



Public Works and Infrastructure Committee

**Thursday, December 12, 2019
4:00 PM**

Henry Baker Hall, Main Floor, City Hall



OFFICE OF THE CITY CLERK

Public Agenda Public Works and Infrastructure Committee Thursday, December 12, 2019

Approval of Public Agenda

Adoption of Minutes

Minutes of the meeting held on November 14, 2019.

Administration Reports

PWI19-18 Safe Sidewalks

Recommendation

1. That MN19-9 be removed from the List of Outstanding Items for the Public Works and Infrastructure Committee.
2. That this report be received and filed.

PWI19-19 Clean Streets

Recommendation

1. That MN19-8 be removed from the List of Outstanding Items for the Public Works and Infrastructure Committee.
2. That this report be received and filed.

PWI19-20 Residential Road Renewal Program 2019 Annual Report

Recommendation

1. That City Council endorse the continuation of additional surface treatments on roads in poor condition as part of the Residential Road Renewal Program.
2. That CR18-120 be removed from the List of Outstanding Items for the Public Works and Infrastructure Committee.
3. That this report be forwarded to the December 16, 2019 meeting of City Council for approval.



OFFICE OF THE CITY CLERK

City Clerk's Report

PWI19-21 2019 Review of Outstanding Items

Recommendation

1. That the following items be deleted from the List of Outstanding Items for the Public Works and Infrastructure Committee:

<u>Item</u>	<u>Committee</u>	<u>Subject</u>
EX16-27	Public Works and Infrastructure Committee	Councillor John Findura – Noise-Attenuation
EX18-16	Public Works and Infrastructure Committee	Safety in School Zones

2. That the updated List of Outstanding Items be forwarded to Executive Committee for information.

Adjournment

AT REGINA, SASKATCHEWAN, THURSDAY, NOVEMBER 14, 2019

AT A MEETING OF PUBLIC WORKS AND INFRASTRUCTURE
COMMITTEE
HELD IN PUBLIC SESSION

AT 4:00 PM

These are considered a draft rendering of the official minutes. Official minutes can be obtained through the Office of the City Clerk once approved.

Present: Councillor John Findura, in the Chair
Councillor Lori Bresciani
Councillor Jason Mancinelli
Councillor Andrew Stevens
Councillor Barbara Young

Also in Attendance: Council Officer, Elaine Gohlke
City Solicitor, Byron Werry
Executive Director, Citizen Services, Kim Onrait
Director, Sustainable Infrastructure, Karen Gasmol
Director, Water, Waste & Environmental Services, Pat Wilson
Manager, Development Engineering, Dustin McCall
Manager, Environmental Services, Greg Kuntz
Manager, Infrastructure Engineering, Shanie Leugner
Manager, Water & Sewer Engineering, Kurtis Doney
Transportation Master Plan Coordinator, Ian Cantello

APPROVAL OF PUBLIC AGENDA

Councillor Stevens moved, AND IT WAS RESOLVED, that the agenda for this meeting be approved, as submitted, and that the items be heard in the order they are called forwarded by the Chairperson.

ADOPTION OF MINUTES

Councillor Young moved, AND IT WAS RESOLVED, that the minutes for the meeting held on October 17, 2019 be adopted, as circulated.

ADMINISTRATION REPORTS

PWI19-17 Annual Update on Cycling Infrastructure Program

Recommendation

That this report be received and filed.

Jim Elliott addressed the Committee.

Councillor Bresciani moved, AND IT WAS RESOLVED, that this report be received and filed.

PWI19-16 Wastewater Master Plan

Recommendation

1. That City Council approve the Wastewater Master Plan (WWMP) and authorize the use of the WWMP as a guide for future wastewater-related decisions and actions.
2. That Administration provide a progress report regarding implementation of the WWMP to the Public Works and Infrastructure Committee in 2022.
3. That this report be forwarded to the November 25, 2019 meeting of City Council for approval.

Kurtis Doney, Manager of Water & Sewer Engineering, made a PowerPoint presentation, a copy of which is on file in the City Clerk's Office.

Councillor Mancinelli moved, AND IT WAS RESOLVED, that the recommendation contained in the report be concurred in.

ADJOURNMENT

Councillor Young moved, AND IT WAS RESOLVED, that the meeting adjourn.

The meeting adjourned at 5:57 p.m.

Chairperson

Secretary

December 12, 2019

To: Members
Public Works and Infrastructure Committee

Re: Safe Sidewalks

RECOMMENDATION

1. That MN19-9 be removed from the List of Outstanding Items for the Public Works and Infrastructure Committee.
2. That this report be received and filed.

CONCLUSION

Administration reviewed the process for reinstating concrete and changes were implemented in 2019 due to the increase in watermain breaks in the last two years. The changes allowed crews to improve efficiency productivity throughout the construction season, and the current improved process will facilitate more timely sidewalk repairs in summer months. During winter months, there are challenges in ensuring sidewalk restoration within one month due to weather, quality, material availability, contractor availability and cost.

Further engaging contractors in repairing planned excavations and eliminating the backlog would allow City of Regina (City) crews to focus efforts in completing emergency unplanned repairs within the one-month target for new repairs.

The cost implications of utilizing other construction materials to ensure walkability for temporary repairs were examined and while using hot-mix asphalt in the summer could be used, there are cost implications in carrying out that work.

BACKGROUND

At the June 24, 2019 meeting of City Council *Motion MN19-9* was passed:
That Administration prepare a report for the Public Works and Infrastructure Committee Q3 of 2019 that:

1. *Identifies the costs and implications of guaranteeing sidewalk replacement within one month of the completion of work related to the sidewalk's initial excavation.*
2. *Identifies the costs of short-term mitigation efforts guaranteeing walkability (i.e., asphalt capping) to be completed immediately after sidewalk demolition when underground work is not being conducted, and in advance of a full replacement.*

DISCUSSION

Sidewalk Replacement Timelines

Watermain breaks have increased over the years and are difficult to predict as they vary seasonally depending on soil moisture levels, changes in the soil conditions, and temperatures (see Appendix B for the history of watermain breaks). The repairs necessary are referred to as emergency work, and unplanned due to the unpredictable nature of the conditions that contribute to the infrastructure failures. Depending on the severity of the break, there are often several concrete structures impacted at each location, including the sidewalk, curb/gutter, and driveways.

Due to the increased frequency of watermain breaks, Administration undertook a process review to identify efficiencies and enhancements to eliminate the backlog of repairs and improve repair timelines. As watermain break excavation repairs are completed by internal City crews, these process changes were implemented at the start of the 2019 construction season and the backlog was reduced from 751 to 504 concrete structures awaiting repairs (see Appendix A for a history of excavations and repairs). Although the number of repairs completed in 2019 was considerably higher than the five-year average, the backlog remains. At the current rate of excavation and repairs, the backlog would be eliminated within four years, upon which time future repairs would be completed in a more preferred timeline.

As the current backlog will inhibit timely repairs in the short term, Administration has the option to procure external contractors to help eliminate the backlog of repairs in 2020. The estimated cost for repairing 504 concrete structures would be approximately \$1.16 million and is already allocated in the water utility, therefore no additional funding would be required. Allocating the backlog of repairs to a contractor would allow internal City crews to prioritize and focus efforts on new repairs during the construction season, completing repairs within one month with existing budgets and resources.

It should be noted that similar to Regina, many municipalities allow several months to pass between the initial excavation to the permanent repairs. For example, permanent repair work in the City of Calgary typically allow for one full freeze/thaw cycle (winter season) to allow for settlement of the backfilled material and to ensure a stabilization of the soil structure around the excavation. The City of Saskatoon typically complete repairs during the construction season only, therefore several months would transpire when an excavation takes place in the winter. However, Saskatoon does target a 30-day timeline for excavated sidewalks on priority locations (see Appendix D for a summary of other municipality practices). The risk in completing repairs within one month of the initial excavation is that settlement occurs at the repair location, creating issues such as cracking, ponding water, and trip hazards. The average reinstatement time in the city of Regina is 221 days, or just over seven months, including the winter season. However, when considering summer months only, repairs take place on average within 120 days, or four months.

An additional component to concrete structure excavations and repair is associated with planned enhancements or upgrades to underground infrastructure, including infill development, connection replacements (lead connections and other material types) and hydrant replacements. This represents 38 per cent of all excavations in the City (see Appendix B for history of planned

excavations). Concrete repairs that result during planned work is more predictable, which allows project managers to engage external contractors in advance of the excavation to perform the repairs.

Currently, 34 per cent of all planned work repairs are carried out by external contractors, with the remaining repairs completed by internal City crews. Expanding on the use of contractors to perform all planned excavation repairs is an option that would expedite planned repairs, as well as allow internal City crews to concentrate efforts on emergency repairs. The current unit cost for repairs performed by external contractors during the summer is approximately \$360/m². This is similar to the City's internal repair costs and within existing budgets, therefore no additional funding would be required. Contracts would also be altered to complete the repairs within one month of excavation.

Half of all sidewalk excavations occur in the winter. This is an average of 169 locations per year over a five-year period. Carrying out sidewalk reinstatement during winter months would require additional steps and resources required to ensure a high-quality product. Factors to consider include heating the ground before pouring concrete, heating the material on the truck and during delivery, heating the area surrounding the repair while crews are working, and insulating the location during the curing process. It is estimated that undertaking permanent concrete repairs during the winter months would cost approximately \$720/m², or double the current cost of repair. This additional cost equates to an approximate \$638,000 increase the water utility rate structure. The high costs, intensive efforts, and risk of poor quality due to settlement are typically barriers for winter concrete repairs in other municipalities as well. The City of Saskatoon and the City of Calgary follow similar strategies in avoiding permanent repairs in the winter as shown in Appendix D.

