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Item No. 1
Halifax Regional Council
December 8, 2009

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: 
Mike Labrecque, Director Transportation and Public Works

DATE: November 2, 2009

SUBJECT: Winter Works Service Standards

INFORMATION REPORT

ORIGIN

Information Report titled 2008-2009 Winter Works review presented to Council July 7, 2009 and Service Review discussion COW August 11, 2009.

BACKGROUND

At the August 11, 2009 Committee of the Whole Service Review discussion, it was recommended that a review be undertaken of contracted out municipal services vs in-house services utilizing the existing standards for street and sidewalk snow removal, including a comparison of the costs and complaints received from residents in regard to property damage.

At the October 6, 2009 Regional Council, Council requested a staff report to review the 2009-2010 winter works budget with the objective to examine if there is capacity to increase the Seniors and Persons with Disabilities Snow Removal Program's budget to meet this year's demand of approximately 650 clients or \$500,000, whichever is less.

DISCUSSION

The Current Winter Works Program

The pre-amalgamation snow and ice program was delivered by three former municipal departments along with the NS Provincial Department of Transportation. Service Standards were inconsistent. Multiple Collective Agreements contributed to the shaping of the operational service delivery and approach. Residents were divided on the benefits of amalgamation and the snow and ice program was expected to result in improvements to pre-existing service.

Discussion with unions were required to marry the operational approach and as a result the program became a hybrid of the former programs. Although the two-team approach to Winter Works has been around since 1998, changes to this approach in the 2005/06 season, including moving to a two shift approach, reduced in-house overtime by \$2.5 million/year.

Service Standards were introduced to Council in 1998 in an effort to standardize the service, provide efficient service, and optimize safety for the citizens. Council approved these standards which are currently in place today. A consultant was hired in 1998 to make recommendations/improvements to the snow program. This report became known as the Covenco Report. A diagnostic analysis of the snow program was conducted and recommendations were made. Management carried out a series of actions based on these recommendations. Over the years, additional reports were provided in order to validate our achievements in meeting the original recommendations. The most recent report of 2008 recognized some very positive advancements such as, collective bargaining changes, shift scheduling, time spent per event, reduction in absenteeism, qualitative service standards in place and being measured and the introduction of performance-based contracts.

In 2003, a new position of Superintendent of Winter Works Operations was created to coordinate the overall approach, and monitor improvements to the service delivery of the snow program.

In 2005, the sidewalk clearing program was expanded to include main arterials in Halifax and transit routes on the peninsula and in Spryfield. Performance-based contracts for sidewalk snow removal were introduced in 2006 in an effort to provide a consistent service and support the approved Service Standards. In 2007, there was a further reduction of hourly based sidewalk contracts and an expansion of performance-based contracts. The benefits of performance-based contracts are predictable costs, costs savings, and the reduction of supervisors, as Municipal Operations supervisory compliment was taxed by the size of the overall snow program.

In 2006/07, following the merger of Waste Water Services with Halifax Water, the staffing for Winter Works was consolidated exclusively within Municipal Operations. The current staff compliment is 198 staff assignments, 26 supervisors and four superintendents.

Current Municipal Operations

The current program has a ratio of 65% contractor resources to 35% internal HRM resources. This ratio enables operational efficiencies and cost savings while meeting the current Service Standards. Employees are also assigned to alternative work (Priority 2 & 3 tasks) during periods of low demand during Winter Works.

This past season, the current Service Standards for streets were met in 95% of the events, with the most deficiency centered around “cut throughs” on residential streets. “Cut throughs” refer to the attempt to plow each lane on a P1 street every 3 hours during a storm and P2 streets after a 10cm accumulation during a storm. In the event that the cut throughs on P2 street interfere with meeting the three-hour turn around on the P1 streets, the cut throughs on P2 streets will be suspended in favour of servicing the P1 streets.

Many other cities in Canada use priority classifications and timelines to establish Service Standards. A summary of service levels across Canada is attached at Appendix A. Halifax Regional Municipality has one of the highest Service Standards in Canada.

