

TO: Secretary, Administration and Finance Committee
FROM: General Manager, Infrastructure Services Department
DATE: October 23, 2012
SUBJECT: Roadway Asset Management Status
FILE NO: CK. 6315-1 and IS. 6220-1

RECOMMENDATION: that the following report be submitted to City Council recommending:

- 1) that the paved roadways service level be established at Level 'B', with a targeted annual investment of \$25 million; and
- 2) that the dollar amounts presented in this report be adjusted for construction inflation in each budget year that the approved capital program is delivered.

TOPIC AND PURPOSE

The purpose of this report is to present the Condition Rating Summary Paved Roadways 2011 report (Attachment 1) for information and discussion; and to request that the report be submitted to City Council recommending that the level of service target for paved roadways be selected.

REPORT HIGHLIGHTS

1. The condition of Saskatoon's paved roadways was indentified as the most important municipal concern in the annual Civic Survey in 2011 and 2012.
2. The paved roadways in Saskatoon have a replacement value in excess of \$1.4 billion
3. The current service level for paved roadways is 'E', with an annual investment of \$6.3 million to \$9.5 million, resulting in a network condition that is getting worse annually.
4. It is the Administration's recommendation that Level 'B', with an annual investment of \$25 million, which would result in a network condition that is getting better annually, is the preferred level of service target.

STRATEGIC GOAL(S)

- Asset & Financial Sustainability – Saskatoon invests in what matters
 - This strategy will reduce the gap in funding required to rehabilitate and maintain the City's infrastructure.
 - It will adopt and implement a corporate-wide asset management and rehabilitation philosophy; and
 - It will protect the City's Credit rating
- Moving Around – Saskatoon is a City on the Move
 - This strategy will ensure roads, streets, sidewalks and bridges are in working order and in a good state of repair; and

- This strategy will also establish service levels to promote repair and maintenance of our roads, streets, lanes, sidewalks and bridges.

BACKGROUND

The Strategic Services Branch is responsible for evaluating the condition of the City's paved roadways and developing an annual program to maintain them at a minimum long-term cost, with modifications based on approved funding levels.

The preservation of the paved roadways is funded from five capital projects, which totalled \$9.492 million in 2012; which included \$3.471 million of one-time funding, which Council allocated to roadways during 2012 budget deliberations, from funding that was available within the Neighbourhood Land Development Fund.

Although funding for paved roadways has, in general, increased over the past decade, from 2003 to 2008 the annual roadway budget only increased by 0.5% per year, while the cost of treatments increased by 15.2% per year. This erosion of purchasing power, combined with the general ageing of the network, has resulted in a degradation of the roadway network since 2002.

REPORT

Service Levels for Paved Roadways

The current investment level for roadways is at a Level of Service 'E', as shown in Table 1 below. An investment level of 'A' would result in the highest level of service at the lowest long-term cost.

Table 1: Asset Service Levels

Level of Service	Asset Condition	Description
A	Getting Better Quickly	Sufficient expenditures to maintain and keep assets in optimal condition. Asset condition/value improves to optimal levels, eliminating any backlog.
B	Getting Better	Sufficient expenditures to increase asset condition/value and decrease backlog slowly over time. Once backlog is eliminated, the funding is sufficient to maintain condition without a backlog.
C	Maintained	Sufficient expenditures to keep assets in constant condition over time. The backlog remains constant.
D	Maintain Assets that are in Very Poor Condition	Sufficient expenditures to replace assets when they completely fail. Insufficient funding to treat all segments requiring preservation and restoration work, and the backlog will slowly increase with time.
E	Getting Worse	Insufficient expenditures to maintain asset condition. Asset condition deteriorates annually. Some assets may need to be closed or removed from service.
F	Getting Worse Quickly	Asset condition/value decreases rapidly. Assets are frequently removed from service due to deterioration as insufficient funding exists to replace all completely failed segments.

Current Condition of Roadways

The Strategic Services Branch conducts surface condition assessments of the paved roadways on an annual basis. The assessments are used to determine condition, service level targets, and to develop annual capital improvement plans. Surface condition assessments are taken on a four-year cycle for local streets, and a three-year cycle for collector streets.

As of December 2011, the City of Saskatoon had a roadway network totalling approximately 3,607 lane kilometres, with a replacement value estimated at \$1.4 billion. Additional inventory details are presented in the attached Condition Rating Summary – Paved Roadways 2011 report.

The funding for roadway preservation needs to increase with each funding level shown in Table 1 above. Results of the 2009 to 2011 assessment determined that approximately 10% of local streets are currently in “Very Poor” condition. Table 3.3, on Page 7 of the attached Condition Rating Summary, shows the distresses and the thresholds.

Various investment options have been analyzed. The three highlighted below have been selected as potentially viable.

Option 1 – Status Quo (Level of Service “E”)

This option would keep the annual investment in paved roadways at the same level as in 2012, which was \$9.5 million. The current backlog will grow and the overall condition of the network will deteriorate. The 2012 funding was made of \$6.0 million of base funding from General Reserves and \$3.5 million of one-time Neighbourhood Land Development funding.