Walkability

The current practice to ensure sidewalk safety after an excavation consists of backfilling trenches with crushed concrete until permanent repairs can be completed. Although the process of backfilling with crushed concrete includes compaction, there is a reality that the temporary repair may inhibit accessibility.

Reinstating concrete excavations with a temporary asphalt patch may increase accessibility. The additional costs to place hot-mix asphalt as a temporary repair internally during construction season would be as follows:

- Hot-mix asphalt - \$65,000
- Additional seasonal staff - \$74,000
- Equipment purchase - \$375,000
 - This cost may be reduced based on the rental equipment availability.

Temporary reinstatement work with hot-mix asphalt undertaken by an external contractor would be approximately \$205,000 per year, based on current summer construction rates. Detailed information on the costs associated with the use of hot mix asphalt for temporary repairs during

summer months can be found in Appendix C.

Hot-mix asphalt is typically not available internally or externally in the City of Regina during the winter months from November to April. In reviewing other municipalities, the City of Calgary is the only known location where hot-mix asphalt is available during the winter. However, the plant does not run when temperatures reach -20 degrees or below, and premiums are being charged for orders under 500 tonnes as the costs to operate are substantial. In order to use hot-mix asphalt in the winter for temporary repairs, the City's asphalt plant would remain operational, incurring additional power and heating costs at the very least. The additional cost to operate the asphalt plant to produce limited quantity of hot-mix asphalt (approximately 900 tonnes total), costs beyond power and heat are unknown at this time as the asphalt plant is built in accordance with summer use specifications. When compared simply to the City of Calgary's rates of a similar asphalt product, additional costs may be approximately \$55,000. However, further analysis is required.

Additional implications in operating the asphalt plant on a continuous basis would limit the opportunities to enhance and upgrade the asphalt plant on an annual basis, which takes place in the winter months. Plant renewal is necessary to ensure the reliability and efficiency in the production of asphalt during the annual construction season.

Cold-mix asphalt is a material that is flexible and workable at colder temperatures and has been used to temporarily fill hazardous potholes and excavation repairs on major roads during the winter months. The additional costs to place cold-mix asphalt as a temporary repair during construction season would be as follows:

- Cold-mix asphalt - \$75,000
- Additional seasonal staff - \$74,000
- Equipment purchase - \$375,000
 - This cost may be reduced based on the rental equipment availability.

The additional costs to place cold-mix asphalt as a temporary repair during the winter would be as follows:

- Cold-mix asphalt - \$75,000
- Additional seasonal staff - \$74,000

Cold-mix material lacks structural strength and cohesiveness and crews often return to the repair locations to add more material as it displaces easily. There have been previous attempts to apply cold-mix asphalt on sidewalks and the results have not been satisfactory as it is not rigid enough to ensure accessibility and required continuous attention.

RECOMMENDATION IMPLICATIONS

Financial Implications

- Eliminate backlog of repairs; none as can be done within existing budgets.

- Complete repairs within one month in summer; none as can be done within existing budgets.
- Permanent concrete repairs in winter; Water Utility Costs - \$638,000.
- Temporary hot-mix asphalt repairs in summer (internal); Operating costs - \$139,000; Capital Costs - \$375,000; Total Costs - \$514,000.
- Temporary hot-mix asphalt repairs in summer (external); Contractor Cost - \$205,000.
- Temporary cold-mix asphalt repairs in summer (internal); Operating costs - \$149,000; Capital Costs - \$375,000; Total Costs - \$524,000.
- Temporary cold-mix asphalt repairs in winter (internal); Operating costs - \$149,000.

Environmental Implications

None to this report.

Policy and/or Strategic Implications

The current processes implemented to reduce the timeline for sidewalk reinstatement completion are consistent with the goals of the Transportation Master Plan, which aims to “Promote active transportation for healthier communities” as well as “Safe and Efficient Infrastructure”.

The contemplated approaches are also consistent with *The Official Community Plan, Bylaw No. 2013-48* (OCP), specifically:

- *Section D3, Goal 5- Active Transportation, “Develop a citywide pedestrian strategy to provide a continuous high-quality, connected, safe, and universally accessible walking experience.”*

Other Implications

None to this report.

Accessibility Implications

The improved process will ensure timely sidewalk reinstatement to better accommodate an accessible and safer pedestrian environment.

COMMUNICATIONS

None to this report.

DELEGATED AUTHORITY

As there are no recommendations to change the current process at this time, the Public Works and Infrastructure Committee has delegated authority to receive and file this report

Respectfully Submitted,



Chris Warren, A/Director, Roadways & Transportation

11/28/2019

Respectfully Submitted,



Kim Onra, Executive Director, Citizen Services

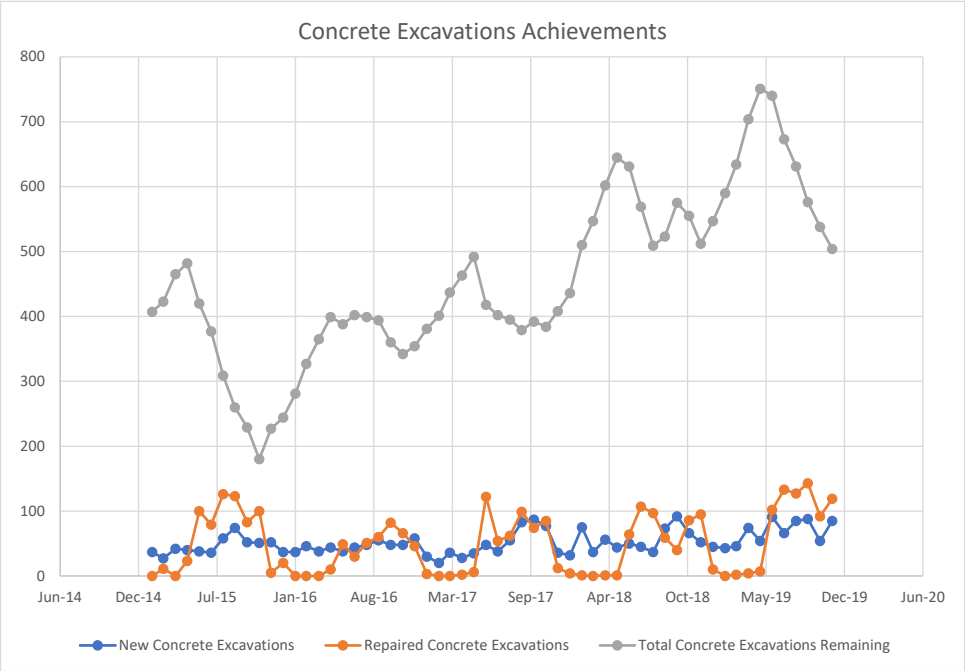
12/3/2019

Report prepared by:
Helby Cushicondor, Engineer

Appendix A - Concrete Excavations Created and Repaired per Year (January 1, 2015 to October 31, 2019)

Note: this data does not include excavations that external parties said they would repair themselves. Only those the City is to repair.

Month	New Concrete Excavations	Repaired Concrete Excavations	Total Concrete Excavations Remaining to be Repaired
Jan-15	37	0	407
Feb-15	27	11	423
Mar-15	42	0	465
Apr-15	40	23	482
May-15	38	100	420
Jun-15	36	79	377
Jul-15	58	126	309
Aug-15	74	123	260
Sep-15	52	83	229
Oct-15	51	100	180
Nov-15	52	5	227
Dec-15	37	20	244
Jan-16	37	0	281
Feb-16	46	0	327
Mar-16	38	0	365
Apr-16	44	10	399
May-16	38	49	388
Jun-16	44	30	402
Jul-16	48	51	399
Aug-16	55	60	394
Sep-16	48	82	360
Oct-16	48	66	342
Nov-16	58	46	354
Dec-16	30	3	381
Jan-17	20	0	401
Feb-17	36	0	437
Mar-17	28	2	463
Apr-17	35	6	492
May-17	48	122	418
Jun-17	38	54	402
Jul-17	55	62	395
Aug-17	83	99	379
Sep-17	87	74	392
Oct-17	77	85	384
Nov-17	36	12	408
Dec-17	32	4	436
Jan-18	75	1	510
Feb-18	37	0	547
Mar-18	56	1	602
Apr-18	44	1	645
May-18	50	64	631
Jun-18	45	107	569
Jul-18	37	97	509
Aug-18	73	59	523
Sep-18	92	40	575
Oct-18	66	86	555
Nov-18	52	95	512
Dec-18	45	10	547
Jan-19	43	0	590
Feb-19	46	2	634
Mar-19	74	4	704
Apr-19	54	7	751
May-19	91	102	740
Jun-19	66	133	673
Jul-19	85	127	631
Aug-19	88	143	576
Sep-19	54	92	538
Oct-19	85	119	504



Appendix B- Emergency Work Versus Planned Work

Table 1 - Water main breaks occurred per year (2014 to 2018)

Watermain Statistics	2014	2015	2016	2017	2018	Average
Main Leaks Repaired (#)	182	72	81	377	329	208
Note: Regina has experienced a record number of water main breaks in 2017 and 2018.						

Table 2 - Planned Connections and Hydrant Replacements per year (2014 to 2018)

Year	Connection Replacements (Lead, Poly B and other Materials)	Hydrant Replacements	Total
2014	198	14	212
2015	78	12	90
2016	99	27	126
2017	87	20	107
2018	65	30	95
Average	126		
Note 1: Infill connections were not considered in the stats since related reinstatement work is performed by contractors. Only connection replacements and hydrants replacements were considered since most of the reinstatement work is typically undertaken by City of Regina crews.			
Note 2: All connection replacements result in sidewalk excavations.			

