

Projected 2019-2021 Asset Preservation Plans

Roadway & Sidewalk Assets

Water & Sewer Assets

Bridge & Structure Assets



Table of Contents

Roadway & Sidewalk Preservation Plan	1.1
Roadway & Sidewalk Assets	1.3
Assumptions	1.3
2019-2021 Projected Budgets	1.4
2019 Planned Treatments, Unit Rates, & Quantities	1.4
Roadway & Sidewalk Treatment Descriptions	1.5
2019-2021 Projected Roadway & Sidewalk Project Locations	1.7
 Water & Sewer Preservation Plan	 2.1
Water & Sewer Assets	2.3
Assumptions	2.4
2019-2021 Projected Budgets	2.4
2019 Planned Treatments, Unit Rates, & Quantities	2.5
Water & Sewer Treatment Descriptions	2.5
2019-2021 Projected Water & Sewer Project Locations	2.7
 Bridges & Structures Preservation Plan	 3.1
Bridges & Structure Assets	3.3
Assumptions	3.3
2019-2021 Projected Budgets	3.3
2019-2021 Bridges Rehabilitation Project Descriptions	3.4
2019-2021 Bridges Rehabilitation Project Locations	3.5

Projected 2019-2021 Roadway & Sidewalk Preservation Plan



2019-2021 Projected Roadway Preservation



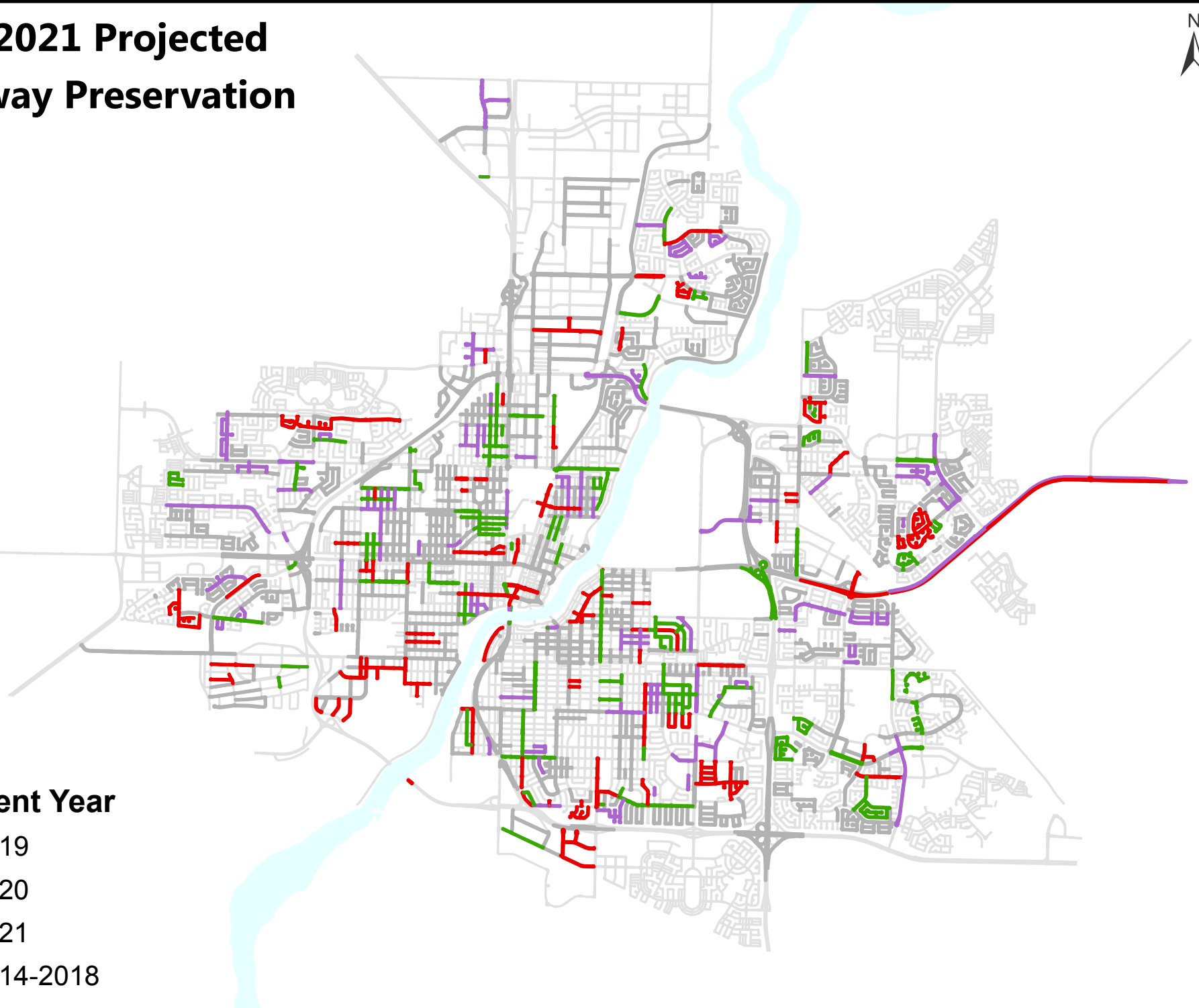
Treatment Year

— 2019

— 2020

— 2021

— 2014-2018



Roadway & Sidewalk Assets

Roadway and Sidewalk asset preservation management is a process of monitoring, maintaining, and preserving our roads and sidewalks effectively throughout their lifecycle. The goal is to employ effective decision making to optimize a cost effective mix of treatments, to maximize the number of roads and sidewalks treated to improve the networks as a whole.

Assumptions

The following assumptions were used to produce this roadway and sidewalk preservation plan document:

- Base funding is maintained for 2020 and maintained for 2021.
- Treatment quantities developed are based on adjusted previous year close out reports.
- The unit rate cost estimates are based on but not limited to: contractor unit rates, project management, administration, traffic control, miscellaneous surface preparation work, testing, and a contingencies.
- All locations are projected. Actual locations, quantities, and treatments may vary prior to construction.
- Project locations on the ward maps are identified by funding year, in anticipation that projects get completed during said funding year. There may be locations still under construction or planned for construction within an existing previous year contract funded through previous year funding sources.
- Sidewalk preservation for mitigating severely damaged sidewalk panels and safety maintenance of lightly damaged sidewalk panels will be performed adjacent to the roads within the road preservation program.
- A lane-km, as referred to in this document, is the calculation of the current paved area divided by a lane width of 3.8 metres and then divided by 1000 metres per kilometre which results the Lane-km.

2019-2021 Projected Budgets

Program	2018* Budget (\$M)	2019* Budget (\$M)	2020* Budget (\$M)	2021* Budget (\$M)
Local Roadway Preservation	\$10.700	\$10.700	\$10.700	\$10.700
Collector Roadway Preservation	\$5.850	\$5.500	\$5.600	\$5.600
Arterial Roadway Preservation	\$5.850	\$5.200	\$5.400	\$5.800
Expressway Roadway Preservation	\$3.900	\$3.500	\$3.700	\$3.700
Neighbourhood Sidewalk Preservation	\$3.400	\$3.900	\$4.200	\$4.200
Primary Sidewalk Preservation	\$2.100	\$2.500	\$3.200	\$3.200
Totals	\$31.800	\$31.300	\$32.800	\$32.800

*Budgets include a \$1.6 million one-time loan for 2017 CWWF roadway & sidewalk treatments to be paid off over 5 years by the 2018-2022 Roadway & Sidewalk Budgets.

2019 Planned Treatments, Unit Rates & Estimated Quantities

Treatment	Unit Rate	Estimated Treatment Quantity
Sidewalk Preservation:		
Curb Replacement	\$120-235/lin.m.	7 300 m
Sidewalk Replacement	\$130-215 / m ² .	15 600 m ²
Sidewalk Crack Filling	\$30-65 /lin.m.	8 100 m
Sidewalk Trip Ledge Removal	\$45-65 /lin.m.	1 650 m
Sidewalk Concrete Overlay	\$125-140 /m ² .	4 395 m
Road Preservation:		
Crack Sealing	\$14-27 /lin.m.	35 900 m
Microsurface Seam Banding and Spot Patching	\$16-18 /m ²	4 000 m ²
Patching (Blade/Shallow/Deep)	\$15-140 /m ²	10 500 m ²
Microsurfacing	\$8-10 /m ²	76.9 ln-km
Overlays	\$15-35 /m ²	13.6 ln-km
Resurfacing	\$30-40 /m ²	70.6 ln-km
Reconstruction	\$70-150 /m ²	21.5 ln-km
2019 Total Projected Roadway Lane-Kilometres Treated:		182.6 ln-km

Roadway & Sidewalk Treatment Descriptions

Crack Sealing – Crack sealing is a rubberized asphaltic material that is used to seal transverse and longitudinal cracks, open longitudinal seams, and minor fatigue cracking. Crack sealing prevents moisture infiltration into the roadway structure to reduce the chance of premature structural failure and potholes.

Microsurface Banding – Microsurface banding is pro-active maintenance treatment utilized to address depressed transverse cracks, open seam/centerline cold joint failures, and localized rutting.

Microsurface Spot Patching – Microsurface spot patching is utilized to address and seal localized low fatigue cracking, raveling, seal pot hole patching, and fill in depressions up to 38mm. The intent is to prevent water infiltration that would further deteriorate the roadway surface or structure and improve ride conditions where there were depressions.

Spot Blade Level or Hotbox Patching – Spot blade levelling or hotbox patching is aimed at restoring localized areas causing an effect on ride or drainage.

Mill & Fill Patching – Mill & Fill Patching utilizes a milling machine to remove localized deteriorated pavement to a depth of 60mm or greater to reach a competent asphalt base. The milled area is then tacked and paved in to the depth it was milled out.

Shallow Patching – Shallow patching is required when an area of failed or deteriorated asphalt needs to be milled off or removed to exposed stable existing granular substructure. The existing granular base is reshaped, compacted roll tested and new pavement is applied.

Deep Patching – Deep patching is required when an area of failed asphalt upon removal shows that the granular structure below the asphalt is not stable. The existing granular structure would be removed to a certain depth to accommodate a proper new structure. In some cases a sub drainage layer and/or geotextiles may need to be installed.

Microsurfacing – Microsurfacing is a surfacing treatment involving the placement of specified crushed graded aggregate with an asphalt emulsion. This treatment is placed on entire road surfaces that are structurally sound, with limited or no cracking, and with minimal surface imperfections. This treatment is typically used to address roadways with weathered or raveled surfaces.

Blade Level – Blade levelling is placing a layer of hot mix asphalt with a motor grader and then compacted with steel and rubber tire rollers for entire road segment. Its primary purpose is to improve the roadway surface profile, which results in improved drainage and ride.

Asphalt Overlays – Asphalt overlays are asphalt pavement laid to a thickness of 10mm up to 40mm. They serve as preservation treatment to provide a high quality surface wearing course up to providing structural capacity. This treatment is typically used on roadways with minor surface imperfections and signs of raveling or weathering or the road requires additional structural capacity.

Resurfacing – Resurfacing uses a milling machine to remove a layer of existing deteriorated pavement surface as well as to restore the roadway profile prior to adding a new asphalt layer. This treatment replaces the deteriorated pavement surface and restores the roadway profile.

Reconstruction – Reconstruction is used when the entire section or localized sections of roadway have structurally failed or the asphalt pavement has deteriorated and is unable to support its intended loads. Reconstruction may involve the partial or complete removal and replacement of the asphalt, base and subbase and may involve the removal and/or strengthening of a portion of the subgrade. Reconstruction treatments are categorized either as a “Reconstruction – Light” or “Reconstruction – Heavy”.

Water/Sewer Coordinated Road Works – Water and Sewer Road Restoration is used to restore the roadway outside the limits of the water/sewer work.

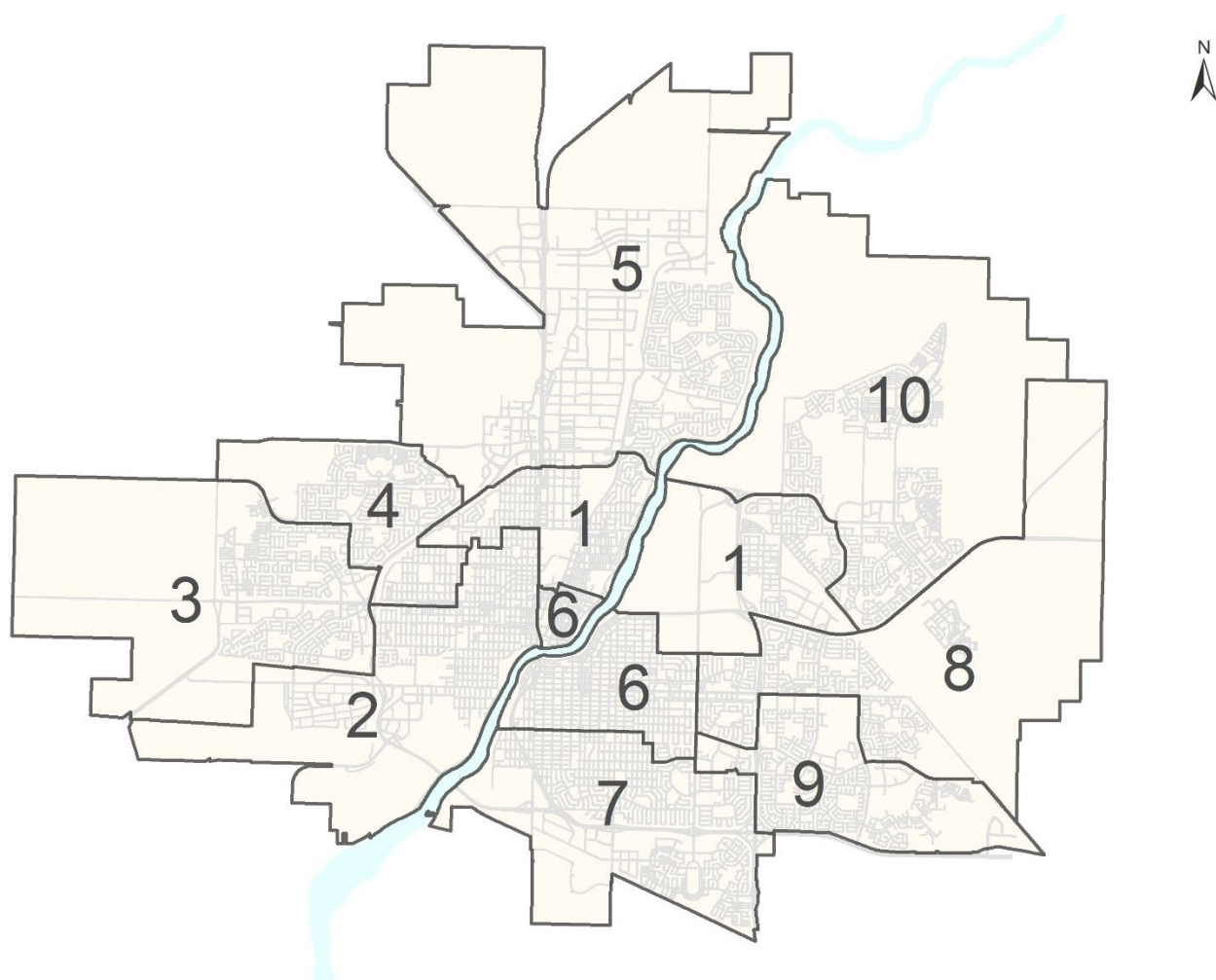
Sidewalk Trip Ledge Removal – Trip ledge removal is a cost-effective alternative to sidewalk replacement. Sidewalk panels with trip ledges are cut or ground down to eliminate trip hazards due to frost heaves or differential settlement. This method is used to remove any tripping hazard to ensure safe navigation for all ages and demographics.

Sidewalk Crack Filling – Crack filling treatment is used to seal cracks in the sidewalk resulting from expansion and contraction during the concrete curing process, temperature, or damage caused by other forces. Crack filling prevents moisture infiltration that may cause future deterioration of the sidewalk.

Sidewalk Concrete Overlay – Concrete overlays, with an approved two component high strength structural repair mortar, are used to repair medium and high scaled sidewalks that are structurally sound or panels with missing sections to return the surface to a smooth broomed finish.

