Minute No. 596
Report – Standing Policy Committee on Infrastructure Renewal and Public Works – September 13, 2011

Item No. 4 Review of the Snow Clearing and Ice Control Policy

COUNCIL DECISION:

Council concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and adopted the following:

1. That the City's Policy on Snow Clearing and Ice Control be amended as shown in Appendix I (*in italics*) to establish a level of service for snow clearing activities related to the City's Active Transportation Network and Designated Park Pathways.

2. That the City's Policy on Snow Clearing and Ice Control be amended as shown in Appendix I (*in italics*) to reflect the enhanced snow clearing service levels for City backlanes serving as the primary vehicular egress and ingress for properties where there is no front street.

3. That additional funding of $300,000 be considered for the 2012 - 2014 Operating Budgets to cover the costs of the increased activities identified in recommendations 1. and 2.

4. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – September 13, 2011

DECISION MAKING HISTORY:

Moved by Councillor Vandal,

That the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works be adopted.

Carried

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On September 21, 2011, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submitted the matter to Council.

Also on September 21, 2011, the Executive Policy Committee received from Masha Giller, Green Action Centre, a communication dated September 20, 2011, in support of the recommendation from the Standing Policy Committee on Infrastructure Renewal and Public Works regarding amendments to the Snow and Ice Control Policy.

STANDING COMMITTEE RECOMMENDATION:

On September 13, 2011, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

On April 4, 2011, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the March 15, 2011 recommendation of the East Kildonan-Transcona Community Committee, as amended, and requested that the Winnipeg Public Service include enhanced snow removal on residential back lanes that function as front streets (in other words, where front streets do not exist and the homeowner's back lane is their only means of vehicular egress and ingress to their property, including Wildwood Park), as part of the City of Winnipeg Snow Clearing and Ice Control Policy review.

COUNCIL DECISION:

On March 23, 2011, Council granted an extension of time to September 28, 2011 as requested by the Standing Policy Committee on Infrastructure Renewal and Public Works on February 1, 2011.

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – September 13, 2011

DECISION MAKING HISTORY (continued):

STANDING COMMITTEE RECOMMENDATION:

On February 1, 2011, the Standing Policy Committee on Infrastructure Renewal and Public Works requested the Winnipeg Public Service to review the Snow Clearing Policy to include but not limited to; priority streets, sidewalks, backlanes, active transportation trails and parkpaths and report back with recommendations for improvements, as directed by the Council Motion of January 26, 2011.

COUNCIL DECISION:

On January 26, 2011, Council ruled automatic referral of the following motion to the Standing Policy Committee on Infrastructure Renewal and Public Works:

Moved by Councillor Swandel,
Seconded by Councillor Vandal,

THAT the Snow Clearing Policy be reviewed by the administration with a report back to Council.

ADMINISTRATIVE REPORT

Title: **CONSIDERATION OF SNOW AND ICE CONTROL POLICY REVISIONS**

Critical Path: **Standing Policy Committee on Infrastructure Renewal and Public Works,**
Executive Policy Committee and Council

AUTHORIZATION

Author	Department Head	CFO	CAO
K. R. Boyd, P. Eng. Manager of Streets Maintenance	B.W. Sacher, P.Eng. Director of Public Works	Paul Olafson Acting Chief Financial Officer	Clive Wightman Acting Chief Administrative Officer

RECOMMENDATIONS

5. That the City's Policy on Snow Clearing and Ice Control be amended as shown in Appendix I (*in italics*) to establish a level of service for snow clearing activities related to the City's Active Transportation Network and Designated Park Pathways.

6. That the City's Policy on Snow Clearing and Ice Control be amended as shown in Appendix I (*in italics*) to reflect the enhanced snow clearing service levels for City back lanes serving as the primary vehicular egress and ingress for properties where there is no front street.

7. That additional funding of $300,000 be considered for the 2012- 2014 Operating budgets to cover the costs of the increased activities identified in recommendations 1. and 2.

8. That the proper Officers of the City of Winnipeg be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

The Standing Policy Committee on Infrastructure Renewal and Public Works on February 1, 2011 requested that the Administration review the Snow Clearing Policy to include but not limited to: priority streets, sidewalks, back lanes, active transportation trails and park paths and report back with recommendations for improvements.

In addition the Standing Policy Committee on Infrastructure Renewal and Public Works on February 1, 2011 directed the Public Works Department to report back on the following, in conjunction with the Snow Clearing Policy Review:

1. Placing all public park paths under the control of the Public Works Department, Streets Maintenance Division.

2. The feasibility of clearing snow from all public park paths.

The Standing Policy Committee on Infrastructure Renewal and Public Works on April 4, 2011 further requested that the Winnipeg Public Service include enhanced snow removal on residential back lanes that function as front streets (in other words, where front streets do not exist and the home owner's back lane is their only means of vehicular egress and ingress to their property) as part of the Policy on Snow Clearing and Ice Control Review.