Appendix C

Cost of Temporary Mitigation Efforts to Guarantee Walkability

Table 1 - Cost of Temporary Repair with Hot Mix Asphalt in Summer Months: Work to be Completed by City Crews

Cost Item	2020	2021	Ongoing
Equipment Cost (1 Time Purchase)	\$375,000.00	-	-
Materials Cost per Year	\$65,290.45	\$65,290.45	\$65,290.45
Labour Cost per Year (3 Seasonal Staff)	\$74,390.00	\$74,390.00	\$74,390.00
Total	\$514,680.45	\$139,680.45	\$139,680.45
Assumptions:			
Number of Sidewalks Excavated in Summer:	169		
Amount of Material (Asphalt) Required:	837 tonnes		
Cost per Tonne of Asphalt Placed	\$78.00/tonne		

Table 2 - Cost of Temporary Repair with Hot Mix Asphalt in Summer Months: Work to be Completed by Contractors

Cost Item	2020	Ongoing
Material and Labour Combined Cost per Year	\$204,802.74	\$204,802.74
Assumptions:		
Number of Sidewalks Excavated in Summer:	169	
Amount of Material (Asphalt) Required:	837 tonnes	
Cost per Tonne of Asphalt Placed (Material and Labour)	\$244.67/tonne	

Appendix D

Summary of Sidewalk Repair Practices of Other Municipalities

The following Cities have provided information regarding their practices on sidewalk repairs:

City of Saskatoon: Permanent repair work is typically completed during the construction season over a period of six to eight months; this repair work duration has been established purposefully to avoid settlement problems. Repair timeline goal is 30 days for affected sidewalks in priority locations. Pedestrian traffic volumes are not considered to prioritize repair sites, only the area within the city and the street in which affected sidewalk are located are the factors considered to determine the repair timeline goal. Granular material (i.e. gravel) is used for temporary repairs in advance of the permanent restoration work.

City of Calgary: Applies a temporary asphalt patch in the excavated sidewalk, and then permanent reinstatement work with concrete is carried out after at least one freeze-thaw cycle. Asphalt patching is a temporary repair method used in summer and winter, since the Calgary asphalt plant operates almost all-year round.

Calgary does not have a different repair timeline for sidewalks based on whether the excavation was planned or resulted from emergency work. There are no different repair timelines for locations with high pedestrian traffic volumes

City of London: Utilizes cold asphalt patching for temporary repairs during summer months only. Usually aims to complete permanent repairs of all excavations created in the summer. The target restoration timeline is four to six weeks during summer months. Excavations created from November 1st to May 1st are held and monitored until restoration work is completed in the spring. Locations with high pedestrian traffic volumes are not prioritized.

City of Windsor: Undertakes permanent restoration work within a year. A permit is required for planned work done by utility agencies. If the work involves hard surface restoration (i.e. sidewalk), the permit requires a temporary reinstatement with either cold or hot mix asphalt. Windsor does not set different repair timelines for sidewalks based on pedestrian traffic.

City of Greater Sudbury: Typically completes planned sidewalk replacements within six to eight weeks following the initial excavation. The completion of sidewalk restoration due to emergency work ranges from the typical timeline mentioned above up to one year. Sidewalk reinstatement is expected to be complete prior to the start of winter. Warm asphalt mix is typically utilized for temporary repairs. Sidewalks adjacent to arterial and collector roads are considered high priority, however, pedestrian traffic is not tracked.

December 12, 2019

To: Members
Public Works and Infrastructure Committee

Re: Clean Streets

RECOMMENDATION

1. That MN19-8 be removed from the List of Outstanding Items for the Public Works and Infrastructure Committee.
2. That this report be received and filed.

CONCLUSION

The Spring Street Sweep Program performs street sweeping operations on 1,054 kilometres of roadway each year. Currently, Administration provides public communication through Regina.ca, social media, local media and neighbourhood entrance signs. Tactics that could be used to improve public communication would be targeted communication in areas of high noncompliance, or a subscription-based notification tool notifying the public of the scheduled sweep for their neighbourhood. In order to use ticket and towing in all areas of the city as a deterrent, or adding an additional full cycle sweep, there would need to be a significant budget increase.

BACKGROUND

At the June 24, 2019, meeting of City Council, Motion MN19-8 was passed:

“That Administration prepare a report for Public Works and Infrastructure Committee for Q4 of 2019 that:

- 1. Identifies a strategy of improving communications and engagement (i.e., signage) about the street cleaning schedule;*
- 2. Identifies the costs and cost recovery options related to towing vehicles in all areas of the City when scheduled street sweeping is underway;*
- 3. Identifies additional deterrents and incentives that could result in residents moving their vehicles during scheduled street sweeping; and*
- 4. Identifies the costs of adding an additional street sweeping during the year.”*

Spring Sweep Program

The Spring Street Sweep Program is active from April to June annually. This program performs street sweeping operations on 1,054 kilometres of roadway each year, starting with medians, downtown streets, main arterial roads (Arterial Sweep) and then residential roads (Residential Sweep). Leading up to the sweep start date, the public is notified of the sweeping schedule

through Regina.ca, social media and through local media. The Spring Sweep Program is broken down into two phases, including:

- The Boulevard and Arterial Sweep occurs over three weeks and includes the sweeping 47 km of major roadways and the centre boulevards. This phase utilizes ticketing and towing as a deterrent in moving vehicles in with high density areas;
- The Residential Subdivision Sweep occurs over six weeks and includes the sweeping of 1,007 km of residential roads. This phase utilizes signage at neighbourhood entrances as a communication tool in notifying residents of the upcoming street sweeping schedule. Ticketing and towing is not used in the phase as a deterrent and crews sweep around parked vehicles.

More information on the sweeping program can be found in Appendix A.

DISCUSSION

Administration conducted a survey with several municipalities to gain an understanding of how their sweeping programs operate. After analyzing the data, municipalities such as Winnipeg, Edmonton, Sudbury and London operate a similar program as the City of Regina (City) in that ticketing is used sparingly in areas of the greatest non-compliance, or not at all. Saskatoon, Red Deer and Calgary utilize ticketing and/or towing to varying degrees with signage across the entire city for street sweeping activities. See Appendix B for more information on level of service, deterrents, budgets, etc.

Improving Communication

Currently, leading up to the sweep start date, the public is notified of the sweeping schedule through Regina.ca, social media and local media. Signage is placed two to four days in advance of street sweeping at all neighbourhood entrances identifying the area and dates it will be swept. Strategies that would enhance and improve communication with residents regarding the street sweeping schedule are as follows:

- Additional social media, billboards and radio ads.
- Implementation of a subscription-based notification tool, similar to the Solid Waste Collection tool. This could advise residents of when their street will be swept and could include changes in schedules, calendar alerts, emails, phone calls or text messages.
- Sweeping activities and scheduling incorporated into an interactive map to update residents visually about where crews are working, upcoming neighbourhoods and neighbourhoods that have been completed.
- Increase signage placement to include locations other than at major neighbourhood entrances.

It is estimated that an additional \$25,000 - \$75,000 would be required in the operating budget to incorporate these enhanced communication efforts.

Towing Vehicles Citywide

Currently, the Spring Sweep Program takes nine weeks to complete at a cost of \$1,793,000. Based on a six-year average, roughly 450 tickets are handed out during the 47 kilometres of

ticketing and towing (ten tickets per kilometre), generating approximately \$40,000 in net revenue. Upon completion of the Spring Sweep, staff transition to construction crews for the summer season, beginning in June.

To ensure all vehicles are moved during the spring sweeping activities, Administration could expand the ticketing and towing deterrent to the remaining 1,007 kilometres of residential neighbourhoods. Based on decreased productivity and unit costs associated with ticketing and towing, it is expected that the additional cost is approximately \$3,194,000, for a total cost of the Spring Sweep being \$4,987,000. Additional resources would be required to complete the sweep within the defined nine-week timeline, including 30 additional operators, seven additional street sweepers, and increased enforcement efforts. The additional staff would be required to enhance the number of crews from two to three crews per shift (two shifts per day), and to significantly enhance the number of signing crews to install enforceable signage in all areas of the city. The additional sweepers would be required for the increase in number of crews. These costs and equipment requirements would be in addition to the \$4,987,000 and closer in alignment with Saskatoon's annual budget:

- Operating cost for labour - \$324,000
- Operating cost for increased enforcement - \$130,000, generating \$850,000 in net revenue
- Capital cost for equipment - \$1,175,000

Administration could undertake to explore options in leasing the additional sweepers required, and therefore the capital costs would not be required. However, leasing sweepers in the past has not been an available option as they are a specialized piece of equipment that require intensive maintenance for limited usage.

Completing the sweep within nine weeks is a necessity as extending the timelines any further would have unintended and negative implications in the ability to deliver on summer construction season commitments such as paved alley reconstruction and gravel alley refresh, as well as inhibiting and/or delaying maintenance programs such as alley maintenance and bridge washing programs. Any consideration in reducing the alley maintenance and capital construction programs internally delivered would have a broader impact on the ability to deliver on the winter maintenance operations, as the resources required are directly linked and intertwined (staffing, training, motor graders, trucks, loaders, etc).

Deterrents and Incentives

In the past, Administration has experienced low compliance in some neighbourhoods. According to the research completed with other municipalities (Appendix B), the main deterrent and best practice to ensure vehicles are compliant with sweeping activities is to ticket and/or tow the vehicle away in advance of the activity. Although the incentive for residents to move their vehicles during sweeping operations is that their street is cleaned in its' entirety, there are limited opportunities to further incentivize residents to gain compliance. In addition to the enhanced communication strategy as previously outlined, a targeted and defined effort to communicate with non-complaint neighbourhoods could include:

- Informational pamphlets hand delivered to mailboxes and/or vehicles providing residents

with information about the Spring Sweep Program prior to their street being swept. The pamphlet could contain visual and literal messaging about the process and benefits of street sweeping.

- Enhancing education and community awareness of the Street Sweeping Program with Community Associations.
- Increase the ticket fine to an amount that would further deter non-compliance.