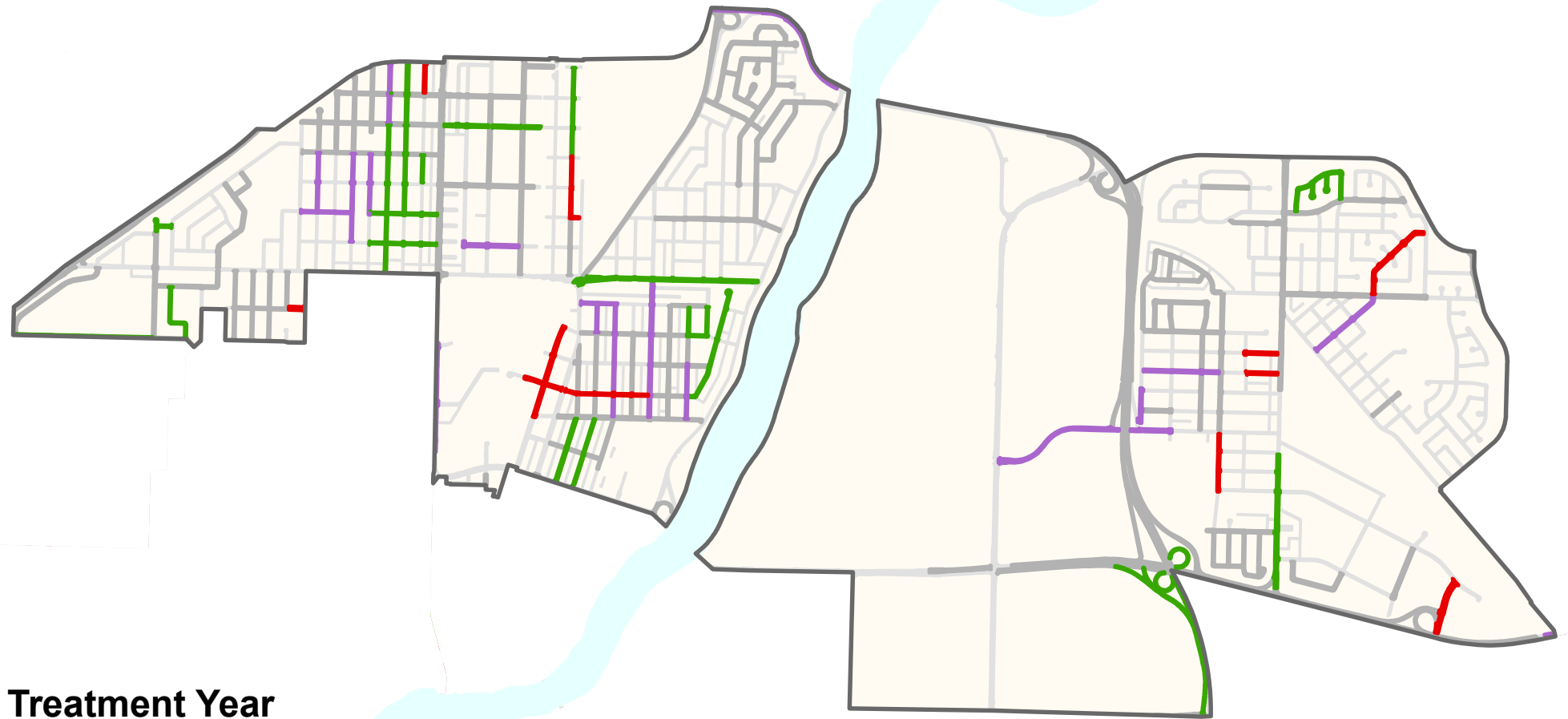
Sidewalk Panel and/or Curb Replacement – Panel and/or curb replacement is the last option for sidewalk repair in order to ensure safe pedestrian traffic. If other treatment options are not achievable due to damage extent, safety, logistics, costs, or aesthetics, a sidewalk panel is to be replaced.

2019-2021 Projected Roadway & Sidewalk Preservation Project Locations



2019-2021 Projected Roadway Preservation

Ward 1



Treatment Year

- 2019
- 2020
- 2021
- 2014-2018

2019 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
108th St W	108th St W / Circle Dr Overpass	Bryans Ave	Minor Arterial	Road Preservation	Resurface	0.9
108th St W	Preston Ave N	108th St W / Circle Dr Overpass	Major Arterial	Road Preservation	Resurface	2.7
111th St W	Lanyon Ave	Bryans Ave	Local	Road Preservation	Microsurface	1.5
34th St E	Alberta Ave	Quebec Ave	Local	W&S Restoration	Resurface	1.2
35th St W	Ave I N	Ave F N	Local	Road Preservation	Microsurface	0.7
4th Ave N	Duke St	Duchess St	Local	W&S Restoration	Resurface	0.4
5th Ave N	Duke St	Duchess St	Local	W&S Restoration	Resurface	0.4
5th Ave N	Queen St	Duke St	Local	W&S Restoration	Reconstruction	1.1
7th Ave N	Queen St	33rd St E	Collector	W&S Restoration	Resurface	2.8
9th Ave N	Queen St	Princess St	Local	W&S Restoration	Reconstruction	0.8
Ave D N	38th St W	End	Local	W&S Restoration	Reconstruction	1.0
Ave E N	35th St W	37th St W	Local	Road Preservation	Microsurface	0.8
Ave F N	34th St W	37th St W	Local	Road Preservation	Microsurface	1.2
Ave H N	35th St W	37th St W	Local	Road Preservation	Microsurface	0.8
Duchess St	3rd Ave N / Warman Rd	5th Ave N	Collector	W&S Restoration	Reconstruction	0.5
Dunlop St	Gray Ave	115th St E	Collector	W&S Restoration	Resurface	1.5
Idylwyld Dr N NB	25th St E	31st St W / 31st St E	Major Arterial	Road Preservation	Resurface	1.4
Lanyon Ave	108th St W / Circle Dr NE Ramp NB	110th St W	Local	Road Preservation	Reconstruction	0.7
2018 Totals						20.3

2020 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
10th Ave N	Duke St	Duchess St	Local	W&S Restoration	Resurface	0.4
2nd Ave N	37th St E	40th St E	Local	Road Preservation	Microsurface	1.3
31st St W	Ave W N / Edmonton Ave	Ave P N	Collector	Road Preservation	Microsurface	2.9
33rd St E	33rd St E	33rd St E WB	Local	Road Preservation	Resurface	0.1
33rd St E	5th Ave N	Spadina Cres E	Minor Arterial	Road Preservation	Resurface	2.8
33rd St E EB	3rd Ave N / Warman Rd	5th Ave N	Minor Arterial	Road Preservation	Resurface	0.5
33rd St E WB	5th Ave N	3rd Ave N / Warman Rd	Minor Arterial	Road Preservation	Resurface	0.6
34th St W	Ave E N	Idylwyld Dr N SB	Local	Road Preservation	Microsurface	0.9
35th St W	Ave E N	Idylwyld Dr N SB	Local	Road Preservation	Microsurface	0.9
38th St E	Idylwyld Dr N	Rail	Local	Road Preservation	Resurface	1.9
3rd Ave N	25th St E WB	Queen St	Collector	W&S Restoration	Resurface	1.2
4th Ave N	25th St E WB	Queen St	Local	W&S Restoration	Resurface	1.0
9th Ave N	Duke St	Duchess St	Local	W&S Restoration	Resurface	0.4
Ave B N	36th St W	37th St W	Local	Road Preservation	Microsurface	0.4
Ave C N	35th St W	38th St W	Local	Road Preservation	Microsurface	1.2
Ave C N	38th St W	41st St W	Collector	W&S Restoration	Resurface	1.7
Ave D N	33rd St W	38th St W	Local	Road Preservation	Microsurface	1.9
Ave P N	Edmonton Ave	End of Cul-De-Sac	Local	Road Preservation	Resurface	0.3
Bowman St	Ave P N	Howell Ave	Local	Road Preservation	Reconstruction	0.2
Central Ave	College Dr	107th St W	Major Arterial	Road Preservation	Resurface	3.1
Delayen Cres	Rossmo Rd	Rossmo Rd	Local	Road Preservation	UTO	1.7
Delayen Crt	End of Cul-De-Sac	Delayen Cres	Local	Road Preservation	UTO	0.3
Delayen Pl	End of Cul-De-Sac	Delayen Cres	Local	Road Preservation	UTO	0.3
Duke St	9th Ave N	10th Ave N	Local	W&S Restoration	Resurface	0.3
King Cres	9th Ave N	Duke St	Local	Road Preservation	Reconstruction	1.0
King Cres	Duke St	End of Cul-De-Sac	Local	Road Preservation	Reconstruction	0.9
Tiffin Cres	31st St W	Faulkner Cres	Local	Road Preservation	Reconstruction	0.9
2020 Totals						29.3

2021 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
111th St W	Violet Ave	Central Ave	Local	Road Preservation	Resurface	0.7
112th St W	Violet Ave	Central Ave	Local	Road Preservation	Resurface	0.6
1st Ave N	Queen St	Duke St	Local	Road Preservation	Resurface	2.2
2nd Ave N	35th St E	37th St E	Local	W&S Restoration	Reconstruction	0.9
32nd St W WB	Ave H N	Ave H N	Local	Road Preservation	Reconstruction	0.4
32nd St W WB	Ave I N	Ave G N	Local	Road Preservation	Reconstruction	0.4
35th St E	2nd Ave N	End	Local	Road Preservation	Reconstruction	0.1
Ave B N	39th St W	40th A St W	Local	Road Preservation	Microsurface	0.5
Egbert Ave	105th St W	108th St W	Collector	Road Preservation	Resurface	1.0
King St	2nd Ave N	7th Ave N	Local	Road Preservation	Resurface	1.1
King St	City Yards	2nd Ave N	Local	Road Preservation	Resurface	0.7
McKercher Dr NB	College Dr / McKercher Dr Overpass NB	105th St E / Aspen Pl	Major Arterial	Road Preservation	Resurface	0.7
McKercher Dr SB	105th St E / Aspen Pl	College Dr / McKercher Dr Overpass SB	Major Arterial	Road Preservation	Resurface	0.7
Spruce Dr	115th St E	Forest Dr / Rossmo Rd	Local	Road Preservation	Resurface	1.9
2021 Totals						11.8

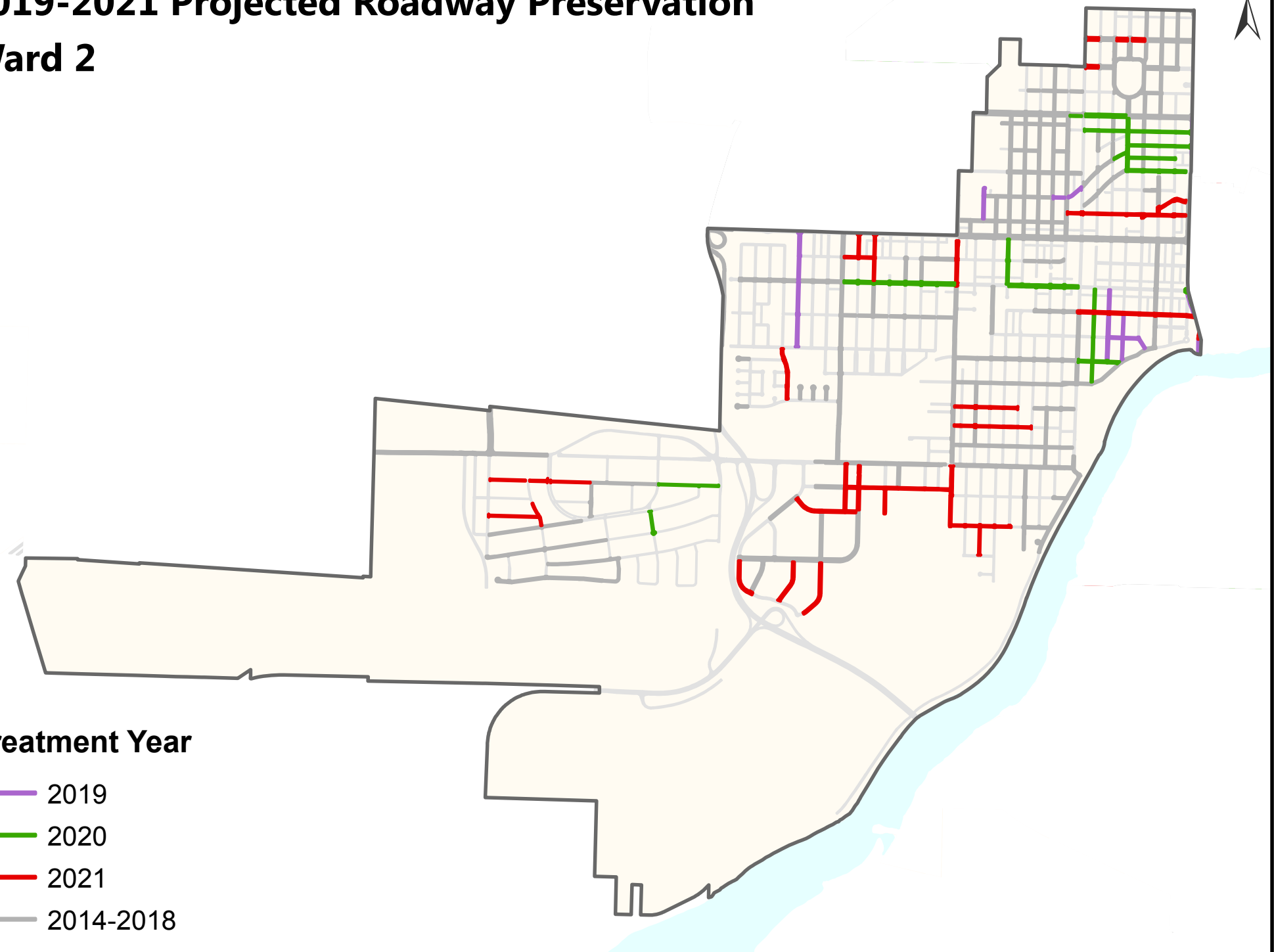
	Lane-Km
2019	20.3
2020	29.3
2021	11.8
2019-2021 Totals	61.3

2019-2021 Projected Roadway Preservation

Ward 2

Treatment Year

- 2019
- 2020
- 2021
- 2014-2018



2019 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
17th St W	Ave H S	Ave E S	Collector	Road Preservation	Resurface	0.9
18th St W	Ave F S	Ave D S	Local	W&S Restoration	Reconstruction	0.7
29th St W EB	Ave I N	Ave E N	Collector	Road Preservation	Microsurface	0.0
32nd St W EB	Ave F N	Ave D N	Local	Road Preservation	Reconstruction	0.0
32nd St W WB	Ave D N	Ave F N	Local	Road Preservation	Reconstruction	0.0
Ave D S	Spadina Cres W	18th St W	Local	W&S Restoration	Reconstruction	0.2
Ave E S	17th St W / Spadina Cres W	19th St W	Local	W&S Restoration	Reconstruction	0.8
Ave F S	17th St W	20th St W	Local	W&S Restoration	Reconstruction	1.9
Ave G S	16th St W / Spadina Cres W	20th St W	Local	W&S Restoration	Reconstruction	1.6
Bedford Rd	Ave J N	Ave H N	Local	Road Preservation	Reconstruction	0.5
McMillan Ave	23rd St W	Bedford Rd	Local	Road Preservation	Microsurface	0.8
Witney Ave S	18th St W	22nd St W	Collector	W&S Restoration	Resurface	2.6
2018 Totals						9.9