IMPLICATIONS OF THE RECOMMENDATIONS

The proposed changes to the Policy on Snow Clearing and Ice Control will recognize the dramatic increase in the public use of the numerous Active Transportation Trails that have been constructed in recent years and will provide snow clearing activities that are warranted to meet the needs of our citizens and community on this network in accordance with a prescribed level of service that will ensure a broad usage of these facilities during the winter months.

In addition, the clearing of snow on the City's park pathways will be extended, when adequate budget is available from year to year, to include logical connections to the Active Transportation Trails as well as being extended to major pathways within our community parks system and critical pathways in some of our neighborhood parks, to promote the use of these facilities in the winter as well. Those pathways to be cleared in the community and neighborhood parks system will be identified based on criteria that will be developed by the Public Works Department. Consideration will also be given to input from Ward Councillors and the public.

This additional snow clearing work would be undertaken by the Public Works Department. Discussions would be held between the Streets Maintenance and Parks and Open Space Divisions and in consultation with the Active Transportation Advisory Committee (ATAC) to determine the optimal service delivery options.

The enhanced level of snow clearing in back lanes for properties that have no front street access will allow the City to provide an appropriate winter response in an equitable manner. Currently the snow clearing services provided for properties having back lane access only has been somewhat based on a variance in historical practices relating back to the former Operations Department.

Additional funding to cover the annual increased expenditures in future winters will need to be identified during considerations of the 2012-2014 Operating Budget. This required funding can be broken down as follows:

Snow Clearing Service – Active Transportation Trails	$250,000	2012-2014 Operating
Enhanced Snow clearing – Back Lanes (no front street)	$ 50,000	2012-2014 Operating
Snow Clearing Service – Designated Park Pathways on	To be determined based availability of funds on an annual	

Consideration during this policy review was also given to a number of other service improvements that have been identified as concerns in the past. The issue of high snow piles always arises in winters of heavy snowfall but the level of service that the City provides in accordance with the existing policy is related to pedestrian and vehicular visibility that does address the concerns raised. Considerable effort is currently put forth on an annual basis to deal with high piles but heavy snowfalls present challenges in all aspects of the City's snow-clearing work.

Another issue that is often raised is the clearing of sidewalks around schools. Again, this concern arises whenever the City experiences major storms. In recent years, the Public Works

Department has significantly increased its responsiveness to the challenges that excessive snowfall presents around schools.

A final concern raised each time that changes to the Snow Policy are considered, is the issue of clearing the Loading Zone (boulevard windrows) in front of all Seniors Complexes. It would be difficult for the City to undertake such a step in a timely fashion but a distance of 5 m in length could be cleared along the roadway in front of the main entrance of qualified buildings. Additional funding in the estimated amount of $ 400,000 would be required annually to carry out this enhanced work. This information has been provided to Council in previous years and has not been approved. The Department is not recommending this enhancement at this time.

HISTORY

The Policy for Snow Clearing and Ice Control was originally adopted by Council in 1980 as part of the approval process of that year's Operating Budget. Significant concerns about the policy were raised following the major blizzard that occurred in November 1986, and a review was conducted the following summer to evaluate the appropriateness of the existing policy. As a result of that review, Council amended the policy on September 30, 1987, to moderately improve the level of service on Priority III streets and back lanes, as well as sidewalks on Priority II and III streets.

In 1989, another review was undertaken to consider further improvements to the level of service for sidewalk clearing. However, at that time Council chose to reaffirm the existing policy that had been established in 1980 and amended in 1987.

The policy was again revised in 1991. As part of an effort to reduce the annual funding requirements, the snowfall accumulation normally necessary to warrant a snow clearing operation on Priority III streets and sidewalks was increased, thereby reducing the level of service in these areas.

In addition, a 20% reduction in the funding of the hauling program was also adopted and, as a result of this change, the hauling of windrows of snow from the boulevards in the Downtown Square and along other Priority I streets was reduced.

A very comprehensive review of the Policy on Snow Clearing and Ice Control was undertaken again in 1993 and significant changes were made. One of the changes was a service level change in the Priority III Street Plowing to a requirement for plowing to "bare pavement" whenever an all-out plow was undertaken.

In 1997 Council restored the level of service on Priority III streets to the 1987 standard where plowing shall commence after an inspection warrants a clearing operation, usually following a 10 cm snowfall accumulation or equivalent drifting conditions. The action was a result of the preceding two winters having significantly higher than normal volumes of snow.

