	$14.91	$14.91	$14.91	$14.91	$14.91	$14.91	$14.91	$14.91	$14.91
Median - Operating	$11.32	$11.32	$11.32	$11.32	$11.32	$11.32	$11.32	$11.32	$11.32	$11.32	$11.32	$11.32	$11.32	$11.32	$11.32

Chart 8.8 (MBNC 2017) Total Cost of Facility Operations for Headquarter Building (HQ) per Square Feet of HQ Building

Chart 8.8 compares Toronto's cost to maintain a Municipal Headquarter Building in Toronto compared to other municipalities.

Toronto ranks fourteenth of fifteen municipalities (fourth quartile) for lowest total cost per square feet of HQ building and fifteenth of fifteen municipalities (fourth quartile) in terms of the lowest operating cost per square feet of HQ building.

2017 ACHIEVEMENTS AND 2018 PLANNED INITIATIVES

Facilities Management continued its focus on improving service and processes, while keeping City facilities operational and safe for staff and the public.

2017 Initiatives Completed/Achievements

- Continue to manage over 9.7 million square feet of City-owned and operated facilities
- Continue to implement new business model including a review of organizational structure to best align with the City Wide Real Estate Review.
- Building a robust preventive maintenance program to maximize up time for buildings and reduce reactive work. A pilot preventive maintenance program has been implemented at Police Headquarters.
- Development of a Facilities Management Office to provide strategic and ongoing business support to the Facilities Management Division.
- Creation of a pilot Job Shadowing program for FM employees
- Implemented a new custodial contract to achieve budget reduction requirement for Toronto Police Services

2018 Services and Initiatives Planned

The following services and initiatives are expected to further improve the efficiency and effectiveness of Facility Services:

- Continues to strive to operate efficiently to maintain a square foot cost allocation that reflects good value for money in a municipal setting.
- Maintain City facilities in a clean, safe, and accessible manner as per Council approved maintenance standards.
- Ensure the City's property portfolio is optimal and meets program requirements.
- Develop an organizational structure that optimizes preventative and demand maintenance with state-of-good-repair plans and maximizes project delivery.
- Reduce energy demand and greenhouse gases and increase use of renewable energy technologies and clean energy generation.
- Invest in the growth and development of staff through talent management, leadership development, succession planning, mentorship programs, and by creating a healthy and positive work space.
- Maximize lease revenues by negotiating optimal leasing arrangements.

Factors Influencing Results of Municipalities

The results of each municipality's energy consumption included in this report can be influenced to varying degrees by factors such as:

- **Age of buildings.** The age of buildings may impact how much energy is required to heat and/or cool the building. For example, older buildings that do not have as much insulation materials as newer buildings tend to have higher energy consumption patterns. Conversely, the buildings with energy efficiency features would consume considerably less energy. For example, a building with double-pane windows would consume less energy than a building with single-pane windows.
- **Seasonal temperature differences.** The annual variances that are presented in this report can be impacted by higher or lower than normally observed temperatures. For example, during a cold winter, more energy was likely required to heat a building. Conversely, a hot summer would require additional energy to cool it down. The seasonal temperature differences can play a large role in how much energy is consumed by the building.
- **Organizational Form:** The extent to which facilities management services are centralized or decentralized in each municipality can influence reported results.
- **Capital:** The accounting policy/dollar threshold for capital expenditures impacts the types of maintenance activities included in operating costs.