Additional Sweep

Currently, the cost to deliver the Spring Sweep Program is \$1,793,000, which sweeps all streets within the city. During the Spring Sweep, there are operators available and allocated to that activity for the nine weeks that the winter season maintenance ends and the summer construction begins. Once construction starts, all operators are assigned to those programs. The financial implications of adding a second citywide sweep would be approximately \$1,592,000 based on the current program and taking into consideration that the amount required would be reduced by the current funding available to perform the Fall Sweep Program. However, substantial additional resources would be required in adding a second city-wide sweep as all staff are allocated to construction programs after the Spring Sweep has been completed. To ensure there are no impacts to the resources required to deliver on summer construction season commitments, an entire additional sweeping compliment of 60 operators would be required for the duration of the additional sweep.

RECOMMENDATION IMPLICATIONS

Financial Implications

- Improved Communications; Operating cost - \$25,000 - \$75,000.
- Towing vehicles citywide; Additional operating costs - \$3,194,000; Additional labour - \$324,000; Increased enforcement - \$130,000; Capital Costs - \$1,175,000; Total Costs - \$4,823,000.
- Additional sweep; Operating costs - \$1,592,000.

Environmental Implications

None to this report.

Policy and/or Strategic Implications

The current operational activities for the Spring Sweep Program, are consistent with *The Official Community Plan, Bylaw No. 2013-48 (OCP)*, specifically:

- *Section D3, Goal 1 – Sustainable Transportation Choices:*
 - 5.4. “Establish all-season design and maintenance priorities for roads, sidewalks and pathways to ensure the transportation network provides safe travel, access and mobility, including for the following:
 - 5.4.1 Key transit facilities;
 - 5.4.2 Key pedestrian and cycling routes; and

- 5.4.3 Public buildings and institutions.”

Other Implications

None to this report.

Accessibility Implications

None to this report.

COMMUNICATIONS

The public is notified of the sweeping schedule through Regina.ca, social media and local media.

DELEGATED AUTHORITY

As there are no recommended changes Spring Sweep Program, the Public Works and Infrastructure Committee has delegated authority to receive and file this report.

Respectfully Submitted,

A blue ink signature of Chris Warren, consisting of a stylized 'C' followed by 'W' and a horizontal line.

Chris Warren, A/Director, Roadways & Transportation

12/3/2019

Respectfully Submitted,

A black ink signature of Kim Onra, featuring a large, circular loop followed by 'Onra' and a horizontal line.

Kim Onra, Executive Director, Citizen Services

12/4/2019

Report prepared by:
Alicia Knapik, Technologist II

Appendix A

Street Sweeping Program

Over 15,000 tonnes of sand and salt was applied in the 2018/2019 winter season. This material is necessary to keep roads safe during the winter and as a result, is required to be removed. During the annual Spring Street Sweep Program administration addresses salt, sand, leaves and debris, which have accumulated over the year.

Spring Sweep (Annual Cost - \$1,793,359)

Boulevard and Arterial Sweep

For the first three weeks of the Spring Street Sweep Program sweeping starts on medians, downtown streets and main arterial roads; during this time sidewalks are also swept.

During the day shift of the Arterial Sweep, city crews place No-Parking signs on trees, sawhorses or power poles on 47 kilometres of roadway to allow sweepers to access the curb and parking lanes. These locations have been selected due to the high number of vehicles parked on the street due to higher density housing or parking congestion related to a nearby business/services, such as, the General Hospital area, the downtown area, the Cathedral area etc.

Sweeping crews work behind four parking enforcement officers, whom on average ticket and tow 4.7 kilometres in an 8.5-hour shift. If vehicles are left parked in a no-parking zone it could result in being ticketed \$120 and the vehicle towed.

At night, city crews work on completing major arterial streets which would otherwise be busy during the day (ie., Albert Street, Saskatchewan Drive, Dewdney Avenue) these locations are completed during the night shift of the Arterial Sweep.

One sweeping crew consists of four sweepers, two to three sidewalk cleaning units, one water truck and two semi and a Crew Lead. Additional to the sweeping crew and parking enforcement, there is also a sign crew that requires five to six staff and one Crew Lead. This is known as the Arterial Sweep.

Residential Subdivision Sweep

During the Residential Sweep, depending on the neighbourhood, up to 22 large signs are placed at neighborhood entrances with dates to advise residents of when sweeping will occur. The sign locations are monitored each year and adjustments are made to ensure there is adequate notice to residents in the area. Placing these signs provides the public with notice to move their vehicles and allows crews to sweep curb-to-curb. However, recognition of low compliance in certain neighborhoods has occurred. Areas with a high number of vehicles remaining on the street year-after-year are monitored and added to the Arterial Sweep. During the Residential portion of the sweep, crews are able to complete approximately 30 kilometres of roadway each day.

Fall Sweep Program (Annual Cost - \$201,035)

The Fall Leaf Sweep Program typically runs for two weeks from mid to late October. This program is developed and funded by the water utility and focuses on removing debris that may block catch basins before the snow falls. Performing this service helps to mitigate drainage issues in the spring. The neighborhoods are chosen based on the history of being problematic for flooding during spring melt and typically have many mature trees. These neighborhoods include the Crescents, Cathedral, Lakeview and General Hospital areas.

	Regina	Saskatoon	Edmonton	Calgary	Red Deer	Winnipeg	London	Sudbury (Greater)
Communication:	City website, social media and local media. Large neighbourhood signage is used to notify the community of upcoming street sweeping activities.	Radio ads, social media (Facebook, Instagram, Twitter), billboards, news releases and an address lookup function where residents can enter their address and it will tell them when their neighbourhood is being swept. Every neighbourhood that is classified as residential receives a full curb to curb sweep where they ticket and tow all vehicles, which requires each street to be signed for “no parking” a minimum of 36 hours in advance.	Large neighbourhood signage, email alerts, local news, media releases, 311 (website/application to communicate with residents), also street sweeping map and schedule on Edmonton.ca which includes what areas are scheduled, in progress and completed.	Citizens can sign up for emails or text messages, address lookup function on city website to find out when their area is scheduled for sweeping. Large community signage at neighbourhood entrances, an interactive map on their website that shows real-time of where sweepers are. Piloted posting sweeping time on some of their digital message boards. Videos are created to educate the public and discuss the start of the program and the policies related.	Citizens can sign up for emails or text messages/phone calls for notification a day prior to sweeping their area. Website has tool to show when neighbourhoods have been completed and ones that are upcoming. Updates via social media (Facebook and Twitter) and radio stations. No parking signs are put on every street 12 hours prior to sweeping.	The City of Winnipeg does a public awareness campaign using billboard ads, radio ads, social media posts and website notifications. No parking signs are also used on selected streets scheduled to be swept 48 hours prior to the work being completed. Special care and communication is taken when sweeping high volume locations, like our downtown event centers, to ensure there is no negative impact on businesses and social activities.	Post map and schedule on city website. Address look up function on website to see schedule for your area.	Public service announcements over radio, website advertising and social media notifications. No signing of streets occur, however, flyers may be left on certain streets that are known to have high on street parking prior to the date of sweeping.
Incentives/Deterrents for residents to move their vehicles:	Sweep around obstacles during residential portion of the sweep. Ticket and towing for identified 47 kilometres of streets.	Tickets for non-compliant vehicles (\$100) is the only deterrent with no incentives given.	No incentives/deterrents in place. Courtesy tows occur around the block.	All areas of the city are subject to ticketing when the neighbourhood signs are in place.	Ticketing and towing each block in the city.	The City of Winnipeg tickets vehicles and tows any that are non-compliant in specific areas of non-compliance. Vehicles that were parked before the signs were erected are “courtesy” towed to an adjacent street where street sweeping will not be completed in the same day/shift or has already been completed. Vehicles are towed to a compound when illegally parked (parked after the No Parking signs were erected).	No incentives or deterrents – we sweep around obstacles.	No incentives or deterrents – sweep around obstacles.
Size of fleet of equipment:	Ten three wheeled sweepers (Elgin Pelicans), nine sidewalk machines (trackless), three water trucks, three semi, four contracted semi	Sweeping fleet includes 11 three wheeled sweepers (Elgin Pelicans), eight four wheeled sweepers, and three water trucks. Use of skid steers, and small power equipment with broom attachments is based on availability of operators for the equipment.	62 units including contractors.	Nine depots that consist of total - 30 sweepers, nine sidewalk machines (trackless units), nine flusher trucks, 27 tandems.	Three city owned sweepers and four to six contract sweepers, three to four tandems and two water trucks.	42 – 48 Sweepers, 28 – 32 tandems, 14 – 16 water trucks	Eight to ten sweepers and three Flushers	Four City owned sweepers and ten contract sweepers
Kilometers of Roadway Swept:	1,054 kilometres	1,321 kilometres	14,000 kilometres	16,000 kilometres	600 kilometres	3,420 kilometres	1,500 kilometres	970 kilometres
Program Length:	9 weeks	Ten weeks	Ten weeks	Eight to ten weeks	Six to seven weeks	Five weeks	12 – 16 weeks	Eight weeks
Budget:	1.76 Million	4.2 Million	13 Million	8-9 Million	1.23 Million	3 Million	1.4 Million	1.56 Million

December 12, 2019

To: Members
Public Works and Infrastructure Committee

Re: Residential Road Renewal Program 2019 Annual Report

RECOMMENDATION

1. That City Council endorse the continuation of additional surface treatments on roads in poor condition as part of the Residential Road Renewal Program.
2. That CR18-120 be removed from the List of Outstanding Items for the Public Works and Infrastructure Committee.
3. That this report be forwarded to the December 16, 2019 meeting of City Council for approval.