Snow clearing around schools was also a concern following the significantly above normal snowfall accumulations experienced during the 1995/96 and 1996/97 winters and on April 29, 1998 Council approved an increased level of service for snow clearing adjacent to public and private schools in the City of Winnipeg. However this enhanced work did not include any changes to the sidewalk snow clearing.

Another comprehensive review was again undertaken in 2003. Council approved the inclusion of a number of service enhancements including the clearing of walkways within neighborhood

parks, increased removal of high piles and the removal of windrows from loading areas in front of seniors' complexes. However these extra snow clearing services were only to be provided if the additional funding that was required was included in upcoming budgets. The additional funding was subsequently not provided.

The last review of the City's Policy on Snow Clearing and Ice Control was undertaken in 2007 and the approved changes included a modified definition of the boundaries of the "Downtown Square" area for the purposes of the City's enhanced snow clearing services that are provided to this section of the City. The policy changes also formalized an enhanced level of snow removal on Priority 1 boulevards that had been added during the development of the 2007 Operating Budget.

FINANCIAL IMPACT

Financial Impact Statement **Date:** September 8, 2011

Project Name: **First Year of Program** **2012**

Consideration of Snow and Ice Control Policy Revisions

	2012	2013	2014	2015	2016
Capital					
Capital Expenditures Required	$ -	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	-	-	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000
Less: Incremental Revenue/Recovery	-	-	-	-	-
Net Cost/(Benefit)	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000
Less: Existing Budget Amounts	-	-	-	-	-
Net Budget Adjustment Required	$ 300,000	$ 300,000	$ 300,000	$ 300,000	$ 300,000

Additional Comments: Additional budget will be required for the City's annual Snow Budget to fund the increased expenditures that will result from the introduction of the recommended policy changes.

"Original Signed by D. Stewart, CA"
Darcy Stewart, CA
Manager of Finance & Administration

CONSULTATION

In preparing this report there was consultation with:

Active Transportation Advisory Committee

SUBMITTED BY

Department: Public Works
Division: Streets Maintenance
Prepared by: Bruce McPhail, P. Eng.
Date: September 9, 2011

Attachment: Appendix I – Policy on Snow Clearing and Ice Control

City Policy

Title: POLICY ON SNOW CLEARING AND ICE CONTROL

REFERENCE:

City Council 2007 06 20
Consideration
City Council 2003 10 22
City Council 1998 04 20
City Council 1993 09 22
City Council 1987 09 30

ADOPTED BY:

Under

POLICY STATEMENT:

The goal of the Policy on Snow Clearing and Ice Control is to maintain the City's roadways, back lanes, sidewalks, active transportation trails and designated park pathways in such a manner so as to:

a) **Provide safe and accessible operating conditions for motorists, *cyclists* and pedestrians;**

b) **Reduce the hazards of icy road conditions;**

c) **Minimize economic losses to the community and industry resulting from unsatisfactory winter driving conditions;**

d) **Facilitate the handling of emergencies by Police, Fire and Ambulance Services during the winter;**

e) **Provide safe and accessible operating conditions for the Transit system and facilitate their essential operations during a snow emergency.**

Note:

Earlier Policy Documents established levels of service for the snow clearing and ice control of the City's "Alley" network. This Policy Document now refers to "Alleys" as "Back Lanes".

POLICY ON SNOW CLEARING AND ICE CONTROL

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SNOW CLEARING AND ICE CONTROL PRIORITIES

For the purpose of snow clearing, the street system has been classified in three categories (PI, PII, PIII). However, for a variety of reasons, some streets/sidewalks/active transportation trails that are designated as a particular priority may be plowed on an accelerated basis together with streets in a higher priority. The definitions listed below describe the general rule and some exceptions to the rule.

Priority I Streets:

Includes all Regional Streets, in addition, some streets around the Health Sciences Centre have been plowed as Priority I to facilitate ambulance access to the hospital.

Priority II Streets:

These include non-regional bus routes and collector streets based on traffic counts although some streets in industrial areas are exceptions to the traffic count standard.

Priority III Streets:

Residential and/or little used industrial streets.

Sidewalks/*Active Transportation Trails*:

This infrastructure is normally plowed on the same priority as the adjacent streets.

Designated Park Pathways:

Includes all (community and neighbourhood) parks pathways that have been designated for snow clearing services. This infrastructure will be plowed as Priority IV, when adequate funding is available within the approved annual Snow Clearing and Ice Control Budget.

Back lanes:

For reason of accessibility for citizens and refuse collection, back lanes are usually given an accelerated priority for plowing.

