



Committee of the Whole Report

Report Number: ENG2024-008

Meeting Date: April 9, 2024

Title: 2024 Life Cycle Extension program

Description:

Author and Title: Michael Farquhar Manager of Technical Services
Engineering and Corporate Assets

Recommendation(s):

That Report ENG2024-008, **2024 Life Cycle Extension program**, be received;

That this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

Department Head: _____

Financial/Legal/HR/Other: _____

Chief Administrative Officer: _____

Background:

This report updates Council on the identified projects for the Life Cycle extension program. The intent of the Life Cycle Extension program as outlined in the 2024 Capital program 9832407, is to maintain and preserve roads sections. This is done through the following programs:

Table 1:

Program Types
Local Asphalt Paving
Local Surface Treatment N/A in 2024
Micro-Resurfacing N/A in 2024
Roads to be Pulverized due to Maintenance demand
Slurry Sealing
Crack Sealing

The program utilizes these methods in order to sustain road section segments in a reasonable state until such time as a future capital project is implemented, as well as extending the life of moderate to good road surfaces (by pushing out the time of need for a complete resurfacing or reconstruction).

The main methods of preservation being used in 9832407 for 2024 will be Crack Sealing, Local Asphalt Paving, Slurry Sealing and Asphalt rejuvenation at different locations throughout the City.

The City's crack sealing program is currently identified to continue on CKL road 6 north of CKL 8 which is where the project was completed to in 2023. It will progress towards CKL 45 and once completed it will proceed to CKL 45. These locations will most likely be completed over the next 2-3 years. This project focuses on arterial roads within segments that have recently received shoulder rehabilitation by Public Works.

The slurry seal program focuses on existing hard top roads within a life span of 1-8 years based on condition, to coat and seal in order to extend the surface life. The locations being done this year are shown in Table 4.

This report follows the yearly practice of informing Council on the projects within the Life Cycle Extension program as outlined in the resolution below.

CW2020-009

That Report MAYOR 2019-001, Deputy Mayor’s 2019 Round Table Meetings on Roads, be received;

That staff report to Council each spring regarding life cycle extension needs in relation to the approved budget.

**Carried
 CR2021-263**

Rationale:

This report is in response to Council resolutions as described in the background of this report, and to identify locations of projects under the Life Cycle Extension program 9832407.

Table 2 is a list of hard topped roads identified by Public Works as requiring repair from spring breakup conditions. In addition to those roads there are road segments that have been reviewed through Council resolutions and requests and/or are extensions of work started in 2023.

The scope of work for these road sections involve spot repair by resurfacing with an overlay of hot mix asphalt in spot segments of the roads but is not limited to and can include pulverizing adding gravel and paving. The majority of the work will be done on segments within the sections described in Table 2.

Table 2: Localized Resurfacing Locations 2024

Road	From	To	Length (m)
Young St	CKL 45	Rumohr Dr.	167
Rumohr Dr.	Young’s St.	CKL 45	265
Black School Road	30 m west of #381	970 m east of #381	1000
Cresswell Road	#261	500m West of #261	500
Cresswell Road	Simcoe St	#45 Cresswell Rd	400
Mary St	Alma St.	Cross St	275
Ballyduff Road	Highway 35	Manvers Scugog Townline	385
Hollowtree Road	Mark Road	Killarney Bay	1330
Island Drive	Burnt River Road	Hemlock Drive	741
Balsam Road	Snug Harbour Road	Sturgeon Crescent	275
Sturgeon Crescent	Balsam Road	Balsam Road	475
Sandaraska Road	Porter Road	Boundary Road	385

Road	From	To	Length (m)
Clearview	Charlore Park Drive	250 m south	250
		Total	6448

Table 3 outlines locations of roads identified by Public Works to be pulverized then maintained as gravel road segments unit such time as identified in the 5-year roads plan for resurfacing. This can be a 1 to 2-year timeframe but in the case for the roads section in table 3 they are proposed for resurfacing in 2025 under the Rural Resurfacing program in the roads 5-year plan. The value of this process is it relieves a current maintenance demand for the City on these sections.

Table 3: Locations of roads to be pulverized 2024

Road	From	To	Length (m)
Bethel Road	Highway 7	1.225km N of Highway 7	1225
Bethel Road	Valley road	90 m east and west of the intersection of Valley Road and Bethel Road	180
		Total	1405

Table 4 represents the locations of road segments being proposed for a treatment of “Slurry Seal”. Slurry seal is a mixture of well-graded fine aggregate, mineral filler, asphalt emulsion and water applied to a pavement as a surface treatment. It protects existing surfaces from:

- Moisture intrusion
- Fills surface voids, cracks and minor depressions
- Retards further oxidization of pavement
- Provides skid resistant surface
- Extends the service life.