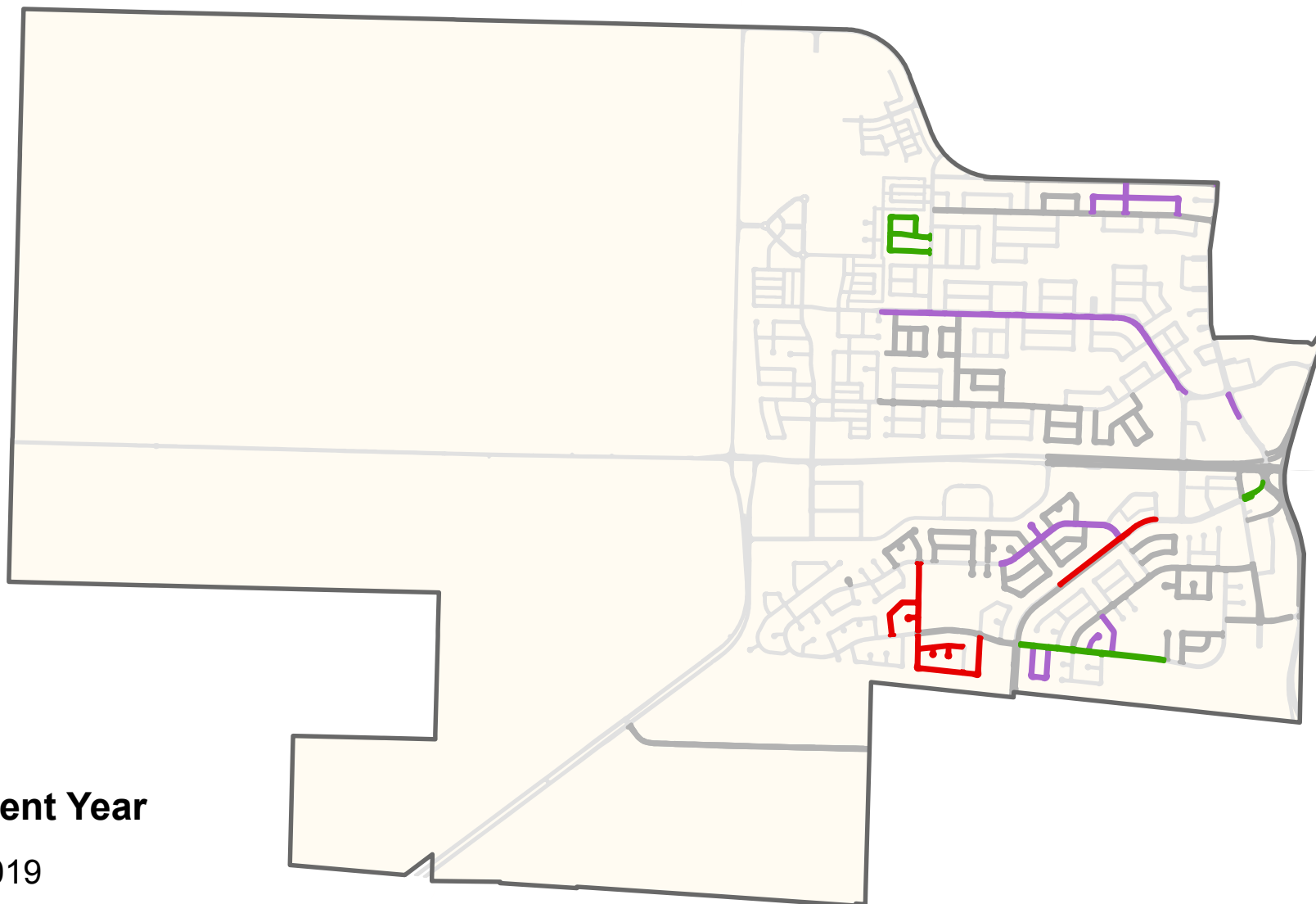
2020 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
17th St W	Ave H S	Ave E S	Collector	W&S Restoration	Resurface	0.9
20th St W	Ave M S	Ave H S	Minor Arterial	Road Preservation	Resurface	2.4
20th St W	Ave W S	Ave P S	Minor Arterial	Road Preservation	Resurface	3.4
25th St W	Ave E N	Idylwyld Dr N SB	Collector	W&S Restoration	Reconstruction	1.4
26th St W	Ave E N	Ave B N	Local	W&S Restoration	Reconstruction	0.8
27th St W	Ave E N	Idylwyld Dr N	Local	W&S Restoration	Reconstruction	1.1
28th St W	Ave H N	Idylwyld Dr N	Local	W&S Restoration	Reconstruction	1.9
29th St W EB	Ave I N	Ave E N	Collector	Road Preservation	Microsurface	0.8
29th St W WB	Ave E N	Ave H N	Collector	Road Preservation	Resurface	0.6
Ave E N	25th St W / Walmer Rd	29th St W	Local	W&S Restoration	Reconstruction	1.3
Ave G S	16th St W / Spadina Cres W	20th St W	Local	W&S Restoration	Reconstruction	1.6
Ave M S	20th St W	22nd St W	Local	W&S Restoration	Resurface	1.0
Bedford Rd	Ave F N	Ave E N	Local	W&S Restoration	Reconstruction	0.3
Caen St	Lancaster Blvd	Dundonald Ave	Collector	W&S Restoration	Reconstruction	0.7
Lancaster Blvd	Dieppe St	Ortona St	Collector	Road Preservation	Reconstruction	0.3
2020 Totals						18.4

2021 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
13th St W	Ave P S	Ave K S	Local	Road Preservation	Microsurface	1.3
15th St W	Ave P S	Ave L S	Local	Road Preservation	Microsurface	1.1
19th St W	Ave H S	2nd Ave S	Minor Arterial	Road Preservation	Microsurface	4.1
21st St W	Ave W S	Ave U S	Local	Road Preservation	Resurface	0.5
23rd St W	Ave I N	Idylwyld Dr N	Local	Road Preservation	Resurface	2.4
31st St W EB	Ave H N	Ave G N	Local	Road Preservation	Reconstruction	0.2
31st St W WB	Ave G N	Ave H N	Local	Road Preservation	Reconstruction	0.2
32nd St W EB	Ave F N	Ave D N	Local	Road Preservation	Reconstruction	0.4
32nd St W WB	Ave D N	Ave F N	Local	Road Preservation	Reconstruction	0.4
Ave C N	23rd St W	Jamieson St	Local	Road Preservation	Resurface	0.5
Ave N S	Wellington St	Schuyler St	Local	Road Preservation	Reconstruction	0.5
Ave P S	20th St W	22nd St W	Major Arterial	Road Preservation	Resurface	1.2
Ave P S	Schuyler St	11th St W	Collector	Road Preservation	Resurface	1.5
Ave U S	20th St W	22nd St W EB	Local	Road Preservation	Resurface	0.8
Ave U S	End	Dudley St	Local	Road Preservation	Reconstruction	0.8
Ave V S	21st St W	22nd St W EB	Local	Road Preservation	Resurface	0.4
Ave W S	Schuyler St	11th St W	Collector	Road Preservation	Microsurface	1.2
Ave X S	Schuyler St	11th St W	Local	Road Preservation	Microsurface	1.2
Caen St	Elevator Rd	Rockingham Ave	Collector	Road Preservation	Reconstruction	1.3
Dudley St	Ave W S	Ave P S	Local	Road Preservation	Reconstruction	1.9
Dudley St	Ave X S	Ave W S	Local	Road Preservation	Microsurface	0.3
Haida Ave	Ortona St	Arnhem St	Local	Road Preservation	Reconstruction	0.4
Jamieson St	Ave C N	Idylwyld Dr N	Collector	Road Preservation	Resurface	0.3
Jonathon Ave	Malouf Rd	Fletcher Rd	Local	Road Preservation	Microsurface	1.1
Malouf Rd	Fletcher Rd	Barnes Ave	Local	Road Preservation	Resurface	1.1
Malouf Rd	Jonathon Ave	Fletcher Rd	Local	Road Preservation	Microsurface	1.5
Normandy St	Elevator Rd	Haida Ave	Local	Road Preservation	Reconstruction	0.7
Schuyler St	Ave P S	Ave L S	Collector	Road Preservation	Resurface	1.1
Schuyler St	Dawes Ave	Ave W S / Fletcher Rd	Local	Road Preservation	Microsurface	1.8
2021 Totals						30.1

	Lane-Km
2019	9.9
2020	18.4
2021	30.1
2019-2021 Totals	58.4

2019-2021 Projected Roadway Preservation

Ward 3



Treatment Year

— 2019

— 2020

— 2021

— 2014-2018

2019 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Blue Pl	McCormack Rd	End	Local	Road Preservation	UTO	0.3
Cartier Cres	John A MacDonald Rd	John A MacDonald Rd	Local	Road Preservation	Microsurface	2.0
Confederation Dr SB	Laurier Dr	Mall Entrance	Major Arterial	Road Preservation	Resurface	0.4
Diefenbaker Dr EB	End	Steeves Ave	Collector	Road Preservation	Microsurface	0.8
Diefenbaker Dr EB	Steeves Ave	Diefenbaker Dr / Laurier Dr	Minor Arterial	Road Preservation	Microsurface	5.3
Diggle Pl	Pendygrasse Rd	End	Local	Road Preservation	UTO	0.4
Lochrie Cres	Pendygrasse Rd	Pendygrasse Rd	Local	Road Preservation	UTO	1.3
McCormack Rd	Postnikoff Cres	Fairlight Dr	Collector	Road Preservation	Resurface	1.1
McCormack Rd	Streb Cres	Postnikoff Cres	Collector	Road Preservation	UTO	2.0
Peeling Ave	Pendygrasse Rd	Forrester Rd	Local	Road Preservation	UTO	0.7
Tilley Ave	John A MacDonald Rd	33rd St W	Local	Road Preservation	Microsurface	0.6
2019 Totals						14.8

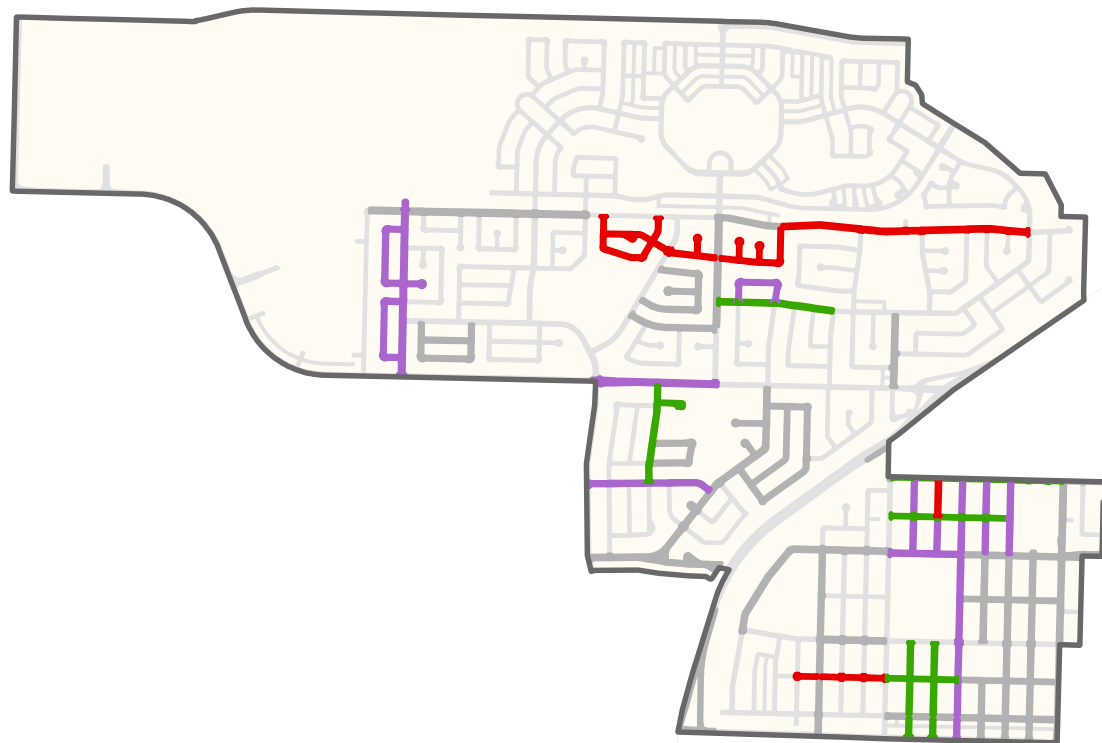
2020 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Carter Cres	Steeves Ave	Steeves Ave	Local	Road Preservation	Microsurface	1.5
Carter Way	Carter Cres	Carter Cres	Local	Road Preservation	Microsurface	0.9
Fairlight Dr EB	Fairmont Dr	Fairmont Dr	Major Arterial	Road Preservation	Resurface	0.2
Fairlight Dr WB	Circle Dr / 22nd St W SW Ramp	Fairmont Dr	Major Arterial	Road Preservation	Resurface	0.4
Pendygrasse Rd	Fairlight Dr	Henigman Pl	Collector	Road Preservation	Resurface	3.4
2020 Totals						6.4

2021 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Diefenbaker Dr NB	Fairlight Dr	22nd St W	Major Arterial	Road Preservation	Microsurface	0.9
Diefenbaker Dr SB	22nd St W	Fairlight Dr	Major Arterial	Road Preservation	Microsurface	0.8
Fairlight Dr EB	McCormack Rd / Olmstead Rd	Fairmont Dr	Major Arterial	Road Preservation	Microsurface	2.3
Fairlight Dr WB	Fairmont Dr	McCormack Rd / Pendygrasse Rd	Major Arterial	Road Preservation	Microsurface	4.4
Sherry Cres	McCormack Rd	McCormack Rd	Local	Road Preservation	Microsurface	2.3
Sherry Crt	End of Cul-De-Sac	Sherry Way	Local	Road Preservation	Reconstruction	0.2
Sherry Pl	End of Cul-De-Sac	Sherry Way	Local	Road Preservation	Microsurface	0.2
Sherry Way	Sherry Cres	Sherry Cres	Local	Road Preservation	Microsurface	0.7
Smith Cres	McCormack Rd	Smith Rd	Local	Road Preservation	Microsurface	0.9
Smith Pl	End of Cul-De-Sac	Smith Rd	Local	Road Preservation	Microsurface	0.2
Smith Rd	McCormack Rd	McCormack Rd	Collector	Road Preservation	Microsurface	1.2
2021 Totals						14.0

	Lane-Km
2019	14.8
2020	6.4
2021	14.0
2019-2021 Totals	35.2

2019-2021 Projected Roadway Preservation

Ward 4



Treatment Year

- 2019
- 2020
- 2021
- 2014-2018

2019 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
29th St W	Ave W N	Ave T N	Collector	Road Preservation	Resurface	1.1
33rd St W	Confederation Dr / Wedge Rd	Junor Ave	Major Arterial	Road Preservation	Resurface	3.0
Ave R N	29th St W	31st St W	Local	Road Preservation	Microsurface	1.1
Ave S N	29th St W	31st St W	Local	Road Preservation	Microsurface	1.0
Ave T N	22nd St W	31st St W	Local	Road Preservation	Microsurface	3.7
Ave U N	29th St W	30th St W	Local	Road Preservation	Microsurface	0.5
Ave V N	29th St W	31st St W	Local	Road Preservation	Microsurface	1.0
Latrace Rd	33rd St W	37th St W	Collector	Road Preservation	Microsurface	3.1
Latrace Rd	37th St W	End	Collector	Road Preservation	Microsurface	0.1
Lennon Cres	Latrace Rd	Latrace Rd	Local	Road Preservation	UTO	1.3
Lewis Cres	Richardson Rd	Richardson Rd	Local	Road Preservation	SUTO	1.0
Massey Dr	Confederation Dr	Northumberland Ave	Collector	Road Preservation	Microsurface	1.9
Murray Pl	Latrace Rd	End	Local	Road Preservation	Microsurface	0.3
Robinson Cres	Latrace Rd	Latrace Rd	Local	Road Preservation	UTO	1.3
2019 Totals						20.5

2020 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
30th St W	Ave W N	Ave R N	Local	Road Preservation	Reconstruction	1.4
Ave U N	22nd St W WB	Rusholme Rd	Local	Road Preservation	Microsurface	1.4
Ave V N	22nd St W WB	Rusholme Rd	Local	Road Preservation	Microsurface	1.4
Bedford Rd	Ave W N	Ave T N	Local	Road Preservation	Microsurface	0.7
Matheson Dr	Massey Dr	33rd St W	Local	Road Preservation	Microsurface	2.9
Matheson Pl	Matheson Dr	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.4
Richardson Rd	Junor Ave	Ave Y N	Collector	Road Preservation	Microsurface	2.4
2020 Totals						10.6

2021 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
37th St W	Peterson Cres	Richardson Rd	Collector	Road Preservation	Resurface	4.2
Ave U N	30th St W	31st St W	Local	W&S Restoration	Reconstruction	0.6
Bedford Rd	Montreal Ave N	Ave W N	Local	Road Preservation	Reconstruction	1.0
McCann Way	McCann Way	McCann Way	Local	Road Preservation	Microsurface	0.1
McCann Way	Nixon Cres	George Rd / Ward Rd	Local	Road Preservation	Reconstruction	0.2
McCann Way	Nixon Cres	Nixon Cres	Local	Road Preservation	Microsurface	0.6
Nixon Cres	37th St W	37th St W	Local	Road Preservation	Microsurface	1.6
Peterson Cres	Junor Ave	37th St W	Local	Road Preservation	SUTO	1.2
Peterson Crt	Peterson Cres	End of Cul-De-Sac	Local	Road Preservation	SUTO	0.3
Peterson Terr	Peterson Cres	End of Cul-De-Sac	Local	Road Preservation	SUTO	0.3
Ward Crt	Ward Rd	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.3
Ward Rd	George Rd	Junor Ave	Local	Road Preservation	Microsurface	0.6
2021 Totals						10.9