Planned Improvements for 2009/2010 Season

Municipal Operations has several improvements planned for the 2009/10 season. They include:

1. the HRM website will be displaying priority 1 and 2 streets in the snow layers in GIS;
2. improved communication of standards to the public using HRM web page, television ads, and City Watch to communicate with downtown businesses;
3. introduction and enforcement of the Parking Ban to support operational efficiencies and ensure streets are clear for optimum traffic flow and emergency access;
4. training for Supervisors to improve quality of services and supervision of sidewalk-based performance contracts;
5. route orientation for operators, both contracted and HRM;
6. research the options of street-based performance contracts including a trial year (planned for 2010/11) to determine feasibility and success. The results will be reported to Council for consideration;
7. incremental snow removal incorporated throughout the winter where operationally required. A snow melter is being piloted to determine operational effectiveness;
8. continued improvements of salt management and inventory control;
9. continued development of a work culture focused on results and quality customer service;
10. the Work Management Project will be placing additional patrols on the street identifying hazards;
11. continued implementation of the recommendations from the 2007/08 Covenco Report;
12. enhanced performance reporting strategies to support operational decisions;

13. enhanced data collection and data monitoring to identify trends through Hansen to improve response to preventable client complaints;
14. improved strategy to address post season damage to curb and turf. It is anticipated having all damages repaired by June 1st of each year.

Seniors and Persons with Disabilities Snow Removal Program

Currently there are 460 registered clients for the program with another 100 applications received this past month. Proposed advertising for the Herald (which generates approx 60% of our clients) has been postponed until the number of confirmed clients has been finalized.

Last season 533 clients were serviced. In order to ensure that these same clients can be serviced this season, an additional \$40K will be allocated to the program.

Summary of Costs for Winter Works

Council has been advised that the current risk to the Winter Works budget is approximately \$7 million dollars.

Comparison of Budget vs Actual expenditures for Winter Works

| Year | Actual | Budget | Shortfall |
|-----------|---------------|---------------|--------------|
| 2000/2001 | \$ 13,719,689 | \$ 8,748,291 | \$ 4,971,398 |
| 2001/2002 | \$ 12,686,888 | \$ 8,650,737 | \$ 4,036,151 |
| 2002/2003 | \$ 15,374,655 | \$ 8,678,567 | \$ 6,696,088 |
| 2003/2004 | \$ 14,447,687 | \$ 9,827,976 | \$ 4,619,712 |
| 2004/2005 | \$ 14,178,459 | \$ 9,343,492 | \$ 4,834,967 |
| 2005/2006 | \$ 11,740,681 | \$ 11,711,407 | \$ 29,274 |
| 2006/2007 | \$ 13,176,151 | \$ 12,753,811 | \$ 422,339 |
| 2007/2008 | \$ 22,665,914 | \$ 13,436,190 | \$ 9,229,724 |
| 2008/2009 | \$ 22,884,591 | \$ 14,821,366 | \$ 8,063,224 |

Financial analysis has shown that increasing the snow removal service to a consistent 12-hour standard across HRM would cost an additional \$5 million and increasing the sidewalk clearing to include all remaining sidewalks not currently being serviced would cost an additional estimated \$1.3 million.

Financial Analysis on Changes to the Winter Works Program

Cost Comparison (2008/09)

| Cost of Vehicle Per Hour | Contractor (Average) | HRM* |
|--------------------------|----------------------|-------|
| 5 Ton | \$110 | \$165 |
| 1 Ton | \$73 | \$180 |
| Tandem | \$156 | \$292 |

*Hourly costs based on total SNIC costs per vehicle divided by estimated hours of usage for actual snow work

Cost to increase all streets to the P1 service standard (2008/09)

| | |
|---|-------------|
| Estimated distribution of cost (P1 - 70%, P2 - 30%) | |
| Km's by class (P1 - 1,800 Km's P2 - 1,691 Km's) | |
| Average Cost per Km - P1 | \$5,500 |
| Average Cost per Km - P2 | \$2,509 |
| Difference Between P1 & P2 per Km | \$2,991 |
| Estimated Cost to Increase to P1 standards | \$5,057,204 |