CONCLUSION

With the introduction of the Alternative Treatment Options Pilot Project in 2019 to the Residential Road Renewal Program (RRRP), Administration was able to improve an additional 8.5 kilometres of roads in poor condition without requiring additional funding. A total of 22.5 kilometres of residential roads were improved and of this total, 12.1 kilometres of poor roads were treated as compared to an average length of approximately 2.8 kilometres treated annually from 2015-2018.

This new approach has worked to balance the expectations of residents with the service requirements of residential roads. Administration was able to gauge the satisfaction of the residents whose roads were treated under the new approach through a survey. Based on the responses received to date, 85 per cent of residents were satisfied with the improved road condition and driving experience, and most respondents were in support of the surface treatments on poor roads as piloted this year.

BACKGROUND

In 2018, City Council passed *Motion CR18-76* requesting Administration to develop a new plan for the RRRP, set a reasonable goal to rebuild poor residential roads, and allocate sufficient funds to meet that goal until the backlog of poor roads was significantly reduced.

In response, Administration revised the strategy and developed the 2019 plan for the RRRP with a pilot implementation of alternative treatments for poor residential roads. The revised strategy, as discussed in further detail in report *CR18-120*, was developed by Administration for

residential renewal based on three decision frames aligned with contemporary asset management practices:

1. Physical Condition:
 - The physical condition identifies the state of repair of the assets that leads to a range of treatment options (e.g. condition of the road surface, road structure, extent of sidewalk repair and underground and utility condition).
2. Functional Condition:
 - The functional condition identifies what is needed to meet customer expectations and what the customer values the most from the services.
3. Demand Condition:
 - The demand condition considers what is needed to support the service the asset is intended to provide. For residential roads, this could be significantly different than what is done on major roadways due to the residential roads carrying less traffic and typically lighter vehicles and may lead to different treatment approaches than traditionally used.

This strategy would improve the driving experience for residents as well as the look and feel of the road (functional condition), improving the level of service to either fair or good, but would not address some of the underlying structural deficiencies of the road.

Along with the 2019 pilot implementation, Administration was tasked to reevaluate the performance of the RRRP considering the additional surface treatments and report on the following:

1. estimates of rate of progress and redefinition of the target
2. assessment of impact of using the proposed approach on service to residents as well as resident response
3. financial implications

DISCUSSION

Surface Treatments for Poor Roads

In addition to the full reconstruction treatments and major rehabilitation treatments, the 2019 program targeted additional roads in poor condition with surface treatments without additional funding. One of the primary criteria for determining whether the surface treatment can be applied on a road section is the road structure's ability to support the milling and paving equipment without failing.

The surface treatment includes the placement of an asphalt overlay to improve the driving experience and seal the road surface but does not address underlying structural defects or sidewalk distresses (there is no replacement of concrete curbs, gutters and sidewalks associated with this treatment). When water is prevented from getting into the road structure through a combination of sealing the road surface and improving the drainage condition, the deterioration rate of the road is slowed.

Rate of Road Improvement Progress

The shift in the program's strategy included the introduction of the surface treatments for roads in poor condition such that the functional condition of the road would be improved, but the physical structure of the road including sidewalks, curbs, and gutters would not be improved and the risk of near-term underground work would remain. With the treatments introduced with the revised strategy, the number of poor roads improved annually increases by approximately nine to eleven kilometres in the early years of the implementation of this strategy.

A model to predict the road network condition under the revised strategy was developed to show the performance of the RRRP under the revised strategy with the additional treatments. The results of the modelling, as well as items to be noted when discussing the model results, can be found in Appendix A.

Modelling of the road network condition under the revised strategy, considering the 2019 road condition data, shows that the benchmark target of 85 per cent of the network in fair condition or better will be reached in 2026. Furthermore, by 2036, the benchmark reaches a maximum value of 92 per cent. After this stage in the model, the rate of roads becoming poor exceeds the rate that poor roads are treated and therefore the percentage of poor roads begins to grow. By 2039 (25 years after the initial program launch), the percentage of roads in fair condition or better will have decreased to 89 per cent.

Resident Feedback on Pilot Project

In report *CR18-120: Residential Road Renewal Program Alternative Treatment Options*, Administration committed to completing an "assessment of impact of using the proposed approach on service to residents as well as resident response" as part of the pilot program for the asphalt surface treatment on poor roads. Residents that received the new treatment could provide feedback through an online or paper survey. The purpose of this survey was to gauge the resident's satisfaction with the improvement to the road condition, driving experience, and the reduced time of construction, as well as to gather their feedback on the trade-offs associated with this type of treatment. Administration received 119 responses to the survey; A copy of the survey and results can be found in Appendix B and C.

The results were positive, and most respondents were in support of the surface treatment that was piloted in 2019. Some of the key insights regarding the respondent's satisfaction to the surface treatment included:

- 85 per cent reported being satisfied with the improved road condition and driving experience
- 87 per cent reported being satisfied with the minimized disruption to residents by reducing the time of construction
- 62 per cent reported that they agreed with the trade-offs, including no replacement of concrete elements, required to improve poor road condition and drivability (19 per cent reported that they disagreed with these trade-offs and 18 per cent were unsure)

Based on the feedback, Administration recommends continuing the additional surface treatments on poor roads in the upcoming annual plans for the RRRP.

Accomplishments for RRRP

Since its inception, the RRRP has received dedicated one per cent mill rate increases annually from 2014 to 2019 and a contribution of 25 per cent of the Street Infrastructure Renewal Program (SIRP) budget and has grown to a total \$16.417 million for Residential Road Renewal.

Table 1 shows the annual funding that has been dedicated to the RRRP since 2014 and the improvements to the residential road network with this funding.

Table 1: RRRP Accomplishments Summary

Year	1% Mill Rate (\$ mil)	25% of SIRP (\$ mil)	Current Year Total Budget (\$ mil)	Prior Year Carry Forward (\$ mil)	Current Year Total Funding Available (\$ mil)	Actual Expenses (\$ mil)	Carry Forward (Cum.) (\$ mil)	No. of Projects	Total Road Length (Km)
2014	1.700	0.000	1.700	0.000	1.700	1.000	0.700	32	9.9
2015	3.672	0.000	3.672	0.700	4.372	4.114	0.259	87	19.5
2016	5.472	3.800	9.272	0.259	9.531	7.331	2.199	66	21.9
2017	7.532	4.500	12.032	2.199	14.231	11.931	2.300	68	18.8
2018	9.672	5.500	15.172	2.300	17.472	17.459	0.013	67	20.2
2019	12.042	4.255	16.297	0.013	16.310	14.700	1.610	63	22.5
Total	40.090	18.055	58.145					383	112.8

Note: 2019 Actual Expenses are estimated as of November 20, 2019

The 2019 plan of the RRRP consisted of 63 projects that would improve 22.5 kilometres of residential roads. Six carry-forward projects from 2018 (1.8 kilometres) were also completed in 2019 with the carry forward funding from 2018 that was committed to finishing these projects.

Of the 63 planned projects, 45 were fully completed in 2019, covering 15.5 kilometres in addition to the six carry-forward projects from 2018. Work on the remaining locations has started but was not completed due to weather, scheduling constraints with other infrastructure projects, or increased scope of work. It is expected that all the remaining work will be completed early in the 2020 construction season. Although work is not fully complete on these locations, they have been made safe and accessible in their current state. Funding for the completion of the 2019 projects will be through the committed carry-forward funding from the 2019 budget.

The 2019 project list, which includes projects both completed and carried forward to 2020, sorted by treatment type is outlined in Appendix D and summarized below in Table 2 based on initial road condition.

Table 2: RRRP Treatments Summary

Road Condition	Road Treatment	Length (km)	No. of Projects
Good	Surface Treatment	1.1	5
Fair	Minor Rehabilitation	5.4	13
Poor	Major Rehabilitation	6.4	19
	Reconstruction	1.0	3
	Surface Treatment	8.5	23
TOTAL		22.5	63

2020 Plan for RRRP

The selection process for the 2020 RRRP program is currently underway and the target is to include approximately 28.5 kilometres of roadway improvements. The project list is tentative and anticipated to be shared early in the new year pending City Council approval of the 2020 budget.

Coordination with Upcoming Water Infrastructure Projects

Projects selected under the RRRP are coordinated with concurrent infrastructure renewal projects as well as other major capital City projects where possible. By coordinating construction efforts, the impact on neighborhoods is minimized and the investment is maximized. The coordinated programs include the Trench Settlement Remediation, Drainage Infrastructure Renewal and Upgrades and Wastewater Infrastructure Renewal and Upgrades Programs. Two major drainage improvement projects, Area 13 Drainage Project and North Montague Storm Trunk Upgrade

RECOMMENDATION IMPLICATIONS

Financial Implications

None associated with this report.

Environmental Implications

None associated with this report.

Policy and/or Strategic Implications

Continuing to apply the surface treatments, as piloted in 2019, for improving residential roads in poor condition is consistent with *The Official Community Plan, Bylaw No. 2013-48 (OCP)*, specifically:

- *Section B, Goal 1 – Financial Policies, “Achieving long-term financial viability.”*
- *Section B, Goal 2 – Sustainable Services and Amenities, “Ensure that the City of Regina services and amenities are financially sustainable.”*
- *Section D4, Goal 2 – Asset Management and Services “Ensure infrastructure decisions result in long-term sustainability.”*
- *Section D4, Goal 2 -Infrastructure Staging, “Build infrastructure in a sequential and coordinated manner.”*

- *Section D5, Goal 1 - Land Use and Built Environment, "Enable the development of complete neighbourhoods."*

The RRRP supports the City's strategic focus to improve the development and maintenance of livable neighbourhoods, while improving the residential road infrastructure condition to a level and quality that is sustainable.

Accessibility Implications

One of the goals of this program is to improve walkability and better accommodate those who use walking as their primary mode of transportation, by implementing pedestrian accessibility ramps where practical and feasible. This is consistent with the OCP, *Section D5, Goal 1 - Land Use and Built Environment, "Enable the development of complete neighbourhoods."* Not all poor road treatments will include concrete work that will improve accessibility, so the advancement of this goal may not proceed as quickly on some poor roads receiving less extensive treatments.