	Lane-Km
2019	20.5
2020	10.6
2021	10.9
2019-2021 Totals	42.0

2019-2021 Projected Roadway Preservation

Ward 5

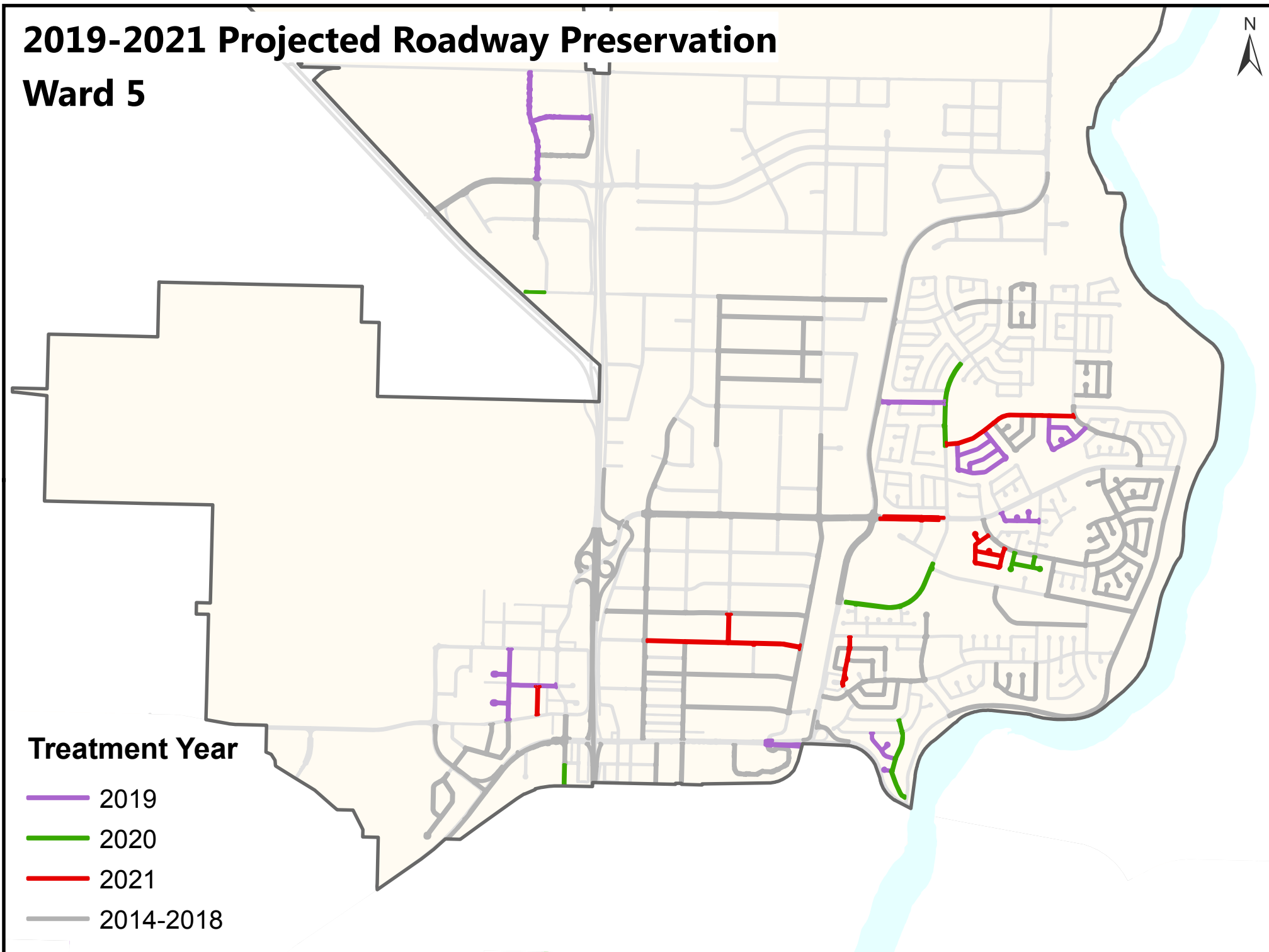
Treatment Year

— 2019

— 2020

— 2021

— 2014-2018



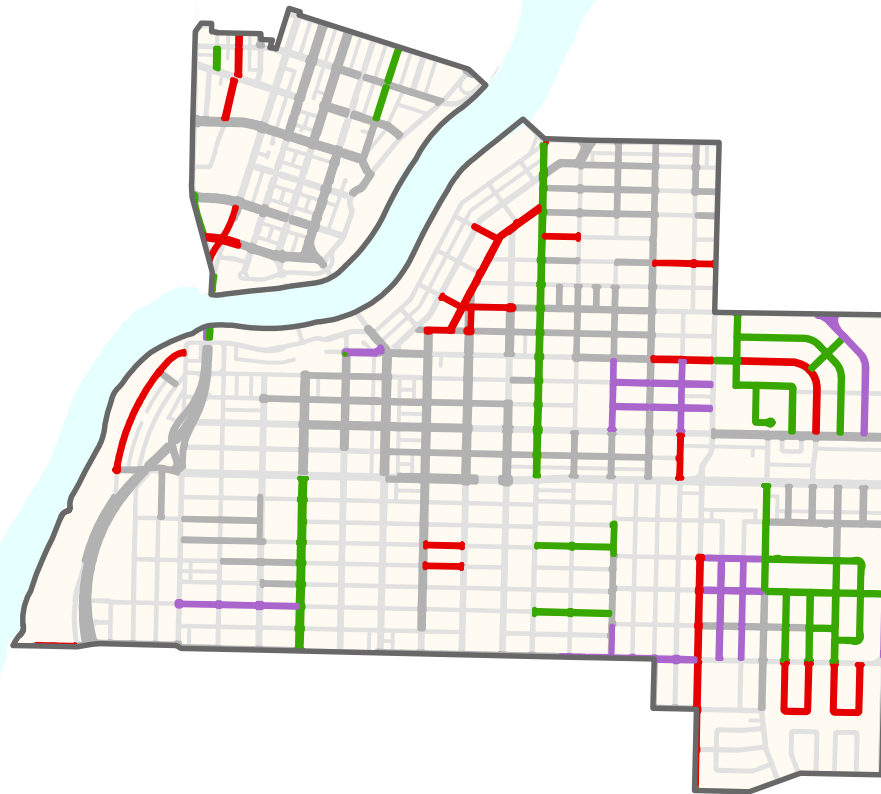
2019 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
David Knight Cres	Meilicke Rd	Meilicke Rd	Local	Road Preservation	Microsurface	2.6
David Knight Lane	David Knight Cres	David Knight Cres	Local	Road Preservation	Microsurface	0.8
David Knight Way	David Knight Cres	David Knight Cres	Local	Road Preservation	Microsurface	0.9
Goerzen St	Wanuskewin Rd	Russell Rd	Collector	Road Preservation	UTO	2.0
Hanselman Ave	Cynthia St	45th St W	Collector	Road Preservation	Microsurface	1.9
Hanselman Crt	End	Hanselman Ave	Local	Road Preservation	Microsurface	0.5
Hanselman Pl	End	Hanselman Ave	Local	Road Preservation	Microsurface	0.5
Haskamp St	Hanselman Ave	Ave C N	Local	Road Preservation	Microsurface	1.2
JJ Thiessen Cres	Meilicke Rd	Silverwood Rd	Local	Road Preservation	Microsurface	1.7
JJ Thiessen Terr	JJ Thiessen Cres	End	Local	Road Preservation	Microsurface	0.2
JJ Thiessen Way	JJ Thiessen Cres	JJ Thiessen Cres	Local	Road Preservation	Microsurface	0.6
Neepawa St	Thatcher Ave	Wakooma St	Local	Road Preservation	Microsurface	1.8
Nokimos Bay	Nokomis Cres	End	Local	Road Preservation	Microsurface	0.1
Nokomis Cres	Lenore Dr	La Loche Rd	Local	Road Preservation	Microsurface	1.0
Nokomis Pl	Nokomis Cres	End	Local	Road Preservation	Microsurface	0.2
Pembina Pl	End	Pembina Ave	Local	Road Preservation	Microsurface	0.2
Red Deer Rd	Pembina Ave	Columbia Dr	Local	Road Preservation	Microsurface	0.8
Souris Crt	Red Deer Rd	End	Local	Road Preservation	Microsurface	0.2
Thatcher Ave	Marquis Dr W	71st St W	Collector	Road Preservation	Resurface	3.6
2018 Totals						21.0
2020 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
60th St W	Dead End	Thatcher Ave	Local	Road Preservation	Reconstruction	0.3
Pembina Ave	Columbia Dr	Red River Rd	Local	Road Preservation	Reconstruction	0.2
Pembina Ave	Spadina Cres E	Columbia Dr	Local	Road Preservation	Resurface	1.9
Primrose Dr	Warman Rd	Cree Cres	Minor Arterial	Road Preservation	Resurface	3.2
Russell Rd	Meilicke Rd	Wakabayashi Cres	Collector	Road Preservation	Microsurface	2.6
Turtle Cres	Redberry Rd	Redberry Rd	Local	Road Preservation	UTO	1.0
Turtle Crt	End of Cul-De-Sac	Turtle Cres	Local	Road Preservation	UTO	0.2
Turtle Pl	Turtle Cres	End of Cul-De-Sac	Local	Road Preservation	UTO	0.2
2020 Totals						9.5
2021 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
46th St E	Faithfull Ave	Millar Ave	Collector	Road Preservation	Resurface	4.4
Cochin Cres	Redberry Rd	Redberry Rd	Local	Road Preservation	UTO	1.8
Cochin Pl	Cochin Way	End of Cul-De-Sac	Local	Road Preservation	UTO	0.1
Cochin Terr	Cochin Cres	End of Cul-De-Sac	Local	Road Preservation	UTO	0.2
Cochin Way	Cochin Cres	Cochin Cres	Local	Road Preservation	UTO	0.6
Lenore Dr EB	Wanuskewin Rd / Warman Rd	Primrose Dr / Russell Rd	Major Arterial	Road Preservation	Resurface	1.3
Lenore Dr WB	Primrose Dr / Russell Rd	Wanuskewin Rd / Warman Rd	Major Arterial	Road Preservation	Resurface	1.3
Meilicke Rd	Russell Rd	Silverwood Rd	Collector	Road Preservation	Microsurface	3.3
Speers Ave	Cynthia St	Haskamp St	Local	Road Preservation	SUTO	0.8
St Lawrence Cres	St Lawrence Crt	Churchill Dr	Local	Road Preservation	Resurface	1.5
Wentz Ave	46th St E	47th St E	Collector	Road Preservation	Resurface	0.8
2021 Totals						16.1
						Lane-Km
						2019 21.0
						2020 9.5
						2021 16.1
2019-2021 Totals						46.6

2019-2021 Projected Roadway Preservation Ward 6



Treatment Year

- 2019
- 2020
- 2021
- 2014-2018



2019 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
10th St E	Munroe Ave S	Cumberland Ave S	Local	Road Preservation	Microsurface	1.4
11th St E	Munroe Ave S	Cumberland Ave S	Local	Road Preservation	Microsurface	1.4
12th St E	Eastlake Ave	Broadway Ave	Local	W&S Restoration	Resurface	0.7
12th St E	Wiggins Ave S	Cumberland Ave S	Collector	Road Preservation	Resurface	0.0
2nd St E	Lorne Ave	Victoria Ave	Local	W&S Restoration	Reconstruction	1.4
3rd St E	Cumberland Ave S	Louise Ave	Local	Road Preservation	Microsurface	1.0
5th St E	Cumberland Ave S	Louise Ave	Local	Road Preservation	Microsurface	0.7
Bate Cres	Main St	14th St E	Local	W&S Restoration	Reconstruction	2.2
Ewart Ave	Main St	12th St E	Local	Road Preservation	Microsurface	0.8
Jackson Ave	Taylor St E	5th St E	Local	Road Preservation	Microsurface	1.4
Munroe Ave S	Main St	12th St E	Local	Road Preservation	Microsurface	0.8
Park Ave	Taylor St E	5th St E	Local	Road Preservation	Microsurface	1.1
Preston Ave S NB	Louise Ave / Louise St	Armistice Way	Major Arterial	Road Preservation	Resurface	0.9
Taylor St E	McKinnon Ave S	Cumberland Ave S	Minor Arterial	W&S Restoration	Resurface	2.3
2018 Totals						15.9

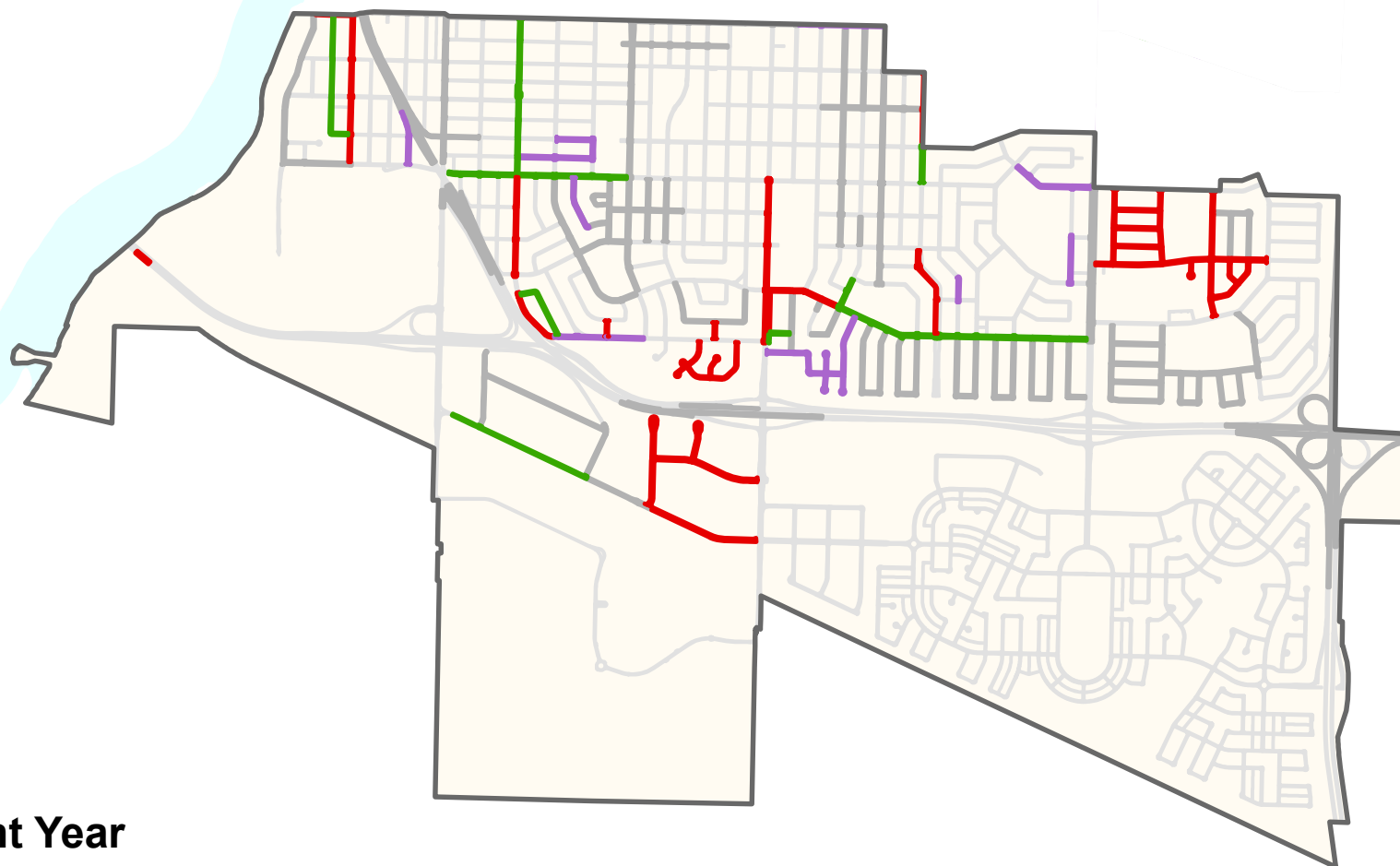
2020 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
1st St E	Sommerfeld Ave	Grosvenor Ave	Local	Road Preservation	Microsurface	0.3
2nd St E	Clarence Ave S	Munroe Ave S	Local	Road Preservation	Reconstruction	1.1
3rd St E	Louise Ave	Preston Ave S	Local	Road Preservation	Microsurface	1.8
5th Ave N	23rd St E	25th St E	Local	Road Preservation	Resurface	1.1
5th St E	Clarence Ave S	Munroe Ave S	Local	Road Preservation	Reconstruction	0.9
5th St E	Louise Ave	Grosvenor Ave	Local	Road Preservation	Microsurface	1.0
Clarence Ave S	12th St E	Saskatchewan Cres E	Major Arterial	W&S Restoration	Resurface	3.7
Clarence Ave S	8th St E	12th St E	Major Arterial	Road Preservation	Resurface	2.0
Copland Cres	Main St	Leslie Ave	Local	Road Preservation	Microsurface	1.5
Copland Crt	End of Cul-De-Sac	Copland Cres	Local	Road Preservation	Microsurface	0.7
Garrison Cres	Cumberland Ave S	Leslie Ave	Collector	Road Preservation	Resurface	0.4
Grosvenor Ave	Taylor St E	5th St E / Shannon Cres	Local	Road Preservation	Microsurface	1.6
Isbister St	Garrison Cres	Bate Cres	Local	Road Preservation	Microsurface	0.6
Lake Cres	Leslie Ave	Main St WB	Local	Road Preservation	Microsurface	2.7
Leslie Ave	Copland Cres	14th St E	Local	Road Preservation	Microsurface	1.1
Louise Ave	3rd St E	8th St E	Collector	Road Preservation	Microsurface	1.6
Morgan Ave	Taylor St E	3rd St E	Local	Road Preservation	Microsurface	1.0
Munroe Ave S	5th St E	6th St E	Local	Road Preservation	Reconstruction	0.4
Shannon Cres	Grosvenor Ave	Grosvenor Ave	Local	Road Preservation	Microsurface	1.8
Sommerfeld Ave	Taylor St E	3rd St E	Local	Road Preservation	Microsurface	1.0
Victoria Ave NB	Taylor St E	8th St E	Collector	Road Preservation	Resurface	1.6
Victoria Ave SB	8th St E	Taylor St E	Collector	Road Preservation	Resurface	1.6
Wall St	23rd St E	24th St E	Local	Road Preservation	Reconstruction	0.3
2018 Totals						29.8

