

NO: R256

COUNCIL DATE: December 17, 2018

REGULAR COUNCIL

TO: Mayor & Council **DATE: December 13, 2018**

FROM: General Manager, Engineering **FILE: 0430-01**
General Manager, Planning & Development
General Manager, Parks, Recreation & Culture
General Manager, Finance

SUBJECT: Infrastructure Projects – Federal and Provincial Funding Update

RECOMMENDATION

The Engineering Department, the Planning & Development Department, the Parks, Recreation & Culture Department, and the Finance Department recommend that Council endorse the list of projects as documented in Appendix “I” attached to this report as priority projects for submission to the Government of Canada and the Government of British Columbia for funding as opportunities arise.

INTENT

The purpose of this report is to provide an update on both federal and provincial government infrastructure funding programs currently available, and a list of the City’s “shovel ready” infrastructure projects which demonstrates the City’s strong interest and commitment to infrastructure investment in our community.

BACKGROUND

In 2016, the Federal government, as part of its Investing in Canada Plan, committed \$14.4 billion for the rehabilitation, repair, and modernization of existing public transit, green and social infrastructure. In an effort to prepare for the resulting funding programs related to their Plan, at its Regular Meeting on March 7, 2016, Council endorsed Corporate Report No. R050; 2016, a copy of which is attached as Appendix “II”, that provided background on expected funding opportunities and identified priority City projects for these opportunities.

The Federal government’s 2017 Budget made an additional \$8.2 billion of funding available for the Investing in Canada Plan towards five infrastructure areas. A general description of the five infrastructure areas and applicable projects is as follows:

1. Public Transit:

Investment in public transit infrastructure in order to improve and expand rapid transit facilities and the state-of-good-repair of existing transit facilities through the Public Transit Infrastructure Fund (“PTIF”).

2. Green Infrastructure:

Investment in green infrastructure that will help support Canada’s communities to be healthy and productive places to live and that transition to a clean growth economy. It includes projects such as local water and wastewater facilities, clean energy, solid waste management, and climate resilient infrastructure. For example, improved storm water systems and building of additional dams and dykes to prevent flooding through programs funded under the Clean Water and Wastewater Fund (“CWWF”) and the Green Municipal Fund (“GMF”).

3. Social Infrastructure

Investment in social infrastructure is intended to provide everyone with a real and fair chance at success through projects that invest in Indigenous communities, affordable housing, social housing, seniors’ facilities, early learning and child care, and cultural or recreational infrastructure.

4. Trade and Transportation

Investment in transportation infrastructure to provide safe, sustainable and efficient transportation systems that will bring global markets closer to Canada under Transport Canada’s Trade and Transportation Corridors Initiative.

5. Rural and Northern Communities Infrastructure

Rural and Northern Communities infrastructure supports various types of infrastructure projects in rural communities across the province.

Smart Cities Challenge

The Investing in Canada Plan 2017 Budget also included funding for the Smart Cities Challenge. This nationwide competition is intended to encourage cities to share their best ideas to improve the lives of their residents through innovation, data and connected technology.

Following the federal plan, the Province created the Investing in Canada Infrastructure Program – British Columbia to facilitate the transfer and distribution of available Investing in Canada Plan funding available. In April 2018 a Canada-British Columbia Integrated Bilateral Agreement (“IBA”) was signed to manage the allocation of these funds. In addition to the 2016 IBA, it provides for \$4.1 billion of Federal funding to be invested in BC over the next decade. The IBA identifies the need for cost-shares between the federal government, the provincial government and local governments.

The Investing In Canada Infrastructure Program – British Columbia’s funding streams are as follows:

- ***Community, Culture, and Recreation Infrastructure Program***

A focus on projects that improve citizen’s access to and quality of cultural, recreational and community spaces;

- ***Rural and Northern Communities Infrastructure Program***
For projects in rural communities. The City does not qualify for any Rural and Northern Communities Infrastructure funding opportunities;
- ***Green Infrastructure***
A focus on projects for Environmental Quality, Climate Change Mitigation, and Adaptation, Resilience and Disaster Mitigation; and
- ***Public Transit***
For the IBA cost sharing of the Federal Governments PTIF program.

Disaster Mitigation and Adaptation Fund Competition:

In Summer 2018, Infrastructure Canada announced details of the Disaster Mitigation and Adaptation Fund (“DMAF”). This program earmarked \$2 billion over a ten year period. At its Regular Meeting on July 23, 2018 Council endorsed Corporate Report No. R168; 2018, a copy of which is attached as Appendix “III”, which identified the core projects included in an expression of interest to Infrastructure Canada.

CleanBC Communities Fund

On December 5, 2018 as part of CleanBC, the Province’s new climate action plan, the Province advised that, in partnership with the Federal government, they are planning to invest \$63 million to help local governments and Indigenous communities develop energy efficiency and clean energy projects.

The CleanBC Communities Fund (“CCF”) will encourage investments in small-scale, community-owned energy generation from sources such as biomass, biogas, geothermal heat, hydro, solar, ocean or wind power to offset community energy use. The fund will start accepting applications in 2018, with \$63 million of combined Federal and Provincial funding available for the first wave of capital funding. Projects will have to achieve at least one of the following outcomes:

- Increase the community’s capacity to manage renewable energy;
- Increase access to clean energy transportation;
- Increase the energy efficiency of buildings; or
- Increase generation of clean energy.

DISCUSSION

The City has identified the immediate need for \$3.1 billion in infrastructure improvements to service existing residents and businesses, in order to sustainably support the fastest-growing City in BC and one of the fastest-growing in Canada.

