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REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **January 6, 2016**

FROM: **General Manager, Engineering
General Manager, Finance & Technology**

FILE: **5400-28**

SUBJECT: **Roads and Traffic Safety Levy**

RECOMMENDATION

The Engineering Department and the Finance and Technology Department recommend that Council receive this report as information.

INTENT

The purpose of this report is to highlight the importance of the Roads and Traffic Safety Levy to the Transportation program and some key investments and advancements made with this dedicated road funding.

BACKGROUND

The provision and maintenance of transportation infrastructure and services in a sustainable way is fundamental for a city to grow and prosper. Originally called the *Local Roads and Traffic Safety Levy*, the levy was introduced into the 5 Year Plan in 2008 as a 1% property tax increase for the four following years up to 2011 to help provide supplementary capital funding support for the delivery of City Transportation objectives. The initial focus of the Levy was on traffic safety, road maintenance, and paving of local roads including safety related items such as repaving pot holes, pedestrian crossings, traffic calming, school traffic safety plans and local road sidewalk construction.

In 2011, the City undertook a comprehensive assessment of the transportation system, the state of the network and the need to define, at a minimum, a “State of Good Repair”. This entailed:

- improving public services like sweeping and litter control to meet best practices and public expectations;
- expanding road safety initiatives including new and improved pedestrian crossings and completing the school safety program; and
- optimizing funding levels for maintenance and rehabilitation of road infrastructure, most importantly addressing the collector and arterial road pavement needs in addition to the local roads, in order to keep the City’s largest and most fundamental transportation asset in good and safe working order and to minimize the City’s pavement maintenance costs in the future.

To reflect the expanded vision, the levy was renamed as the *Roads and Traffic Safety Levy* (“Levy”) and approved by Council to be included as part of the City’s 2012 – 2016 Financial Plan.

DISCUSSION

The Roads and Traffic Safety Levy has helped to deliver on a number of key Transportation Policy Objectives:

1. Traffic safety;
2. Transportation system maintenance and rehabilitation;
3. Transportation network management and operation; and
4. Sustainable funding.

These objectives are consistent with the City’s 2008 Transportation Strategic Plan principles including:

- *Safer, healthier communities* – reflecting the high priority the residents of Surrey give to measures to reduce the risk of injury and harm;
- *Successful local economies* - highlighting the impacts of barriers to movement and congestion on Surrey’s economic well-being;
- *More travel choice* – not everyone in Surrey is being fully served by the transportation system and by 2031 it is estimated that almost one-third of the City’s population will not have access to a car due to age or mobility and perceptual challenges;
- *Effective and efficient network management* – identifying the increasing demands of keeping assets working efficiently, safely and preserved for the future and the increased proportion of the funding “pot” that will be required for this; and
- *Protection of the built and natural environment* – dealing with growth in ways to reduce the environmental impact of transportation.

The Roads and Traffic Safety Levy objectives also support other City Policies that have been developed in recent years which respond to the increasing pressures and complexities of a growing, urbanizing city in particular the Sustainability Charter, Seniors Strategy, Plan for Social Well-Being, Child and Youth-Friendly Strategy and the Walking & Cycling Plans.

Traffic Safety

Traffic safety was one of the primary reasons for introducing the Roads and Traffic Safety Levy, and is an area of particular importance for the City. This is also a key concern for Surrey residents, and with the Levy, the City has been able to increase its investment in road safety projects and education, such as:

- The Safe and Active Schools Program:
 - 580 safety improvement projects City wide, 86% of which are at elementary schools;

- Annual program of School Travel Planning to reduce the use of the private car to and from schools; and
- Delivery of bicycle safety training to all grade 4 and 5 students in Surrey.
- Significant increases in funding for the Walking Program (sidewalks and pedestrian crossings/safety improvements) for a total of \$11.08 million from 2008 to 2014

Transportation System Maintenance and Rehabilitation

The continual rapid growth in the City has been accompanied with an even higher increase in the rate of vehicle registration and trucking activity. This is causing increased wear and tear on the transportation infrastructure, particularly road pavement. The pavement deterioration is reflected through surface roughness, rutting, cracking and pot holes. From 2008 – 2014, funds from the Roads and Traffic Safety Levy have contributed to repaving over 544 lane kilometres of road with total contributions as follows:

- Local Roads Repaving \$8,377,257
- Collector Road Repaving \$16,889,400
- Arterial Road Repaving \$23,865,700
- Pavement Repair \$5,566,000

This has helped to reduce pavement deterioration but not yet to the optimal level identified to minimize overall ongoing costs for the City as identified through our Pavement Management System (PMS) and advise by expert consultants.