SECTION A:
PLOWING OF STREETS AND BACK LANES

CLAUSE A-1	PRIORITY I STREETS
APPROVED BY COUNCIL **SEPTEMBER 22, 1993**	Priority I streets shall normally be maintained to bare pavement over the full pavement width. **Generally, snow accumulating beyond a depth of 3 cm shall be removed through the use of de-icing chemicals and/or by plowing.** Streets shall be plowed on a continuous basis until completed. Plowing shall be undertaken during the night as much as possible in order to minimize the problems associated with traffic and parked vehicles. The snow plowing operations shall be completed within thirty-six hours following the end of an average storm. During extreme snowfall events where the snowfall amount and/or accompanying severe drifting conditions makes it impractical to complete the snow clearing operations on the street system with a full complement of resources and continuous effort, the time limits specified may be extended. **Excessive ice or snow build-up along gutters and medians or between traffic wheel paths shall normally be removed.**

CLAUSE A-2	PRIORITY II STREETS
APPROVED BY COUNCIL **SEPTEMBER 22, 1993**	Priority II streets shall normally be plowed to bare pavement over the full pavement width. **However, minor snowfall accumulations and the City policy restricting the use of de-icing chemicals on Priority II streets may result in a layer of compacted snow on the street surface between all-out plowing operations.** A plowing operation shall normally be initiated when the snow has accumulated beyond a depth of 5 cm. Streets shall be plowed on a continuous basis until completed. During a major storm, advanced priority for plowing shall be given to bus routes. The snow plowing operations shall be completed within thirty-six hours following the end of an average storm. During extreme snowfall events where the snowfall amount and/or accompanying severe drifting conditions makes it impractical to complete the snow clearing operations on the street system with a full complement of resources and continuous effort, the time limits specified may be extended. **Excessive ice or snow build-up along gutters and medians or between traffic wheel paths shall normally be removed.**

SECTION A:
PLOWING OF STREETS AND BACK LANES

CLAUSE A-3	PRIORITY III STREETS
APPROVED BY COUNCIL **OCTOBER 22,1997**	Priority III streets shall normally be maintained to a compacted snow surface as opposed to bare pavement. **However, Priority III streets shall be plowed to the pavement surface whenever conditions allow during an all-out plowing operation.** Plowing on Priority III streets shall commence after an inspection warrants a clearing operation, usually following a 10 cm snowfall accumulation or equivalent local drifting conditions. The snow plowing operations shall normally be completed within five working days following the commencement time of the plowing effort on Priority III streets. Work on weekends and holidays shall be limited if streets are passable. During a major storm, the Priority I and II streets shall be brought to a satisfactory condition prior to work commencing on the Priority III streets. A full non-storm related widening/spot maintenance plow on Priority III streets may be initiated as a result of an assessment of the depth of ruts and/or the difference in depth of compacted snow and ice in the parking lane of a street as compared to the traffic lane. This plowing operation will normally be initiated in February, depending on weather conditions.

CLAUSE A-4	BACK LANES
Under Consideration	Back lanes shall normally be maintained to a compacted snow surface as opposed to bare pavement. **Plowing of back lanes shall commence after an inspection warrants a clearing operation, usually following a 5 cm snowfall accumulation or equivalent local drifting conditions.** Snow plowing of back lanes shall normally be undertaken using rubber tired front end loaders. *An enhanced level of snow clearing shall be provided in back lanes for properties that have no front street access. In these locations it may be necessary to undertake supplemental plowing and snow removal operations to provide suitable access. Any excess snow shall be relocated along available rights-of-way in the neighbourhood.* **The snow plowing operations shall normally be completed within two days following the end of an average storm.** Generally, the plowing of back lanes shall be undertaken concurrently with Priority I and II streets and prioritization may be necessary to facilitate refuse pickup. During extended periods of mild weather, it may be necessary to undertake additional plowing of back lanes, where specifically warranted, to reduce rutting. A full non-storm maintenance plow of back lanes may be initiated based on an evaluation of back lane conditions city-wide. The plow should be a quality maintenance plow, preferably during day shifts, in order to result in acceptable driving conditions.

