



Corporation of the
City of St. Thomas

Report No
ES101-15
File No.

Directed to: Mayor Jackson and
Members of City Council

Meeting Date: November 2, 2015
Date Authored: October 23, 2015

Department: Environmental Services

Prepared By: Dave White, C. Tech, CRS
Manager of Roads & Transportation

Attachments
A copy of the Winter Snow
Maintenance Plan presentation
to the Reference Committee

Subject: Winter Snow Maintenance Plan

Recommendation:

- THAT: Report ES101-15, Winter Snow Maintenance Plan, be received for information; and
- THAT: Council approve in principle the ten recommendations contained in Report ES101-15; and
- THAT: The five recommendations requiring additional financial requirements be referred to the respective 2016 budget processes; and
- THAT: The five recommendations that do not require additional financial requirements be implemented immediately; and
- THAT: That staff be authorized to temporarily increase the part time hours, and number of part time employees by two(2), and increase outsourced plowing to increase the level of service in advance of budget approval in February; and
- THAT: The required revisions be made to the Maintenance and Operating Procedures of the Roads and Transportation Service Area.

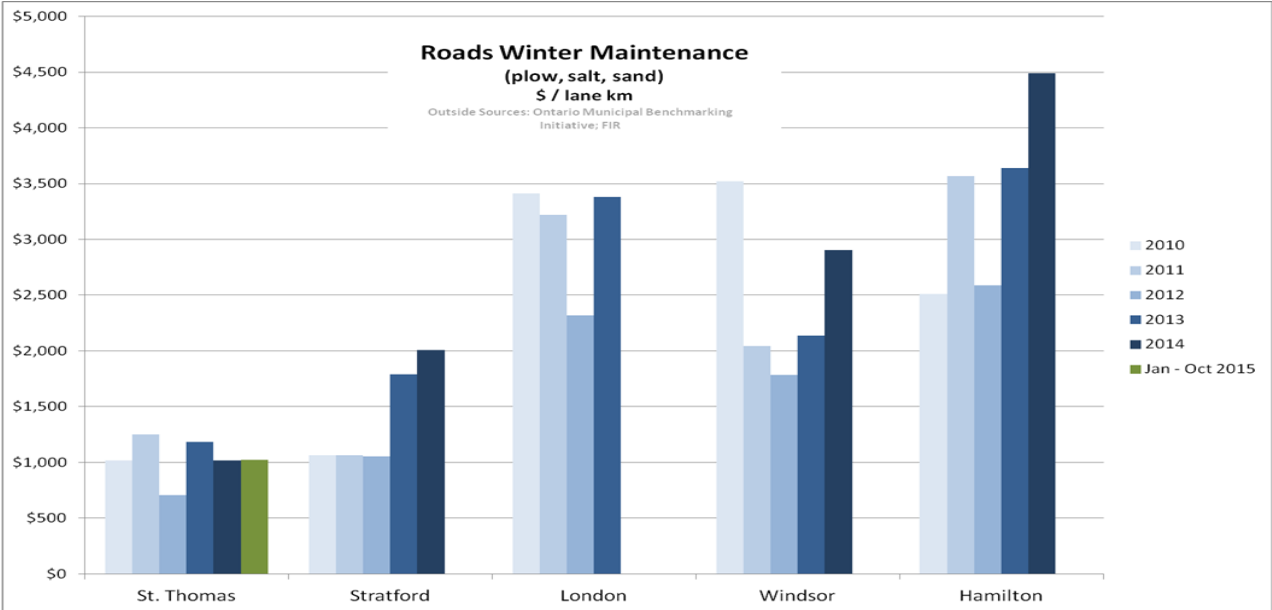
Origin:

At its meeting of February 2, 2015 Council received report ES11-15 for information. During the meeting, it was noted that; the members expressed concern about the delay in snow removal at bus stops and bus shelters and requested a review of the City's strategy to improve this service.

Analysis:

The level of service for winter maintenance is a collective choice made by municipal staff, Council and residents. Available options are chosen by a community based on costs and benefits of those choices. For St. Thomas residents, the 2014 percentage of property tax dedicated to the overall annual road maintenance budget was 4.22% or \$84.40 for every \$2,000 in property tax.

To compare the City of St. Thomas with other municipalities, staff utilized the Ontario Municipal CAO's Benchmarking Initiative and the provincial Financial Information Return (FIR) database. The chart shows a significant difference between what St. Thomas spends on winter maintenance vs. other Cities.