Cost per km of sidewalk under the current service standard (2008/09)

| | |
|-----------------------------|-----------------|
| Performance Based (Average) | \$5,721 per Km |
| HRM Internal (Average) | \$15,487 per Km |

Cost to provide service to all remaining sidewalks currently not receiving service.

| | | |
|--|-----------------------------|------------------------|
| Total Km's of Sidewalk - 822 Km | | |
| Current Km's of sidewalk being serviced - 693 Km | | |
| | Performance Based (Average) | HRM Internal (Average) |
| Cost per Km | \$5,721 | \$15,487 |
| Additional Sidewalks (Km) | 129 | 129 |
| Estimated Cost (Range) | \$738,009 | \$1,997,823 |
| Average (PB& Internal) | \$1,367,916 | |

BUDGET IMPLICATIONS

Any increase to the Service Standards would require additional funding above and beyond that required to cover the current deficit. The earliest implementation date for any recommended changes would be the 2010/2011 Winter Works season.

FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

ATTACHMENTS

Appendix A - Information Report of July 7, 2009

Appendix B - Snow Clearing Service Standards from Across Canada

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Beate Shannon, Coordinator, TPW Director's Office, 490-4862

Report Approved by:



Peter Verge, Manager, Municipal Operations, 490-4673

Financial Approval by:



Cathie O'Toole, CGA, Director of Finance, 490-6308



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Appendix A

Item No. 3

**Halifax Regional Council
July 7, 2009**

TO: Mayor Kelly and Members of Halifax Regional Council

A handwritten signature in black ink, appearing to read "Mike Labrecque".

SUBMITTED BY: _____
Mike Labrecque, Director Transportation and Public Works

DATE: June 19, 2009

SUBJECT: 2008-2009 Winter Works Review

INFORMATION REPORT

ORIGIN

Municipal Operations Staff

BACKGROUND

The "Winter Works" operation season spans from November to April each fiscal year. This past year's program ran from November 14, 2008 to April 11, 2009.

DISCUSSION

Winter Works comes into effect on the second Friday in November each year, and is comprised of three (3) levels of priority tasks. Priority 1 entails all Snow and Ice removal and control activities for streets and sidewalks; Priority 2 activities include regular (non-snow related) streets, roads, and sidewalk maintenance; Priority 3 activities are those performed by Municipal Operations staff on behalf of areas outside of their reporting structure (i.e., Halifax Forum and Metro Transit).

Priority 1

Priority 1 Winter Works tasks include all activities involved with the direct handling and removal of snow and ice from HRM’s streets, sidewalks, crosswalks, parking lots and bus stops.

The winter of 2008/2009 resulted in fewer events than the previous winter of 2007/2008; however, these events were more severe in intensity and the extreme conditions they produced. On four (4) occasions we were challenged with very cold temperatures, followed by a rain and snow mix, again followed by hard freezes leading to very heavy ice conditions.

| Weather Events | Budget | Actuals for 2006/07 | Actuals over budget 2006/07 | Actuals for 2007/08 | Actuals over budget for 2007/08 | Actuals for 2008/09 | Actuals over budget 2008/09 |
|---------------------------------------|---------------|----------------------------|------------------------------------|----------------------------|--|----------------------------|------------------------------------|
| Major snowfalls (over 15 cms) | 4 | 2 | -2 | 8 | 4 | 8 | 4 |
| Average snowfalls (5-15cms) | 8 | 6 | -2 | 13 | 5 | 6 | -2 |
| Minor snowfalls (1-5cms) | 9 | 14 | 5 | 12 | 3 | 5 | -4 |
| Freezing rain | 3 | 4 | 1 | 8 | 5 | 5 | 2 |
| Salting events (black ice, runoffs,) | 40 | 46 | 6 | 43 | 3 | 19 | -21 |

