

Winter Maintenance Workshop



**Special General Committee
June 4, 2019**

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Agenda

1. Purpose
2. Process
3. Background and History
4. Current Service Level
 - Road Network
 - Windrow Removal Program
 - Pathway / Sidewalk
5. Challenges Impacting Service Level
 - Climate Change
 - Build Form
 - Communication
 - Education
6. Round Table Discussion
 - Rotate Through 3 Tables with 1 Topic Each

Purpose

- During 2019 Capital Budget Committee meetings, Council discussed concerns raised by residents following the 2018/2019 winter season.
- Council directed Operations staff to review current service levels:
 1. Road Service Level
 2. Windrow Removal
 3. Pathway / Sidewalk Clearing

Process

- Seek Public Input
 - Winter maintenance survey is ongoing on Your Voice Markham website since May 17, 2019 <https://yourvoicemarkham.ca/snow_plowing>
- Council Meetings – Winter Maintenance Workshop
 - Workshop #1 – June 4, 2019
 - Service overview
 - Round table discussion
 - Report back from tables
 - Directions to staff for next steps
 - Workshop #2 – June 17, 2019
 - Summary of Workshop #1
 - Feedback from Your Voice Markham
 - Recommendations

Background and History

- The City regularly reviews its winter maintenance program since 1997 to 2019, approximately every 2 years
- The chronology of the review history is summarized in the attached Briefing Notes – Historic Overview of Winter Maintenance

Current Service Level - Legislations

- Code of Practices by Environment Canada (Federal) – Recommend all government agencies to have a Salt Management Plan
 - sets out policy and procedural framework for continuous improvement of the management of salt in winter operations;
 - manages the salt use to reduce the environmental impacts; and
 - aligns to the Federal code without compromising road safety ensuring compliance to Ontario's Minimum Maintenance Standards for winter maintenance, Ontario Reg. 239/02.
- Minimum Maintenance Standards, Ontario Reg. 239/02 (Provincial)
 - sets out minimum winter maintenance service levels for municipalities;
 - provides a standard instrument for municipalities in Ontario to defend themselves against claims related to winter maintenance; and
 - City's service level exceed Ontario legislation.

Current Service Level - Primary Road



High volume road
Salted and/or plowed to achieve a bare surface condition 24/7

Current Service Level - Secondary Road



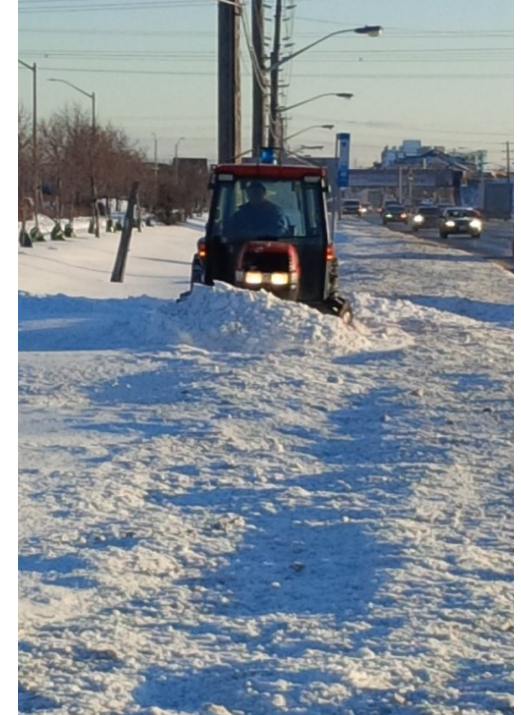
Roads connect to primary with hills
Salted and/or plowed to achieve a centre bare surface 7am – 6pm

Current Service Level - Local Road / Rear Lane



Low volume roads – considered acceptable in snow packed condition
Plowed when snow reach/exceed 7.5cm or 12cm if snowfall continue.
Take up to 16 hours. Wide corner clean up follow after locals plowed

Current Service Level - Sidewalk



Sidewalk on both Regional and City Roads
Plow and apply material when snow reach/exceed 5cm, within 24 hrs