The Current Winter Maintenance Program

Ontario Municipalities must comply with the Minimum Maintenance Standards (MMS) contained in Ontario Regulation 239/02 made under the Municipal Act during the winter maintenance periods. There are 3 winter related and 9 year round minimum maintenance standards to comply to and document.

During the winter maintenance period there are 3 permanent staff on rotation as a 24/7 supervisor on call (one of which is the Foreman), 9 permanent operators and the equivalent of 5.75 temporary staff. The regular shift hours are 7:30 a.m. to 3:30 p.m. Monday to Friday and there is a night patrol person each weekday from 11:30 p.m. to 7:30 a.m. that is in place to inspect and document roads deficiencies and call the supervisor on call with any immediate issues. Staff are deployed 24/7 with some overtime to address winter storms. There has been no full time staff added in the last decade despite a growing City.

There are three designated snow storage areas; one that receives snow from downtown snow lifts (Palm Street facility) and two that receive snow from local roads and cul-de-sacs when required (Burwell Park in the north and Doug Tarry parking lot in the south). Staff has received feedback regarding the negative social impact of the operation of the Palm Street facility and will investigate new options.

There are two, quite old but still in effect, By-laws that address winter maintenance clearing requirements by property owners on sidewalks. By-law No. 969 (1896) and By-law 17-85 (1985) can be reviewed or amended if Council is interested revising them.

The Winter Maintenance Plan Review

Environmental Services staff met on six occasions between July and October to discuss the existing winter maintenance plan. Staff also met with neighbouring municipalities and conducted significant research on standards and options. A number of viable options for improvement were documented, historical service requests from the public were considered, and roads maintenance operators were consulted for their feedback. A presentation was made to the reference committee on October 19, 2015 to get their feedback, a copy of which is attached.

The presentation is also available to the public by following this link <http://www.stthomas.ca/content/roads-and-transportation-services>.

Ten Recommendations for Plan Improvement

The following 10 recommendations represent full consideration of comments received during our research of other Municipalities' information, consultation of Roads and Transportation Service Area staff, review of service requests from the public and comments from the Reference Committee of Council. The recommendations were selected from a larger menu of options, each with cost and benefit.

Recommendation 1 - Add 1 full time operator at approximately \$60,000 per year + benefits.

Staff are currently collecting deficiencies through routine and representative patrols mandated by the Minimum Maintenance Standards (MMS). There are three supervisors on call that rotate responsibilities each week and they are the Foreman of Roads and Traffic and the two permanent lead hands. During the time that the Foreman is a supervisor on call he does not have the time, or isn't at work during the daytime hours, to coordinate the collected deficiencies to staff and carefully deploy staff and contracted resources. This delays the response, efficiency, and exposure to risk. Also mandated is the required response time for each deficiency. Adding a full time operator will provide a higher level of service by allowing the Foreman of Roads and Traffic to assure the completion of the recorded deficiencies to meet the legislative requirements.

Recommendation 2 - Add 1 contract plow and operator (will be 5 total) at approx. \$50,000 per year.

There are 4 established contractor operators and plows on standby that are used on 4 of the 11 plow routes. For peak period requirements an additional plow and operator would reduce the amount of time it takes to complete a full plow during high demand.

Recommendation 3 - Add part time patrol hours (will be 2 total) at approximately \$2,500 per year.

A level of service choice is related to the amount of part time person hours we have for the mandatory patrols. There are currently two part time staff hired for this function but one is on an 8 hour shift and one is on a 6 hour shift. Adding patrol hours (both 8 hour shifts) will reduce the amount of time full time staff are required on patrol and reduce costs.

Recommendation 4 - Add 1 full time operator at approximately \$60,000 per year and add 1 plow at approximately \$220,000 capital expenditure.

There are 3 established plow routes for Class 2 and 3 Roads with an average of 41.65 lane kilometres and 11 established plow routes for Class 4, 5 and 6 Roads with an average of 26.60 lane kilometres. The addition of one operator and plow will reduce the average lane kilometres and completion time for

both. Adding one plow route for the Class 2 and 3 Roads and one plow route for the Class 4, 5 and 6 Roads will reduce the average to 31.24 and 24.38 kilometres respectively which reduces the time required to complete each plow cycle.

Recommendation 5 - Add 2 part time staff dedicated to sidewalks (will be 4 total) at approximately \$20,000 per year

In addition there are 4 established sidewalk plow routes. Adding the two sidewalk plows last season and two operators this season will reduce the time required to complete each plow cycle.