Other Implications

An improved residential road network will provide residents with improved quality of life due to reductions in frustration, travel delays, fuel consumption and vehicle repairs/maintenance.

COMMUNICATION

Information about the RRRP will continue to be incorporated into the annual Road Construction Communications Strategy along with proactive notifications of the program, as well as with one-on-one communications via service requests, letters and emails.

Administration has added an informational page on the City's website to provide additional details to residents and businesses about the City's Road Maintenance and Construction Programs.

DELEGATED AUTHORITY

The recommendations contained in this report require City Council approval.

Respectfully submitted,



Chris Warren, A/Director, Roadways & Transportation

11/12/2019

Respectfully submitted,



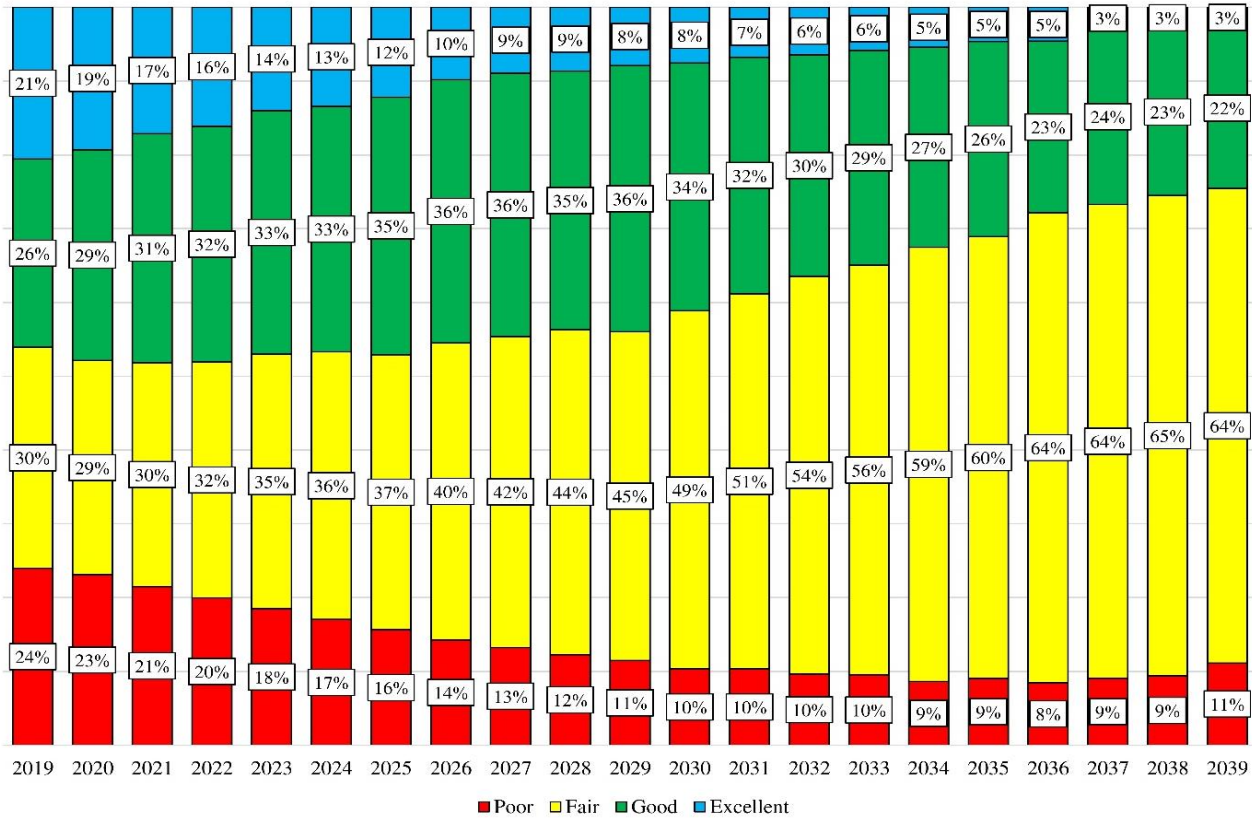
Kim Onra, Executive Director, Citizen Services

12/3/2019

Report prepared by:
Nigora Yulyakshieva, P.Eng., Manager, Roadways Preservation
Jared Hagen, Senior Engineer, Roadways Preservation

APPENDIX A - Modelling Results and Assumptions

Modelling of Residential Road Network Condition



The results of the model may differ compared to actual program implementation and the following items should be noted when discussing the model's results:

1. An annual deterioration is applied to each road segment such that, without any intervention, a road will deteriorate from excellent to poor condition in 45 years.
2. A construction cost inflation factor of 3.08 per cent is applied annually to the unit rates for each treatment within the model. This incrementally reduces the length of road that can be improved annually. After 25 years of this inflation factor being applied, the cost for a given treatment will have increased to 207 per cent of the cost of that same treatment in Year One.
3. There will always be streets in poor condition with a structure that can support the construction equipment required for the surface treatment.
4. Roads are treated in the order of worst first within each condition category.
5. The treatment assigned to a specific segment within the model is based on the road's condition index. There will be situations in the actual program implementation where a road segment requires a more extensive (or less extensive) treatment compared to what the condition index prescribes. This is determined with detailed site inspections during the design phase.
6. The model is based on the current road condition from the 2019 annual residential road condition inspections.

APPENDIX B – Residential Road Renewal – Residential Feedback Letter



August 14, 2019

Property Address:

Residential Road Renewal – Resident Feedback

Your street was part of a pilot project under the Residential Road Renewal Program which resulted in your road receiving a new asphalt surface treatment. The goal of the pilot was to improve the poor road condition and driveability while reducing construction time and costs.

By focusing on road surface treatments instead of comprehensive road renewal on poor residential roads, costs per kilometre of road is reduced and the City of Regina can resurface more poor residential roads, more quickly.

We want to hear your feedback. Please take a few minutes to go to **regina.ca/roadsurvey** to fill out an on-line survey. If you prefer, a paper version is attached and can be dropped off at City Hall. Please submit the survey by **September 15, 2019**.

Roadways Preservation
Roadways & Transportation



Roadways Preservation
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Regina.ca

APPENDIX B – Residential Road Renewal – Residential Feedback Letter

Page 2

2019 Residential Road Renewal Survey

Your street was part of a pilot project under Residential Road Renewal Program which recently received the surface treatment, that is a new asphalt surface. The pilot focused on fixing poor road surfaces rather than undertaking extensive road reconstruction. The goal of the pilot was to improve the road conditions and driveability while reducing construction time and costs. This approach enables the City of Regina to improve an additional 9-11km of poor roads each year.

1. Do you recall receiving notice that the recent road construction on your street was part of the pilot?

☐ Yes ☐ No ☐ Unsure

2. The main goal of the pilot was to improve road condition and driving experience. How satisfied are you that the City of Regina achieved this goal on your street?

☐ Satisfied ☐ Somewhat Satisfied ☐ Not at all Satisfied

3. Another goal of this pilot was to minimize disruption to residents by reducing the time of construction. How satisfied are you that the pilot achieved this goal?

☐ Satisfied ☐ Somewhat Satisfied ☐ Not at all Satisfied

4. While the intent of the pilot was to improve the poor road condition and drivability while reducing construction time and costs, there were trade-offs. This included that there is no replacement of concrete curbs, gutters and sidewalks, as well as no installation of pedestrian ramps. Do you agree with this tradeoff?

☐ Agree ☐ Disagree ☐ Unsure

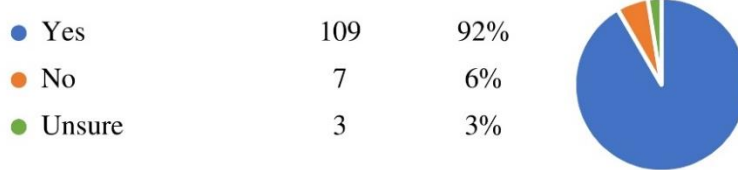
5. How satisfied were you that the City of Regina kept you informed of the project and its progress, including expected start date, duration, garbage and recycling pickup and traffic restrictions?

☐ Satisfied ☐ Somewhat Satisfied ☐ Not at all Satisfied

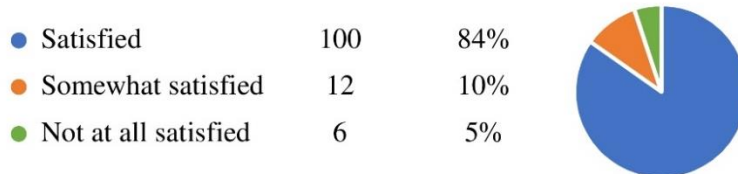
6. Are there any other observations/comments you would like to share about your experience with the pilot?

APPENDIX C - Results of Resident Feedback Survey

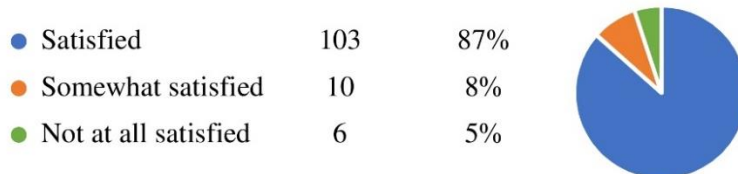
Do you recall receiving notice that the recent road construction on your street was part of the pilot?



The main goal of the pilot was to improve road condition and driving experience. How satisfied are you that the City of Regina achieved this goal on your street?