Cost Analysis

The budget for the 2008/2009 Winter Works Season was \$16,035,366 with gross expenditures of \$24,098,591; which represented an \$8,063,225 deficit. The principal cause of the over expenditure was the number and severity of the major events. It was also the first winter in four (4) years that necessitated major snow removal operations in capital districts and residential streets to facilitate on-street parking. In summary, the expenditures for winter works is broken down as follows:

| | |
|--|-------------|
| Priority 1 Tasks - snow and ice operational | \$21,554K |
| Previous Years Deficit Sidewalk Area Rate | + \$ 1,214K |
| Priority 1 Total Cost | \$22,768K |
| | |
| Priority 1 Total Cost | \$22,768K |
| Priority 2 and 3 Tasks - non snow (wages only) | + \$ 1,330K |
| Total SNIC Expense | \$24,098K |

A more comprehensive breakdown is available within Attachment C.

The following table indicates snow and ice removal costs (Priority 1) for 2008/2009 as compared to previous years:

| Year | Priority 1 Costs |
|-------------|-------------------------|
| 2008/2009 | \$22,768,455 |
| 2007/2008 | \$21,582,710 |
| 2006/2007 | \$11,060,822 |
| 2005/2006 | \$9,350,450 |
| 2004/2005 | \$13,237,258 |
| 2003/2004 | \$13,203,694 |
| 2002/2003 | \$13,626,403 |
| 2001/2002 | \$11,251,157 |

Service Standards

There were 14 (out of a total of 26) events for which service standards reports were produced for this season.

Street standards were met in 95% of the events with most of the deficiency centered around “cut throughs” on residential streets. (i.e., Event 2 November 18th 35cms of wet snow). Staff made a concerted effort to maximize efficiencies of resources. In doing so, staff were mindful not to over service the standards, thereby creating an artificial expectation for snow clearing.

Sidewalk standards were met 85% of the time. Two major snow, rain and freeze events (accompanied with rain) including a freezing rain event from January 28th to February 19th lead to very heavy ice conditions on the sidewalks. The resulting conditions required repeated applications of salt/sand and re-scraping to get down to bare surface. The extreme nature and duration of this event created conditions that overtaxed resources. Given the short period of time temperatures were above freezing following the snow rain event, and the lengthy duration of sub-zero temperature, a Priority 1 standard would not have allowed sufficient time to remove wet snow and slush from sidewalks prior to freezing.

See Attachment A - Current Approved Service Standards

See Attachment B - 2009/2010 Sidewalk Snow and Ice Clearing Budget by Route

Seniors and Persons with Disabilities Snow Removal Assistance Program

This program has been operating for 11 years receiving a major increase in funding in 2005 from \$60,000 to \$360,000. The program provides for snow removal to qualifying residents for walkways, front and back steps, path to the oil tank, and sidewalk (where applicable).

| Year | Number of Clients |
|-------------|--------------------------|
| 2002/2003 | 77 |
| 2003/2004 | 95 |
| 2004/2005 | 166 |
| 2005/2006 | 193 |
| 2006/2007 | 311 |
| 2007/2008 | 430 |
| 2008/2009 | 533 |

The requests for service are greater than the funds allocated for this service resulting in 210 clients remaining on the waiting list for the 2008/2009 season. The current available funding for 2008/2009 was \$360,000.00.

With increased costs projected for the 2009/2010 season it is estimated that there would be an increased cost of \$40,000.00 to serve the 533 currently receiving service. The average cost per client to provide this service is expected to be approximately \$750.00 per season. The total cost to include all (210) clients on the list is projected at an additional \$157,5000.00 .

Staff are not increasing the \$360,000 budget for the program.

Covenco Report

HRM commissioned an external report on its Winter Works Operations, which was completed in June 2008. The report involved validating and measuring various cost drivers associated with the winter's operations and identifying progress that has been made since the 2004 report. The report identified continued areas for improvement. The following areas were implemented in the 2008/2009 season:

1. ***Improvements in use of performance measures.***

Staff developed theoretical salt target amounts based on the number of lane kms in each area allowing for different types of weather events. This information is used to identify areas where salt management and effectiveness required improvement. Staff also initiated pre and post storm analysis on major and average events to measure actual performance against planned deployment of resources.