To enhance the potential for Surrey to obtain funding, staff have identified \$3.1 billion in high priority, shovel-ready projects for the City, as documented on the list attached as Appendix “I”, many of which may be eligible for funding from one of the four applicable funding program areas of the Investing In Canada Plan, as well as the DMAF.

A summary of some of the highlighted projects is provided below, under each funding area category, and a complete list of the City's identified projects is provided in Appendix "I", including a description of the project, department lead, and estimated capital cost.

Public Transit

With the approval, at the November 15, 2018 Mayor's Council Board meeting, to suspend work on the SNG-LRT line and commence developing a work plan for the implementation of the Surrey – Langley SkyTrain project, the approved remaining \$1.58 billion committed funds for the Phase 2 Investment Plan will be allocated towards the delivery of the SkyTrain. The City will work closely with TransLink, the Province and the Federal Government to ensure that the remaining \$1.9 billion identified under the Mayor' Council Phase 3 Investment Plan for the 27 km of Rapid Transit is secured in order to continue the expansion and investment in Surrey.

Green Infrastructure

Green infrastructure projects have been identified as those which promote improvements to water and wastewater facilities, solid waste and flood protection/mitigation measures.

The City has identified a number of capital projects which are aligned within this funding area, including new capital construction to service development within the community while supporting energy conservation, sustainability and climate change initiatives, as well as state-of-good-repair projects to provide wastewater facility improvements to aging infrastructure. A few of the identified green infrastructure projects are described below:

- Fraser River and Coastal Dyke Upgrades (\$350 million)
To improve coastal flood safety and address climate change and sea level rise, combined with the need for seismic modifications to withstand most earthquakes, approximately \$350 million of upgrades will be required for the initial phases of the improvements to the dyke systems around the City.
- Colebrook Drainage Pump Station Replacement (\$5.0 million)
The Colebrook Pump Station mitigates coastal flooding and has now approached the end of its service life and is in pressing need of replacement.

The federal and provincial governments have yet to announce specific green infrastructure funding application opportunities that the City would qualify for under the Investing in Canada Infrastructure Program - British Columbia - Green Infrastructure Program.

Community, Culture and Recreation Infrastructure

Community, Culture and Recreation Infrastructure projects are intended primarily for public use to improve access to and/or increase quality of cultural, recreational and/or community infrastructure for Canadians, including Indigenous peoples and vulnerable populations.

With Surrey's rapidly growing population, the City has identified a number of cultural and recreational facilities for the community.

- Tamanawis Park - Field Hockey Turf Field and Park Upgrades (\$8.5 million):
The existing turf fields need replacement, permanent, covered bleachers are required at the north field to improve the park amenities for approximately 700 spectators, and with growth of field hockey in Surrey, a third field, along with associated upgrades to change room and parking facilities is planned for the park.
- Bear Creek Park International Sports Facility (\$21.0 million)
This project is for the design and construction of a new stadium at Bear Creek Park to support national level track & field events (with International Association of Athletics Federation (“IAAF”) Certification) and other high-level sporting events and training facilities for local track and field clubs in Surrey. The project includes the construction of covered, concrete seating, with a capacity for 2,200 spectators.
- Grandview Heights Community Park (\$6.3 million)
This project will develop a Community Park for the growing population of Grandview Heights. This park will be located directly adjacent to the new Grandview Heights Secondary School.
- Unwin Community Park (\$6.0 million)
The City has acquired the last property to expand this community park. The community of Newton is rapidly growing and a range of new amenities will be required to meet the growth and changing demographics.
- Fleetwood Athletic Park (\$2.0 million)

This project is for the design and construction of initial amenities for the proposed athletic park in Fleetwood including parking and other supporting amenities
- Two Artificial Turf Fields (\$8.0 million)
This project is for the design and construction of two new artificial turf fields. The location for these two new fields is to be determined.
- Cricket Pitch & Fieldhouse (\$6.0 million)
This project is for the advanced planning, design and construction of a new cricket pitch, fieldhouse, and parking lot. The location of this new amenity is to be determined.

On September 12, 2018, the Investing in Canada Infrastructure Program - British Columbia opened the initial application intake for the Community, Culture, and Recreation (“CCR”) Program, committing up to \$134 million in joint federal and provincial funding. Staff are currently working on an application which is to be submitted by January 23, 2019. Projects for this intake must be completed by March 31, 2024.

Disaster Mitigation Adaptation Fund Competition

Following the City's Expression of Interest submission under the DMAF, the City was invited to proceed with the full application for the first intake of applications. Staff are currently working on the full application, which is to be submitted by January 11, 2019, which will be based on the following projects:

- Colebrook Dyke Upgrades (\$20 million);
- Colebrook Drainage Pump Station Replacement (\$5 million);
- Serpentine Sea Dam Replacement (\$18 million);
- King George Boulevard Nicomekl River Bridge and Sea Dam replacement (\$30 million);
- 152 Street Improvements from 36 Avenue to 5000 Block (\$22 million);
- Nicomekl Riverfront Park Phase 1(\$2.4 million);
- Nicomekl Riverfront Park Future Phasing (\$7.6 million);
- Nicomekl and Serpentine River Dyke Upgrades (\$5.5 million); and
- Crescent Beach Coastal Drainage Improvements (\$11 million).

The federal government has advised funding approvals will begin to be issued in Spring 2019. Not all of these projects are included in the City's Five Year Financial Plan.