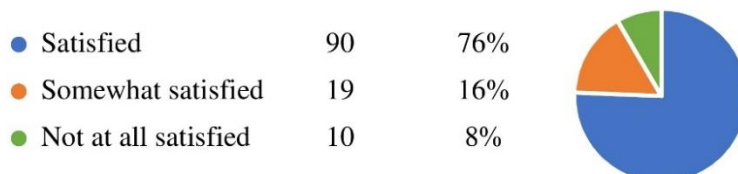
Another goal of this pilot was to minimize disruption to residents by reducing the time of construction. How satisfied are you that the pilot achieved this goal?



While the intent of the pilot was to improve the poor road condition and drivability while reducing construction time and costs, there were trade-offs. This included that there is no replacement of concrete curbs, gutters and sidewalks, as well as no installation of pedestrian ramps. Do you agree with this tradeoff?



How satisfied were you that the City of Regina kept you informed of the project and its progress, including expected start date, duration, garbage and recycling pickup and traffic restrictions?



APPENDIX D - 2019 Project List for RRRP
2019 Residential Road Renewal Program

PROJECT #	STREET NAME	FROM STREET	TO STREET	LENGTH (m)	CARRY FORWARD
MAJOR REHABILITATION					
1	PRINCESS DRIVE	CORONATION STREET	REGINA AVENUE	233	
2	DOUGLAS PARK CRESCENT	MURRAY AVENUE	PARK STREET	414	
3	MURRAY AVENUE	DOUGLAS PARK CRESCENT	PARK STREET	373	
4	UHRICH AVENUE	NEWLANDS STREET	HILLSDALE STREET	434	
5	BRYANT STREET	PARKER AVENUE	UHRICH AVENUE	87	
6	MCTAVISH STREET	QUAPPELLE DRIVE	17TH AVENUE	284	
7	18TH AVENUE	MCTAVISH STREET	ARGYLE STREET	79	
8	ELDERKIN DRIVE	UNIVERSITY PARK DRIVE	TRUESDALE DRIVE	288	
9	THORNICROFT BAY	ELDERKIN DRIVE	THORNICROFT BAY END	115	
10	GREEN MEADOW ROAD	GREEN MEADOW ROAD (ALL)	MAYFIELD ROAD	843	
11	2ND AVENUE NORTH	MCINTOSH STREET	2ND AVENUE NORTH END	779	Y
12	MONTREAL STREET	1ST AVENUE NORTH	3RD AVENUE NORTH	475	
13	ELLISON CRESCENT	SHERWOOD DRIVE (W. LEG)	SHERWOOD DRIVE (E. LEG)	657	Y
14	MITCHELL CRESCENT	3RD AVENUE NORTH (W.LEG)	3RD AVENUE NORTH (E.LEG)	245	Y
15	BRUCE STREET	3RD AVENUE NORTH	2ND AVENUE NORTH	174	Y
16	SNEATH CRESCENT	1ST AVENUE NORTH (W.LEG)	1ST AVENUE NORTH (E.LEG)	258	Y
17	BLAKENEY DRIVE	BLAKENEY DRIVE	ARNASON ROAD	155	
18	BUTTERFIELD CRESCENT	BLACKWOOD STREET/LANIGAN DRIVE	BLACKWOOD STREET/LAWRENCE DRIVE	297	Y
19	LANIGAN DRIVE	BLACKWOOD STREET/BUTTERFIELD CRESCENT	BLANCHFIELD STREET	209	
TOTAL				6399	
PROJECT #	STREET NAME	FROM STREET	TO STREET	LENGTH (m)	CARRY FORWARD
REBUILD					
1	ACADEMY PARK ROAD	CASTLE ROAD	ACADEMY ROAD	322	
2	COWAN CRESCENT	MACPHERSON AVENUE	HILLSDALE STREET	532	
3	PRINCESS DRIVE	WASCANA STREET	CORONATION STREET	160	
TOTAL				1014	
PROJECT #	STREET NAME	FROM STREET	TO STREET	LENGTH (m)	CARRY FORWARD
REHABILITATION					
1	JUBILEE AVENUE	LANGLEY STREET	MARTIN STREET	219	Y
2	VICTORIA AVENUE	PASQUA STREET	ELPHINSTONE STREET	698	
3	PASQUA STREET	13TH AVENUE	VICTORIA AVENUE	184	
4	USHER STREET	7TH AVENUE	CAVENDISH STREET/BORLASE CRESCENT	268	Y
5	HAYNEE STREET	CAVENDISH STREET/BRADLEY AVENUE	7TH AVENUE	291	Y
6	BEAMISH DRIVE	BEAMISH DRIVE END (WEST)	VANIER DRIVE	171	
7	EDENWOLD CRESCENT	DALGLIESH DRIVE (N.LEG)	DALGLIESH DRIVE (E.LEG)	609	Y
8	FUHRMANN CRESCENT	DALGLIESH DRIVE (W.LEG)	BARLOW STREET	258	
9	WASCANA STREET	DEWDNEY AVENUE	4TH AVENUE	875	Y
10	KING STREET	DEWDNEY AVENUE	4TH AVENUE	875	Y
11	NAGEL CRESCENT	FISHER STREET	NAGEL CRESCENT	337	Y

2019 Residential Road Renewal Program

12	FISHER STREET	NAGEL CRESCENT (S.LEG)	7TH AVENUE E	262	Y
13	ARGYLE STREET	14TH AVENUE	VICTORIA AVENUE	355	
TOTAL				5404	

PROJECT #	STREET NAME	FROM STREET	TO STREET	LENGTH (m)	CARRY FORWARD
SURFACE TREATMENT (POOR ROADS)					
1	ALPORT CRESCENT	12TH AVENUE NORTH	RODENBUSH DRIVE	336	
2	BIRCHWOOD CRESCENT	SHANNON ROAD/BIRCHWOOD ROAD	SHANNON ROAD (E.LEG)	453	
3	BIRCHWOOD ROAD	SHANNON ROAD/BIRCHWOOD CRESCENT	GRANT ROAD	286	
4	CORNWALL STREET	CORNWALL STREET END	5TH AVENUE NORTH	818	
5	DARKE CRESCENT	MCNIVEN AVENUE (W.LEG)	MCNIVEN AVENUE (E.LEG)	494	
6	18TH AVENUE	MONTREAL CRESCENT	QUINN DRIVE	103	Y
7	ELGIN ROAD	GRANT ROAD	MAYFAIR CRESCENT	481	
8	FOX GLOVE CRESCENT	FRONTENAC DRIVE (W.LEG)	FRONTENAC DRIVE (E.LEG)	234	
9	GRACE STREET	3RD AVENUE	2ND AVENUE/WALKER CRESCENT	201	Y
10	MCNIVEN AVENUE	HILLSDALE STREET	PATTERSON DRIVE	610	
11	OTTAWA STREET	OTTAWA STREET END	DOVER AVENUE	1313	
12	QUEEN STREET	GRASSICK AVENUE	MCCALLUM AVENUE	122	
13	RETALLACK STREET	2ND AVENUE NORTH	3RD AVENUE NORTH (N.LEG)	264	
14	ROBINSON STREET	2ND AVENUE NORTH	3RD AVENUE NORTH	157	
15	ROTHWELL STREET	BROADWAY AVENUE	ARCOLA AVENUE	342	
16	MCKINLEY AVENUE	MCINTOSH STREET	ROYAL STREET	102	
17	ROYAL STREET	4TH AVENUE	MCKINLEY AVENUE	648	
18	3RD AVENUE	HORACE STREET	GREY STREET	307	Y
19	3RD AVENUE	WALKER STREET	HORACE STREET	205	
20	3RD AVENUE NORTH	ROBINSON STREET	RAE STREET	214	
21	WALKER STREET	3RD AVENUE	2ND AVENUE/WALKER CRESCENT	201	
22	WALKER CRESCENT	WALKER STREET/2ND AVENUE	GRACE STREET/2ND AVENUE	206	Y
23	WASCANA STREET	MCPHAIL AVENUE	PASQUA STREET	402	
TOTAL				8498	

PROJECT #	STREET NAME	FROM STREET	TO STREET	LENGTH (m)	CARRY FORWARD
SURFACE TREATMENT (GOOD ROADS)					
1	MCCALLUM AVENUE	ROBINSON STREET	ALBERT STREET	415	
2	WIMBLEDON BAY	HAYDEN PARK ROAD	HAYDEN PARK ROAD	113	
3	WIMBLEDON DRIVE	HAYDEN PARK ROAD	THAMES ROAD	341	
4	WIMBLEDON PLACE	THAMES ROAD	THAMES ROAD	115	
5	ELPHINSTONE STREET	REGINA AVENUE	MONTAGUE STREET	163	
TOTAL				1147	

December 12, 2019

To: Members
Public Works and Infrastructure Committee

Re: 2019 Review of Outstanding Items

RECOMMENDATION

1. That the following items be deleted from the List of Outstanding Items for the Public Works and Infrastructure Committee:

<u>Item</u>	<u>Committee</u>	<u>Subject</u>
EX16-27	Public Works and Infrastructure Committee	Councillor John Findura – Noise-Attenuation
EX18-16	Public Works and Infrastructure Committee	Safety in School Zones

2. That the updated List of Outstanding Items be forwarded to Executive Committee for information.

CONCLUSION

This report reviews the status of outstanding items that have been referred to the Administration for reports to the Public Works and Infrastructure Committee. The Public Works and Infrastructure Committee should review the items and provide instructions on the need for any changes to priorities.

BACKGROUND

Subsection 35(2) of City Council's Procedure Bylaw requires the City Clerk to provide a report to the Executive Committee annually which lists all items and the priority of the items that have been tabled or referred by City Council or one of its committees. The purpose of this report is to provide a list of the outstanding items for the Public Works and Infrastructure Committee as at November 30, 2019.

DISCUSSION

Lists of Outstanding Items are maintained for City Council and its main committees. Items on the list may originate from:

- a recommendation in a report which indicates that another report will be forthcoming;

- a motion adopted to refer an item back to the Administration or to request a report on a related matter;
- a motion adopted by City Council or another committee requesting the Administration to prepare a report.