SECTION B:
USE OF SALT AND SAND

CLAUSE B-1	USE OF SALT AND SAND
APPROVED BY COUNCIL **JANUARY 23, 1991** **NOTE:** ***Sand And Salt Application Rates Are Presently Under Review by the Department***	**USE OF SALT ON CITY STREETS** The populace of Winnipeg is largely dependent on being mobile all year round, either by automobile, truck or bus. As a result, it is critical that the street network and transportation system be functioning and safe. The City endeavours to provide an adequate level of service and, pending proper weather conditions, the application of 100% salt to City streets satisfies the following objectives: 1. Melting freshly fallen snow on arteries that are heavily travelled. 2. Preventing the formation of ice on the roadway surface due to freezing rain, fog, traces of snow, or frost formations such as on bridge decks. 3. Removing layers of snow and ice that remain on the pavement after the plowing operation is carried out. 4. Improving tire traction and braking qualities of the pavement. Priority I Streets The Public Works Department's policy for the application of salt on Priority I streets is pretty well defined by past practice, namely that: (a) Salt is effective for the melting and removal of ice and snow accumulations on the pavement only when ambient (surrounding) temperatures are above approximately -7°C, depending on pavement temperatures, the radiant heat of the sun, wind conditions, traffic speed and volume. Because of this temperature limitation, salt is generally used for that part of the winter prior to the middle of December and subsequent to the middle of February. (b) Salt is applied in short burst applications called "spotting" on signalized intersections, controlled intersections, bridge decks, underpasses, railway crossings and pedestrian crossings, to provide satisfactory tire traction quickly under heavy traffic conditions by melting the snow and ice accumulating on pavements. This method of application is particularly useful when snow or freezing rain accumulates just prior to rush hours.

APPROVED BY COUNCIL

JANUARY 23, 1991

NOTE:
Sand And Salt Application Rates Are Presently Under Review by the Department

USE OF SALT ON CITY STREETS (Cont'd)

Priority I Streets (Cont'd)

(c) Salt can also be applied continuously along the Regional street system to melt freshly fallen snow. Depending on the weather conditions prior to the snowfall, a single application will melt three to six (3 to 6) centimetres of fresh snow. Should the snowfall continue, a second application maybe required to melt the additional snow. This procedure is currently being practised instead of the alternative of plowing the fresh snow from the street followed by a salt "spotting" application for two reasons:

(i) Bare pavement is restored quickly providing needed tire traction often in a time frame where plowing is not a viable alternative (eg. to expedite rush hour traffic), and

(ii) The continuous application of salt compared to an "all-out" plow on the Regional streets results in a saving of approximately $200,000.00 per application in plowing and hauling costs or $600,000.00 during an average winter.
The salting of Priority I streets on a continuous basis must be authorized by the Director of the Public Works Department or his designate.

(d) Salt is applied at an application rate of 170 kg per lane kilometre. Over the next two years, the City of Winnipeg's fleet of salt spreader trucks will be equipped with automatic spreader controls. In conjunction with this upgrading, the Public Works Department will be developing varying application rates to correspond to changeable street conditions. For example, the application rate of salt for a light "spotting" requirement should be different from the application rate for a continuous salting operation to melt 3 to 6 cm of fresh snow.

Priority II Streets

The use of salt on Priority II streets has not been well defined up until now. It has been used on a few higher volume streets routinely and on other streets on occasion. There is greater use in extreme conditions such as a severe freezing rain.

In view of the existing level of environmental concern with respect to the use of salt, it is recommended that the application of 100% salt not be used on Priority II streets other than under extreme conditions equivalent to that caused by freezing rain.

SECTION B:
USE OF SALT AND SAND

CLAUSE B-1	USE OF SALT AND SAND (Cont'd)
APPROVED BY COUNCIL **JANUARY 23, 1991** **NOTE:** ***Sand And Salt Application Rates Are Presently Under Review by the Department***	**USE OF SALT ON CITY STREETS** (Cont'd) Priority I Streets (Cont'd) (e) Salt can also be applied continuously along the Regional street system to melt freshly fallen snow. Depending on the weather conditions prior to the snowfall, a single application will melt three to six (3 to 6) centimetres of fresh snow. Should the snowfall continue, a second application maybe required to melt the additional snow. This procedure is currently being practised instead of the alternative of plowing the fresh snow from the street followed by a salt "spotting" application for two reasons: (iii) Bare pavement is restored quickly providing needed tire traction often in a time frame where plowing is not a viable alternative (eg. to expedite rush hour traffic), and (iv) The continuous application of salt compared to an "all-out" plow on the Regional streets results in a saving of approximately $200,000.00 per application in plowing and hauling costs or $600,000.00 during an average winter. The salting of Priority I streets on a continuous basis must be authorized by the Director of the Public Works Department or his designate. (f) Salt is applied at an application rate of 170 kg per lane kilometre. Over the next two years, the City of Winnipeg's fleet of salt spreader trucks will be equipped with automatic spreader controls. In conjunction with this upgrading, the Public Works Department will be developing varying application rates to correspond to changeable street conditions. For example, the application rate of salt for a light "spotting" requirement should be different from the application rate for a continuous salting operation to melt 3 to 6 cm of fresh snow. Priority II Streets The use of salt on Priority II streets has not been well defined up until now. It has been used on a few higher volume streets routinely and on other streets on occasion. There is greater use in extreme conditions such as a severe freezing rain. In view of the existing level of environmental concern with respect to the use of salt, it is recommended that the application of 100% salt not be used on Priority II streets other than under extreme conditions equivalent to that caused by freezing rain.