2021 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
12th St E	Wiggins Ave S	Cumberland Ave S	Collector	Road Preservation	Resurface	1.0
13th St E	Dufferin Ave	Temperance St	Local	W&S Restoration	Reconstruction	0.3
14th St E	Temperance St	Albert Ave	Local	W&S Restoration	Reconstruction	0.6
14th St E	University Dr	Temperance St	Local	W&S Restoration	Reconstruction	0.2
16th St E	University Dr	Temperance St	Local	W&S Restoration	Reconstruction	0.3
1st Ave S SB	20th St E	Idylwyld Dr S	Expressway	Road Preservation	Microsurface	0.7
4th St E	Dufferin Ave	Lansdowne Ave	Local	Road Preservation	Reconstruction	0.4
5th St E	Dufferin Ave	Lansdowne Ave	Local	Road Preservation	Reconstruction	0.4
Aird St	Clarence Ave N / Clarence Ave S	McKinnon Ave N / McKinnon Ave S	Local	W&S Restoration	Reconstruction	0.4
Colony St	Wiggins Ave S	Cumberland Ave S	Local	Road Preservation	Reconstruction	0.7
Cumberland Ave S	Adelaide St E	5th St E	Minor Arterial	Road Preservation	Resurface	3.8
Ewart Ave	8th St E	Main St	Local	Road Preservation	Reconstruction	1.2
Garrison Cres	Main St	Leslie Ave	Collector	Road Preservation	Resurface	2.3
Grosvenor Cres	Taylor St E	Taylor St E	Local	Road Preservation	Microsurface	1.6
Lansdowne Ave NB	13th St E	14th St E	Local	W&S Restoration	Reconstruction	0.7
Morgan Ave	Sommerfeld Ave	Taylor St E	Local	Road Preservation	Microsurface	0.9
Pacific Ave	22nd St E	25th St E	Local	Road Preservation	Resurface	1.5
Saskatchewan Cres W	8th St W	Idylwyld Cres / Saskatchewan Cres E	Collector	Road Preservation	SUTO	1.7
Sommerfeld Ave	Morgan Ave	Taylor St E	Local	Road Preservation	Microsurface	0.6
Taylor St W	St Henry Ave	Herman Ave / Saskatchewan Cres W	Collector	Road Preservation	Resurface	0.7
Temperance St	13th St E	Clarence Ave N	Local	W&S Restoration	Reconstruction	2.7
2020 Totals						22.7

	Lane-Km
2019	15.9
2020	29.8
2021	22.7
2019-2021 Totals	68.4

2019-2021 Projected Roadway Preservation

Ward 7



Treatment Year

— 2019

— 2020

— 2021

— 2014-2018

2019 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Adelaide St E	Victoria Ave	Eastlake Ave	Local	W&S Restoration	Reconstruction	0.6
Ash St E	Melrose Ave	Eastlake Ave	Local	W&S Restoration	Reconstruction	1.2
Calder Ave	Calder Cres	Wilson Cres	Local	Road Preservation	SUTO	1.0
Calder Cres	Clarence Ave S	Calder Ave / Calder Crt	Local	Road Preservation	SUTO	1.5
Calder Crt	End	Calder Cres	Local	Road Preservation	SUTO	0.3
Calder Pl	End	Calder Cres	Local	Road Preservation	SUTO	0.3
Calder Terr	Calder Cres	End	Local	Road Preservation	SUTO	0.3
Eastlake Ave	Ash St E	Adelaide St E	Local	W&S Restoration	Reconstruction	0.4
Glasgow St	Young Cres	Broadway Ave	Collector	W&S Restoration	Resurface	1.5
Irvine Ave	Hanson St	Cascade St	Local	W&S Restoration	Reconstruction	0.4
Louise Ave	Preston Ave S	Murphy Cres / Ruth St E	Collector	Road Preservation	Resurface	1.5
Norman Cres	Royal Ave	Ruth St E	Local	W&S Restoration	Reconstruction	1.1
St George Ave	Ruth St W	Adelaide St W	Collector	Road Preservation	Microsurface	0.4
Woodward Ave	Jarvis Dr	Guppy St	Local	W&S Restoration	Reconstruction	0.7
2019 Totals						11.1

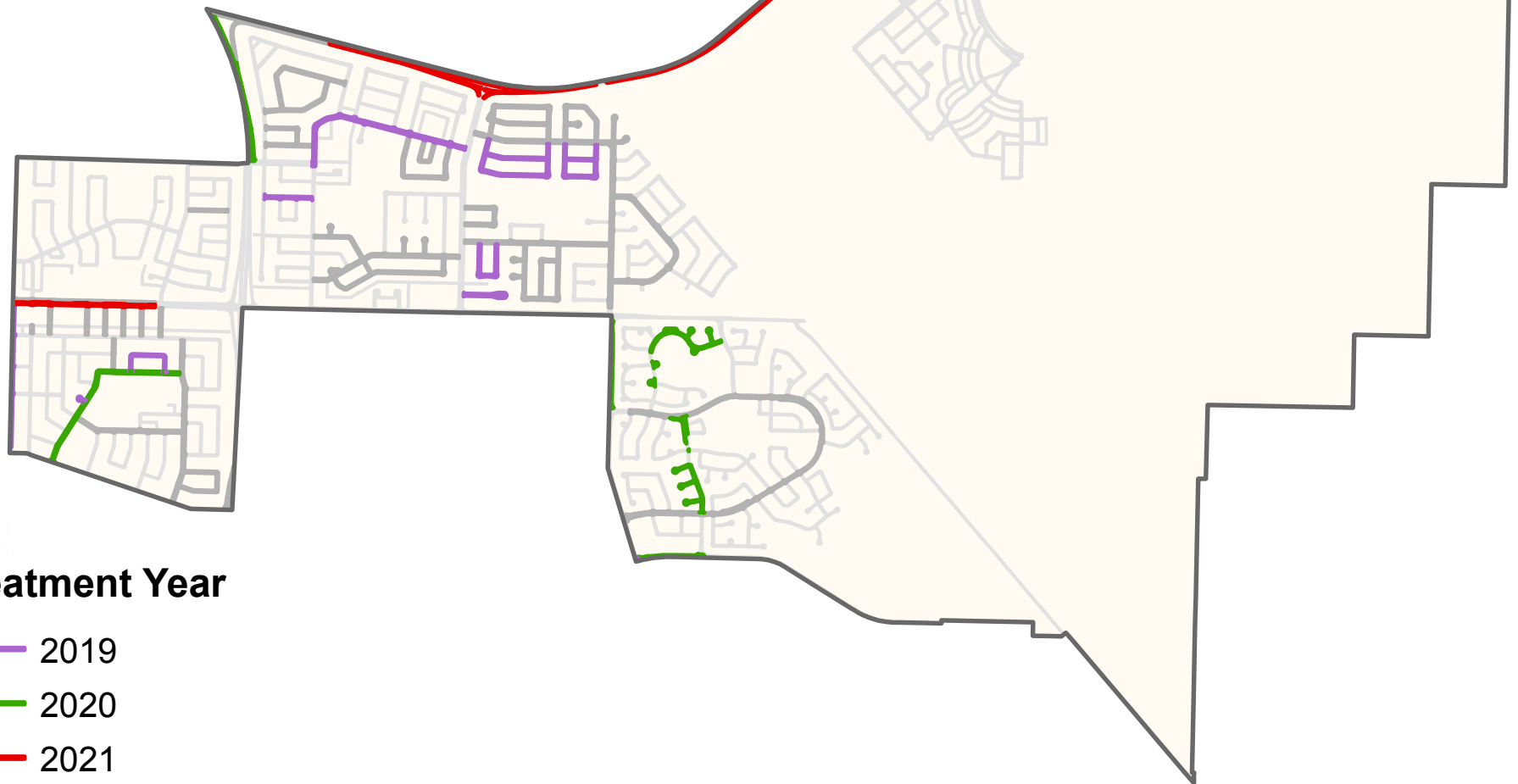
2020 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Adelaide St W	St Charles Ave	Herman Ave	Local	Road Preservation	Microsurface	0.3
Cairns Ave	Wilson Cres	MacKenzie Cres	Collector	Road Preservation	Reconstruction	0.5
Clarence Ave S (Side Street)	Lane	Glasgow St	Local	Road Preservation	Microsurface	0.1
Cumberland Ave S	Ruth St E	Adelaide St E	Local	W&S Restoration	Resurface	0.6
Glasgow St	Clarence Ave S	Ferguson Ave	Local	Road Preservation	Microsurface	0.3
Melrose Ave	Ruth St E	Taylor St E	Local	Road Preservation	Microsurface	2.8
Melville St	Lorne Ave	Portage Ave	Collector	Road Preservation	Reconstruction	1.8
Ruth St E	Lorne Ave	Broadway Ave	Minor Arterial	Road Preservation	Resurface	3.2
St Charles Ave	Adelaide St W	Taylor St W	Local	Road Preservation	Microsurface	1.5
Wilson Cres	Cairns Ave / MacDermid Cres	Preston Ave S	Collector	Road Preservation	Resurface	4.8
Young Cres	Glasgow St	Melrose Ave	Local	Road Preservation	Microsurface	1.0
2020 Totals						16.9

2021 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Brand Pl	Brand Rd	End of Cul-De-Sac	Local	Road Preservation	Microsurface	1.0
Brand Rd	Melville St	Clarence Ave S	Local	Road Preservation	Microsurface	3.2
Clarence Ave S	Wilson Cres	Ruth St E	Minor Arterial	Road Preservation	Resurface	2.1
Clarence Ave S NB	Glasgow St	Wilson Cres	Minor Arterial	Road Preservation	Resurface	0.5
Clarence Ave S SB	Wilson Cres	Glasgow St	Minor Arterial	Road Preservation	Resurface	0.5
Cumberland Ave S SB	Wilson Cres	Cascade St	Collector	Road Preservation	Resurface	1.2
East Centre	Arlington Ave	Louise St	Local	Road Preservation	Microsurface	2.1
East Centre	East Centre	East Drive	Local	Road Preservation	Microsurface	0.9
East Centre	East Centre	East Drive	Local	Road Preservation	Microsurface	0.3
East Drive	End of Cul-De-Sac	East Drive	Local	Road Preservation	Microsurface	0.3
East Drive	Preston Ave S	Arlington Ave	Collector	Road Preservation	Microsurface	2.9
East Place	East Drive	Louise St	Local	Road Preservation	Microsurface	1.1
East Place	East Drive	Louise St	Local	Road Preservation	Microsurface	1.1
East Place	East Place	East Place	Local	Road Preservation	Microsurface	0.7
East Place	East Place	East Place	Local	Road Preservation	Microsurface	0.7
East Place	East Place	East Place	Local	Road Preservation	Microsurface	0.7
Herman Ave	Ruth St W	Taylor St W	Collector	Road Preservation	Resurface	2.3
Melrose Ave	Cascade St	Ruth St E	Collector	Road Preservation	Resurface	1.6
Melrose Ave	Young Cres / Glasgow St	Young Cres	Collector	Road Preservation	Resurface	0.9
Melville St	Brand Rd	Clarence Ave S	Collector	Road Preservation	Microsurface	2.3
Mendel Cove	End of Cul-De-Sac	Mendel Cres	Local	Road Preservation	SUTO	0.2
Mendel Cres	Glasgow St	Glasgow St	Local	Road Preservation	SUTO	1.6
Mendel Green	End of Cul-De-Sac	Mendel Cres	Local	Road Preservation	SUTO	0.1
Mendel Terr	Mendel Cres	End of Cul-De-Sac	Local	Road Preservation	SUTO	0.3
Turner Ave	Glasgow St	McAskill Cres	Local	Road Preservation	Reconstruction	0.2
Wilson Cres	Clarence Ave S	Cairns Ave / MacDermid Cres	Collector	Road Preservation	Microsurface	1.5
Yorath Ave	Glasgow St	Harrison Cres	Local	Road Preservation	Reconstruction	0.2
2021 Totals						30.3

	Lane-Km
2019	11.1
2020	16.9
2021	30.3
2019-2021 Totals	58.4

2019-2021 Projected Roadway Preservation

Ward 8



Treatment Year

- 2019
- 2020
- 2021
- 2014-2018

2019 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Acadia Dr	14th St E	McKercher Dr SB	Collector	Road Preservation	Resurface	4.1
Boyчук Dr SB	Heritage Cres / Briarwood Rd	Kingsmere Blvd / Rosewood Blvd W	Major Arterial	Road Preservation	Resurface	4.5
Champlin Cres	DeGeer St	DeGeer St	Local	Road Preservation	Microsurface	1.4
Cronkite St	Spinks Dr	Acadia Dr	Local	W&S Restoration	Reconstruction	0.8
Edinburgh Pl	McKercher Dr	End	Local	Road Preservation	Microsurface	1.1
Laval Cres	Boyчук Dr	Boyчук Dr	Local	Road Preservation	Microsurface	1.7
Laval Cres	Laval Cres	Laval Cres	Local	Road Preservation	Microsurface	0.4
Potter Cres	Salisbury Dr	Salisbury Dr	Local	Road Preservation	Microsurface	0.9
Preston Ave S NB	Taylor St E	8th St E	Major Arterial	Road Preservation	Resurface	1.7
Preston Ave S SB	8th St E	Taylor St E	Major Arterial	Road Preservation	Microsurface	1.7
Salisbury Pl	End	Salisbury Dr	Local	Road Preservation	Microsurface	0.2
Waterloo Cres	Boyчук Dr	Boyчук Dr	Local	Road Preservation	Microsurface	2.3
Waterloo Cres	Waterloo Cres	Waterloo Cres	Local	Road Preservation	Microsurface	1.0
2019 Totals						21.5