Transportation Network Management and Operations

As the demands on the City's transportation network have increased, more attention has been given to optimizing the use of existing transportation infrastructure through maximizing the efficient use of the network. Through the current Roads and Traffic Safety Levy, and leveraging senior government and ICBC cost sharing opportunities, there have been expansions to Intelligent Transportation Systems (ITS) including new traffic signal technologies and the creation of a new Traffic Management Centre with 325 CCTV cameras monitoring signalized intersections throughout the City.

Sustainable Funding

The table below summarizes the total funding for roads with a breakdown on the General Operating revenue transfers and other sources of revenue in comparison with the Roads and Traffic Safety Levy prior to its introduction in 2007. This demonstrates the positive increase in overall funding the Levy has enabled, as well as the reduction in the proportional reliance on General Operating Revenue Transfers.

	Pre-Roads & Safety Levy (2007)	Introduction of Levy (2009)	Current (2014)
Roads & Safety Levy	\$0	\$3,568,000	\$15,506,000
Other Taxation	\$0	\$84,000	\$718,000
5% Capital Municipal Assist Factor	\$1,326,000	\$1,532,000	\$1,323,000
Additional Revenue Sources	\$729,000	\$329,000	\$1,507,000
General Operating Transfers (Capital)	\$1,326,000	\$2,685,000	\$4,800,000
General Operating Transfers (Operations)	\$12,330,000	\$14,345,000	\$13,700,000
Secondary Suites	\$0	\$0	\$3,777,000
Utilities Transfers	\$0	\$1,859,000	\$3,432,000
MLR Transfers	\$4,750,000	\$0	\$0
TOTAL	\$15,711,000	\$24,402,000	\$44,763,000

(1) Values are not adjusted for inflation

Meeting current transportation requirements and planning for the future needs

The additional funding approved through the 2012 – 2016 Financial Plan has been critical to enable the many improvements described above, as part of bringing the City into a ‘State of Good Repair’. However, the level of funding provided thus far has not addressed and fully funded all of the additional service level improvements needs identified through the 2011 comprehensive assessment.

Furthermore, as a result of inflationary pressures combined with the rapid population and employment growth from 2008 to 2015 and expectations of similar rates of growth in the future, without a sustained and increasing revenue source, the City will continue to face funding constraints to meet public expectations on the maintenance and expansion of transportation infrastructure and delivery of services. This includes completing and improving existing roads and sidewalks, and providing new road and sidewalk connections, while maintaining the rapidly increasing range of aging assets in good working order. In addition, demand for improving road safety, providing alternate transportation options, providing street furniture and the increasing need for educational and outreach programs continue to rise with the growth in population.

The following sections highlight the key transportation areas where further work and funding is required moving forward, and demonstrates the need for sustained increases to the Roads and Safety Levy to at least the 1% level for the next 10 years in order to meet the transportation needs/demands.

Traffic Safety

In 2013, there were over 6,800 traffic collisions in Surrey involving injury including 19 fatalities. These collisions have a long lasting impact on those involved and also have a monetary impact on the Province, ICBC and the City particularly in the areas of emergency services response and legal costs. In 2016, the City will be publishing its Safe Mobility Plan which will identify a comprehensive list of planned road safety engineering projects, including education and outreach programs throughout our communities. The Plan also includes partnerships with other agencies, most notably the RCMP to assist in crime reduction through traffic safety measures.

While the Safe and Active Schools program has been very successful since the introduction of the Levy, there are still 103 planned projects to complete. The Levy will be instrumental in moving forward with the remaining priority projects, which are generally the more expensive and complex projects that needed more time to implement. Additionally, the program is under consistent review and new projects are added to respond to resident requests, traffic pattern changes, and for the addition of new schools.

