Agenda – Executive Policy Committee – November 6, 2013

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – October 29, 2013

Item No. 3 Granular Roadway Policy

STANDING COMMITTEE RECOMMENDATION:

On October 29, 2013, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service, as amended, and submitted the following to Council:

1. That the Granular Road Policy be amended to incorporate the current methods and practices included in the Public Works Department's Gravel Road Maintenance Manual (appendix A).

2. That Asphalt Pavement be considered as another paving alternative along with Concrete Paving for the construction of back lanes.

3. That through asset management analysis and consultation with Ward Councillors, the Public Works Department identify granular back lanes that are in poor condition and at or beyond their intended service life.

4. That consistent with provisions in the City of Winnipeg Charter, where one or more granular back lanes have been determined to be in poor condition and at or beyond their intended service life, Council consider initiating a Local Improvement to pave the lane(s).

5. That council amend the current Local Improvement process by creating a pilot project for 3 years whereby the City of Winnipeg will finance asphalt local improvement's to the maximum of 50% of total expenses for material and land drainage to implement the Local Improvement.

6. That the $1,000,000 Granular Lane Fund be used as a funding source for the amended Local Improvement Program.

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

Agenda – Executive Policy Committee – November 6, 2013

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – October 29, 2013

DECISION MAKING HISTORY:

STANDING COMMITTEE RECOMMENDATION:

On October 29, 2013, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service, with the following amendments:

- Add the following new recommendations No. 5 and No. 6, namely:

    "5. That council amend the current Local Improvement process by creating a pilot project for 3 years whereby the City of Winnipeg will finance asphalt Local Improvement's to the maximum of 50% of total expenses for material and land drainage to implement the Local Improvement.

    6. That the $1,000,000 Granular Lane Fund be used as a funding source for the amended Local Improvement Program."

and submitted the matter to the Executive Policy Committee and Council.

ADMINISTRATIVE REPORT

Title: Granular Roadway Policy

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

AUTHORIZATION

Author	Department Head	CFO	CAO
J. Berezowsky	B. W. Sacher, P.Eng.	P. Olafson, A-CFO	D. Joshi, A-CAO

RECOMMENDATIONS

1. That the Granular Road Policy be amended to incorporate the current methods and practices included in the Public Works Department's Gravel Road Maintenance Manual (appendix A).
2. That Asphalt Pavement be considered as another paving alternative along with Concrete Paving for the construction of back lanes.
3. That, through asset management analysis and consultation with Ward Councillors, the Public Works Department identify granular back lanes that are in poor condition and at or beyond their intended service life.
4. That, Consistent with provisions in the City of Winnipeg Charter, where one or more granular back lanes have been determined to be in poor condition and at or beyond their intended service life, Council consider initiating a Local Improvement to pave the lane(s).
5. 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

On May 25, 2011 Council concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and adopted the following:

That the Winnipeg Public Service review the existing "Policy with Respect to Granular Surface Roadways" last amended 25 years ago in 1988 as (summarized in Appendix B) and develop a new Granular Roadway Policy that reflects the present maintenance needs and practices. This new policy would include, but not be limited to, specific clauses regarding maintenance and upgrading of granular lanes particularly:

- Options to upgrade back lanes including complete replacement of gravel and upgrades to drainage;
- Review of best practices from other cities;
- Buying more equipment (graders) for each region within the city;
- Consultation and approval with Ward Councillors on gravel back lane priorities;
- A monthly report to Area Councillors (in spring, summer and fall) through the Community Committee meetings on schedules and progress reports that can be posted on ward websites;
- Investigate potential funding sources through the existing Granular Roadway Improvements budget.

IMPLICATIONS OF THE RECOMMENDATIONS

Granular Road Policy
The existing "Policy with Respect to Granular Surface Roadways" was last amended in 1988 and did not significantly address the method of best practices to achieve the service deliverables.

The Department utilized both internal and external staff expertise to prepare the following detailed maintenance activities pertaining to granular surfaces:

A. Drainage
B. Subgrade Repair/Stabilization
C. Dragging Gravel Roads
D. Dragging Gravel Shoulders
E. Shaping and Preparing Gravel Roads
F. Dust Control (Abatement)
G. Chip Seal (Type II Oiling Program)

Each of the maintenance activities listed above is based on best practices with respect to the most effective use of labour, equipment and materials.

Granular Lanes

Currently, the Department has implemented a granular lane improvement program to provide a renewed gravel base that not only refreshes failed material composition but also improves drainage in lanes with areas that are in poor condition. This strategy does not incorporate enhancements. It only removes failed subgrade materials and replaces them with new material. Due to the magnitude of the need, this program cannot address the overall and long term need to have gravel back lanes paved.

Local improvements have not always been successful for a variety of reasons including but not limited to;

- Concrete paving being the only current option for a local improvement at a cost of approximately $300/s.m.
- 60% approval is not easily achieved where several homes on benefitting properties have both front drive and back lane access.
- The belief by some property owners that property taxes and the City at Large should pay for granular lane upgrades.