Utilized on a timely basis these performance measures will assist the management team to effectively measure performance in both a quantitative and qualitative method. This approach also establishes "Best Practices" by allowing feedback and reflection on areas of service performed well, and opportunities for improvement. This serves Municipal Operations efforts to pro actively maintain and improve service delivery strategies.

2. ***Salt Management***

Improving the effective use of road salts will always continue to be a challenge for winter operations. Superintendents, supervisors and operators all received specialized salt management training for the 2008/2009 winter season. The impact of this initiative resulted in a 28% decrease in salt used from the previous winter. While conditions this year were more extreme, the effective use of salt in response to each specific storm event resulted in an overall reduction in salt used.

3. ***Use of contracted equipment***

Performance based sidewalk contracts were extended to all regions to include all sidewalks not serviced by the HRM in-house programs. Despite difficult conditions through the winter, the contractors fulfilled their obligations in meeting the service standards where required for most of the events. Post winter evaluations were held with all contractors to assess performance and outline areas that require improvement. On occasion (as necessary) staff conducted meetings with contractors to reinforce service standards and expectations as per the performance contract language.

Next Steps

Tenders for hourly rate street contracts are facing renewal for the 2009/2010 season. Staff has prepared tenders that are flexible so as to adjust to decisions proposed and approved in future with regard to performance based streets contracts. Staff is currently researching options to present to Council for the 2010/2011 season with a view to test the market for this service. Staff is preparing options for consideration that will include, but not be limited to, trials in specific areas to determine feasibility of this approach.

Operations staff will continue to train supervisors in the area of performance contract management to ensure conditions of performance contracts are met and dealt with effectively, to ensure the service

delivery and service standards are achieved.

Priority 2 and Priority 3 Tasking

Priority 2 tasks are the regular (i.e., non snow related) street, sidewalk, parks and sport field related maintenance activities that continue throughout the winter months. Generally speaking Priority 2 tasks include leaf pick up, asphalt patching, litter pick up, fencing repairs, road shoulders, graffiti removal, street cleaning, playground and trail maintenance and all other maintenance activities for which Municipal Operations is responsible. Due to the increased demands for Priority 1 tasking on snow and ice, less time was spent on Priority 2 tasks as compared to 2007/2008.

| Work Order Breakdown - Priority 2 & 3 Tasking (2 year comparison) | | |
|--|--------------------------|--------------------------|
| Task | 2007/2008 (hours) | 2008/2009 (hours) |
| Capital District | N/A | 2,160.00 |
| Asphalt Work | 11,349 | 11,175.50 |
| Flood Control | 2,344 | 2,167.00 |
| Litter | 12,520 | 7,016.50 |
| Grading | N/A | 611.50 |
| Graffiti | 806 | 670.00 |
| Guardrail | 132 | 241.25 |
| Horticulture | 1,689 | 2,611.00 |
| Ice Testing | 902 | 1,348.25 |
| Public Gardens | N/A | 661.50 |
| Washouts | 1,604 | 1,520.75 |
| Sign shop | 0 | 348.00 |
| Sport Fields/Sport Courts | 3,125 | 3,827.75 |
| Trails/ Walkways | 2,024 | 1,543.25 |
| Playgrounds | 1,926 | 1,595.25 |
| Parks | 3,036 | 3,994.25 |
| Leaf Collection | 7,106 | 7,363.00 |
| Other ROW maintenance | 875 | 164.00 |
| Training/Sick Leave/Vacation | 25,360 | 22,257.00 |
| Total | 74,836 | 67,448.00 |

BUDGET IMPLICATIONS

There are no budget implications associated with this report.

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

ATTACHMENTS

Attachment A - Current Approved Service Standards

Attachment B - Budget Costs/ Status of Performance Based Contracts for 2009/2010 Sidewalk Snow Removal

Attachement C - Cost grouping breakdown of Snow and Ice Program.

