
Intelligent Transportation Systems Strategic Plan

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That the vision, goals, and key directions of the Intelligent Transportation Systems Strategic Plan be approved.

Topic and Purpose

This report is to request City Council approval for the Intelligent Transportation Systems (ITS) Strategic Plan as part of the Growth Plan to Half a Million (Growth Plan).

Report Highlights

1. The ITS Strategic Plan consists of a vision statement, goals, potential key performance indicators (KPIs), and projects that have been developed to provide a comprehensive integrated strategy for the City of Saskatoon's (City) transportation network.
2. The ITS Strategic Plan identifies ten projects that support Saskatoon's needs and goals of today and over the next fifteen years. Projects have been prioritized as either short or long-term, and quick wins (projects that can be implemented within two years) have been identified.

Strategic Goal

This report supports the Strategic Goal of Moving Around by improving safety for all road users (pedestrians, cyclists, and drivers), and optimizing the flow of people and goods in and around the city.

Background

Many jurisdictions consider ITS technologies critical transportation system components as these technologies assist with maximizing the efficiency of the transportation network. ITS can defer the need for infrastructure investment for increased capacity to maintain an acceptable level of service by using roadway infrastructure already in place.

A Needs and Gap Assessment was the first step in the development of a comprehensive ITS Strategic Plan. The Needs and Gap Assessment consisted of a review of the current state of the existing and future ITS needs using the following approach:

- Review of background information from the City that included the Growth Plan and planned transportation projects.
- Development of an ITS Questionnaire to request information from City departments that are considered key ITS stakeholders.
- Facilitation of an ITS Workshop in February 2017 to discuss the elements of ITS and results of the questionnaire. The workshop attendees included Construction & Design, Facilities & Fleet Management, Information Technology (IT), Major

Projects & Preservation, Planning & Development, Roadways & Operations, Saskatoon Fire Department, Saskatoon Transit, Strategic & Business Planning, and Transportation. Saskatoon Police Service was unable to attend the workshop but has expressed interest in and support for ITS.

- Review of existing and planned ITS infrastructure.

Based on internal stakeholder feedback, the areas of interest and concern that would be addressed with the ITS Strategic Plan include:

- Traffic signal coordination;
- Incident management;
- Wireless and communication networks;
- Congestion issues on corridors and at key locations;
- Commercial goods movement;
- Congestion related to trains blocking railway crossings;
- Public transportation;
- Traveler information system;
- Data management including telecommunications; and
- Institutional issues including organizational structure, coordination between departments, and common standards.

Report

ITS Strategic Plan Components

Background information, best practices and emerging trends were reviewed to develop the vision statement, goals, potential KPIs, and projects in the ITS Strategic Plan.

The following vision statement was developed with input from internal stakeholders and aligns with the transportation requirements of other City strategies:

“Invest strategically in innovations that maximize public safety and efficiency, encourage all modes of transportation, and support our region’s growth through improved information access and network adaptability.”

Based on the needs of the internal stakeholders, existing conditions and vision statement, the following eight specific goals were developed:

1. Improve transportation flexibility (improving the mode split);
2. Reduce travel times along major corridors;
3. Improve emergency response efficiency;
4. Improve transit schedule adherence;
5. Manage commercial vehicle movements to preserve road infrastructure;
6. Mitigate impacts of train-road crossing disruptions;
7. Improve access to traveller information; and
8. Improve multi-agency ITS stakeholder business intelligence for real-time operations and planning purposes.

The detailed ITS Strategic Plan is provided as Attachment 1 and includes potential KPIs that can be utilized to measure progress.

Projects

Ten ITS projects have been identified that support the goals in the short and long-term and are as follows:

1. Rail Crossing Information System
2. Data Warehouse
3. Traffic Management
4. Traveller Information
5. Emergency Traffic Management
6. Transit Priority
7. Expanded Data Collection
8. Support Integrated Multi-Modal Trip Planning
9. Mobility as a Service
10. Integrated Corridor Management

Section 6 of the attached Final Report – Development of an ITS Strategic Plan (Final Report) provides a project sheet with more details for each of the ten projects.

Options to the Recommendation

City Council could choose to not approve the ITS Strategic Plan at this time. The Administration does not recommend this as this plan is a critical component of an integrated approach to planning for a successful city of 500,000 people.

Public and/or Stakeholder Involvement

Key internal stakeholder groups were consulted throughout the development of the ITS Strategic Plan to ensure broad and balanced input was collected and integrated.

To implement the projects identified in the ITS Strategic Plan successfully, all key stakeholders will need to continue to be involved. Section 9 of the attached Final Report outlines the close coordination that is required with IT since many of the ITS projects have a strong relation to IT initiatives.

Communication Plan

Following consideration of this report, City Council's decision will be communicated to the media via public service announcements and to stakeholders via email.

Financial Implications

The ten projects outlined in the ITS Strategic Plan are estimated to cost \$3.5 to \$8.1 million in capital and \$800,000 to \$1.9 million in operations and maintenance over the next five years. A high-level analysis of the short-term budget is presented in Section 10 of the attached Final Report. This estimate does not include additional investments in staff that will be required.

For 2019, City Council recently approved funding of \$200,000 for Capital Project #2448 – Intelligent Transportation System. The specific projects to be completed in 2019 with this funding include a CCTV module for the Automated Traffic Management System, two traffic monitoring cameras, and two data collection stations. These initiatives for

Intelligent Transportation Systems Strategic Plan

2019 align with the ITS Strategic Plan, specifically Project 3 – Traffic Management and Project 7 – Expanded Data Collection.

The advantage of having the ITS Strategic Plan in place is to best position the City to apply for funding through various programs provided by other levels of government. Recent examples of potential funding programs include: Public Transit Infrastructure Fund; Program for Advance Connectivity and Automation in the Transportation System; and funding programs that promote Active Transportation and Green Infrastructure may be applicable as well.

Other Considerations/Implications

There are no policy, environmental, privacy, or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

Following City Council approval, the Administration will prepare a funding plan for consideration during the 2020 Business Plan and Budget deliberations. The funding plan will identify: detailed capital and operating costs; staffing required for program delivery; new and existing infrastructure; operations and maintenance; and monitoring and evaluation.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Final Report – Development of an Intelligent Transportation Systems (ITS) Strategic Plan

Report Approval

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