Recommendations 6, through 10 - Additional recommendations that do not have a direct cost associated with them.

- 6. Explore utilizing existing By-law enforcement temporary staff for winter maintenance activities.
- 7. Change winter maintenance period from Dec 1>Mar 31 to Nov 15>Mar 15 to match Bylaw 45-89.
- 8. Improve the communication of winter maintenance program status to the public.
- 9. Improve information to the public regarding level of service choices.
- 10. Improve telephone messaging service to the public.

Future consideration options were to equip the five ton trucks with liquid salt application equipment and to purchase an additional pickup truck. One option considered but not recommended was to replace sand with salt on local roads which may reduce the complaints but will severely and adversely affect the environment. Another option considered but not recommended was to go from 1 shift to 2 shifts for the winter maintenance period which has the unintended consequence of increasing staff complement to maintain sufficient patrol, operator and mechanic levels.

Timing Considerations:

Since the capital and operating budgets will not be passed until early February, it will be difficult to implement positive changes on this winter season without taking temporary measures. It is possible to increase part time staff hours and complement easily. It is also possible to increase hours for the contracted plowing. Making these temporary adjustments will allow an increased level of service until permanent staff and new equipment can be purchased.

Financial Considerations:

Recommendations 1 through 5 require a total of \$192,500 in operating budget and \$220,000 in one time capital expenses. Recommendations 6 through 10 do not require additional budget.

Respectfully Submitted,



Dave White, C. Tech, CRS
Manager of Roads and Transportation

Reviewed By: David Christie Justin Graham
Treasury Env. Services Planning City Clerk HR Other



Winter Snow Maintenance Plan

Prepared for:
The October 19, 2015
Reference Committee

By:
Roads and Transportation Service Area
of Environmental Services



Relative Cost & Staff

- 4.22% or \$84.40 for \$2,000 in tax,
- Supervisors = 3
- Operators = 9
- Seasonal = 5.75
- 7:30 a.m. to 3:30 p.m. Monday to Friday,
- 11:30 p.m. to 7:30 a.m. night patrol,
- Overtime as necessary during events



Overlapping Storms and Services



Local Road Hard Pack



Plow Damage



Objectives

1. Details of existing service levels
2. Current performance
3. Options for improving service levels
4. Opportunity to ask questions and provide direct feedback.



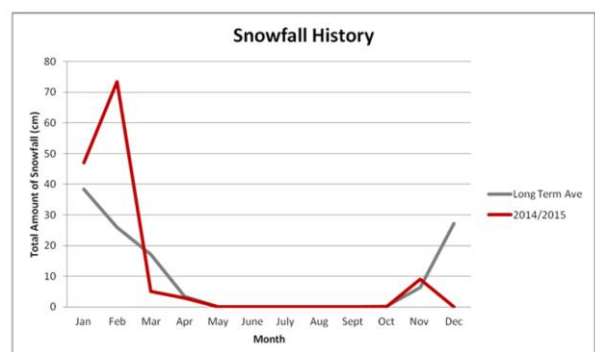
Staff & Equipment

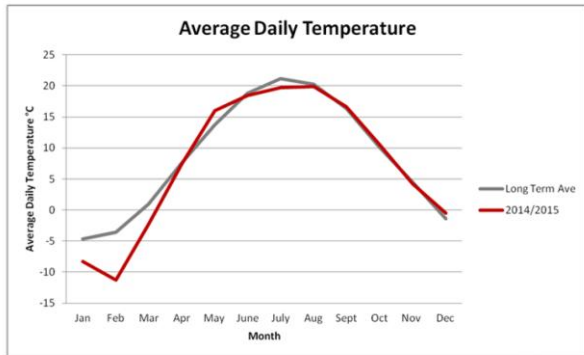


Consistency of Service

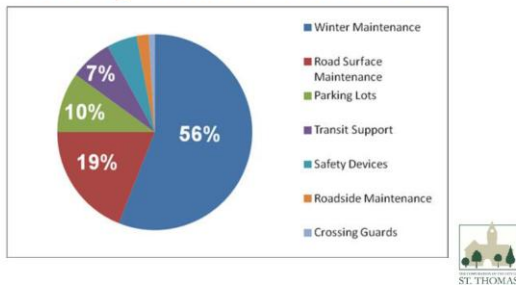


Ice Rutting





Breakdown of Operating Costs during Winter 2014/2015



Six Components of Winter Maintenance Plan

1. **Road Surface**
2. **Sidewalk Surface**
3. **Parking Lot / Lanes**
4. **Bus Stops**
5. **Hours of Work**
6. **Customer Service.**