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by : Gordon Hayward, Winter Works Superintendent Municipal Operations, 490-4956



Report Approved by: Peter Verge, Manager Municipal Operations, 490-4673

Snow & Ice Control Service Standards

Updated Dec 04/07

Introduction

The Transportation & Public Works is responsible for all aspects of the Snow & Ice Control Program. It is a seasonal operation that has significant impact on HRM during winter conditions.

It is the intent of this document to identify the Service Standards which will be maintained by HRM. At the same time, it is not the intent to identify how the Snow & Ice Control Program will be managed.

The goal is to set an attainable standard which align the levels of service with the financial constraints of the HRM budget.

Objectives

The key objectives of the Service Standards are:

- To reduce the hazards of ice and snow conditions to motorists and pedestrians
- To minimize economic losses to the community and industry
- To facilitate the handling of emergencies by fire, hospitals and police officials.

Classification of Routes

In order to set effective priorities for snow and ice activities within the region, the routes must be classified as to their impact on the overall transportation system.

For the purpose of these standards the HRM has classified all of the routes and will service them (salt, sand and plow) in the following order of priority:

Class 1 - First Priority

Includes:

- Arterials
- Serve as connectors/collectors between areas and routes
- Serve as emergency routes to hospitals and fire equipment
- Serve as snow routes in major hilly terrain during weather situations
- Transit - for major bus routes

Class 2 - Second Priority

Includes:

- Medium to low volume of traffic including residential and rural routes

Other Surface Types

HRM will regulate the maintenance of the other surfaces, mirroring the priorities given to the adjacent routes unless specified differently for a particular activity. Items within this classification include:

- Bus stops
- Walkways and overhead crosswalks
- Parking lots
- Handicap parking
- Private roads and lanes provided winter maintenance under agreement

Street Clearing Standards

The Snow & Ice Program will endeavor to ensure the following levels of service.

| Road Classification/ Priority | Typical | Service Level After Operations | Start Times and Frequency | Time to Completion from End of Snowfall |
|---|---|---|--|--|
| Priority 1 Main Arterials | Robie Street, Sackville Street, Portland Street | Bare pavement driving lanes | After 2 cm of snow, 3 hour turnaround | 12 hours to full driving lanes |
| Priority 1 Transit Routes Collector Roads | Parkland, Caledonia Road, Metropoliitian Ave | 3m centreline bare | After 2 cm of snow, 3 hour turnaround | 12 hours |
| Priority 1 Residential Street with greater than 10% slope that serve as snow routes | Vestry Street, Joffre Street, Lindsay Hill | Centreline bare | After 4 cm of snow, 3 hour turnaround | 12 hours to 2 lane width |
| Priority 2 Residential Streets | Cork Street, Anderson Street, Chandler Drive | Snow Covered, Passable | After 10 cm of snow * | 24 hours to 2 lane widths |
| Priority 2 Gravel Roads | Confederation Drive, Flandrum Hills | Snow Covered, Passable | After 10 cm of snow | 24 hours |
| Priority 2 Private LANes | Myers Lane | Snow Covered, Passable | | 24 hours |

- In snowfalls greater than 30 cm, or in blizzard conditions, service levels may not be achieved.
- In multiple snowfalls where all roads have not been fully cleared, priority will be given to the first 2 priority classifications.
- During significant snow events "cut throughs" will commence after 10 cm on residential streets to allow single lane access.*

Sidewalk Clearing Standards

The Snow & Ice Program will endeavor to ensure the following levels of service for sidewalks that are area rated and maintained by the HRM.

| Sidewalk Priority Classification | Materials Used | Start Time | Duration Until Cleared |
|--|---------------------------|--|-------------------------------|
| Priority 1 Main Arterials Capital District | Salt or Salt/Sand mixture | After 5 cm of snowfall | 12 hours from end of snowfall |
| School Routes | Salt or Salt/Sand mixture | After 10 cm of snowfall | 18 hours from end of snowfall |
| Residential Streets/ Walkways | Salt or Salt/Sand mixture | After completion of first 2 priorities | 36 hours from end of snowfall |
| Intersections (Peninsula Halifax) | Salt or Salt/Sand mixture | After sidewalks are complete | 72 hours from end of snowfall |