Option 2 – Maintain Assets in Very Poor Condition (Level of Service “D”)

This option would require an annual investment of \$15 million. The streets in the worst condition would be given a higher treatment priority than in Option 1. Annual investment opportunities will be missed, as some roadways will still degrade from the “Preservation” to “Restoration” category; and from the “Restoration” to the “Rehabilitation” category. As they move through each category, treatments become more costly, with rehabilitation being the most expensive.

Option 3 - Maintain the Current Backlog (Level of Service “C”)

This option would require an annual investment of \$20 million. The current backlog and network condition will remain as at the end of 2012.

Option 4 – Improve Average Condition and Eliminate Backlog in the Future (Level of Service “B”)

This option would require an annual investment of \$25 million. The average condition of the roadway network will be better than it is today, and the backlog will be reduced.

A level of service “A” is ideal for all assets, as it is the least long term cost to the City. However, it will take several years to eliminate the backlog of very poor streets, and until that occurs, it is not achievable. Funding this level of service would also require a significant increase that would be difficult to achieve.

The City of Edmonton was able to significantly increase their roadway funding in 2008, with the introduction of the Neighbourhood Renewal Program, a dedicated and permanent tax levy for roads, sidewalks and street lights. In addition, Edmonton receives more provincial funding than Saskatoon, they utilize local improvement programs, and they pay approximately three times more per capita in taxation for roads than in Saskatoon. For example, in 2011, the average Edmonton household paid approximately \$22 per month for roadways, while in Saskatoon, the average household paid approximately \$6 per month. This value was calculated using 2011 roadway funding for each city, divided by the estimated number of households. In 2012, Edmonton’s tax increased by 5.39%, and 72% of the increase was dedicated to their Neighbourhood Renewal Program.

It is the Administration’s opinion that Option 4 is the desirable level of service target. This option will result in an improvement of the average condition of the roadway network and a reduction to the roadway backlog. If immediately achieved, Option 4 would result in an increase of \$15.529 million in investment above the allocated 2012 roadway preservation budget.

The treatment of paved roadways is funded from the Infrastructure Surface Reserve with the following capital projects:

- 0835 - Collector Road Preservation;
- 0836 - Arterial Road Preservation;
- 1531 - Local Road Preservation;
- 1890 - Expressway Road Preservation; and
- 2249 - Street Reconstruction.

The Infrastructure Surface Reserve is 100% mill rate funded, and includes additional capital projects for transportation, sidewalks, curbs, and back lanes.

The Administration is recommending that the Committee forward this report to City Council, recommending that the level of service target for the preservation of roadways be established as Level ‘B’, with an annual investment of \$25 million.

OPTIONS TO THE RECOMMENDATION

An alternate service level can be established, however, the Administration believes that Service Level 'B' provides an acceptable condition state of the roadway network that is financially attainable.

POLICY IMPLICATIONS

There are no policy implications.

FINANCIAL IMPLICATIONS

The financial implications depend on the service level selected. A funding strategy will be forthcoming.

PUBLIC AND/OR STAKEHOLDER INVOLVEMENT

Public and/or stakeholder involvement is not applicable.

COMMUNICATION PLAN

The City has been undertaking a series of activities to proactively communicate the City's Strategic Plan and specifically more information for each strategic goal. Since March 2012, the City has held major news conferences around the Strategic Plan, Sustainable Growth/Moving Around and Environmental Leadership.

The Administration is preparing to launch the strategic goal for "Asset and Financial Sustainability – Investing In What Matters". The vision for this strategic goal outlines that "Our buildings, roads, and bridges are well managed and well maintained – meeting the needs of citizens and reflecting the pride and priorities of a modern 21st century city."

Upon City Council adopting the recommendations in the Roadway Asset Management Status report, the information and deliverables will be communicated as part of the Asset and Financial Sustainability news conference. The news conference provides an opportunity to share the direction in achieving the long and short-term strategies. It will also provide an opportunity to show how the commitment will play a role in achieving other long-term strategies related to Environmental Leadership, Moving Around and Economic Diversity. The news conference will reach various audiences including the media, stakeholders and citizens.

In addition to a news conference, the information will be incorporated into the Strategic Plan web pages. Additional communications tools will be prepared to ensure citizens are informed about the commitment, deliverables and achievements the City of Saskatoon is making towards goals identified in the Strategic Plan. This may include, but is not limited to, news releases, web pages content and videos, and social media tools including creating blog content and providing updates on twitter and Facebook.

ENVIRONMENTAL IMPLICATIONS

The implementation of an increased roadway preservation program will significantly increase greenhouse gas emissions by the City of Saskatoon. The details of the funded program will be forwarded to the Environmental Services Branch for exact calculations.

PRIVACY IMPACT

There are no privacy implications.

SAFETY/CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

There is no CPTED review required for this project.

PUBLIC NOTICE

Public Notice, pursuant to Section 3 of Policy C01-021, Public Notice Policy, is not required.

ATTACHMENT

1. Condition Rating Summary Paved Roadways 2011.

Written by: Colin Prang, Surface Infrastructure Preservation Manager
Strategic Services Branch

Reviewed by: Rob Frank, Manager
Strategic Services Branch

Approved by: "Mike Gutek"
Mike Gutek, General Manager
Infrastructure Services Department
Dated: "October 31, 2012"

Approved by: "Murray Totland"
Murray Totland
City Manager
Dated: "October 31, 2012"