Smart Cities Challenge

The City, along with the City of Vancouver, submitted a joint application to implement Canada's first collision-free multi-modal transportation corridors by leveraging autonomous vehicles and smart technologies to demonstrate the path to safer, healthier, and more socially connected communities. This will also help to reduce emissions, improve transportation efficiency and enhancing livability in the faces of rapid growth and traffic congestion. Under the Smarter Together application the Cities were short-listed as one of the finalists for the \$50 million prize grant for infrastructure. While no cost sharing is required, additional City investment is anticipated if the Surrey-Vancouver application is successful.

CleanBC Communities Fund

The Province has yet to announce speak funding applications opportunities that the City would qualify for under the CCF.

Unpublished Funding Opportunities

In addition to the funding opportunities currently published, staff will continue to lobby the federal and provincial governments for funding various priority projects identified in Appendix "I" that also align with federal and provincial priorities such as those that support the Gateway Transportation Collaboration Forum ("GTCF") study of the Roberts Bank Trade, in an effort to ensure that specific funding will be provided to the City for these initiatives outside of published funding programs. Some priority projects that are not currently eligible for designated federal or provincial funding opportunity include:

- Pattullo Bridge Surrey Connections (\$300 million)
The \$1.377 billion Pattullo Bridge replacement project currently does not include funding for improved connections between the crossing and Scott Road, King George Boulevard,

and most critically Highway 17. Previously a number of direct connections were identified to reduce congestion on Surrey roads.

- 32 Avenue and Highway 99 Interchange Improvements (Phase 1) (\$7.5 million)
Improvements to this interchange will address queuing and operational issues for the rapidly growing South Surrey area.
- 152 Street and Highway 99 Interchange (Phase 2) (\$32 million)
This new interchange would expand the existing two-lane 152 Street overpass and accommodate access to/from the south on Highway 99.
- 102 Street and Highway 1 Interchange (\$44 million)
This new interchange would provide full movement access to Highway 1 and replace the existing Harvie Road interchange. It is part of previous commitments made by the Province's Transportation Investment Corporation as part of the Highway 1 widening project.
- 168 Street Grade Separation Overpass Grade (\$4.6 million)
This would be for the grade separation of 168 Street at the BC Harbours Railway (Roberts Bank) rail corridor crossing. This would improve safety and operations, reduce traffic delays, and accommodate full whistle cessation.
- 184 Street Grade Separation Overpass Grade (\$44 million)
This would be for the grade separation of 184 Street at the Canadian Pacific Railway crossing. This would improve safety and operations, reduce traffic delays, and accommodate full whistle cessation.
- 16 Avenue Corridor widening. (\$52 million)
16 Avenue corridor connects White Rock, Surrey, Langley and Abbotsford with three provincial highways and the international border crossings of Highway 99 (Peace Arch), Highway 15 (Pacific) and Highway 13 (Aldergrove). With the future King Road extension it will also provide connections with Highway 1. As a result it meets the Pacific Gateway Transportation objectives and is anticipated to have joint funding from the Federal and provincial governments as well as TransLink.
- Plywood Interchange with Highway 17 (\$190 million)
This new interchange would provide a connection between the Port Metro Vancouver lands, Highway 17 and connect with River Road and Grace Road to the north. This would dramatically improve operations for the Surrey Fraser Docks and expansion plans, as well as provide improved essential services access and eliminate the at grade Elevator Road crossing.

Funding

At present, only a few of the priority projects identified in Appendix "I" are included in the City's Five Year Financial Plan. Should the City be successful in obtaining funding from the federal or provincial government program and should the City be required to make a financial contribution, staff will bring forward a Corporate Report for Council's consideration with options to amend the approved Five Year Financial Plan as necessary in order to provide the required financial contribution.

SUSTAINABILITY CONSIDERATIONS

Participation in the Investing in Canada Infrastructure Program - British Columbia and DMAF and other federal government and provincial government funding opportunities, and the priority projects identified, supports the objectives of the City's Sustainability Charter 2.0. In particular, they support the Sustainability Charter 2.0 themes of Inclusion, Infrastructure, Health and Wellness. Specifically they support the following Desired Outcomes ("DO"):

- DO24, Social Infrastructure and Innovation: Surrey has a strong social infrastructure that supports the needs of its diverse and growing population;
- DO6, Wellness and Recreation: Residents participate in a wide range of recreation and leisure opportunities; and
- DO2, All Infrastructures: Infrastructure systems provide safe, reliable and affordable services.

CONCLUSION

Based on the above discussion, and to ensure the City is prepared for and in position to secure federal and Provincial government funding contributions for Surrey capital projects, it is recommended that Council endorse the list of projects as documented in Appendix "I", attached to this report as priority projects to be assessed and prioritized further as the guidelines for additional funding programs from senior levels of government are released.

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JA/bk/mo/jma

Appendix "I" – Priority Capital Projects
Appendix "II" – Corporate Report R050; 2016
Appendix "III" - Corporate Report R168; 2018

LIST OF CITY OF SURREY INFRASTRUCTURE PROJECTS

APPENDIX "I"