The Office of the City Clerk is responsible for maintaining and updating the lists. Items remain on the list until a report or the committee recommends their removal. The list is updated with additions and deletions, as meetings are held, and after review by Executive Committee. The last review of outstanding items as at November 21, 2018, was considered by Executive Committee on February 13, 2019.

The following steps were taken to facilitate the annual review of the outstanding items:

- the list of outstanding items are regularly circulated to departments for comments;
- the comments and lists are returned to the Office of the City Clerk for consolidation.

The outstanding items report is first being circulated to the affected Committees prior to Executive Committee consideration. This process allows committees to have more detailed discussions of each item with the Administration and among themselves to determine priorities for Council consideration.

Attached to this report as Appendix “A” is a list of the outstanding public session items before the Public Works and Infrastructure Committee.

RECOMMENDATION IMPLICATIONS

Financial Implications

None with respect to this report.

Environmental Implications

None with respect to this report.

Policy and/or Strategic Implications

Regular review of outstanding items provides both Council and the City Administration an opportunity to review and refocus priorities and resources as required based on current initiatives, needs of the community and corporate strategy.

Other Implications

None with respect to this report.

Accessibility Implications

None with respect to this report.

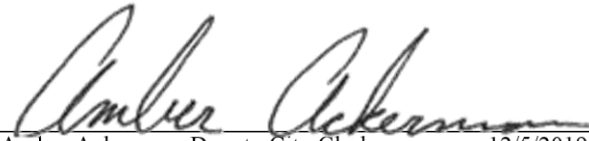
COMMUNICATIONS

No specific public communication is required in relation to outstanding items. This report will be posted to the City of Regina website for public viewing.

DELEGATED AUTHORITY

Executive Committee is required to provide direction to the City Manager in relation to items on the outstanding items list for City Council or any of its committees along with directing any changes in priority.

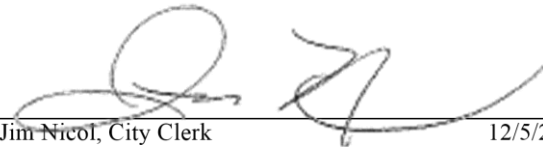
Respectfully submitted,



Amber Ackerman, Deputy City Clerk

12/5/2019

Respectfully submitted,



Jim Nicol, City Clerk

12/5/2019

Report prepared by: Elaine Gohlke, Council Officer

Public Works and Infrastructure Committee List of Outstanding Items November 30, 2019

REPORT #:	EX16-27
DATE TABLED/REFERRED:	9/14/2016
SUBJECT:	Councillor John Findura – Noise-Attenuation
MOTION:	<ol style="list-style-type: none"> 1. That Administration review the City of Regina's current Noise Attenuation Policy to ensure that it meets current standards and that those standards are being complied with. 2. That Administration provide the results of the Noise Monitoring Study that was conducted in 2012. 3. That a report back to the Public Works and Infrastructure Committee in Q4 of 2017 with the findings of the review of the policy, the Noise Monitoring Study and recommendations on any changes and associated costs.
DIVISION/DEPARTMENT:	Citizen Services
COMMENT:	Return Date: Addressed by CR19-44 at the April 29 CC meeting. Remove from list at end of 2019.

REPORT #:	CM17-2
DATE TABLED/REFERRED:	2/13/2017
SUBJECT:	2017 General Operating and 2017-2021 Capital Budget; and 2017 Utility Operating and 2017-2021 Capital Budgets
MOTION:	<ul style="list-style-type: none"> <input type="checkbox"/> The Administration undertake a rate review in 2017 to inform future utility rates that ensure Regina has a sustainable, affordable utility in the future. <input type="checkbox"/> Funds for the rate review be allocated from the current year's operating budget. <input type="checkbox"/> A Communication Strategy be developed to inform residents about the Utility, its components, the regulatory requirements and all associated operating and capital costs. <input type="checkbox"/> The Administration report back to the Public Works and Infrastructure Committee in Q3 of 2017 with the Communication Strategy as well as the results of the rate review.
DIVISION/DEPARTMENT:	Citizen Services
COMMENT:	Return Date: Q4 2019

**Public Works and Infrastructure Committee
List of Outstanding Items
November 30, 2019**

REPORT #:	PWI18-13
DATE TABLED/REFERRED:	6/7/2018
SUBJECT:	Solid Waste Curbside Collection Services Funding Policy
MOTION:	That the Administration bring back a report to this committee outlining the details of cost per household for garbage collection and billing details to the October 11, 2018 Public Works and Infrastructure meeting.
DIVISION/DEPARTMENT:	Citizen Services
COMMENT:	Return Date: Q3 2021

REPORT #:	PWI18-19
DATE TABLED/REFERRED:	11/28/2018
SUBJECT:	Pedestrian Connectivity Program (2020 Budget Process)
MOTION:	That this report be referred to the 2020 budget deliberations.
DIVISION/DEPARTMENT:	Citizen Services
COMMENT:	Return Date: Q3 2020

REPORT #:	CR18-120
DATE TABLED/REFERRED:	12/17/2018
SUBJECT:	Residential Road Renewal Program Alternative Treatment Options
MOTION:	2. That Administration return to Public Works and Infrastructure Committee by Q3 of 2019 with a full plan based on the pilot methodology for 2020 and beyond outlining the following: a. Estimates of rate of progress and redefinition of the target b. Assessment of impact of using the proposed approach on service to residents as well as resident response c. Financial implications
DIVISION/DEPARTMENT:	Citizen Services
COMMENT:	Return Date: Q4 2019

Public Works and Infrastructure Committee
List of Outstanding Items
November 30, 2019

REPORT #:	EX18-16
DATE TABLED/REFERRED:	2/13/2019
SUBJECT:	Safety in School Zones
MOTION:	That Administration complete its audit of existing school zones and playground zones to review signage locations, parking and drop-off locations and overall safety consideration, and provide a report to Public Works and Infrastructure by Q2 2019 outlining recommended changes to:1. Speed zones 2. U-turns 3. Visibility and traffic calming initiatives 4. Fines for speeding 5. Other recommendations from the Traffic School Zone Safety Committee.
DIVISION/DEPARTMENT:	Roadways & Transportation
COMMENT:	Return Date: Addressed by PWI19-8 at April 18 PWI meeting. Remove from list at end of year.

REPORT #:	CR19-44
DATE TABLED/REFERRED:	4/19/19
SUBJECT:	Noise Attenuation
MOTION:	1. That Administration be directed to report back to Public Works & Infrastructure Committee with recommendations for an updated Roadway Noise Policy by Q1 2021 which: a. modernizes the acceptable methodologies and materials for design and implementation of noise attenuation b. maintains requirements for the provision of noise attenuation in new neighbourhoods where required c. reviews the requirement for the City of Regina to monitor and install noise attenuation for existing development locations exceeding the established limit."
DIVISION/DEPARTMENT:	Roadways & Transportation
COMMENT:	Return Date: Q1 2021

**Public Works and Infrastructure Committee
List of Outstanding Items
November 30, 2019**

REPORT #:	MN19-8
DATE TABLED/REFERRED:	6/24/2019
SUBJECT:	Councillor Andrew Stevens: Clean Streets
MOTION:	That Administration prepare a report for Public Works and Infrastructure for Q4 of 2019 that: <ol style="list-style-type: none"> 1. Identifies a strategy of improving public communications and engagement (i.e., signage) about the street cleaning schedule; 2. Identifies the costs and cost recovery options related to towing vehicles in all areas of the City when scheduled street sweeping is underway; 3. Identifies additional deterrents and incentives that could result in residents moving their vehicles during scheduled street sweeping; and 4. Identifies the costs of adding an additional street sweeping during the year.
DIVISION/DEPARTMENT:	Roadways & Transportation
COMMENT:	Return Date: Q4 2019

REPORT #:	MN19-9
DATE TABLED/REFERRED:	6/24/2019
SUBJECT:	Councillor Andrew Stevens: Safe Sidewalks
MOTION:	That Administration prepare a report for Public Works and Infrastructure for Q4 of 2019 that: <ol style="list-style-type: none"> 1. Identifies the costs and implications of working towards sidewalk replacement within a reasonable amount of time of the completion of work related to the sidewalk's initial excavation; and 2. Identifies the costs of short-term mitigation efforts to work towards walkability (i.e., asphalt capping) to be completed immediately after sidewalk demolition when underground work is not being conducted, and in advance of a full replacement.
DIVISION/DEPARTMENT:	Roadways & Transportation
COMMENT:	Return Date: Q4 2019

REPORT #:	MN19-10
DATE TABLED/REFERRED:	8/26/19
SUBJECT:	Councillor Lori Bresciani: Drainage and Lot Grading Regulations
MOTION:	That Administration prepare a report for the Public Works and Infrastructure Committee in Q4 of 2020: <ol style="list-style-type: none"> 1. with a commercial, industrial, and residential greywater strategy; and 2. that the strategy include a focus on City-owned and operated facilities.
DIVISION/DEPARTMENT:	Roadways & Transportation
COMMENT:	Return Date: Q4 2020

**Public Works and Infrastructure Committee
List of Outstanding Items
November 30, 2019**

REPORT #:	MN19-14
DATE TABLED/REFERRED:	9/30/2019
SUBJECT:	Councillor Andrew Stevens and Councillor Jason Mancinelli: Greywater Strategy
MOTION:	That Administration prepare a report for the Public Works and Infrastructure Committee in Q4 of 2020: 1.with a commercial, industrial, and residential greywater strategy; and 2. that the strategy include a focus on City-owned and operated facilities.
DIVISION/DEPARTMENT:	Water, Waster & Environmental Services
COMMENT:	Return Date: Q4 2020