Implementing the projects in this Plan and continuing the Safe and Active Schools program requires consistent and sustained funding from the Levy as proposed.

Transportation System Maintenance and Rehabilitation

Pavement

To efficiently maintain the City's roadway pavement, the Engineering Department uses a Pavement Management System (PMS) for the entire City network of Arterial, Collector, and Local roads in order to identify pavement resurfacing when it is most cost effectively undertaken, just before there are visible signs of deterioration. If paving is deferred beyond the time that this is evident, rehabilitation costs increase substantially the longer the work is delayed and can be as much as four to five times the optimum cost.

A 2014 PMS assessment conducted on Arterial and Collector roads determined that over 18% of Surrey's pavement is in poor to very poor condition for cracking. The industry best management practice is to have average cracking levels at 3%. With the anticipated new levy funding, the City would be able to acquire the necessary equipment and have Operations staff take on the crack sealing program. This will improve the quality of this work and increase the amount of crack sealing that can be accomplished, which in turn reduces long term spending by extending the life of the pavement.

The PMS also included a prediction model and recommended the following average annual funding requirements to maintain the network length of backlog of roads and meet the maximum 15% threshold for network length with roughness in poor to very poor condition.

	Actual Annual Average (2008-2014) Investment	Recommended Annual Average
Arterial	\$3,400,000	\$5,000,000
Collector	\$2,780,000	\$4,000,000
Local	\$1,200,000	\$6,000,000
Total	\$7,380,00	\$15,000,00

Average annual expenditures have increased since the introduction of the Levy, which has resulted in a positive impact on the pavement condition relative to the past 5 years, but are still well short of achieving the recommended annual average. The continued increases in the Levy will enable the City to meet these recommended and optimized annual averages.

Aging and Expanding Infrastructure

The pressure to repair and rehabilitate transportation infrastructure is not limited to pavement as the City is also experiencing greater service requests for the repair and maintenance of sidewalks, curbs and replacement of substandard pedestrian facilities. There is also a need to significantly expand the traffic signal rebuild program, which typically only includes 4-5 rebuilds per year for the existing network of 350 plus signals, as well the street light pole replacement program due to fatigue and rusting.

The City attempts to address this within existing funding levels and, for example, Engineering presented to the Transportation and Infrastructure Committee a strategy to commence the implementation of a city-wide program of energy efficient Light Emitting Diode (LED) street light replacements to improve safety and achieve on-going maintenance and energy cost savings. This initiative will be brought forward for Council's consideration in 2016.

While the City infrastructure is still relatively young, a comprehensive asset management plan is being fully established to respond to the expanding asset base of infrastructure resulting from all of the growth related construction. This will enable capturing the life cycle needs for rehabilitating or replacing aging existing infrastructure.

The Levy increases will enable the expansion of rehabilitation and maintenance programs to keep our infrastructure in good working order and thereby reducing service requests and more costly repairs.

Transportation Network Management and Operation

Growth related improvements funded through Development Cost Charges are a major investment and will contribute significantly to network infrastructure expansion and be an important component of the broader improvement strategy. Unfortunately, we will not be able to rely solely on road expansion to accommodate travel demand as there are limitations on our ability to widen roads and create new linkages. However, with rapid changes in technology and on-going investment in ITS systems, the City will be able to further maximize the efficient use and operation of the transportation network system which is becoming an increasingly important core part of City traffic control and management.

Multi-Modal Infrastructure

The investment in infrastructure for other transportation modes is growing in response to the public demands for providing a broader range of safe and convenient mobility choices. While the Levy has increased investment in new sidewalks, there remains a significant shortfall in the amount of funding required to meet the resident demand for all of the various modes and in particular sidewalk needs.

The sidewalk program has had a focus on eliminating missing links near schools but is facing increasing demand for connections to parks, transit and services as well as removing barriers to universal accessibility through curb letdowns and other physical barriers. These barriers have a disproportionate impact on seniors and those with mobility or visual challenges. The following table highlights the number of outstanding requests for projects Engineering has identified as worthy of consideration and the approximate funding requirement based on a rate of \$1,000 per linear metre of construction (often includes curb and gutter and ditch infill).