Project	Cost	New or State of Good Repair	Fund					Size			Description
			Public Transit	Green Infrastructure	Disaster Mitigation & Adaptation	Community, Culture and Recreation Infrastructure	Uncommitted Funding Programs	Small <\$5 M	Medium \$5-50 M	Large >\$50 M	
SkyTrain / 27km of Rapid Transit	\$1,900,000,000	New	X							X	To provide new SkyTrain service on Fraser Highway and continue the 27km of Rapid Transit expansion planned as part of the Mayor's Council Vision, including the Guildford Newton Corridor.
Surrey Pattullo Bridge Connections	\$300,000,000	New					X				To provide new connections between Highway 17 and the Pattullo Bridge replacement project.
Highway 17 and Plywood Rd Interchange	\$190,000,000	New			X		X				Overpass of Hwy 17 to connect Port and riverfront businesses, provides superior emergency access options. Includes ramps to Hwy 17.
Long Term Dyke Improvements – Fraser River	\$145,000,000	SoGR		X						X	To improve flood safety, address long term impacts of Climate Change and seismic vulnerability
Long Term Dyke Improvements – Mud Bay	\$130,000,000	SoGR		X						X	To improve flood safety, address long term impacts of Climate Change and seismic vulnerability
Dyke Improvements – Crescent Beach	\$75,000,000	SoGR		X						X	To improve flood safety, address long term impacts of Climate Change and seismic vulnerability
16 Ave Corridor Widening (4-lanes Hwy 99 to King Rd)	\$52,000,000	New					X				Project that spans Surrey, Langley and Abbotsford. Improve safety and capacity along this busy corridor that connects multiple border crossings.
168 Street Roberts Bank Rail Corridor Overpass	\$46,000,000	New					X		X		Construction of two lane overpass of Roberts Bank Rail Corridor for Railway safety improvements.
184 Street Roberts Bank Rail Corridor Overpass	\$44,000,000	New					X		X		Construction of two lane overpass of Roberts Bank Rail Corridor for Railway safety improvements.
Highway 1 and 192 Street Interchange	\$44,000,000	New					X				Provincial commitment from PMH1 project, links developing areas of Clayton and provides some relief to 200 Street interchange.
Low Carbon District Energy Centre	\$38,000,000	New									Construction of one of the two low carbon energy centre options listed in the report under the CleanBC Communities Fund.

LIST OF CITY OF SURREY INFRASTRUCTURE PROJECTS

APPENDIX "I"

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			Public Transit	Green Infrastructure	Disaster Mitigation & Adaptation	Community, Culture and Recreation Infrastructure	Uncommitted Funding Programs	Small <\$5 M	Medium \$5-50 M	Large >\$50 M	
New 152 Street Overpass and Interchange at Highway 99 (Phase 2)	\$32,000,000	New					X		X		Replacement of existing two lane overpass with six lane overpass and construction of four new on-off ramps
King George Boulevard Nicomekl River Bridge & Nicomekl Sea Dam Replacement	\$30,000,000	New and SoGR			X		X		X		Replace bridges and existing 110+ year old sea dam for improved flood safety, irrigation and address impacts of Climate Change and seismic vulnerability. This Project is included in the City's DMAF application.
Bear Creek Park International Sports Facility	\$21,000,000	New				X	X			X	This project is for the design and construction of a new stadium at Bear Creek Park to support national level track & field events.
Dyke Improvements - Colebrook	\$20,000,000	SoGR			X				X		To improve flood safety, address short term impacts of Climate Change vulnerability. This Project is included in the City's DMAF application.
152 Street Widening and Raising Serpentine River to Nicomekl River	\$19,000,000	New and SoGR			X				X		To improve flood, traffic and pedestrian safety, and alleviate current congestion while providing capacity for growth with additional 2 lanes. This Project is included in the City's DMAF application.
Serpentine River Sea Dam Replacement	\$18,000,000	SoGR			X				X		Replace existing 110+ year old structure for improved flood safety, irrigation and address impacts of Climate Change and seismic vulnerability. This Project is included in the City's DMAF application.
Drainage Improvements - Crescent Beach	\$11,000,000	New			X				X		To improve drainage to Maple Pump Station and address impacts of Climate Change including road improvement. This Project is included in the City's DMAF application.
Tamanawis Park - Field Hockey Turf Field and Park Upgrades	\$8,500,000	New and SoGR				X			X		Resurfacing of exsisting playing fields, addition of covered bleachers, and addition of a third field and changerooms.

LIST OF CITY OF SURREY INFRASTRUCTURE PROJECTS

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Project	Cost	New or State of Good Repair	Fund					Size			Description
			Public Transit	Green Infrastructure	Disaster Mitigation & Adaptation	Community, Culture and Recreation Infrastructure	Uncommitted Funding Programs	Small <\$5 M	Medium \$5-50 M	Large >\$50 M	
Nickomekl Riverfront Park - Future Phasing	\$7,600,000	New			X				X		Further development of the Nicomekl Riverfront Park including additional trail development, event and culture space. This Project included in the City's DMAF Application.
Interchange Improvements at Highway 99 and 32 Avenue (Phase 1)	\$7,500,000	New					X		X		Addition of an on-ramp / off-ramp and a 24 Avenue highway interchange
Lowland Drainage Pump Station Upgrades (2 stations)	\$7,000,000	New			X				X		Construction of 2 lowland pump stations to provide ARDSA drainage servicing improvements to improve agriculture / crop production and improve flood control.
Grandview Heights Community Park	\$6,300,000	New				X			X		This project will develop a Community Park for the growing population of Grandview Heights
Unwin Community Park	\$6,000,000	New				X			X		The community of Newton is rapidly growing and a range of new amenities will be required to meet that growth and changing demographics.
Fleetwood Athletic Park	\$2,000,000	New				X		X			This project is for the construction of an artificial turf field for the proposed athletic park in Fleetwood and will include additional amenities to support the new field.
Two Artificial Turf Fields	\$8,000,000	New				X			X		This project is for the construction of two artificial turf fields and supporting amenities.
Cricket Pitch & Fieldhouse	\$6,000,000	New				X			X		This project is for the advanced planning, design and construction of a new cricket pitch, fieldhouse, and parking lot.
Nicomekl and Serpentine River Dyke Upgrades	\$5,500,000	SoGR			X				X		Upgrades to lower sections of Nicomekl and Serpentine River and tie in to Southern Railway of BC including bridge replacement.