1. Road Surface - Options

- 1.1 Add (1) FT operator \$80,000 / yr
- 1.2 Add contract for peak \$50,000 / yr
- 1.3 Add (.25) PT patrol staff \$2,500 / yr
- 1.4 Add (1) FT operator and plow \$300,000
- 1.5 Test salt alternatives \$30,000 / vehicle
- 1.6 Use salt on class 5/6 roads \$300,000



2. Sidewalk Surface Options

- 2.1 Add (2) PT staff \$20,000 / yr
- 2.2 Change sidewalk routes \$0
- 2.3 Utilizing existing By-law enforcement temporary staff \$0

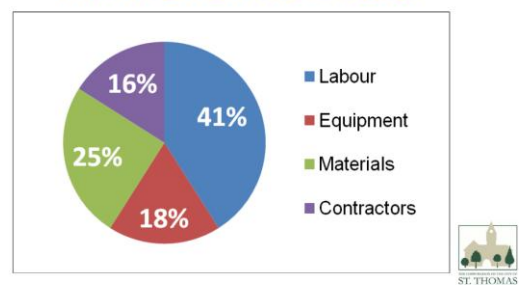


Applicable Legislation

- Municipal Act - Ontario Regulation 239/02 - Minimum Maintenance Standards
- 3 winter related activities,
- 9 year round activities.



Breakdown of Winter Maintenance Costs



1. Road Surface - Info

- 466 lane kilometers paved roads
- Road classes determined by MMS
- Salt for Class 2/3/4
- Sand for Class 5/6
- Plowed in priority from 2 to 6
- 11 plows, 1 grader, 1 bobcat
- Service Requests = Arterial 60 Collector 84, Local 562



2. Sidewalk Surface - Info

- 173 kilometers of sidewalk
- Not covered by MMS
- In priority during daytime hours
- Salt for downtown route
- Sand for all other sidewalk routes
- 5 sidewalk plows, 2 snow blowers
- Service requests = 373 requests



3. Lots/Lanes Surface - Info

- 18 Municipal parking lots
- 16 Municipal lanes
- 4 Courthouse parking lots
- 3 Contracted operator/equipment
- Service requests = 21





3. Lots/Lanes Surface Options

- 3.1 No further options explored \$0



4. Bus Stop Surface Options

- 4.1 Dedicate two existing PT staff (\$0)
- 4.2 Require an additional pickup \$40,000



6. Customer Service Options

- 6.1 Communication of status \$0
- 6.2 Information to Public about level of service choice \$0
- 6.3 Telephone message service \$0

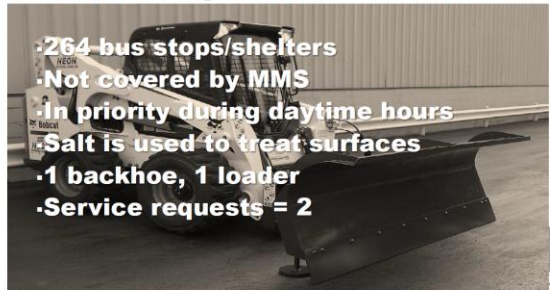


Next Steps

1. Get input from Council on which options to support, remove, or modify
2. Staff to write report for the November 2, 2015 Council meeting
3. Implement all changes for the 2015 / 2016 winter maintenance period
4. Monitor and report back in one year



4. Bus Stop Treatment - Info



5. Hours of Work Options

- 5.1 Winter maintenance period – Change to November 15th to March 15th \$0
- 5.2 Investigated two shift operation Monday to Friday including one mechanic \$240,000 / yr



Summary of Recommendations

- 1.1 Add (1) FT operator \$80,000 / yr for service coordination
- 1.2 Add contract for peak \$50,000 /yr
- 1.3 Add (.25) PT patrol staff \$2,500 /yr
- 2.1 Add (2) PT staff \$20,000 /yr
- 2.2 Change sidewalk routes \$0
- 3.1 No further Lot/Lane options explored \$0
- 4.1 Dedicate two existing PT staff \$0
- 5.1 Winter maintenance period = Nov 15th to Mar 15th \$0
- 6.1 Communication of status \$0
- 6.2 Information to Public about level of service choice \$0
- 6.3 Telephone message service \$0

