

NO: R162

COUNCIL DATE: July 23, 2018

---

## REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **July 19, 2018**

FROM: **General Manager, Engineering**

FILE: **5460-01**

SUBJECT: **Congestion Relief Strategy, 2019- 2023**

---

## RECOMMENDATION

The Engineering Department recommends that Council:

- Receive this report for information; and
- Authorize staff to finalize the proposed Congestion Relief Strategy, 2019 – 2023 and identify funding solutions for the new and accelerated initiatives.

## INTENT

The purpose of this report is to introduce a proposed Congestion Relief Strategy, 2019-2023. The Congestion Relief Strategy will outline the key road, transit, walking and cycling improvement projects, as well as investment in Intelligent Transportation Systems (“ITS”) and road safety that will improve overall mobility and manage traffic congestion in Surrey over the next 5 years. The proposed Congestion Relief Strategy includes projects currently planned in the 10-Year (2018-2027) Servicing Plan (“10-YSP”) as well as further improvements that will require additional funding.

## BACKGROUND

To meet the needs of current and future residents, the Engineering Department develops, and regularly updates, a 10-YSP to highlight the engineering works and services the City will undertake over the next 10 years. These engineering works make sure existing infrastructure (roads, water, drainage and sewers) are kept in a state of good repair. The 10-YSP also outlines projects that will enhance and expand infrastructure to meet the needs of Surrey’s growing population based on growth projections from the Official Community Plan and approved Neighbourhood Concept Plans.

For transportation-related infrastructure, the City has an evidence-based, multiple-account process for determining where congestion management projects are needed most. This process includes analyzing average annualized daily traffic counts to determine corridors that chronically experience high traffic volumes.

The primary source of funding for major road improvement projects is Development Cost Charges (“DCC’s”). In the last four years, the City has invested over \$100 Million of transportation DCC’s to improve corridors such as King George Boulevard in South Surrey, 160 Street in Guildford, 72 Avenue in Clayton, and 128 Street in Newton. With the approval of the Mayors’ Council Vision and subsequent TransLink Investment Plan, the City now utilizes allocated cost sharing funding of approximately \$5.0 million per year from TransLink for improvements to the Major Road Network (MRN) on corridors such as 64 Avenue and planned projects on Fraser Highway. The City also leverages funding opportunities from other sources such as ICBC, the Province and the Federal government for projects such as Bridgeview Drive improvements and the Roberts Bank Rail Corridor crossing grade separation project.

With recently approved increases to DCC’s, the 10-YSP now identifies almost \$48 Million annually for transportation improvements specifically targeted to congestion relief projects, including new arterial roads, arterial road widening, strategic property acquisition, intersection improvements, bridges, overpasses, collector road improvements, traffic signals and roundabouts. Although this is a considerable annual investment, it is still not fully meeting the demands and expectations from residents to improve mobility options, relieve congestion within the City of Surrey or accommodate continued development in their growing neighbourhoods.

## **DISCUSSION**

While the 10-YSP outlines projects planned for the next 10-Years, and categorizes them into short (1-3 years), medium (4-6 years), and long term (7-10 years) residents have asked for specific and convenient information about what is planned in the more immediate term, and along a consistent number of themes.

Residents and Surrey’s Transportation and Infrastructure Committee have also asked for the City to look at opportunities to deliver more projects than identified in the 10-YSP and to deliver some of the long term projects sooner. The Congestion Relief Strategy, 2019-2023 is being proposed in response to these requests and the fact that the City of Surrey and Metro Vancouver continue to experience rapid growth and growing congestion. The proposed strategy will reduce further congestion that the city would have seen with this continued growth by delivering:

- Transportation improvement projects already identified in the short and medium term timeframe of the 10-YSP;
- 9km of road improvements not included in the 10-YSP;
- 5km of long term 10-YSP projects advanced to the short term;
- Increased funding for ITS initiatives, multi-modal travel and road safety to provide further congestion relief; and
- A convenient communications package for easier access to information for residents.

### *New and Advanced Projects*

The new and advanced projects in the proposed strategy include:

New	72 Ave widening to 5 lanes - 144 St to 152 St
New	80 Ave widening to 5 lanes - 172 St to 188 St (preload)
New	132 St widening to 4 lanes - 72 Ave to 96 Ave
Advanced from long-term	80 Ave widening to 5 lanes - 122 St to 128 St
Advanced from long term	160 St widening - Fraser Highway to 96 Ave

The various projects and initiatives within the proposed Congestion Relief Strategy, 2019-2023 are categorized under the following strategy areas which complement and intersect with one another, and together result in a comprehensive approach to managing traffic congestion.