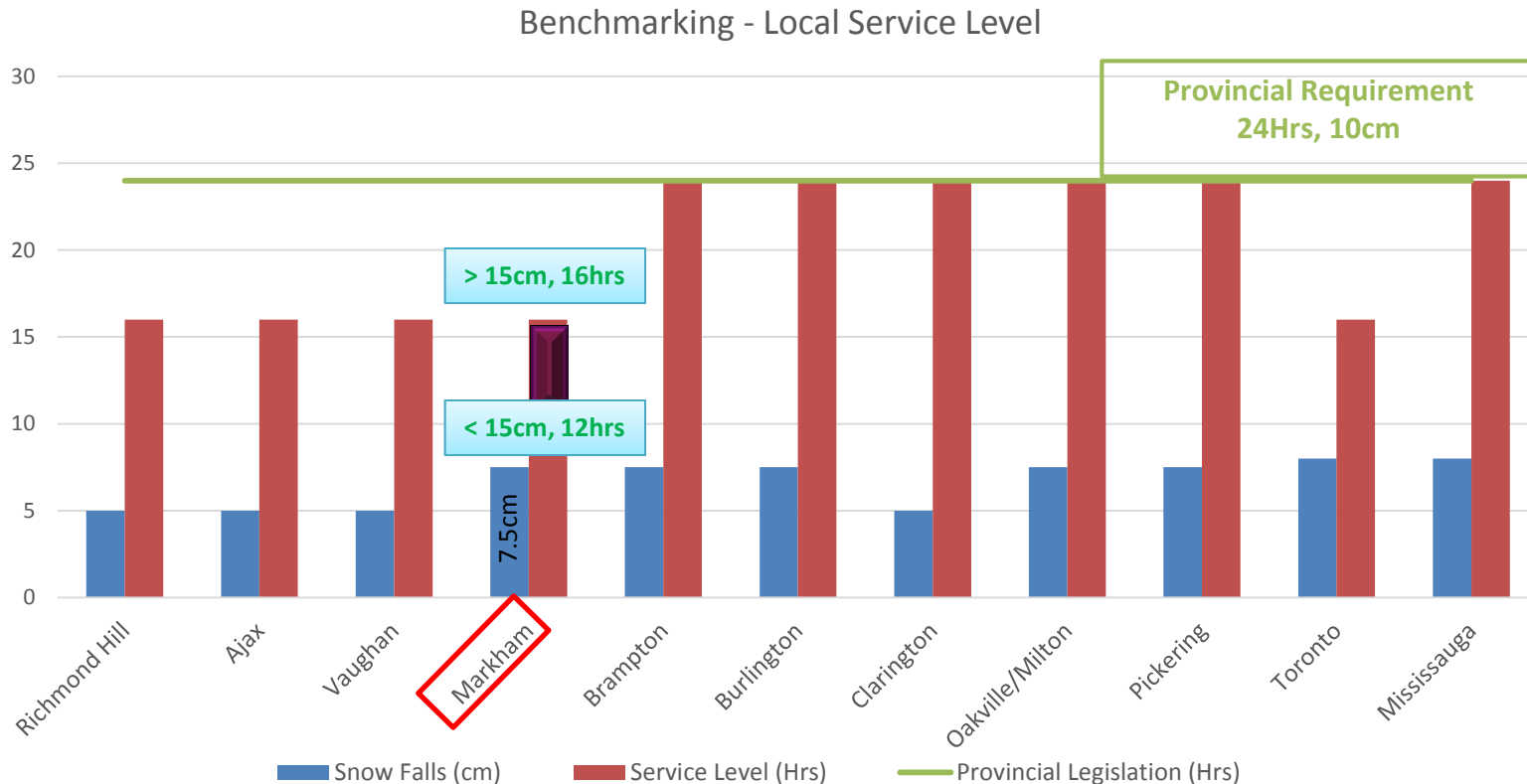
Review - Roadway Statistic by Wards

- The City-wide road network includes 864km (39.3%) of Primary, 164km (7.5%) of Secondary and 1,171km (53.2%) of Local and Rear lane.

WARD	LANE KM	REAR LANE KM	SIDEWALK KM		SENIOR WINDROW
			City	Region	
1	252	0	74	25	982
2	279	14	123	28	589
3	224	9	94	27	609
4	282	2	115	22	980
5	261	77	151	6	135
6	239	27	124	12	284
7	247	1	108	23	432
8	304	2	137	43	672
SUBTOTAL			926	186	
TOTAL	2087	133	1112		4683

Review of Service Level - Local

- Province legislate a Minimum Maintenance Standards



- ❖ The City complete a local road plow within 12 hours for snow falls less than 15cm, 16 hours for snow falls equal or more than 15cm.

Current - Windrow Removal Program

Windrow are unavoidable during plowing, other than rear lanes

- All residents in the household must be over 60 or have a disability
- Windrow removal clears one car width at the base of the driveway, after 7.5cm snowfall
- Clearing within 8 hours of the front facing street has been plowed
- Does not include sidewalk windrow
- City windrow program began in 1996
- Reduced Eligibility from 65 to 60 in 2008
- Currently 4683 approved residences
- In 2018/2019, average 1% (51) windrow was missed per storm out of 4,683 addresses, many of which were related to parked cars and winter condition

Review - Windrow Benchmarking

- 10 Municipalities were surveyed and only 2 provide windrow clearing for all residents. Vaughan provides this service to all and Toronto only in eligible areas (ie. mainly North York, Scarborough and Etobicoke)
- Based on 2016 census, approximately 40% of the City of Toronto's population do not receive a windrow removal
- Richmond Hill recently approved city wide windrow removal on March 25, 2019. Driveways located on regional roads, commercial, industrial, institutional, high-rise, private road and rear lane will not be included. The cost estimates for 55,000 driveways are:
 - In house service for \$4.38M
- Markham currently does not have the yard capacity to store all hired equipment required to provide this service
- Existing contracts expire 2022