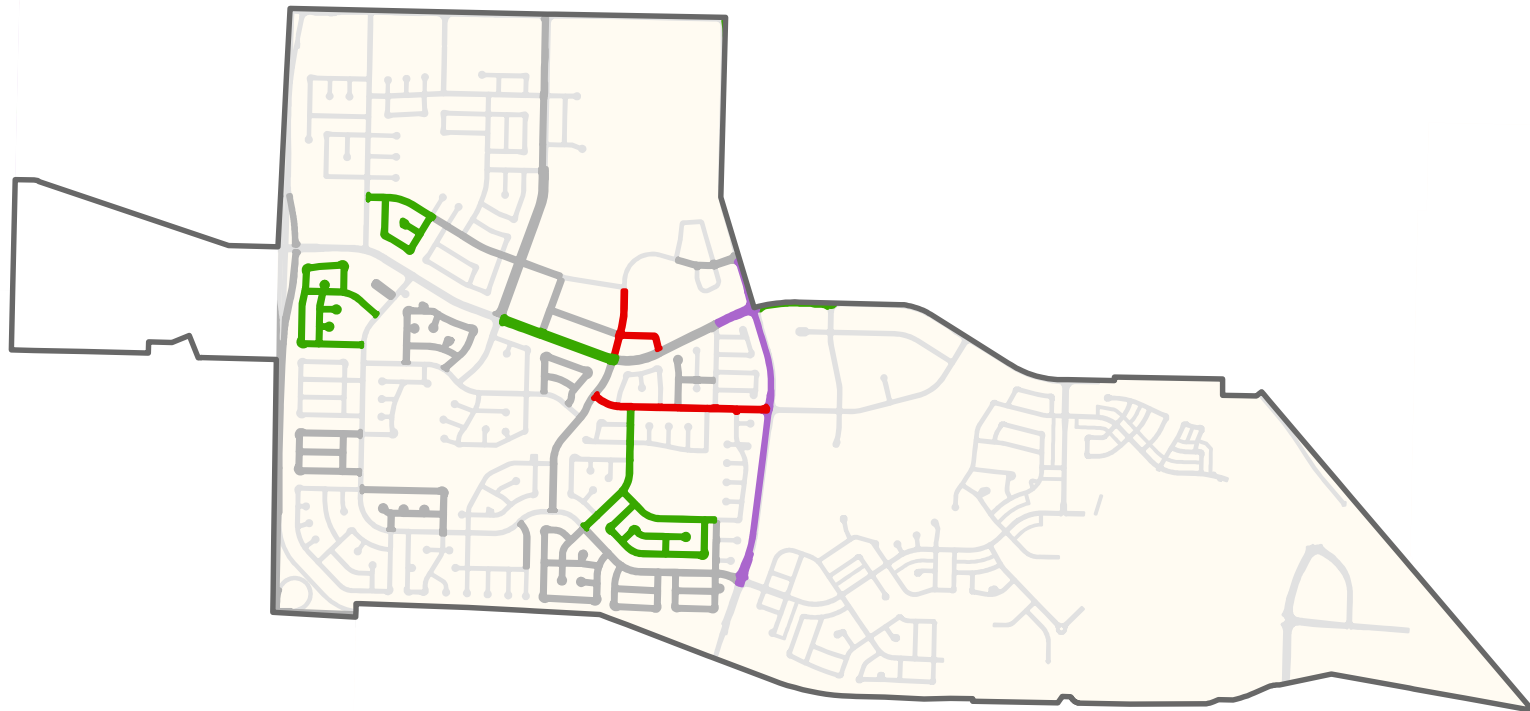
2020 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Blackshire Cres	Briarvale Rd	Briarwood Rd	Local	Road Preservation	SUTO	1.2
Blackshire Crt	Blackshire Cres	Blackshire Cres	Local	Road Preservation	SUTO	0.1
Blackshire Pl	Blackshire Cres	End of Cul-De-Sac	Local	Road Preservation	SUTO	0.2
Boyчук Dr NB	Briarwood Rd	8th St E	Major Arterial	Road Preservation	Resurface	1.2
Braeside Bay	Braeside View	Braeside View	Local	Road Preservation	Microsurface	0.2
Braeside Crt	Braeside View	Braeside View	Local	Road Preservation	Microsurface	0.2
Braeside Pl	Braeside View	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.3
Braeside Terr	Braeside View	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.2
Braeside View	Braeburn Cres	Briarvale Rd	Local	Road Preservation	Microsurface	1.4
Braeside View	Braeside View	Braeside View	Local	Road Preservation	Microsurface	0.2
Braeside View (600blk Even)	Braeside View	Braeside View	Local	Road Preservation	Microsurface	0.2
Briarvale Bay	End of Cul-De-Sac	Briarvale Rd	Local	Road Preservation	SUTO	0.3
Briarvale Crt	End of Cul-De-Sac	Briarvale Rd	Local	Road Preservation	SUTO	0.3
Briarvale Rd	Briarwood Rd	Briarwood Rd	Collector	Road Preservation	SUTO	1.6
Briarvale Terr	End of Cul-De-Sac	Briarvale Rd	Local	Road Preservation	SUTO	0.3
Briarwood Rd (400blk Even) / Briarvale Rd	Briarwood Rd	Briarvale Rd	Local	Road Preservation	SUTO	0.3
Salisbury Dr	Taylor St E	Arlington Ave	Local	Road Preservation	Resurface	3.8
Taylor St E EB	Boyчук Dr	Briarvale Rd / Herold Rd	Major Arterial	Road Preservation	Microsurface	0.9
Taylor St E WB	Briarvale Rd / Herold Rd	Boyчук Dr	Major Arterial	Road Preservation	Microsurface	0.9
2020 Totals						13.7

2021 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
8th St E EB	Preston Ave S	Arlington Ave	Major Arterial	Road Preservation	Resurface	2.7
2021 Totals						2.7

	Lane-Km
2019	21.5
2020	13.7
2021	2.7
2019-2021 Totals	38.0

2019-2021 Projected Roadway Preservation

Ward 9



Treatment Year

- 2019
- 2020
- 2021
- 2014-2018

2019 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Adelaide St E	Preston Ave S	McEown Ave	Collector	Road Preservation	Microsurface	1.0
McEown Ave	Louise St	Taylor St E	Collector	Road Preservation	Microsurface	2.3
Taylor St E EB	Brudell Rd	Boychuk Dr	Major Arterial	Road Preservation	Resurface	0.5
Taylor St E WB	Boychuk Dr	Brudell Rd	Major Arterial	Road Preservation	Resurface	0.5
2018 Totals						4.3
2020 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Avondale Rd	Acadia Dr	Penryn Cres / Richardt Pl	Collector	Road Preservation	UTO	1.1
Costigan Bay	Costigan Rd	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.2
Costigan Cres	Costigan Rd	Costigan Rd	Local	Road Preservation	Microsurface	1.3
Costigan Crt	Costigan Way	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.2
Costigan Pl	Costigan Way	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.3
Costigan Rd	Kingsmere Blvd	Kingsmere Blvd	Local	Road Preservation	Microsurface	2.7
Costigan Way	Costigan Rd	Costigan Rd	Local	Road Preservation	Microsurface	0.8
Emmeline Rd	Waterbury Rd	Lavalee Rd	Local	Road Preservation	Reconstruction	1.4
Penryn Cres	Avondale Rd	Avondale Rd	Local	Road Preservation	UTO	1.5
Penryn Crt	End of Cul-De-Sac	Penryn Cres	Local	Road Preservation	UTO	0.3
Penryn Crt	End of Cul-De-Sac	Penryn Cres	Local	Road Preservation	UTO	0.3
Swan Cres	Emmeline Rd	Emmeline Rd	Local	Road Preservation	Microsurface	2.5
Swan Crt	Swan Lane	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.3
Swan Lane	Swan Cres	Swan Cres	Local	Road Preservation	Microsurface	1.0
Taylor St E EB	McKercher Dr	Heritage Cres / Weyakwin Dr	Major Arterial	Road Preservation	Resurface	1.7
Taylor St E WB	Heritage Cres / Weyakwin Dr	McKercher Dr	Major Arterial	Road Preservation	Resurface	1.7
Waterbury Rd	Kingsmere Blvd	Nemeiben Rd	Collector	Road Preservation	Microsurface	2.3
2020 Totals						19.4
2021 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Heritage Cres	Taylor St E	Heritage Cres	Collector	Road Preservation	SUTO	1.1
Heritage Lane	Heritage Cres	Taylor St E	Local	Road Preservation	SUTO	0.7
Nemeiben Rd	Weyakwin Dr	Boychuk Dr	Collector	Road Preservation	SUTO	3.0
2021 Totals						4.8
						Lane-Km
2019						4.3
2020						19.4
2021						4.8
2019-2021 Totals						28.6

2019-2021 Projected Roadway Preservation

Ward 10



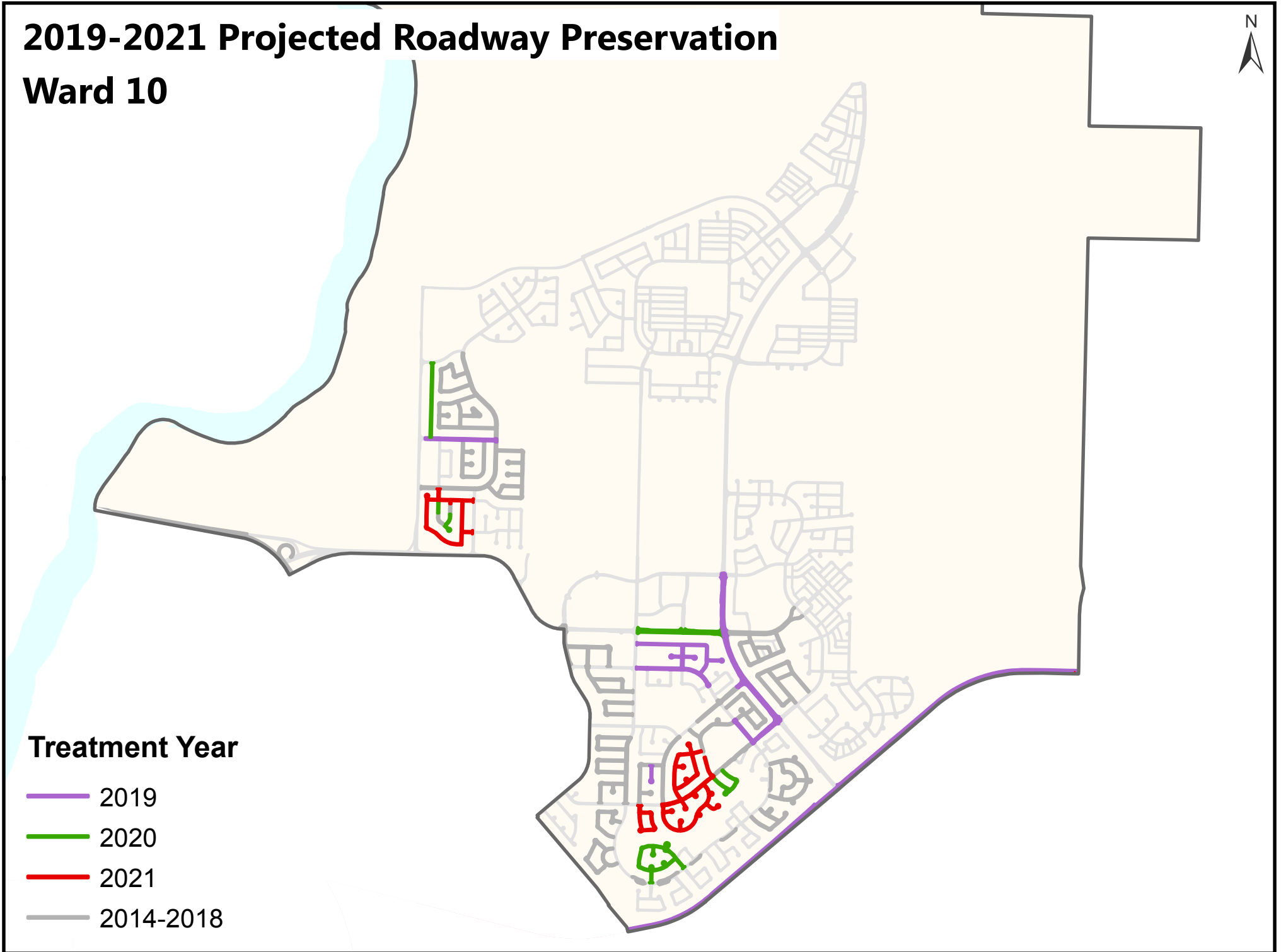
Treatment Year

— 2019

— 2020

— 2021

— 2014-2018



2019 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Bornstein Terr	Bornstein Cres	End	Local	Road Preservation	Reconstruction	0.4
Epp Ave	Kenderdine Rd	Perehudoff Cres	Local	Road Preservation	Microsurface	0.6
Epp Crt	End	Epp Ave	Local	Road Preservation	Microsurface	0.3
Epp Pl	Epp Ave	End	Local	Road Preservation	Reconstruction	0.3
Garvie Rd	Central Ave	Konihowski Rd	Collector	W&S Restoration	Resurface	1.4
Kenderdine Rd	Bonli Cres	115th St E	Collector	Road Preservation	Reconstruction	1.0
Kenderdine Rd	Kerr Rd	Forsyth Cres / Steiger Cres	Collector	Road Preservation	Resurface	0.8
Kenderdine Rd	Mulcaster Cres / Vincent Cres	Bonli Cres	Collector	Road Preservation	Reconstruction	1.3
Kerr Rd	Kenderdine Rd	McOrmond Dr	Collector	Road Preservation	Resurface	0.7
McOrmond Dr NB	Kerr Rd / Stensrud Rd	Addison Rd / Nelson Rd	Major Arterial	Road Preservation	Microsurface	3.1
McOrmond Dr SB	Nelson Rd / Addison Rd	Kerr Rd / Stensrud Rd	Major Arterial	Road Preservation	Microsurface	4.0
Perehudoff Cres	Kenderdine Rd	Kenderdine Rd	Local	Road Preservation	Microsurface	2.0
Perehudoff Crt	Perehudoff Cres	End	Local	Road Preservation	Microsurface	0.3
2018 Totals						16.1

2020 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Attridge Dr EB	Lowe Rd / Kenderdine Rd	McOrmond Dr	Major Arterial	Road Preservation	Microsurface	1.6
Attridge Dr WB	McOrmond Dr	Lowe Rd / Kenderdine Rd	Major Arterial	Road Preservation	Microsurface	1.6
Collins Cres	Kerr Rd	Kerr Rd	Local	Road Preservation	Microsurface	1.0
Collins Terr	Collins Cres	Collins Cres	Local	Road Preservation	Microsurface	0.3
Haslam Pl	Haslam Way	End of Cul-De-Sac	Local	Road Preservation	Reconstruction	0.3
Haslam Way	Haslam Cres	Haslam Cres	Local	Road Preservation	Reconstruction	0.5
Kristjanson Rd	Garvie Rd	Somers Rd	Local	Road Preservation	Microsurface	1.6
Wright Bay	Wright Cres	Wright Way	Local	Road Preservation	Microsurface	0.2
Wright Cres	Kenderdine Rd	Wright Way	Local	Road Preservation	Microsurface	0.2
Wright Cres	Wright Bay / Wright Cres	Kenderdine Rd	Local	Road Preservation	Microsurface	1.8
Wright Crt	Wright Cres	Wright Cres	Local	Road Preservation	Microsurface	0.2
Wright Pl	Wright Way	Wright Way	Local	Road Preservation	Microsurface	0.2
Wright Terr	End of Cul-De-Sac	Wright Cres	Local	Road Preservation	Microsurface	0.2
Wright Way	Wright Bay / Wright Cres	Wright Cres	Local	Road Preservation	Microsurface	0.5
2020 Totals						10.2

2021 PROJECTED ROADWAY PRESERVATION LOCATIONS						
Street Name	From	To	Road Class	Project Type	Treatment	Lane-Km
Adaskin Cove	Kerr Rd	Adaskin Cove	Local	Road Preservation	SUTO	1.5
Chotem Bay	Chotem Cres	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.1
Chotem Cres	Kerr Rd	Kerr Rd	Local	Road Preservation	Microsurface	1.9
Chotem Crt	Chotem Cres	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.2
Chotem Pl	Chotem Cres	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.2
Chotem Rise	Chotem Cres	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.1
Chotem Terr	Chotem Cres	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.3
Forsyth Cres	Kerr Rd	Hurley Cres	Local	Road Preservation	Microsurface	0.4
Haslam Cres	Haslam Cres	Konihowski Rd	Local	Road Preservation	Microsurface	0.2
Haslam Cres	Rever Rd	Haslam Cres	Local	Road Preservation	Microsurface	3.3
Haslam Crt	Haslam Cres	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.1
Haslam St	Haslam Cres	Rever Rd	Local	Road Preservation	Microsurface	0.2
Hurley Cres	Kerr Rd	Forsyth Cres	Local	Road Preservation	Microsurface	1.4
Hurley Crt	Hurley Cres	End of Cul-De-Sac	Local	Road Preservation	Microsurface	0.2
Hurley Pl	Hurley Way	Hurley Way	Local	Road Preservation	Microsurface	0.2
Hurley Terr	Hurley Cres	End of Cul-De-Sac	Local	Road Preservation	Reconstruction	0.3
Hurley Way	Hurley Cres	Hurley Cres	Local	Road Preservation	Microsurface	0.9
Kerr Rd	Chotem Cres / Cowley Rd	Collins Cres / Forsyth Cres	Collector	Road Preservation	Resurface	1.4
McFarland Pl	End of Cul-De-Sac	Kerr Rd	Local	Road Preservation	Microsurface	0.3
Woods Crt	Kerr Rd	Kerr Rd	Local	Road Preservation	Microsurface	0.2
2020 Totals						13.7