### *Making Targeted Corridor Improvements*

Residents often request the completion of widening on key north-south and east-west corridors to increase capacity and reduce or maintain travel times. Through a combination of delivering existing projects in the 10-YSP, and the new and advanced projects outlined above, the following key commuter routes have been targeted for completion in the Congestion Relief Strategy, 2019-2023:

- Fraser Highway widening completion and transit lanes from Whalley Boulevard to 148 Street (10-YSP);
- 32 Avenue widening and improvements from Croydon Drive to 188 Street (10-YSP);
- 64 Avenue widening completion from 176 Street to Fraser Highway (10-YSP) and initiating works from 152 Street to 164 Street (preload);
- 80 Avenue widening completion from 120 Street to King George Boulevard (advanced from long term) and initiating works for widening from 168 Street to 192 Street (new);
- 152 Street advanced works to prepare for widening from 40 Avenue to 50 Avenue (preload); and
- 160 Street widening completion from Fraser Highway to Highway 1 (advanced from long term)

### *Enhancing Regional Connections*

Ensuring Surrey is properly connected to the regional road network is critical for economic growth and prosperity. Using partnerships and cost sharing with external agencies, such as TransLink and the Ministry of Transportation and Infrastructure (“MOTI”), major capital projects are identified to provide the right connections, in the right places to support intra-regional travel as well as goods and services movement and include:

- 32 Avenue/Highway 99 Interchange improvements (10-YSP);
- New 24 Avenue Highway 99 Interchange (northbound on and southbound off ramps) (10-YSP);
- Replacement and expansion of the King George Nicomekl Bridge (10-YSP); and
- Surrey connections to the Pattullo Bridge, including the 128 Street Connector (10-YSP).

### *Investing in High Growth Areas*

In addition to the Targeted Corridor Improvements and Regional Connections, additional investment will be made in high growth areas like City Centre, Newton, Grandview Heights and Clayton to support trips by all modes of transportation as we build our network. With all road improvement projects, a complete streets design approach is used to support improved multi-modal facilities for pedestrians, cyclists and transit users. Key projects include the extension of 192 Street to Fraser Highway in Clayton (10-YSP), road improvements on 160 Street (10-YSP) and the new 20 Avenue overpass in South Surrey (10-YSP).

### *Supporting Surrey-Newton-Guildford Light Rail Transit*

To support Surrey-Newton-Guildford Light Rail Transit (“SNG-LRT”) a focus on improving parallel corridors to maintain mobility and circulation for all modes of transportation, and improving connections to the stations to attract and ensure accessibility for all users, is required. A number of parallel improvements included in the 10-YSP are already underway such as 100 Avenue widening and improvements, and the new 105 Avenue connector. New integrated travel connections with SNG-LRT are planned to support transit mode shift on parallel corridors with new sidewalks, a new pedestrian bridge east of 80 Avenue, as well as additional improvements on 140 Street and 108 Avenue.

Although the parallel projects from the 10-YSP will maintain mobility and circulation for all modes of transportation, residents continue to express concerns over vehicle capacity reductions due to SNG-LRT, specifically on 104 Avenue. Widening of 104 Avenue back to 4-lanes along the entire SNG-LRT corridor is anticipated to occur through redevelopment, consistent with the City Centre and Guildford Town Centre/104 Avenue Corridor land use plans. To address the concerns raised, the Congestion Relief Strategy, 2019-2023 will investigate the technical and financial feasibility of widening 104 Avenue to 4-lanes along the entire length of the SNG-LRT alignment with potential inclusion in the Strategy.

### *Growing Active Transportation Options*

Walking and cycling improvements can have a significant impact on congestion. Increasing trips made by alternate modes of transportation, including transit, frees up road space for existing users and increases capacity for growth. \$39 Million is already identified. An additional \$5 Million is proposed to:

- Continue upgrading sidewalks near schools and improve connections to transit, such as the SNG-LRT corridor and two new B-Lines (planned on Fraser Highway and Scott Road/72 Avenue); and
- Implement over 14 kms of new protected cycle tracks and multi-use pathways.

### *Innovating with Intelligent Transportations Systems and Big Data*

In addition to road improvement projects and active transportation investments, the Congestion Relief Strategy, 2019-2023 proposes to increase funding for the City's state of the art Traffic Management Centre to implement ITS throughout the city. This includes:

- Expanding traffic data collection and analysis;
- Increasing the number of coordinated signal corridors;
- Growing the use of Adaptive Traffic Signal Control;
- Implementing dynamic traveller information systems to communicate travel times along multiple parallel corridors; and
- Supporting transportation-sharing technologies to improve mobility as a service in the city.