LIST OF CITY OF SURREY INFRASTRUCTURE PROJECTS

APPENDIX "I"

Project	Cost	New or State of Good Repair	Fund					Size			Description
			Public Transit	Green Infrastructure	Disaster Mitigation & Adaptation	Community, Culture and Recreation Infrastructure	Uncommitted Funding Programs	Small <\$5 M	Medium \$5-50 M	Large >\$50 M	
Colebrook Drainage Pump Station Replacement	\$5,000,000	SoGR			X			X			To replace the existing Colebrook Drainage Pump Station. This Project is included in the City's DMAF application.
Nicomekl Riverfront Park - Phase 1	\$2,400,000	New			X				X		Establish the Nicomekl Riverfront Park including trail development, event and culture space and wetland enhancement for flood control. This Project is included in the City's DMAF application.
TOTAL											\$3,186,800,000

CORPORATE REPORT

NO: **R050**

COUNCIL DATE: **March 7, 2016**

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **March 3, 2016**

FROM: **General Manager, Engineering
General Manager, Planning & Development
General Manager, Parks, Recreation & Culture
General Manager, Finance & Technology**

FILE: **0430-01**

SUBJECT: **Infrastructure Projects and Federal Funding**

RECOMMENDATION

The Engineering Department, the Planning & Development Department, the Parks, Recreation & Culture Department, and the Finance & Technology Department recommend that:

1. Endorse the list of projects as documented in Appendix "I" attached to this report as priority projects to be prioritized further once the Federal government announces guidelines and details on the new Federal infrastructure funding; and
2. Confirm that Light Rail Transit (LRT) remains the top priority infrastructure project for the City of Surrey.

INTENT

The purpose of this report is to provide information regarding updated commitments from the Federal government on infrastructure funding programs, and a list of the City's "shelf ready" infrastructure projects which demonstrates the City's strong interest and commitment to infrastructure investment in our community.

BACKGROUND

As part of the 2015 Election Campaign, the Liberal Government made commitments to infrastructure investment and transparency under the New Building Canada Fund. The Liberal Government's focus was aimed at providing significant, separate investments in public transit, social infrastructure and green infrastructure to enable the New Building Canada Fund to make greater investments in Canada's roads, bridges, transportation corridors, ports and border gateways, helping Canada's manufacturers get their goods to market. Their commitment included making the Build Canada Fund more transparent by providing clearer project criteria, alongside faster approval processes.

Since being elected, the Federal Minister of Infrastructure and Communities has continued to emphasize the Federal government's commitments in regards to infrastructure investments, focusing on those shovel-ready projects that meet the Liberal Government's objectives of growing the economy, creating jobs and making the country more sustainable. Shovel-ready projects were identified as those which a municipality has done all the relevant studies, public consultation and planning – projects which would qualify for financial help from the Federal government.

The Federal Minister of Infrastructure and Communities, Honourable Amarjeet Sohi, was recently at the City of Surrey and in his briefing he provided more information on the government's vision for infrastructure investment – \$60 billion of new investment over the next 10 years, including an additional \$10 billion over the next two years. The \$60 billion is to be invested equally in three areas: \$20 billion in public transit, \$20 billion in green infrastructure and \$20 billion in social infrastructure.

A general description of the three infrastructure areas and applicable projects is as follows:

- **Public Transit:**
With major cities dealing with major gridlocks there is a pressing need to have access to affordable, reliable and efficient public transit for a faster movement of people and goods, as well as a goal for reduced greenhouse gas emissions. The Liberal Government has made commitments to invest in the capital for long-term strategic transit initiatives that include both new public transit facilities and the state of good repair of existing transit facilities. Projects such as Surrey's Light Rail Transit (LRT) have been specifically identified as those suitable for Federal funding.
- **Green Infrastructure:**
Green infrastructure includes projects such as local water and wastewater facilities, clean energy, solid waste management, and climate resilient infrastructure such as improved storm water systems and building of additional dams and dikes to prevent flooding.
- **Social Infrastructure:**
Investment in social infrastructure is intended to aid in overcoming the challenges that the lack of affordable housing has on our economy and our communities. Projects under the area of social infrastructure have been identified as affordable housing, social housing, seniors' facilities, early learning and child care, and cultural or recreational infrastructure. These projects include the construction of new housing units as well as the refurbishment of existing facilities.

DISCUSSION

The City of Surrey has identified the immediate need for \$3.7 billion in infrastructure improvements to service our existing residents and businesses, and in order to sustainably support the fastest-growing city in British Columbia and one of the fastest-growing in Canada.

It is anticipated in Spring 2016, the Federal government will unveil more details on the New Build Canada Plan including application process, scheduling and funding timelines. Staff expect that those proponents which are the most aggressive and have done the most preparatory work in planning and public consultation, including due diligence and official support from Council, will have the greatest chance of success for securing Federal funding.

To enhance the potential for Surrey to obtain funding, staff have identified \$3.7 billion in high priority, shovel-ready projects for the City, as documented on the list attached as Appendix "I", which meet one of the three funding program areas: Public Transit, Green Infrastructure and Social Infrastructure.

A summary some of the highlighted City of Surrey projects is provided below, under each funding area category, and a complete list of the City of Surrey's identified projects is provided in Appendix "I", including a description of the project, department lead, estimated capital cost and project status.