Council has the authority to propose a local improvement under s.408 of The City of Winnipeg Charter. Following such proposal, owners of affected properties are to be given notice of the proposed improvement and have the right to object as per the process set out in sections 409 to 411 of The Charter. Under s. 412 of The Charter, Council may authorize the proposed local improvement unless owners of at least 3/5 of the property that is to benefit from the proposed improvement object to it.

The Public Works Department recommends where, through asset management analysis and consultation with the Ward Councillor, one or more granular back lanes have been determined to be in poor condition and at or beyond their intended service life, Council consider initiating a Local Improvement to pave the lane(s).

The Public Works Department also recommends that Asphalt Pavement be considered as another paving alternative along with Concrete Paving; the cost of asphalt paving is approximately $125/s.m. compared to concrete paving at an approximate cost of $300/s.m. It should be noted that for each of the paving alternatives, the construction of appropriate drainage through the use of catch basins and land drainage sewers would typically be required.

HISTORY

Granular Lanes

The Public Works Department is responsible for the maintenance of 86.5 kms of “granular lanes” which exist within the City of Winnipeg. Most of these granular lanes are over 40 years old and many are in a badly deteriorated condition that is a result of the minimal maintenance program that has been provided for granular lanes over the years, under the City’s current “Policy with Respect to Granular Surface Roadways”.

The City annually spends between $100,000 and $200,000 to carry out only those works necessary to keep the lanes passable, in accordance with the existing “Policy with Respect to Granular Surface Roadways”, adopted by Council on January 20, 1988. As such, the Streets Maintenance Division is resourced and mandated to provide only minimal maintenance of these lanes (i.e. basic grading only as necessary to keep the roadway passable, and the addition of gravel or asphalt chipping materials to fill isolated low soft spots).

When the City of Winnipeg was formed under Unicity in 1972, a few of the previously rural municipalities were responsible for maintaining a number of granular lanes. Most of these granular lanes still exist as such today, as no concerted effort to upgrade their condition has taken place within the last 40 years. Full pavement construction requires the residents to utilize the local improvement process that needs the support of 60% of the benefiting properties in order to proceed. Property owners have generally not been receptive toward having lane upgrading done by local improvement. In recent years the number of existing granular lanes in Winnipeg that are upgraded to pavements, with proper drainage, is very small.

Unlike “paved lanes” (with appropriate slopes and catch basins), and even “granular streets” (which are edged with ditches to convey runoff away from the street and adjacent properties without significantly harming the road surface), the majority of the “granular lanes” did not have adequate drainage built-in at the time of their construction. As a result, any rainfall or snow melt accumulates in low spots that have developed over the years and this ponding leads to sections of lane that become saturated, very soft and easily damaged by vehicular traffic, especially by larger utility vehicles and garbage trucks. The granular lane then becomes rutted, creating even more areas where ponding occurs. Accordingly, granular lanes are by their very nature prone to develop drainage problems during periods of prolonged rainfall.

In addition, in keeping with existing policy, the minimal maintenance that is done to keep these lanes “passable” throughout the spring, summer and fall seasons must be undertaken when the granular lane surface has dried sufficiently that motor graders can carry out the necessary maintenance work in an appropriate manner. As well, the canopies of mature trees will tend to shade lanes, leaving many of them wet and unmaintainable for long periods of time.

When conditions finally do allow work to commence, the entire system of granular lanes will require attention as quickly as possible, which places a strain on labour and equipment resources. Most of the lanes require specialized small motor graders to work in the confined areas. In response, the City tripled its complement of this type of equipment in 2009. For the lanes that are not already at the end of their service life, this number should be sufficient in an average year by working extended hours and weekends. However, if climate change should ultimately result in wetter summers on average, this may have to be revisited and additional equipment obtained.

A review of other western Canadian cities identified comparable levels of limited maintenance on granular lanes within their jurisdictions. Edmonton and Calgary also have similar requirements as Winnipeg in that any strategy towards upgrading/converting any of these lanes to a lane pavement is undertaken through the municipality’s Local Improvement Process.

FINANCIAL IMPACT

Financial Impact Statement

Date: September 10, 2013

Project Name:

Granular Roadway Policy

First Year of Program **2013**

	2013	2014	2015	2016	2017
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	$ -	$ -	$ -	$ -	$ -
Less: Incremental Revenue/Recovery	-	-	-	-	-
Net Cost/(Benefit)	$ -	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts	-	-	-	-	-
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: The recommendations made in this report do not require additional budget amounts. Improvements made using the Local Improvement process are funded by the benefitting property owners. Land Drainage sewers and catch basins required for Local Improvement projects are funded by the Public Works Capital Project Land Drainage Sewers - Regional/Local Streets, which has an adopted budget of $150,000 for 2013 and a forecasted annual budget of $150,000 for 2014 through 2018.

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

CONSULTATION

In preparing this report there was consultation with: Legal Services Department

SUBMITTED BY

Department: Public Works
Division: Streets Maintenance
Prepared by: J. Berezowsky, Manager of Streets Maintenance
Date: October 17, 2013
File No.

Attachment:

Appendix A**:** Public Works Department's Gravel Road Maintenance Manual



Gravel Road Manual.pdf

Appendix B: Summary of "Policy with Respect to Granular Surface Roadways"



[redacted]