APPROVED BY COUNCIL

JANUARY 23, 1991

NOTE:
Sand And Salt Application Rates Are Presently Under Review by the Department

USE OF SALT ON CITY STREETS (Cont'd)

Priority II Streets (Cont'd)

The salting of Priority II streets must be authorized by the Director of the Public Works Department, or his designate.

Priority III Streets

As previously indicated, the existing Policy for Snow Clearing and Ice Control states that Priority III streets shall be maintained to a compacted snow surface. Therefore, it is recommended that salt shall not be used on Priority III streets.

USE OF TREATED SAND ON CITY STREETS

Treated sand is also used in the City to provide a reasonable level of safety on our street system. Salt is added to the sand (5% by weight) to enhance its performance as follows:

(a) It serves to keep sand fluid and workable when stockpiled throughout the cold winter months so that the stockpiles do not freeze and become unusable, and

(b) The salt has the effect of keeping the sand fluid and workable enough that it can be handled in the conveying and spreading apparatus used in the trucks that apply the treated sand to the streets, and

(c) The presence of the small quantity of salt in the mixture allows the material, under reasonable weather conditions, to stick to the icy surface of the roadway, thus reducing the tendency for the sand to be blown off the pavement surface by the wind and passing vehicles.

The first priority of application of treated sand after any snow accumulation is on the Regional Street system (Priority I), then the Bus Route and Collector system (Priority II), followed by an application on the Residential street system (Priority III).

Priority I and II Streets

Treated sand is applied at an application rate of 930 kg/lane kilometre to improve traction on Priority I streets when the ambient temperature is below -7°C, a temperature at which salt is no longer effective. It is applied to Priority II streets as conditions warrant ensuring a reasonable level of safety to motorists and pedestrians.

The application of treated sand on Priority I and II streets is normally done on an intermittent basis along these streets, but may be continuous. After the initial application, and depending on the time of application, wind conditions, amount of traffic and any further accumulation of snow, additional applications of treated sand may be required at controlled intersections, bridges, subways, curves and inclines on the Priority I street

SECTION B:
USE OF SALT AND SAND

CLAUSE B-1	USE OF SALT AND SAND (Cont'd)
APPROVED BY COUNCIL **JANUARY 23, 1991** **NOTE:** ***Sand And Salt Application Rates Are Presently Under Review by the Department***	system. The additional applications are usually made because of the significant traffic volumes and higher speeds on the Priority I streets. The action of vehicle tires at intersections dislodges the sand particles and the subsequent air movement caused by the moving vehicles blows the sand away from the wheel paths and to the side of the roadway resulting in the necessity for additional sanding. Treated sand is blown off the roadway in open areas due to a combination of air movement caused by moving vehicles and the force of normal wind and/or gusts. Therefore, additional applications of treated sand must be made in an effort to provide reasonable tire traction. Priority III Streets Operating procedures have been developed to reduce the application of treated sand on Priority III streets consistent with maintaining reasonably safe conditions. The reduction will be accomplished by reduced application rates and by a more judicious evaluation of the locations to be sanded. On Priority III streets, the application of sand shall be restricted to "spotting" or short bursts at controlled intersections, pedestrian corridors and crosswalks, railway crossings and inclines. There will be other locations where sanding may be required. These areas are to be identified on a "site specific" basis by the Area Streets Supervisor, or his designate. Sanding will not be undertaken in back lanes except under extreme conditions and where authorized by the Director of the Public Works Department, or his designate.

SECTION C:
PLOWING OF SIDEWALKS, ACTIVE TRANSPORTATION TRAILS AND PARK PATHWAYS

CLAUSE C-1	SIDEWALKS ON PRIORITY I AND II STREETS (excluding Downtown Square)
APPROVED BY COUNCIL SEPTEMBER 22, 1993	Sidewalks on Priority I & II streets shall normally be maintained to a compacted snow surface. Plowing shall commence when an inspection, following a 5 cm snowfall accumulation or equivalent local drifting conditions, indicates a necessity for a clearing operation. The snow plowing operations shall be completed within thirty-six hours following the end of an average storm. (See C-2 for Sidewalks in the Downtown Square)

CLAUSE C-2	SIDEWALKS IN THE DOWNTOWN SQUARE
APPROVED BY COUNCIL JUNE 20, 2007	Sidewalks on Priority I and II streets within the Downtown shall generally be plowed to a paved surface whenever conditions allow. However, minor snowfalls and/or warming temperatures between plowing operations may result in a layer of compacted snow or ice on the sidewalk surface. A plowing operation shall be initiated when the snow has accumulated beyond a depth of 5 cm. The snow plowing operations shall be completed within thirty-six hours following the end of an average storm. For the purposes of this policy, the geographical area for snow clearing enhancements in the Downtown is established in conformance with the boundaries identified by the City of Winnipeg Downtown Zoning By-law.