### *Committing to Road Safety*

Another way the City will address traffic congestion is through enhanced road safety initiatives. Research suggests even a minor collision can result in travel time delays of 10 minutes per vehicle. Collisions resulting in serious injuries and fatalities can cause delays of more than one hour per vehicle. The City is in the final stages of a proposed Vision Zero Safe Mobility Plan that will set the framework for reducing the number of collisions in Surrey - particularly those resulting in fatalities and serious injuries.

The plan will identify the importance of a Safe Systems data-driven approach to implementing road safety improvements. The Congestion Relief Strategy, 2019-2023 proposes to support the goals of a Vision Zero Safe Mobility Plan through complete streets road design and incorporating safe systems as part of all road improvements and active-mode transportation projects.

### *Benefits and Outcomes*

The proposed Congestion Relief Strategy, 2019-2023 would have a measurable impact on congestion in Surrey, including:

- 120 lane kms added to the Surrey road network;
- 9 km of road improvements not included in the 10-YSP;
- 5 km of long term 10-YSP projects advanced;
- 13 intersections with capacity improvements;
- 5 new/improved bridges/interchanges with Highway 99 in South Surrey (subject to an agreement with the Ministry of Transportation and Infrastructure on cost-sharing);
- 14 kms of new protected cycle tracks and multi-use pathways;
- Support for the construction of Surrey-Newton-Guildford LRT; and
- 200 Bluetooth detectors installed (on all arterial and major collector roads) to gather travel time data for better decision-making and enhanced real-time travel information for drivers.

The proposed Congestion Relief Strategy, 2019-2023 would deliver the projects identified in the 10-YSP, advance approximately \$30 Million in long-term projects and add \$81 Million in additional projects. There is a shortfall of approximately \$85 to 100 Million in order to fully achieve the strategy. Staff will work on refining these estimates and identifying funding sources for this budget shortfall and will report back to Council during the 2019 budget process with options.

### *Public Outreach Strategy*

In order to promote and raise awareness of the Congestion Relief Strategy, 2019-2023, a planned and coordinated communications plan will be developed. The communications plan will build awareness and support for the Congestion Relief Strategy and would include communications tools such as:

- City's social media and Enews channels;
- Congestion Relief Strategy webpage on City website;
- Proactive public relations and engagement;
- Advance project notification through street-level signage; and
- Public-friendly Congestion Relief Strategy brochure.

### **SUSTAINABILITY CONSIDERATIONS**

The goals of the Congestion Relief Strategy, 2019-2023 are consistent with the objectives of the City's Sustainability Charter 2.0 with an emphasis on the Charter themes of Economic Prosperity and Livelihoods as well as Infrastructure. The following Desired Outcomes ("DO") are supported:

- Economic Prosperity and Livelihoods DO6: Efficient land use and well-managed transportation infrastructure are in place to attract businesses and support a thriving economy.
- Infrastructure DO11: An integrated and multi-modal transportation network offers affordable, convenient, accessible and safe transportation choices within the community and to regional destinations.
- Infrastructure DO12: Surrey residents of all ages and abilities have access to active transportation options, enabling them to participate fully in society without the use of a private automobile.
- Infrastructure DO13: Goods movement throughout the city is efficient, and minimizes environmental and community impacts.

### **CONCLUSION**

Surrey residents have expressed concerns about increasing traffic congestion on the road network. The proposed Congestion Relief Strategy, 2019-2023 is being developed to respond to these concerns.

The Congestion Relief Strategy, 2019-2023 would deliver transportation improvement projects already identified in the short and medium term timeframe of the 10-YSP. The strategy also contains 9km of road improvements not included in the 10-YSP and proposes to advance approximately 5km of long term 10-YSP projects. Increased funding for ITS initiatives, multi-modal travel and road safety will provide further congestion relief.

The Engineering Department recommends that Council authorize staff to finalize the proposed Congestion Relief Strategy, 2019-2023 and identify funding solutions for the new and accelerated initiatives.

Fraser Smith, P.Eng., MBA  
General Manager, Engineering

/JB/DM/PK/jma/ggg

g:\wp-docs\2018\admin\cr\0725 july 23\12\_07121135-pk\07121135-pk.docx  
GG 7/19/18 11:20 AM