- While the objective is to maintain sidewalks to a bare condition, many factors are key to achieving success. Wet snow packed to ice, freezing rain and sudden freezes after rain can produce a heavy ice build-up on sidewalks. Sand will be applied to provide a degree of traction.
- Standards apply only to sidewalks that are area rated and maintained by the HRM. In other areas, sidewalks are the responsibility of the abutting property owner, and subject to regulations set out in By-Law S-300.
- In the case of multiple snowfalls, where there has been insufficient time to complete all sidewalks, operations will return to the highest priorities and start over.
- During late winter/ early spring, sidewalks are subject to runoffs from melting snow during the day and re-freeze overnight. Spot sanding may take place during regular,

Attachment B

Budget Costs for 2009/2010 Sidewalk Snow Removal

| Route # | Contractor | Length | Cost per km | Annual cost | Years Remaining |
|----------------|---------------------------------|----------------|--------------------|--------------------|------------------------|
| SWP1 | Ocean Contracting | 31.94 | \$7407.47 | \$236,565 | 1 |
| SWP2 | Provincial Paving | 21.16 | \$7000 | \$148,120 | 1 |
| SWP3 | Provincial Paving | 39.71 | \$8800 | \$349,448 | 1 |
| SWW1 | Provincial Paving | 13.361 | \$5180 | \$69,209 | 3 |
| SWW2 | Provincial Paving | 15.361 | \$4898 | \$75,238 | 3 |
| SWW3 | Provincial Paving | 9.6 | \$4600 | \$44,160 | 3 |
| SWW4 | Provincial Paving | 8.86 | \$4898 | \$43,396 | 3 |
| SWW5 | Provincial Paving | 10.3 | \$5345 | \$55,053 | 3 |
| SWW6 | Provincial Paving | 14.75 | \$4899 | \$72,260 | 3 |
| SWW7 | Provincial Paving | 16.578 | \$5098 | \$84,514 | 3 |
| SWW8 | Provincial Paving | 17.522 | \$5274 | \$92,411 | 3 |
| SWW9 | Timberlea Bottle | 8.613 | \$5850 | \$50,386 | 1 |
| SWW10 | Timberlea Bottle | 41.965 | \$6280 | \$263,540 | 1 |
| | West Contracted Total | | | \$1,584,100 | |
| SWC1 | Teak Tree | 34.286 | \$5887 | \$201,841 | 3 |
| SWC2 | Curb Appeal | 10.243 | \$5100 | \$52,239 | 3 |
| SWC3 | Teak Tree | 37.764 | \$5790 | \$218,653 | 3 |
| SWC4 | Cutting Edge | 22.253 | \$5186 | \$115,404 | 3 |
| | Central Contracted Total | | | \$588,137 | |
| SWE1 | Eco Tech | 11.805 | \$5850 | \$69,059 | 1 |
| SWE2 | EcoTech | 27.48 | \$4880 | \$134,102 | 3 |
| SWE3 | Eco Tech | 27.92 | \$4970 | \$138,762 | 1 |
| SWE4 | Provincial Paving | 11.862 | \$5779 | \$68,550 | 3 |
| SWE7 | Cutting Edge Const | 27.339 | \$5998 | \$128,736 | 3 |
| SWE8 | Provincial Paving | 49.039 | \$4510 | \$221,165 | 3 |
| SWE9 | Provincial Paving | 29.779 | \$5998 | \$178,614 | 3 |
| SWE10 | Cutting Edge Const | 25.136 | \$5448 | \$116,020 | 3 |
| SWE11 | Provincial Paving | 17.587 | \$5900 | \$103,527 | 3 |
| | East Contracted Total | | | \$1,158,535 | |
| | In-house West | 39.5 | *\$10,675 | \$421,682 | |
| | In- house East | 71.6 | *\$10,675 | \$764,330 | |
| | HRM Total | 693.313 | | \$4,516,784 | |