Public Transit

TransLink and the City of Surrey have undertaken extensive planning work to develop plan options for Rapid Transit in Surrey. The City of Surrey's population will grow by 50% by 2041, from 500,000 today to approximately 750,000. Rapid Transit is critical to ensure the City is able to shape this growth to create liveable, sustainable communities around rapid transit stations and accommodate complementary economic growth.

A \$2.6 billion Light Rail Transit (LRT) network is planned to link communities South of the Fraser including 27 kilometres of LRT that would link the communities of City Centre, Guildford, Newton, Cloverdale and the neighbouring municipalities of the City of Langley and Township of Langley.

LRT is a cost effective, high quality and flexible form of rapid transit that businesses and residents in Surrey support. This project will best achieve local and regional goals for land use shaping and mobility now and into the future, and will encourage increased transit use. Early implementation will enable the biggest impact in relation to shaping the on-going growth in Surrey.

Green Infrastructure

Green infrastructure projects have been identified as those which promote improvements to water and wastewater facilities, solid waste and flood protection/mitigation measures.

The City has identified a number of capital projects which are aligned with this funding area, including new capital construction to service development within the community while supporting energy conservation, sustainability and climate change initiatives, as well as state of good repair projects to provide wastewater facility improvements to aging infrastructure. A few of the identified City of Surrey green infrastructure projects are described below:

- Fraser River and Coastal Dyke Upgrades:

The City of Surrey is bordered by the Fraser River to the north and the coastal region to the southwest. Dykes were originally constructed in the early 1900's to provide flood protection, as well as irrigation capability to the vast inland agricultural farms within the Serpentine and Nicomekl Rivers. To address coastal flood protection from climate change and sea level rise, combined with the need for seismic modifications to withstand most earthquakes, nearly \$400 million of upgrades will be required for the initial phases of the improvements to the dyke systems around the City, namely:

- i. \$150 million for Fraser River dyke upgrades;
- ii. \$150 million for dyke improvements within Mud Bay;
- iii. \$75 million for dyke improvements at Crescent Beach; and
- iv. \$25 million replacement of the Serpentine and Nicomekl Sea Dams.

- West Village District Energy Plant:

Surrey is advancing a hot water district energy (DE) system in its rapidly growing City Centre. This system will facilitate a transition from fossil fuels used to generate heat and hot water for buildings to renewable low-carbon energy sources while increasing resilience to energy price escalation. Surrey's City Centre DE System commenced operation in late 2014 and is providing hot water DE to new buildings in the City Centre area. By 2045, the integrated system may connect more than 25 million square feet of new development in addition to existing buildings such as a regional hospital and various schools. To provide the need for cleaner, green energy solutions and service development, the City will be constructing a \$17 million energy plant at the West Village Park in City Centre.

- Bridgeview Vacuum Sewer Replacement Phase 3 and 4:

The Bridgeview area of Surrey is serviced by an aging vacuum sanitary sewer system that is approaching the end of its service life, and has insufficient capacity and reliability to support redevelopment in the area. Phase 3 and 4 are the final phasing of replacement of the vacuum sewer system in East Bridgeview with a more reliable sanitary sewer system that would also remove servicing constraints for the development community in the benefitting area. The project consists of constructing a new sanitary pump station, 5 kilometres of gravity sewers low pressure sewers to service residential and industrial properties. The estimated construction cost is \$15 million.

- LED Streetlight Replacement:

Since the early 1970's, the City has installed over 28,000 high pressure sodium (HPS) roadway lighting fixtures. LED roadway lighting fixtures have been readily available for the past 10 years, and recent changes to LED technology have resulted in the ability to direct retrofit HPS street lights with LED fixtures without pole modifications; the LED lights will outperform existing HPS fixtures.

LED roadway lighting offers superior light quality, lower maintenance requirements, increased life expectancy, greener infrastructure through substantial power savings and favourable public opinion when compared to existing HPS lighting. The City would like to complete a \$11 million City-wide street light upgrade program to LED fixtures.

Social Infrastructure

Social infrastructure projects have been identified as those projects which include the construction of new affordable housing, cultural and recreational facilities, as well as the construction of refurbishment projects to improve the livability of existing facilities.

With our rapidly growing population, the City has identified a number of cultural and recreational facilities for the community.

- Spectator Sports Facility and North Surrey Arena:
The City is interested in developing a Spectator Sports facility that would have economic development benefits, entertainment and sport development opportunities, social, cultural, and recreational benefits to our community. The proposed \$90 million Spectator Facility would serve as a community hub that promotes economic development, with recreational facilities, dry floor summer uses, a welcoming lobby and overall spectator services. In conjunction with the Spectator Facility, the City would be replacing, and relocating, the aging North Surrey Arena with a \$45 million two rink community ice complex that could facilitate ice hockey, sledge hockey, figure skating, public skating and skating lessons.
- City Centre and South Surrey Performing Arts Centre:
The City desires to build two new Performing Arts Centres, one in City Centre and one in South Surrey, that reflect the expectations of the City's growing population and provide a new opportunity for community events and world class performances in Surrey. The \$150 million City Centre facility would include a 1,200 seat flexible theatre and a 250 seat studio theatre, which would transform the area into an energetic hub of entertainment and cultural activity. The \$35 million South Surrey Visual and Performing Arts facility will be a combined contemporary artist run exhibition space and a performing arts space accommodating approximately 300 to 350 seats and rehearsal hall.
- East Clayton Recreation, Arts and Library Centre:
Construction of a new \$40 million Recreation Centre is needed to address the needs of the new community of East Clayton within the Cloverdale area and the projected growth in West Clayton. A new facility including a large gymnasium, fitness facilities and multi-purpose spaces, arts amenities and library services will allow a broad range of recreation and cultural programming for all ages.
- Surrey Museum Expansion:
The \$10 million Surrey Museum expansion includes public service and collections preservation spaces that fulfill the vision of the Museum, adopted through extensive public planning in 1999. The expansion will include critical functional space to the 2005 Museum building for galleries to host national travelling exhibitions and to engage families and children in hands-on experiential learning.

