

Request for Decision

Title	Sustainable Roads Improvement Strategy Final Report
Proposed Motions	<ol style="list-style-type: none"> 1. That Council accept the Sustainable Roads Improvement Strategy Final Report as information. 2. That Council direct Administration to prepare plans and future Operating and Capital Budgets using the Sustainable Roads Improvement Strategy as the framework.
Administrative Recommendation	<p>The Sustainable Roads Improvement Strategy (SRIS) Final Report is a Corporate Initiative that has been developed over the last 12 months. It is recommended the report be accepted and that Council direct Administration to prepare plans as well as capital and operating budgets for 2018 and beyond using SRIS as the framework.</p>
Previous Council Direction	<p>March 14, 2017 - Motion 107/17: That Council accept the Sustainable Roads Improvement Strategy (SRIS) including Road Classification Review and State of the Infrastructure Report as information.</p> <p>March 14, 2017 (Committee of the Whole): SRIS Implementation Let’s Talk Roads Action Plan.</p> <p>November 22, 2016 (Committee of the Whole): Presentation on Dust Control Methods – Mr. Gordon Molnar of Pillar Systems.</p> <p>September 27, 2016 - Motion 318/16: That Council receive the Let's Talk Roads Report as information.</p> <p>September 13, 2016 (Council): Presentation on SRIS Resident Survey Results – Mr. Gordon Molnar of Pillar Systems.</p> <p>May 20, 2016 (Committee of the Whole) Presentation to Council on Project outcomes, schedule, deliverables – Mr. Gordon Molnar of Pillar Systems.</p>

December 8, 2015 - Motion 397/15:

Within the 2016 Budget, Council approved funding for OP-3 Sustainable Roads Master Plan, renamed Sustainable Roads Improvement Strategy.

Report Background Information

- The SRIS is a Corporate Initiative identified in the 2016 – 2018 Corporate Business Plan.
- The goal of SRIS is to evaluate and implement various improvement strategies related to Transportation Operating and Capital Programs.
- SRIS is based on the principle ‘Value for Money’ using alternative treatments.
- The project was initiated in early 2016 with the following stages:
 - Policy and Strategic Framework;
 - Public Engagement;
 - Road System Inventory;
 - Road System Condition Rating;
 - Maintenance Renewal and Upgrade Practices;
 - Model Parameter Development; and
 - Life Cycle Optimization.
- Council has previously received reports on the strategic framework, public engagement, dust suppression, and state of the infrastructure road system condition rating.
- The April 25, 2017 report focuses on outcomes from the various strategies:
 - The modeling process forecasts the roadway deterioration over time;
 - During the lifecycle of roadways, a host of treatments are applied and tested in the model; and
 - Through the lifecycle, the model selects a series of maintenance operations, renewal, and upgrading treatments that minimize costs over the lifecycle and delivers infrastructure sustainability over time.
- The overall objective of the modeling analysis was to **“maximize the value for taxpayers while ensuring infrastructure sustainability over time”**.
- Following asset management principles **“to do the right things, to the right infrastructure, at the right time”** which will improve the financial bottom line while improving roadway quality.
- **SRIS provides Sturgeon County with a Strategic Roads Plan. Sturgeon County has listened to residents’ concerns and has a plan moving forward to make improvements.**

Conclusions from the Report

- SRIS developed a systematic approach to completing field level condition assessments and lifecycle optimization analysis, which illustrated that **Sturgeon County can provide adequate maintenance and capital upgrades within defined budget allocations balanced over the long-range horizon.**
- In the short range, additional investment of \$7.69 Million per year above current budget levels is required. This is due to the additional cost to

convert oil roads and gravel collectors and arterials to robust paved roads. **However, over the long-range horizon, maintenance and capital renewal needs are in line with average projected budget allocations.**