	Lane-Km
2019	16.1
2020	10.2
2021	13.7
2019-2021 Totals	40.0

2019-2021 Projected Roadway Preservation Expressways



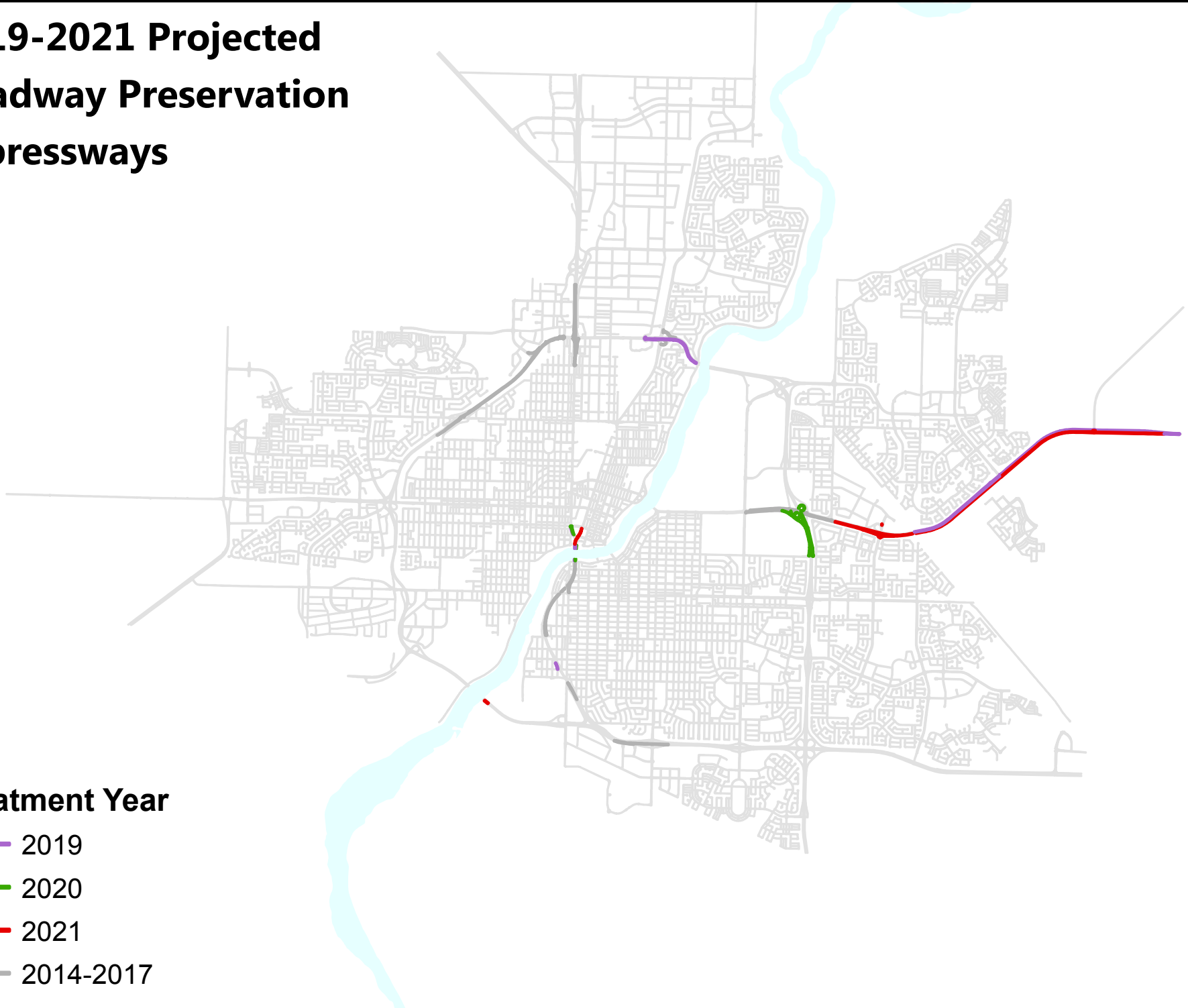
Treatment Year

— 2019

— 2020

— 2021

— 2014-2017



2019 PROJECTED ROADWAY PRESERVATION LOCATIONS					
Street Name	From	To	Project Type	Treatment	Lane-Km
1st Ave S SB	19th St E	Sid Buckwold Bridge SB	Road Preservation	Resurface	0.2
Circle Dr EB	Venture Cres / Millar Ave	Circle Dr N Bridge EB	Road Preservation	Resurface	5.6
College Dr WB / Highway 5 WB	City Limits	College Dr / CP Rail Overpass	Road Preservation	Resurface	20.1
Ruth St / Idylwyld Dr S NW Ramp	Idylwyld Dr S SB	Adelaide St W	Road Preservation	Microsurface	0.3
2018 Totals					26.2
2020 PROJECTED ROADWAY PRESERVATION LOCATIONS					
Street Name	From	To	Project Type	Treatment	Lane-Km
Circle Dr / 14th St E NE Ramp	14th St E	Circle Dr NB	Road Preservation	Resurface	0.3
Circle Dr / 14th St E NW Ramp	Circle Dr SB	14th St E	Road Preservation	Resurface	0.3
Circle Dr / College Dr NE Loop	Circle Dr E NB	College Dr WB	Road Preservation	Resurface	0.6
Circle Dr / College Dr SW Loop	Circle Dr E SB	College Dr EB	Road Preservation	Resurface	0.6
Circle Dr / College Dr SW Ramp	College Dr	Circle Dr SB	Road Preservation	Resurface	1.6
Circle Dr NB	Circle Dr / 14th St E NE Ramp	Circle Dr / College Dr SE Ramp	Road Preservation	Resurface	2.9
Circle Dr SB	Circle Dr / College Dr Overpass SB	Circle Dr / 14th St E NW Ramp	Road Preservation	Resurface	2.4
Idylwyld Dr S NB	100m South of 20th St	20th St E	Road Preservation	Resurface	0.3
Idylwyld Dr S NB	Idylwyld Dr S / 19th St E Overpass	100m South of 20th St	Road Preservation	Resurface	0.5
Idylwyld Dr S NB	Idylwyld Dr S / Saskatchewan Cres E Overpass	Idylwyld Dr S / 19th St E Overpass NB	Road Preservation	Resurface	0.4
2020 Totals					9.8
2020 PROJECTED ROADWAY PRESERVATION LOCATIONS					
Street Name	From	To	Project Type	Treatment	Lane-Km
College Dr / Mckercher Dr SE Ramp	Mckercher Dr	College Dr EB	Road Preservation	Resurface	0.624211
College Dr / Mckercher Dr SW Ramp	College Dr EB	Mckercher Dr	Road Preservation	Resurface	0.868947
College Dr EB / Highway 5 EB	Central Ave	City Limits	Road Preservation	Resurface	24.23105
2018 Totals					25.7
					Lane-Km
2019					26.2
2020					9.8
2021					25.7
2019-2021 Totals					61.7

Projected 2019-2021 Water & Sewer Preservation Plan



Water & Sewer Assets

Our Water and Sewer asset management strategy is to monitor, maintain, and preserve water and sewer linear systems using effective decision making to maximize benefits, reduce risk and provide satisfactory levels of service to our community in a sustainable manner throughout the assets lifecycle. Water and Sewer linear systems assets include water mains, sewer mains, and service line.

Water and Sewer preservation programs are selected annually based on the asset condition and approved levels of service and funding plans.

The City has the following annual programs for preservation of water and sewer assets;

- **Water Main Capacity Program** – This program focuses on areas where water main capacity needs to be improved and there is a high density of lead service lines. A long-term strategy is being developed for this program and the three year outlook is included in this document.
- **Water Main Renewal Program** – This program targets water mains that have had high amounts of water main breaks. Locations are prioritized on the frequency of water main breaks in recent years and the consequence to services and locations if a water main break occurred. Since this program relies on water main break rates that are constantly changing, locations are prioritized and selected each year. Therefore, only a one year outlook is provided in this document.
- **Sewer Main Lining** – This program targets sewer mains that are in poor condition and high consequence to services and locations if the main were to fail. A long-term rehabilitation strategy has been developed. The three year outlook is included in this document.
- **Lead Service Line Replacements** – This program targets full service line replacements, from water main to water meter, on lead service lines. Lead lines are replaced on:
 1. Any water main program
 2. Emergency basis
 3. Adjacent to roadway paving programs

At current funding levels the remaining lead line inventory in the City will be completely replaced by 2027. In conjunction with the long-term strategy that is being developed for water main Capacity Program a strategy for all remaining lead line replacements is being developed so that residents will have information on when they can expect their service lines to be replaced. It is anticipated this plan will be available by the end of 2019.

Assumptions

The following assumptions were used to produce this water and sewer preservation plan document:

- Target base funding (W&S Infrastructure Reserve) is approved and maintained for the 2020 – 2022 utility rate cycle.
- Utility rate funding is based on assumed water usage levels and thereby water revenues. If water usage levels drop significantly, funding levels may need to be adjusted.
- The unit rate cost estimates are based on but not limited to: contractor unit rates, project management, administration, traffic control, testing, and a contingency.
- The attached document includes proposed treatments. Actual locations and quantities treated may vary prior to construction.

2019-2021 Projected Budgets

The following table outlines the budgets for 2017 and 2018 and projected budgets for 2019 and 2020.

Program	2018	2019	2020*	2021*
	Budget (\$M)	Budget (\$M)	Budget (\$M)	Budget (\$M)
Water Preservation	\$5.85	\$6.23	\$6.64	\$7.07
Water Capacity	\$5.67	\$5.82	\$5.96	\$7.64
LSL Replacements	\$4.77	\$3.71	\$4.92	\$3.90
Sewer Preservation	\$3.29	\$3.38	\$3.47	\$3.07
Sewer Service Lines	\$1.25	\$1.26	\$1.29	\$1.33
Totals	\$20.83	\$20.40	\$20.61	\$20.61

*Projected

2019 Planned Treatments, Unit Rates and Quantities

Treatment	Unit Rate*	Estimated Treatment Quantity
Open Trench Water Main Replacement	\$1,700-2,000 /lin.m.	4,947m
Sanitary Lining	\$200-300 /lin.m.	15,978 m
Storm Lining	\$200-300 /lin.m.	2,757 m
Service Line Replacements	\$5,000-6000 each	500

*Unit Rate refers to the unit cost of work incurred by the City

Water & Sewer Treatment Descriptions

Open Trench Water Main Replacement – this method is used in areas where water main capacity needs to be improved or there are numerous lead service lines connecting to the main. To increase flow capacity, mains need to be upsized, typically from 150mm diameter to 200mm diameter. If numerous lead services need to be replaced at the same time as the water main, the most cost effective approach is to do an open trench excavation.

Water Main Lining – this method is used on water mains where capacity is not a concern, there are minimal lead services, and the road surface is not scheduled for a preservation treatment. Water main lining requires small excavations at each end of the work limits, as well as at hydrants and valves. From these excavations a liner is pulled inside the existing water main. The liner hardens and seals the pipe against future leaks and water main breaks. The finished liner has the strength and characteristics as a new plastic PVC pipe. Water main lining has traditionally been about 66% of the cost of open trench water main replacement.

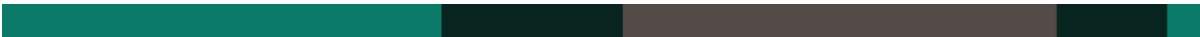
Sanitary and Storm Sewer Main Lining – this is the same method as water main except that no excavation is required. Sanitary and storm mains have access points (manholes) approximately every 150m to 200m that allow for installation. This method of rehabilitation for sanitary and storm mains has been used in Saskatoon since the 1990s and has been so effective that open trench replacement of sewer mains has been phased out except for in extreme circumstance where a liner cannot be installed.

Water and Sewer Service Line Replacements – lead water service lines and tar fiber sewer service lines are replaced:

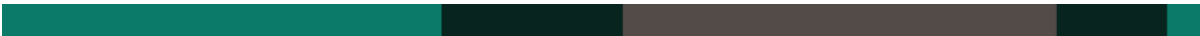
- In conjunction with open trench water main replacement;
- Prior to certain roadway preservation treatments;
- On an emergency basis.

Service lines are replaced using a trenchless method called "pipe-bursting". This involves excavations at the main line in the street, at the property line, and at the building (either outside the building at the foundation or a small hole in the basement). The old service lines are broken to expand a tunnel from excavation to excavation and new service lines are inserted through the expanded tunnel. Whenever a lead service line is worked on (planned or emergency), replacement is required from the main line to the water meter. Tar fiber sewer lines are replaced from the main line to property line and the homeowner has the option whether or not to replace their portion. The City is responsible for costs in the public right of way and the property owner is responsible for costs on their property. This cost split is approximated by the City paying 60% of contract costs and the property owner paying 40%. The City has cost deferral programs that the property owner can use to add their costs to their annual property taxes.

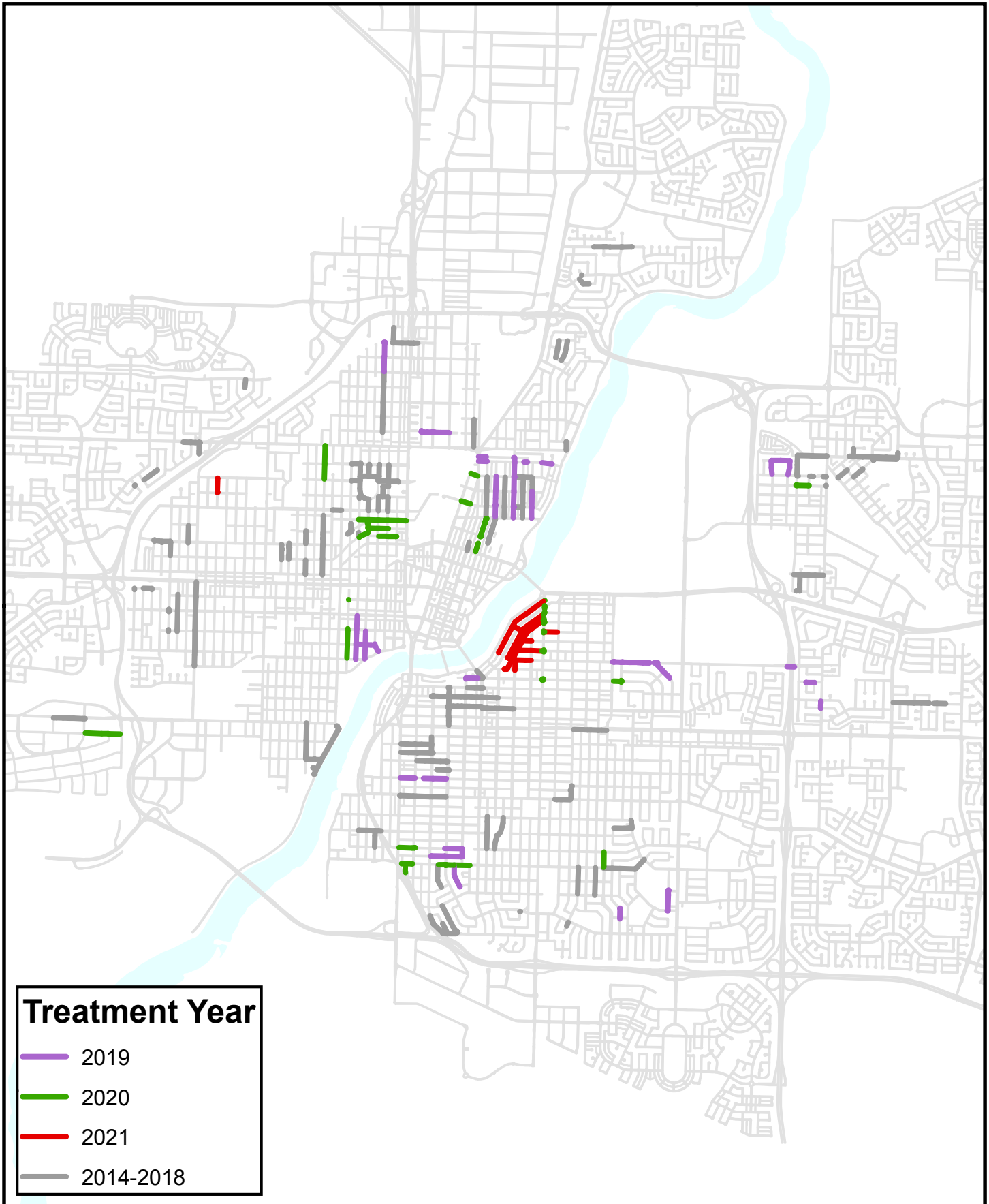
2018-2020 Projected Water & Sewer Preservation Project Locations