- **Newton Fitness Addition and Roof Replacement:**

A significantly expanded fitness facility and roof replacement will be constructed at the Newton Recreation Centre/Wave Pool to better meet the demands of the continuing growth in the Newton area of Surrey. The proposed \$7 million facility expansion will integrate the goals of the Newton Town Centre Plan by supporting active living and healthy community.

SUSTAINABILITY CONSIDERATIONS

Participation in the new Federal government funding programs plan will assist in achieving the objectives of the City's Sustainability Charter; more particularly, the following action items:

- EC1: Corporate Economic Sustainability; and
- EC3: Sustainable Infrastructure Maintenance and Replacement.

CONCLUSION

Based on the above discussion and to ensure the City is prepared for, and in position to secure, Federal government funding contributions for Surrey capital projects, it is recommended that Council:

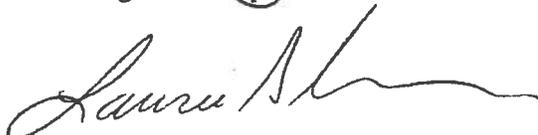
- Endorse the list of projects as documented in Appendix "I" attached to this report as priority projects to be assessed and prioritized further once the Federal government announces guidelines for infrastructure funding; and
- Approve that Light Rail Transit (LRT) remain the top priority infrastructure project for the City of Surrey.



Jean Lamontagne
General Manager,
Planning & Development



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



Laurie Cavan
General Manager,
Parks, Recreation & Culture



Vivienne Wilke, CGA
General Manager,
Finance & Technology

FS/SN/clr

Please note: Appendix available request

Appendix "I" - Priority Capital Projects



CORPORATE REPORT

NO **R168**

COUNCIL DATE **July 23, 2018**

REGULAR COUNCIL

TO: **Mayor & Council** DATE: **July 19, 2018**

FROM: **General Manager, Engineering** FILE: **1855-03**
General Manager Parks, Recreation & Culture XC: **4816-706**

SUBJECT: **Expression of Interest and Application to Infrastructure
Canada's Disaster Mitigation and Adaptation Fund**

RECOMMENDATION

The Engineering Department and the Parks, Recreation & Culture Department recommend that Council:

1. Approve the core projects proposed for the City's expression of interest and application to Infrastructure Canada's Disaster Mitigation and Adaptation Fund, and
2. Direct staff to develop sustainable procurement guidelines that align with the Federal Community Employment Benefits requirements and bring these forward for Council's consideration in 2019.

INTENT

The purpose of this report is to obtain Council's support for the projects proposed for inclusion in the City's expression of interest to Infrastructure Canada's Disaster Mitigation and Adaptation Fund ("DMAF") and to authorize staff to develop a draft sustainable procurement guidelines for Council's consideration at a later date

BACKGROUND

Infrastructure Canada, in May 2018, launched the \$2 billion DMAF in an effort to support natural hazard mitigation and climate change adaptation across the country. The funding program seeks to reduce disaster risk that is deemed of national significance with a minimum application value of \$20M. Federal funding in the amount of 25% to 100% of eligible costs is possible depending on the ownership of the assets included in the application. Successful applications must address one or more of the following:

- Reduce impacts on critical infrastructure including interruptions in essential services;
- Reduce the amount of critical infrastructure that is at risk,
- Reduce impacts on health and safety of Canadians;
- Reduce significant disruptions in economic activity;
- Reduce costs of recovery and replacement; and
- Reduce impact on Canada's vulnerable regions (Indigenous, northern, coastal, and remote communities).

To qualify for this program, interested communities must submit an expression of interest by July 31, 2018. Infrastructure Canada will then evaluate each submission and invite selected communities to submit a more detailed application in the fall of 2018. The more detailed application will be merit based and evaluated using the following criteria:

- Assessment of the hazard risk;
- Extent to which the project strengthens resilience;
- Return on investment;
- Project rationale;
- Promote the use of innovation;
- Project risk transfer management measures;
- Alignment with relevant plans, strategies and frameworks;
- Public and Indigenous engagement;
- Risks associated with project management and implementation; and
- Project benefits.

In addition to the above criteria, two new federal funding requirements are also being implemented as part of the DMAF program these requirements will also apply to other Federal funding opportunities. These requirements include completing a Climate Lens Assessment and developing a Community Employment Benefits plan.

The Climate Lens Assessment has two aspects - the proposed projects must consider both climate mitigation and climate resilience.

The Federal Community Employment Benefits requirement sets out seven segments of the community in which the federal government is seeking to increase employment benefits. Measures are to be taken by the applicant to ensure that at least three of the segments will receive increased employment benefits, including:

- Apprentices;
- Indigenous peoples;
- Women;
- Persons with disabilities;
- Veterans;
- Youth;
- Recent immigrants; and
- Small-sized, medium-sized and social enterprises.

DISCUSSION

The Surrey Coastal Flood Adaptation Strategy ("CFAS") is well underway and its objectives and approaches align well with the goals and requirements set out in the DMAF program. As such, CFAS has been used as a starting point for identifying projects for inclusion in the City's DMAF expression of interest.