CLAUSE C-3	SIDEWALKS ON PRIORITY III STREETS
APPROVED BY COUNCIL SEPTEMBER 22, 1993	Sidewalks on Priority III streets shall normally be maintained to a compacted snow surface. Plowing shall normally commence when an inspection, following an 8 cm snowfall accumulation or equivalent local drifting conditions, indicates a necessity for a clearing operation. **The identification of sidewalk plowing routes on Priority III streets shall be undertaken in such a manner so as to prioritize, wherever**

CLAUSE C-3	SIDEWALKS ON PRIORITY III STREETS
	possible, sidewalks in the immediate vicinity of elementary schools. The snow plowing operations shall normally be completed within five working days following the commencement of work. Work on weekends and holidays shall be limited. **Notwithstanding the above, the plowing of sidewalks on Priority III streets and which are in the immediate vicinity of senior citizen complexes is further discussed in Clause C-4.**

SECTION C:
PLOWING OF SIDEWALKS, ACTIVE TRANSPORTATION TRAILS AND PARK PATHWAYS

CLAUSE C-4	SIDEWALKS ON PRIORITY III STREETS (NEAR SENIOR CITIZEN COMPLEXES)
APPROVED BY COUNCIL **SEPTEMBER 22, 1993**	Sidewalk plowing routes on Priority III streets shall be established so as to identify a designated access route from each senior citizen complex to the most logical Priority I or II street. Sidewalks on these access routes shall normally be maintained to a compacted snow surface. Generally, plowing shall commence when an inspection, following a 5 cm snowfall accumulation or equivalent local drifting conditions, indicates a necessity for a clearing operation. The snow plowing operation shall be completed within thirty-six hours following the end of an average storm and shall normally be done in conjunction with the sidewalk on the connecting Priority I or II street. For the purposes of this policy, senior citizen complexes shall be identified as a building that is devoted exclusively to senior citizens and has ten or more dwelling units.

CLAUSE C-5	REMOVAL OF WINDROWS
APPROVED BY COUNCIL **SEPTEMBER 22, 1993**	Windrows of snow plowed across private approaches and/or walks and resulting from sidewalk clearing operations shall not be removed.

CLAUSE C-6	*ACTIVE TRANSPORTATION TRAILS*
Under Consideration	*Plowing routes shall be established by the Public Works Department to identify a priority level for each trail, based on the functional use of those individual trails.*

SECTION C:
PLOWING OF SIDEWALKS, ACTIVE TRANSPORTATION TRAILS AND PARK PATHWAYS

CLAUSE C-7	***DESIGNATED PARK PATHWAYS***
Under Consideration	*The activities identified in this Clause will only be undertaken when adequate funds are available in the annual Snow Clearing and Ice Control Budget.* *Designated park pathways within community and neighbourhood parks shall normally be maintained to a compacted snow surface. Generally, plowing shall commence when an inspection, following a 8 cm snowfall accumulation or equivalent local drifting conditions, indicates an necessity for a clearing operation.* *The park pathway snow clearing operations shall be considered as a Priority IV undertaking and shall commence following completion of the City's public sidewalk network.* *For the purpose of this policy, the clearing of snow on the City's park pathways will be extended to include logical connections to the Active Transportation Trails as well as including major pathways within our community parks system and critical pathways in some of our neighbourhood parks. Those pathways to be cleared in the community and neighbourhood parks system shall be determined by the Public Works Department.*

SECTION D:
SNOW REMOVAL

CLAUSE D-1	REMOVAL OF HIGH PILES
APPROVED BY COUNCIL **SEPTEMBER 22, 1993**	The Public Works Department shall monitor visibility at intersections on a regular basis throughout the winter months and any identified high piles at bus stops, crosswalks, lane entrances and intersections shall be reduced so as to improve the line of sight for motorists and pedestrians. Priority shall normally be given to high piles located on Priority I and II streets. Priority shall be given to high piles located at intersections and lane entrances in the vicinity of elementary schools. Every effort shall be made to relocate the snow within the adjacent boulevard storage areas, but loading and hauling may be necessary in many instances. In years of significantly above-normal snow accumulations, it may be impractical to undertake the reduction of all high piles within the City. On those occasions, efforts shall be concentrated on piles in areas of high traffic volumes. High piles located adjacent to private approaches shall not be removed.