- **Key strategies to address deficiencies and residents' concerns:**
 - Enhance surface maintenance.
 - Preserve the roadways that are in good condition.
 - Structurally upgrade roadways currently under designed for the heavy haul traffic using these roadways.
 - Traffic will be addressed by developing a functional transportation network to reduce local traffic and divert traffic to Collector / Arterial network:
 - Phase 1 is the application of continuous calcium dust suppression (*Budget Implications will be developed*); and
 - Phase 2 is the upgrading of these roads to paved class standard (*High priority in the 4 Stage Capital Plan*).
 - Converting gravel collector roads to structural pavement will reduce gravel maintenance, thereby enabling operations to focus on gravel road cross slope improvements (*Gravel Road Improvement Plan (GRIP) developed by Administration and presented March 14, 2017*).
 - Gravel roads can be sustained within current operating budgets once crown and width have been addressed (*GRIP and Local Road Reconstruction Program*).
 - Maintain a surface width of 8.0m for local gravel roads, and consider wider roads for Arterial and Collector roads (*GMSS Update*).
 - The current gravel road repair program budget funding for shoulder pulling has been reallocated in the short term to enhanced road maintenance and gravel road improvements (*Let's Talk Roads Action Plan - GRIP*).
 - Conversion of the current thin membrane surface (oiled) roads to robust paved standard; (*High Priority in the 4-Stage Capital Program - within 10 years is recommended*):
 - It is expensive to maintain an asset that is in poor condition and is not designed for the traffic and expected service level.
 - Paved roads are in good condition; to keep these roads in good condition multiple mid-life treatments need to be conducted (*New techniques such as seal coats to be included in the Rehabilitation Capital Program – 4 Stage Capital Program*).
 - SRIS is in line with the Local Roads Reconstructions Program (LRRP) by identifying the appropriate treatments for the LRRP program (*LRRP contracting options being evaluated- report to Council May 23*).
 - Utilizing Significant Tax Policy Revenue Plan will advance the upgrading activities which in turn will achieve road sustainability sooner (*Council direction for 40-67% allocation (approximately \$25 Million in Capital Road Funding including Grants) would allow benefits of SRIS to be achieved quicker*).

- Chemical stabilization treatments on collectors which have been tested should be continued, however weak surface treatments (double chip seal) are not recommended without further lifecycle analysis.
- Implementing an asset management approach to data handling and planning is a high priority, especially for the road assets. (*Asset Management Policy/Plan under development*).

Recommendations: (From SRIS)

- That Sturgeon County implements the maintenance operations and capital program details as presented in SRIS, subject to internal review and design engineering;
- That Sturgeon County maintain a focus on enhancing surface maintenance, preserving what is in good shape and upgrading what is insufficient for the load carrying traffic;
- That Sturgeon County continue the use of calcium chloride as a dust suppressant, subject to appropriate application, for which bitumen-based dust suppressants are not recommended;
- That Sturgeon County maintain the surface width of Local class roads at 8.0m, Collector class roads at 9.0m and Arterial class roads at 10m;
- That Sturgeon County's Local Road Reconstruction Program evolves to consider the term 'reconstruction' to include a broader range of opportunities available, ranging from enhanced road maintenance and stabilization to upgrading to a structural paved surface, that is proven to realize significant net savings to taxpayers;
- That Sturgeon County develops a plan to chart the course to implementing new maintenance treatments including equipment acquisition, staff training and outsourcing services;
- That Sturgeon County repeats the roadway condition assessment and lifecycle optimization analysis on a biannual basis;
- That Sturgeon County use the roadway SRIS assessment and analysis processes as a model to expanding the County's asset management program;
- That Sturgeon County develop a Maintenance Management Inventory System;
- That Sturgeon County provides more comprehensive safety analysis and implementation with respect to bridge barriers, intersection delineation and advance warning.

External Communication




- Communications has developed a phased external communications plan for SRIS, Let's Talk Roads Action Plan and Capital plans.

Relevant Policy/Legislation/Practices:

- Policy ENG-ROA-1 Roadway Functional Classification System
- Policy TRA-DUS-1 Dust Control
- Policy TRA-INS-1 Road Inspection and Repair
- Policy TRA-ROA-1 Road Ban Permits