*--- based on 2008/2009 costs

Attachment C - Cost grouping breakdown of Snow and Ice Program

| P1 Plowing Costs | | |
|--|-------------------|----------------------|
| | Actual Budget | |
| Compensation and Benefits | 4,816,099 | 4,405,210 |
| Office | 10,199 | 3,000 |
| External Services (Contracts) | 845,912 | 815,199 |
| Supplies | 13,593 | 16,900 |
| Materials (Salt/Sand) | 3,416,412 | 1,563,900 |
| Building Costs | 3,376 | 1,000 |
| Equipment & Communications | 5,402,197 | 1,588,044 |
| Vehicle Expense | 41,928 | 33,000 |
| Other Goods & Services | 99,537 | 131,200 |
| Interdepartmental (Fleet Vehicle Charges) | 1,739,437 | 1,565,246 |
| Total Expenditures \$ | 16,388,690 | \$ 10,122,699 |
| P1 Sidewalk Costs | | |
| Compensation and Benefits | 921,071 | 1,279,567 |
| Office | 1,723 | 2,800 |
| External Services (Contracts) | 3,703,088 | 1,694,500 |
| Supplies | 6,888 | 12,500 |
| Materials (Salt) | 36,808 | 352,500 |
| Building Costs | 25 | - |
| Equipment & Communications | 68,841 | 1,019,500 |
| Vehicle Expense | 7,975 | 3,000 |
| Other Goods & Services | 25,598 | 67,500 |
| Interdepartmental (Fleet Vehicle Charges) | 393,749 | 266,800 |
| Total Expenditures \$ | 5,165,765 | \$ 4,698,667 |
| Summary | | |
| P1 Operational Costs 2008/09 | 21,554,455 | 14,821,366 |
| Other Fiscal (Previous year deficit) | 1,214,000 | 1,214,000 |
| Total P1 Charges \$ | 22,768,455 | \$ 16,035,366 |
| P2/3 Operational Costs 2008/09 (Costs are identified separately budget budgeted within P1) | 1,330,136 | - |
| Total Snow and Ice Costs 2008/09 \$ | 24,098,591 | \$ 16,035,366 |

Appendix B: Snow Clearing Service Standards from Across Canada

| <i>City</i> | <i>Priority 1 Street Cleaning</i> | <i>Priority 2</i> | <i>Local</i> | <i>Accumulation requirements</i> |
|--------------------------------------|--|---|--|--|
| City of Saskatoon | 12 hrs | N/A | 72 hrs | No policy |
| City of Regina | 24 hrs | N/A | 60 hrs | No policy |
| City of Edmonton | 24 hrs | N/A | 48 hrs | 3 cm |
| City of Winnipeg | 36 hrs | N/A | 48 hrs | 3-5 cm |
| City of Hamilton | 4 hrs after end of snowfall | 8 hrs after end of snowfall | 24 hrs after end of snowfall | |
| City of Mississauga | 24 hrs - less than 30 cm 48 hrs + after 30 cm or back to back storms | 24 hrs- less than 30 cm 48 hrs + after 30 cm or back to back storms | | 5 cm |
| City of Toronto | 5-15 cm snow 15-25 cm snow over 25 cm snow | 8-10 hrs after end of snowfall 10-12 hrs after end of snowfall 14-16+ hrs after end of snowfall | 14-16 hrs after end of snowfall 18-20 hrs after end of snowfall 24-36+ hrs after end of snowfall | 5 cm and still snowing (Priority 1) 5-8 cm (Priority 2) 8 cm(Local) |
| City of Ottawa | 2-4 hrs after end of snowfall | 6 hrs after end of snowfall | 10 hrs after end of snowfall | 2.5-7 cm |
| City of Montreal | 8 hrs end of snow for plowing 36 hrs after end of storm for removal (less than 30 cm) | | 96 hrs for 20 cm accumulation (plowing & removal) | 2.5 cm |
| Halifax Regional Municipality | 12 hrs after end of snowfall - less than 30 cm | | 24 hours after end of snowfall - less than 30 cm | 2-10 cm of snow |