CLAUSE D-2a	REMOVAL OF BOULEVARD WINDROWS - GENERAL
APPROVED BY COUNCIL **JUNE 20, 2007**	Windrows of snow shall normally be removed on Priority I and II streets where the following criteria are met: (a) Bridges and underpasses (b) Where lack of adequate storage results in a reduction in the number of available traffic lanes thereby prohibiting the reasonable movement of vehicular traffic under normal winter driving conditions driving conditions. (c) Where lack of adequate storage prohibits the reasonable movement of pedestrians using the adjacent sidewalk. (d) Traffic safety devices such as guardrails and impact barriers. (e) Notwithstanding any of the above, the City shall take advantage of mechanical blowing snow to adjacent properties to accommodate snow storage wherever possible, rather than resorting to hauling.

SECTION D:
SNOW REMOVAL

CLAUSE D-2b	REMOVAL OF BOULEVARD WINDROWS – PRIORITY 1 ENHANCEMENTS
APPROVED BY COUNCIL **JUNE 20, 2007**	Windrows of snow shall normally be removed on Priority I streets where the following criteria are met: (a) Fronting commercial business areas with on-street parking (b) Windrows present significant barriers to street/sidewalk access

CLAUSE D-3	PRIVATE APPROACHES
Under Consideration	Windrows of plowed snow in excess of 20 cm (8") high shall normally be removed from all front street driveway approaches in conjunction with the street plowing operation and during the same shift as the street is plowed. If an emergency snow condition exists and it is necessary to cover a maximum area in the shortest possible time, the clearing of the windrows may be delayed until satisfactory resources are available. Windrows of plowed snow across entrances to private yards resulting from back lane plowing operations shall not be removed. *However snow windrows may be removed as part of the enhanced level of snow clearing that shall be provided in back lanes for properties that have no front street access.*

CLAUSE D-4	HANDICAPPED ACCESS TO PRIVATE PROPERTY
APPROVED BY COUNCIL **SEPTEMBER 22, 1993**	Private crosswalks between the sidewalk and the curb shall be cleared to a width of 0.7 metres by City forces/Contractors, after the street clearing operations are completed, for property owners/occupants who sign a declaration on an annual basis to the effect that: (a) the property-owner/occupant is physically incapable of shovelling snow (copy of medical certificate required), (b) no other able-bodied person resides in the property owner's /occupant's house,

CLAUSE D-4	HANDICAPPED ACCESS TO PRIVATE PROPERTY
	(c) the property owner/occupant is unable to arrange having this work done by others due to financial circumstances.

SECTION D:
SNOW REMOVAL

CLAUSE D-5	HANDI-TRANSIT LOADING ZONES
APPROVED BY COUNCIL SEPTEMBER 22, 1993	Windrows of snow shall normally be removed at "Handi-Transit" loading zones, which have been designated by Transit as high volume locations and integral to their "Handi-Transit" operations. These locations shall be identified in the field by special signing.

CLAUSE D-6	COMMERCIAL/INDUSTRIAL/APARTMENT LOADING ZONES
APPROVED BY COUNCIL SEPTEMBER 22, 1993	Windrows of snow resulting from snow plowing operations shall not be removed from loading zones serving commercial, industrial or apartment buildings.

CLAUSE D-8	CHURCHES AND SYNAGOGUES
APPROVED BY COUNCIL SEPTEMBER 22, 1993	Windrows of snow shall be removed, upon request, from boulevards in front of churches and synagogues in order to facilitate weddings, funerals and other very special religious events.

CLAUSE D-9	SCHOOLS
APPROVED BY COUNCIL SEPTEMBER 22, 1993	Windrows of snow on boulevards adjacent to schools shall not be removed unless the lack of adequate storage has resulted in the adjacent sidewalk becoming obstructed so as to prevent the reasonable movement of pedestrian traffic.

SECTION E:
HOURS OF WORK

CLAUSE E-1	HOURS OF WORK
APPROVED BY COUNCIL **SEPTEMBER 22, 1993**	Snow clearing operations may be undertaken on an extended shift basis where longer hours of work will facilitate the completion of a snow clearing operation in an effective manner in accordance with the policy on Snow and Ice Control. In addition, some snow clearing operations may also be undertaken on an extended shift basis where, notwithstanding the requirements of the snow policy, it has been determined by the Director of Public Works Department, or his designate, that the work can be accomplished more effectively and economically by working an extended shift.