2019-2021 Water Main Restoration
2019-2021 Sanitary Main Lining



2019-2021 Water & Sewer Preservation Water Main Restoration Locations



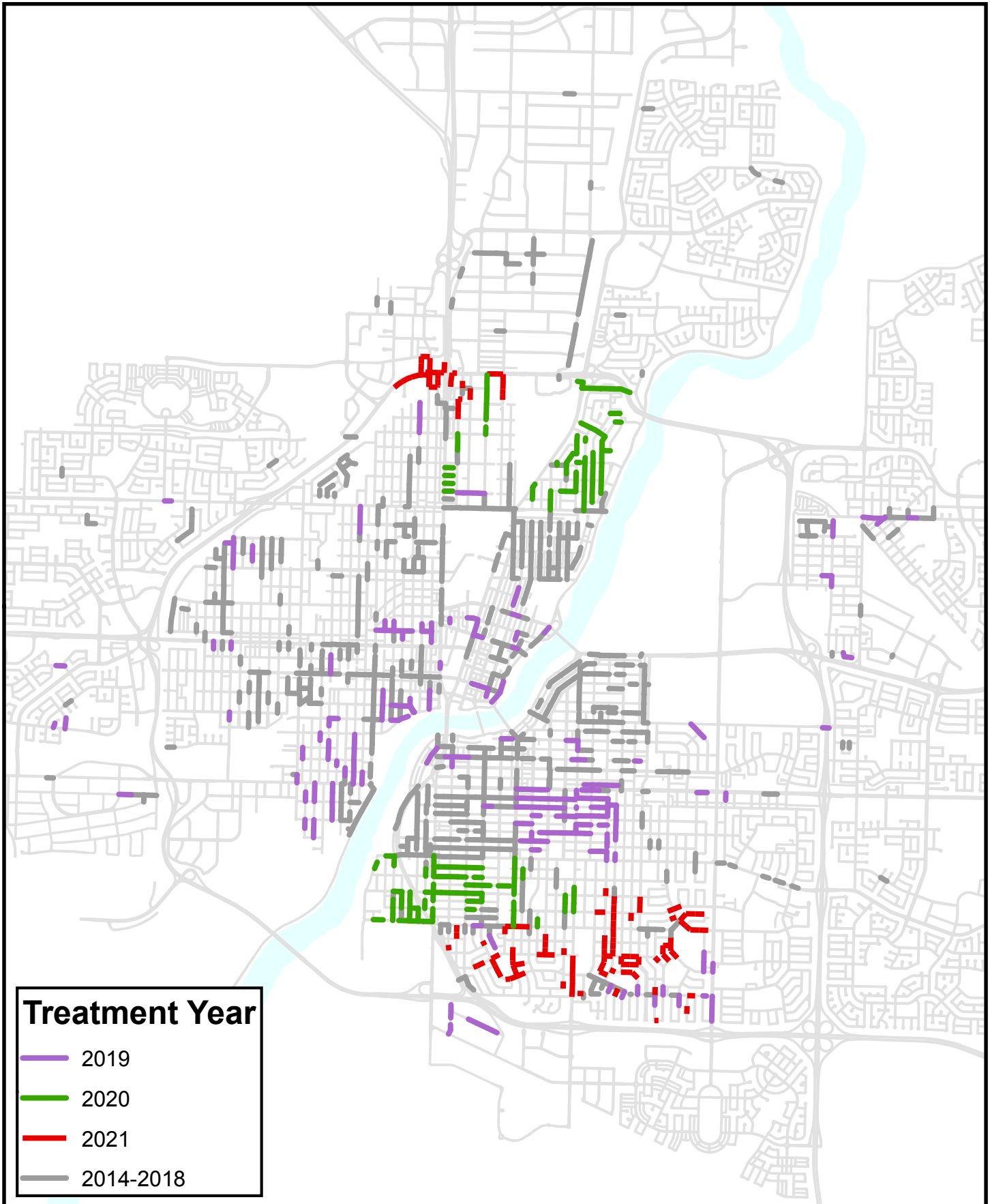
2019 PROJECTED WATER MAIN RESTORATION				
Street Name	From	To	Main Length (m)	Lead (ea)
12th St E	Eastlake Ave	Broadway Ave	137	4
14th St E	Circle Dr / 14th St E NW Ramp	Circle Dr / 14th St E NE Ramp	75	0
14th St E	Cumberland Ave S	Bate Cres	432	0
18th St W	Ave D S	Ave F S	213	6
2nd St E	Lorne Ave	Victoria Ave	710	2
34th St E	Alberta Ave	Quebec Ave	318	1
5th Ave N	Queen St	Duke St	767	37
7th Ave N	Queen St	Lauriston St	708	55
9th Ave N	Queen St	Princess St	313	19
Acadia Dr	Harrington St	Leddy Cres	83	0
Adelaide St	Victoria Ave	Eastlake	202	0
Ash St	Melrose Ave	Eastlake	346	0
Ave D N	38th St	40th St	332	1
Ave D S	Spadina Cres W	18th St W	83	2
Ave E S	Spadina Cres W	19th St W	316	34
Ave F S	17th St W	20th St W	521	42
Bate Cres	14th St E	414 Bate Cres	288	1
Bryans Ave	Rita Cres	113th St	151	0
Cronkite St	Britnell Cres (East Leg)	Britnell Cres (West Leg)	100	0
Duchess St	3rd Ave N	5th Ave N	94	2
Duke St	7th Ave N	9th Ave N	213	1
Eastlake	Ash St	Adelaide	125	0
Irvine Ave	Hanson St	2703 Irvine Ave	120	0
King Cr	Duke St	Duchess St	200	6
King St	7th Ave N	9th Ave	160	5
Lauriston St	3rd Ave N	314 3rd Ave N	88	1
Norman Cres	34 Norman Cres	Ruth St E	266	0
Rita Cres (East Leg)	Bryans Ave	113th St	398	0
Woodward Ave	Guppy St	Jarvis St	240	0
2018 Totals			7999	219

2020 PROJECTED WATER MAIN RESTORATION				
Street Name	From	To	Main Length (m)	Lead (ea)
112th St W	Egbert Ave	Violet Ave	153	0
26th St W	Ave B N	Ave D N	222	28
27th St W	Ave C N	Ave E N	237	25
28th St W	Idylwyld Dr N	Ave F N	547	51
4th Ave N	25th St E	Queen St	319	17
Ave E	28th St W	27th St W	99	4
Ave G S	Spadina Cres W	20th St W	353	68
Ave J N	31st St W	33rd St W	390	2
Bedford Rd	Ave F N	Ave E N	102	4
Caen St	Lancaster Blvd	Dundonald Ave	409	5
Clarence Ave N	12th St	College	296	14
Cumberland Ave S	Ruth St E	Adelaide St E	177	0
Garrison Cres	Cumberland Ave S	Leslie	102	0
King St	1st Ave	2nd Ave	218	1
Ruth St E	Lorne Ave	Vernon Ave	127	1
Ruth St E	Underwood Ave	Royal Ave	366	0
Vernon Ave	Ruth St / Idylwyld Dr S SE Ramp	Ruth St E	103	0
2019 Totals			4220	220

2021 PROJECTED WATER MAIN RESTORATION				
Street Name	From	To	Main Length (m)	Lead (ea)
14th St E	Alley West of Temperance St	Clarence Ave	269	18
15th St E	Temperance St	Clarence Ave	286	5
16th St E	Alley West of Temperance St	Temperance St	178	0
Aird St	Clarence Ave	McKinnon Ave	149	9
Alley between Temperance St & University Dr	14th St E	Clarence Ave	618	38
Alley between University Dr & Saskatchewan Cres	14th St E	Clarence Ave	830	29
Ave U N	30th St	31st St W	165	14
Colony St	Temperance St	Albert Ave	110	6
Duke St	1st Ave	3rd Ave	6	0
Lansowne Ave	13th St E	14th St E	121	5
Temperance St	13th St E	Clarence Ave	753	37
2020 Totals			3485	161

	Main Length (m)	Lead (ea)
2018	7999	219
2019	4220	220
2020	3485	161
2019-2021 Totals	15704	600

2019-2021 Water & Sewer Preservation Sanitary Sewer Main Lining Locations



2019 SEWER MAIN LINING	
Neighbourhood	Main Length (m)
Adelaide/Churchill	247
Avalon	254
Brevoort Park	84
Buena Vista	93
Caswell Hill	1167
City Park	282
CN Industrial	635
College Park	76
Downtown	1300
Fairhaven	181
Forest Grove	475
Grosvenor Park	220
Haultain	6072
Holiday Park	1066
Holliston	121
Hudson Bay Park	373
Kelsey - Woodlawn	324
King George	1790
Mayfair	350
Meadowgreen	263
Montgomery Place	145
Mount Royal	563
Nutana	697
Nutana Park	983
Parkridge	100
Pleasant Hill	223
Riversdale	1074
Sutherland	554
Varsity View	925
Westview	82
2019 Total	20718
2020 SEWER MAIN LINING	
Neighbourhood	Main Length (m)
Buena Vista	114
Exhibition	3811
Haultain	122
Kelsey - Woodlawn	1029
North Industrial	407
North Park	3554
Queen Elizabeth	2389
Richmond Heights	686
River Heights	112
2020 Total	12225
2021 SEWER MAIN LINING	
Neighbourhood	Main Length (m)
Adelaide/Churchill	2882
Airport Business Area	1835
Avalon	2961
Holliston	166
Kelsey - Woodlawn	150
North Industrial	1083
Nutana Park	1735
2021 Total	10810
Main Length (m)	
2019	20718
2020	12225
2021	10810
2019-2021 Totals	43753

Projected Water & Sewer Preservation - Sanitary Main Lining

Projected 2019-2021 Bridges & Structures Preservation Plan



Bridges & Structures Assets

The planned upcoming major rehabilitation projects are part of the Major Rehabilitation program and are selected on preservation strategies focused on reducing the cost of owning and maintaining the structures. The projects have been selected based on the condition assessment from the bridges inspection and testing program.

Assumptions

The following assumptions were used to produce this bridges and structures preservation plan document:

- Base funding is maintained for 2020 and 2021.
- The design work required for the rehabilitations is completed prior to construction.
- During the design and inspection process, increases to the planned scope of work are not discovered (example: additional strengthening, more intrusive repairs, or changes to functional design)
- The unit rate cost estimates are based on but not limited to: contractor unit rates, project management, administration, traffic control, miscellaneous prep work, testing, and contingencies.

2019-2021 Projected Budgets

Program	2018 Budget (\$M)	2019 Budget (\$M)	2020 Budget (\$M)	2021 Budget (\$M)
Bridge Major Repair Reserve	\$3.184	\$3.184	\$3.184	\$3.184
Totals	\$3.184	\$3.184	\$3.184	\$3.184

2019-2021 Bridge Rehabilitation Project Descriptions

Based on the current and planned reserve contribution, The Bridge & Structure programs three year plan is anticipated to be fully funded. The following projects currently have the preliminary design work underway and construction is anticipated in the following years:

2019 & 2020: Sid Buckwold Bridge & Idylwyld Dr over 19th Street Ramps

The Sid Buckwold Bridge is a post-tensioned concrete girder bridge originally constructed in 1965. Rehabilitation of the structure is occurring from 2019 to 2020, based on findings and recommendations from the City inspection and deck testing program.

The Idylwyld Drive over 19th Street ramps were also recommended for rehabilitation and due to the proximity in timing, the City included the scope of completing the ramp rehabilitation with the Sid Buckwold Bridge rehabilitation.

2021: Circle Drive Southbound and Northbound over 8th Street Overpasses

The Circle Drive Southbound and Northbound Structures over 8th Street were originally constructed in 1999. Proactive rehabilitation is recommended in 2021, based on findings from the deck testing program.

2018-2020 Bridge Rehabilitation Project Locations



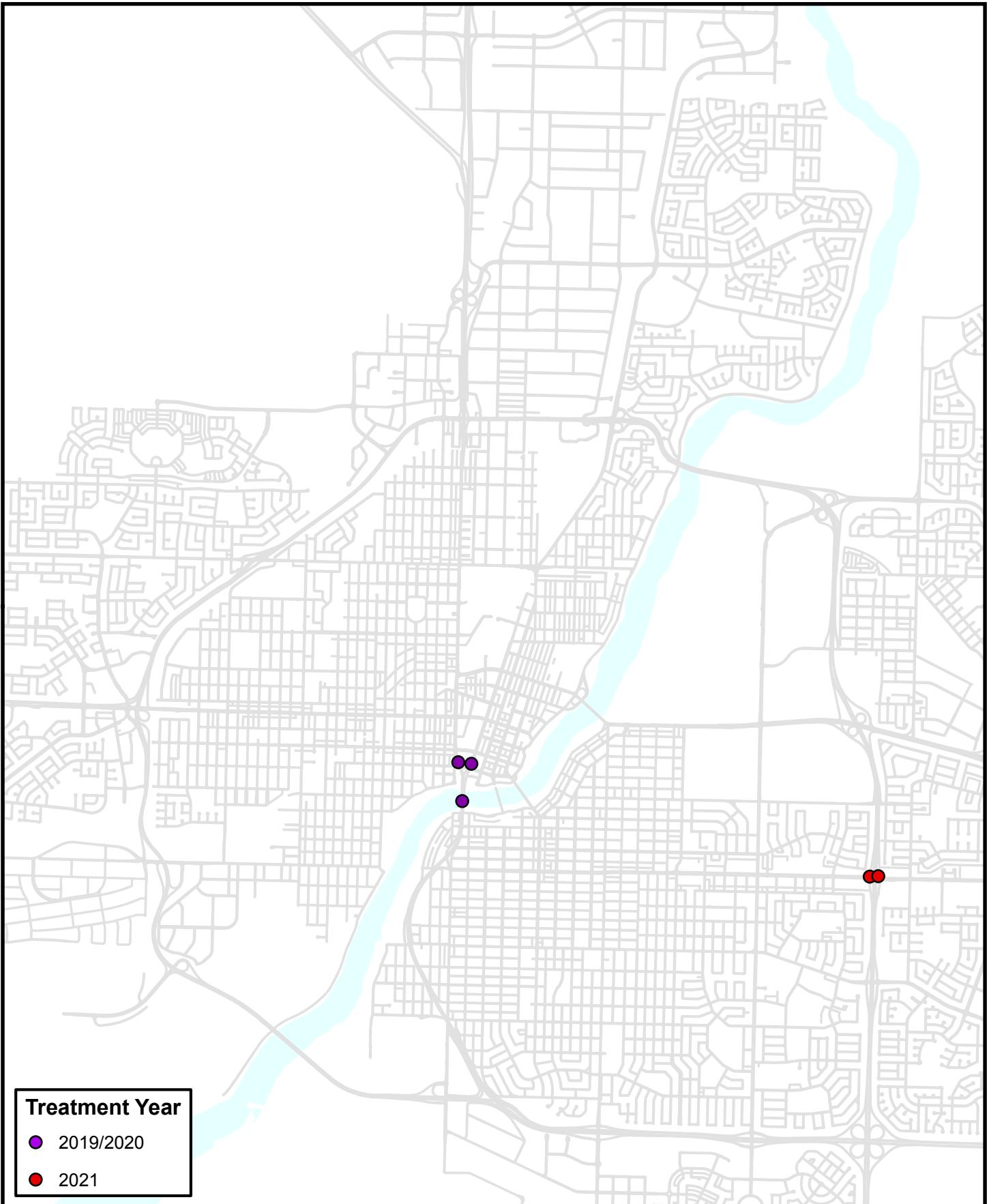
2019 - 2020: Sid Buckwold Bridge & Idywyld Dr Over 19th Street Ramps

2021: Circle Dr Over 8th Street Overpasses



2019-2021 Bridges & Structures Preservation

Bridge Rehabilitaion Locations



2019/2020 BRIDGES AND STRUCTURES	
Structure Name	Treatment
Sid Buckwold Bridge	Rehabilitation
Idylwyld Drive NB & SB over 19th Street W	Rehabilitation
Idylwyld Drive NB over 19th Street W to 1st Avenue Ramp	Rehabilitation
2021 BRIDGES AND STRUCTURES	
Structure Name	Treatment
Circle Drive NB over 8th Street E	Rehabilitation
Circle Drive SB over 8th Street E	Rehabilitation

Projected Bridges & Structures Preservation