Review - City-Wide Windrow Clearing

- Preliminary estimate based on the Vaughan windrow removal model. Approx. 81,000 driveways City-wide for Markham.
- Annual costs to the City is \$4.4M or 3% tax rate increase, if local service level remains 7.5 cm.
- **Not included: land acquisition, infrastructure, contractor capital costs, early contract termination costs**

Customer Expectations and Operational Impacts	Implications
Fast/speed	Equipment moves much slower, requires more equipment
Full driveway width including sidewalk windrow	Longer operation and sidewalk windrow not possible
Full roadway from curb to curb	Snow spill off leads to narrow roadway
Private property (borders, driveways, landscape)	Often damage
Built form impact	Condos and rear lanes won't receive this service
Works yard capacity	New yard is not yet available
Existing contracts expire in 2022	Early contract termination cost
Customer Complaints /Contact Centre	Increase in complaints – timeline, damage, sidewalk

Pathway – Current

- Pathways are different than sidewalks in terms of use and method of construction
- Pathways are intended for recreational usage while sidewalks are part of the transportation network
- Current practice is to plow concrete surface pathways that connect street to street, except where the grade is too severe or not properly illuminated to provide safe pedestrian passage
- Service levels for sidewalks are mandated by O. Reg. 239/02
- No legislated service level for pathways
- City pathways in parks, valley lands and those connecting the road network to unmaintained surfaces or private property (such as a school) are currently posted with “No Winter Maintenance” signs

Pathway - Review

- Staff presented to Council on June 27, 2016 General Committee regarding pathway winter maintenance review
 - A copy of the report can be accessed through [Winter Maintenance Windrow and Pathway Winter Maintenance Review](#)
 - A copy of the presentation can be accessed through [Winter Maintenance Windrow Rebate/Pathway Program Review](#)

Impacts to Service Delivery

- New Built Form



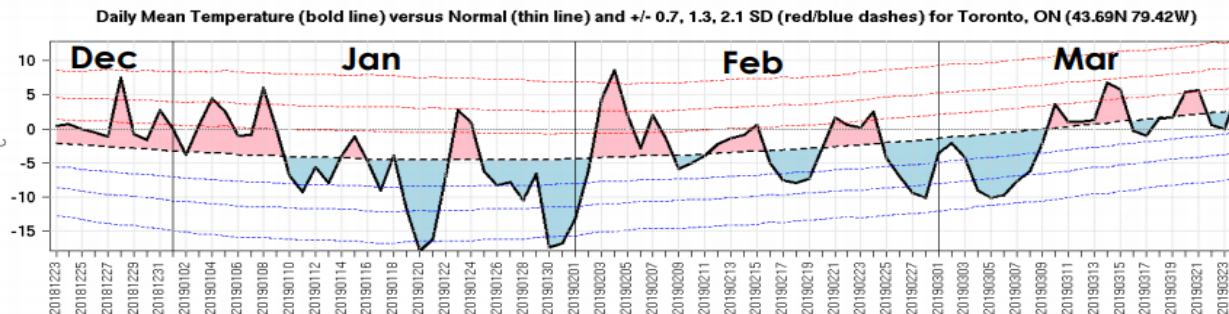
- Parking on Road



Impacts to Service Delivery

- Climate Changes - Fluctuating Weather Patterns
 - Increased frequency of ice and mixed precipitation
 - May recognize increased frequency of equipment breakdown
 - Requires longer clean up time

Winter 2018/2019 - Temperature



- Salt Supply & Capacity / Snow Storage Limitation
 - Salt supply / shortage – One location
 - Deployment
 - One snow storage site
 - Timing on new operations yard

Contact Centre Statistic on Calls

- Overall impact on the Contact Centre on winter maintenance represents between 9 -12% (3 years average) of daily calls 3 days post storm.

Date Range	Winter Maintenance ACR	Total ACR City Wide	Percentage
2018/2019 (November – April)	1,866	17,138	10.8 %
2017/2018 (November – April)	1,716	14,737	11.6 %
2016/2017 (November – April)	1,354	15,791	8.6 %

- Winter Maintenance call is heavily related to each storm event, such as 2018 April ice storm, 2019 January consecutive ice/snow storm.

Communication / Education

- Winter maintenance resident survey currently posted and live on Your Voice Markham website since May 17, 2019.
- Better communication and education with residents on City's program and service levels would help set expectation and understanding.

Next Step

- Staff to report back on June 17, 2019 on:
 - Summary of June 4, 2019 Workshop #1
 - Resident feedback from Your Voice Markham
 - Recommendations

Round Table Discussion

- Members of Council will rotate to 3 tables for Discussion:
 - Table 1: Roads Service Level
 - Table 2: Windrow Removal
 - Table 3: Pathway / Impacts to Service Levels

Questions

- What do you believe is the Problem to solve?
- Based on the presentation and the financial implication, how do you see the City addressing question #1, and managing residents' expectations?
- What do you think the priorities are for this service area and overall for Winter Maintenance?

Questions