Outstanding Resident Sidewalk Requests

	Number of Requests	Approximate Length (m)	Estimated Funding
Local	96	20,605	\$20.6M
Collector	24	6,943	\$6.9M
Arterial	21	8,217	\$8.2M
Total	141	35,765	\$35.8M

In addition to the requests noted above, there are a further 423 resident requests for sidewalks that staff has categorized as lower priority, and thus are not considered within the figures above. While some of the funding for the sidewalk program comes from DCC's, it is only planned to represent 25-30% of the 10 Year Servicing Plan value and the bulk of the funding requirements will need to come from the Levy.

Demand for improved transit facilities from residents including transit stops for new bus services, and making existing transit stops fully accessible continues to rise. Additionally there is significant interest but a suppressed demand for improved cycling facilities. The key to increasing this mode share is the provision of All Ages and Abilities (Triple - A) facilities to satisfy the growing and largest market segment of cyclists that are interested in using cycling as a viable means of transportation but are concerned about the perceived safety of the facility. The Levy will also help ensure that the City will continue to fully maximize external funding for cycling from TransLink, Provincial and Federal Governments.

The increases to the levy will help meet resident expectation for service levels of sidewalk, transit facilities and cycling infrastructure delivery.

Sustainable Funding

Part of the intent of the Roads and Safety Levy is to reduce the reliance on General Operating Transfers and provide greater accountability to the public about the level of investment in transportation infrastructure. The proportional reliance on general operating funds transfer to the Roads program has been reduced with the introduction of the Levy from a high of 87% in 2007 to 40% in 2014. The current transfer level of approximately \$18.4 million per year should be maintained until the Program is fully funded in order to meet resident expectations for the service levels described earlier in this report. To achieve these goals, it would be necessary to continue annual increases of 1% to the Road and Safety Levy for the next 10 years. Consideration could be given to another five years of annual 1% increases to the Road and Safety Levy so that all general operating and utilities transfers could be eliminated.

The service level demands also have to compete with significant inflationary increases in construction and property costs. The 2011 comprehensive review concluded that \$1 million annually would be required to simply cover inflationary and inventory increases.

The transparency of the benefits received results in a clearer link between the transportation services provided by the City and the contribution made by the individual tax paying household.

Strategic Property Acquisition

As part of the 2008 Transportation Strategic Plan, completing missing road links was identified as a critical goal in completing the finer grid road network and creating connected communities with improved multi-modal accessibility. An important component in completing these strategic missing links is acquiring the property required to deliver the infrastructure. Due to rapidly increasing property values especially within the City Centre, increased investment in property acquisition is prudent to avoid much higher costs to the City in the future. Current estimates identify \$58 million to acquire properties within the City Centre alone.

Engineering will be looking at various options to help fund these needs.

SUSTAINABILITY CONSIDERATIONS

Sustainable funding for the transportation infrastructure and services needed to enable continued city growth and meet community needs and expectations supports the Sustainability Charter Scope action items related to:

- SC 8: Municipal Outreach, Public Education and Awareness;
- SC 11: Public Safety and Security;
- SC 13: Creating a Fully Accessible City;
- EC 1: Corporate Economic Development;
- EC 3: Sustainable Infrastructure Maintenance and Replacement;
- EC4: Sustainable Fiscal Management Practices;
- EC 5: “Green” Infrastructure and Sustainability Grants;
- EC 16: Increased Transit and Transportation to Support a Sustainable Economy;
- EN 13: Enhancing the Public Realm; and
- EN 15: Sustainable Transportation Choices

CONCLUSION

With a growing and maturing City, there is increased inventory, aging infrastructure, increasing and broader transportation needs as well as rising public expectations that must be managed. Public expectations regarding City services have changed with increased demand for other transportation infrastructure, in particular, sidewalks, safe and comfortable cycling facilities, crosswalks and traffic calming. As a result there is a continued need to increase and broaden the transportation services provided by the City both in terms of user demand and in order to meet broader City policy objectives. There are also opportunities to reduce City costs over the life cycle of infrastructure, through optimized maintenance and rehabilitation, but these require additional funding in the short and medium term.

Addressing the many funding pressures that the transportation system faces requires a sustainable funding level that would require continuing increases to the 'Roads and Traffic Safety Levy'.

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