Based on work completed as part of CFAS to date, input received from DMAF staff and discussions with potential partners, a suite of seven projects has been identified as the core for inclusion in the City's DMAF expression of interest. The proposed suite of core projects is a comprehensive and spatially related program that will help to reduce key impacts or risks eligible under the DMAF program in Crescent Beach and Mud Bay.

The proposed suite of core projects is as follows:

No.	Project Name	Value
1	Colebrook Dyke Upgrades	\$20M
2	Colebrook Drainage Pump Station Replacement	\$5M
3	Serpentine Sea Dam Replacement	\$18M
4	152 Street Improvements from 36 Avenue to 5000 Block	\$22M
5	Nicomekl Riverfront Park	\$10M
6	Nicomekl River Bridge and Sea Dam replacement	\$30M
7	Crescent Beach Coastal Drainage Improvements	\$11M
Total		\$116M

The proposed suite of core projects are also illustrated on the map attached to this report as Appendix "I". One page project information sheets for each project are attached to this report as Appendix "II".

Of the total \$116 Million value of the core projects, approximately \$44M, or 40%, is anticipated to be eligible for DMAF funding.

The proposed projects will replace or renew a number of key infrastructure assets that are near the end of their service life and will provide scope to incorporate additional natural hazard and climate resilience elements to increase their service life. Most of the projects listed are included either in the Parks, Recreation & Culture Strategic Plan (2018-2027) or planned to be included in the next edition of the Engineering Department's 10-Year Servicing Plan. If the City's DMAF application is successful, the Federal funding contribution will replace existing financial commitments and enable the City to allocate funding to support other projects.

To further enhance the City's DMAF expression of interest, staff are also actively engaging with potential partners to include additional projects in the City's overall application. Some potential partners are able to provide a financial contribution for a portion of the application, while other partners are able to provide a letter of support and in-kind contributions. Where financial partnerships are developed, the City will establish an agreement with each partner organization upon the City receiving a DMAF funding agreement. Discussions are currently ongoing with the following potential partners:

- BC Ministry of Forests Lands and Natural Resource Operations and Rural Development;
- BC Ministry of Transportation and Infrastructure;
- City of Delta;
- City of White Rock;
- Metro Vancouver;
- Port of Vancouver;
- Semiahmoo First Nation;
- South Coast Conservation Land Management Program;
- Southern Railway of British Columbia; and
- Tsawwassen First Nation.

Based on these discussions, a number of additional smaller projects that support the proposed projects and improve coastal flood resilience are being considered for inclusion in the expression of interest. The exact value of the additional projects is under development and is dependent on external partners financial support.

Climate Lens Assessment and Community Employment Benefits Plan

As the proposed projects were developed to adapt to climate change and advance existing City policies, such as the City's Community Climate Action Strategy, it is anticipated that the Climate Lens Assessment will positively impact the City's application. The City will seek to complete this Climate Lens Assessment internally, and in this way, build capacity to apply the analysis to other Federal funding initiatives, such as the Smart Cities Challenge. This work will be supported by the City's Sustainability Office.

While there is strong alignment between the Community Employment Benefits and the Surrey Sustainability Charter 2.0's Desired Outcomes and Strategic Directions related to Inclusion, and Economic Prosperity and Livelihoods, the City does not currently have procurement guidelines or policies that would enhance community employment benefits. As such, it is recommended that sustainable procurement guidelines be developed for Council's consideration in 2019 to provide clarity in the procurement of services that align with Federal government requirements for federally funded projects. These guidelines will build on the sustainability principles in the City's Purchase and Payment Process Manual, and draw from ongoing research on social procurement which is being completed in 2018 and includes consideration of employment opportunities for disadvantaged communities.

SUSTAINABILITY CONSIDERATIONS

Securing funding for implementation elements of the CFAS through the DMAF will strengthen a number of Sustainability Charter 2.0 themes for Infrastructure, Built Environment and Neighbourhoods, Ecosystems, and Public Safety. Specifically, funding commitments will support the following Desired Outcomes ("DO") and Strategic Directions ("SD"):

- Infrastructure DO6: The City anticipates changing weather patterns and sea level rise as a result of climate change, and implements appropriate infrastructure, land use planning and emergency response solutions that will be resilient over the long term;
- Ecosystems DO12: Surrey protects ecosystem services and manages natural assets in order to create resiliency to adapt and thrive in a changing climate; and
- Public Safety DO8: The community's critical infrastructure and systems are designed to withstand climate change impacts and natural events and disasters, and include emergency response and reconstruction plans.
- Inclusion SD7: Increase access to education, training and inclusive employment opportunities for people who face barriers within the community.
- Economic Prosperity and Livelihoods DO1: Diverse and meaningful employment and business opportunities are available close to where people live, and provide incomes that can support a high quality of life.
- Economic Prosperity and Livelihoods SD2: Understand the needs of specific demographics such as newcomers, youth, seniors and people with disabilities, and encourage actions to support their integration into the workforce

CONCLUSION

The DMAF provides a unique opportunity to improve coastal flood resilience over the next 10 years with significant Federal funding. Based on the foregoing discussion the Engineering Department and the Parks, Recreation & Culture Department recommend that Council:

1. Approve the core projects proposed for the City's expression of interest and application to Infrastructure Canada's Disaster Mitigation and Adaptation Fund; and
2. Direct staff to develop sustainable procurement guidelines that align with the Federal Community Employment Benefits requirements and bring these forward for Council's consideration in 2019.



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



Laurie Cavan
General Manager Parks, Recreation & Culture

JA/MO/jma/ggg

Note: Appendices available upon request

Appendix "I": Map of Surrey Core Projects for the DMAF

Appendix "II": One Page Project Sheets for Surrey Core Projects for the DMAF