- Policy TRA-STR-1 Street Lighting

<p>Implication of Administrative Recommendation</p>	<p><u>Strategic Alignment:</u></p> <p>This project aligns with the following Sturgeon County Goals:</p> <p>Focus Area: Operational Excellence Goal 6.1.2: – “Sturgeon County has streamlined operational processes, through standardization and continuous improvement.</p> <p>This project is also aligned with several other strategic initiatives including Asset Management, 5 Year Capital Plan, General Municipal Servicing Standards, and LRRP.</p> <p><u>Organizational:</u></p> <p>Transportation Services is focused on implementing the Gravel Road Improvements including measuring crowns, training and monitoring operations in 2017, within current budget allocations. Shoulder pulling is not planned for 2017 with the funding reallocated to enhanced road maintenance.</p> <p>Moving forward, some new techniques such as full application of dust control on all collectors/arterials may require additional resources or contracted services. Additional capital project planning and delivery was included in the 2017 Budget. Implications to the organization for delivering the Local Road Reconstruction Program including the SRIS concepts will be presented to Council in May.</p> <p><u>Financial:</u></p> <p>Any additional or reassigned costs for any amendments to programs for mid-life strategies would be included as part of the recommended 2018 or future budgets.</p> <p>The Significant Tax Growth Policy provides the strategic approach to additional funding for either Capital or service adjustments.</p>
<p>Alternatives Considered</p>	<p>That Council direct Administration to prepare a more detailed financial impact report during the 2018 budget process, prior to bringing SRIS for approval.</p>
<p>Implications of Alternatives</p>	<p><u>Strategic Alignment:</u></p> <p>No change.</p> <p><u>Organizational:</u></p> <p>Impacts, analysis and recommendations will be included in the work plan for Administration.</p>

	<p><u>Financial:</u></p> <p>Financial impacts would be reported on in the detailed report.</p>
Follow up Action	<ol style="list-style-type: none"> 1. Preparation and execution of a detailed Communication Plan (Communications/Transportation- Q2 2017). 2. Report back to Council on the Gravel Road Improvement Plan Results (Transportation, June, October 2017). 3. Include SRIS recommendations in the 2018 Budget (Transportation, December 2017).
Attachment(s)	<ol style="list-style-type: none"> 1. Final SRIS Report - Pillar Systems. 2. Pillar Systems Inc. Presentation. 3. Implementing SRIS Presentation
Report Reviewed by:	<p> Bob Stephen, Program Manager, Transportation</p> <p> Shane Hogan, Manager Transportation Services</p> <p> Ian McKay, P.Eng. General Manager, Municipal Services</p> <p> Stephane Labonne, General Manager, Integrated Growth Division</p> <p> Rick Wojtkiw, Acting CAO</p>

Strategic Alignment Checklist

Vision: Sturgeon County: a diverse, active community that pioneers opportunities and promotes initiative while embracing rural lifestyles.

Mission: Provide quality, cost effective services and infrastructure to meet the diverse needs of the Sturgeon County community, while improving competitiveness and sustainability.

Focus Areas	Not consistent	N/A	Consistent
Strong Local Governance and Regional Leadership			
<i>We promote consistent and accountable leadership through collaborative and transparent processes (Strategic Plan, pg. 27 MDP)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Consistent with neighborhood role (see MDP), master plans, policies</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Considers fiscal stability and sustainability</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Has a positive impact on regional and sub-regional cooperation</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Respect the Natural Environment			
<i>We acknowledge the importance of a healthy environment and will minimize and monitor our impact on ecosystems (Strategic Plan, pg. 27 MDP)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Compliance with Provincial and Federal regulations and/or legislation</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Ensure effective environmental risk management</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Community Identity & Spirit			
<i>We will build upon our strengths, where together we will create an inclusive, caring community (Strategic Plan, (Strategic Plan, pg. 27 MDP)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Promotes and/or enhances residents' identification with Sturgeon County</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Enhances service provision through community partnerships</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Supports Sturgeon County's cultural history</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Planned Growth and Prosperity			
<i>We encourage varied and integrated enterprises that enhance our strong economic base, while balancing the needs of the community and natural environment. (Strategic Plan, pg. 27 MDP)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Does the proposal align with the Integrated Regional Growth Strategy (map/policies) pg. 26 MDP</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Considers cumulative costs and long-term funding implications</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Targets growth around current or planned infrastructure</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Maintain and Enhance Strong Communities			
<i>We are committed to a safe, secure community, where our residents are respected and provided with access to opportunities. (Strategic Plan, pg. 27 MDP)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Positive impact on residents' quality of life</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Supports and promotes volunteer efforts</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Provides programs and services that are accessible to all residents</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Operational Excellence			
<i>We have the organizational capability to deliver consistent and defined levels of service to all stakeholders in a professional, efficient, and cost effective manner</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Staff have the knowledge, skills and capability to perform their jobs</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Streamlines operational processes and policies</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Promotes engagement and professional interaction with stakeholders</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Considers a cost-structure which allows Sturgeon County to remain competitive within a regional, national and global context</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>