Table 4: Slurry Sealing Locations 2024

Road	From	To	Length (m)
Boundary Road	Yankee Line	Mallard Bay Road	1400
River Road	MTO 35	MTO 7	3200
Cedar Glen	CKL 24	Earl Kennedy	2600
Kennedy Bay Road	CKL 36	Deerwood Ave	2000
Cottage Road	CKL 16	Sand Bar Road	3600
Shirley Ann Dr.	Beach Road	Beach Road	800

Road	From	To	Length (m)
Fleetwood Road	MTO 35	Ski Hill Road	7750
Manvers-Scugog Boundary	Yelverton Road	Devitts Road	3750
Charlore Park road	Shamrock road	all	2586
Yelverton Road	Gray Road	CKL 5	5100
		Total	32786

Table 5 represents the balance of the current working list for locations identified by Public Works where spot repairs with asphalt overlays would be beneficial by reducing maintenance demand in operations areas. This list is updated yearly with Public Works and addressed as capital funds allow. Public Works continue to maintain these sections as per the requirements in Ontario Provincial Standards (OPS) and the City’s level of service policy. It is estimated that the cost of spot repair on the road segments identified in Table 5 to be approximately **\$1,262,000**.

Table 5: Works Identified but unfunded for Localized resurfacing in 2024

Road	From	To	Length (m)
Adella road	Hwy 35	end	315
Rama-Dalton Boundary Road	900m North of Monck Road	1400m North of Monck Road	500
The Glen Road	125 m east of #651	300 m west of #381	425
Driftwood Shores Rd	Centennial Park Road	800 m east	800
Canal Road	25 m west of #32	90 m east of #32	115
Campbell Beach Road	Mara/Carden Boundary	90m North	90
Farms Road	#492	30m North of #507	200
Farms Road	In front of #360	In front of #360	30
Farms Road	50m North of #360	180m North of #360	130
McLarens Creek Road	CKL 21	100 m west	100
Dovehaven Road	Rainbow Ridge	550 meters north of Rainbow	550
Dovehaven Road	Cottage Road	500m South of Cottage Road	500
Blythe Shore	Sturgeon Point Road	Gold Street	860
Henry Street	Forest Road	Graham Lane	355
Moore Crescent	North Street	East End	73
Henry Street	Forest Road	Graham Lane	355

Road	From	To	Length (m)
Green Street	Lindsay Street	North street	154
West Street	Lindsay Street	Wychwood Crescent	270
Buckhorn Road	Sturgeon Crescent	Balsam Road	269
Mill Street	King Street	Bridge Limit	60
Heights Road	Tracey's Hill Road	305m North of Tracey's Hill Road	305
Heights Road	Tracey's Hill Road	305m South of Tracey's Hill Road	305
Victoria Street	George Street	Sturgeon Road	115
Westview Drive	#53	#48	70
Westview Drive	Yankee Line	#3	40
Kenedon Drive	#157	#145	100
Lifford Road	Highway 35	Chipmunk Road	150
Stoney Creek Road	Highway 35	400m West of Highway 35	400
John Street	100m North of Highway 35	140m North of Highway 35	40
John Street	225m North of Highway 35	255m North of Highway 35	30
John Street	500m North of Highway 35	725m North of Highway 35	225
Tower Road	Highway 35	Star Hill Road	501
Corner Road	Yelverton Road	Sugarbush Road	181
Pigeon Creek	#286	Just West of #249	375
		Total	8988

Other Alternatives Considered:

Beginning in 2021, Engineering has tendered the Rural Resurfacing program and Life Cycle Extension program within one tender for reasons of pricing and administration efficiencies as well as coordination of similar work. This tender was issued as a 2-year with 3-year optional renewal to also allow for pricing efficiencies and expediency with commencing with yearly work. As of the writing of this report this tender has closed but has not been awarded. As the work identified in Table 2 is similar to the works in the Rural Resurfacing tender, once awarded staff would utilize it for unit pricing to complete identified works in Table 2. For all other works in the Life Cycle Extension program, the City already has pre-existing tenders in place

Alternatively, if Council chooses to fund additional work to be completed within the Life Cycle Extension program, staff will review the next priority sections that had been identified through Council resolutions or by Public Works but not included in Table 2 and subsequently shown in Table 5 (due to available budget or priority). In addition to this, if the overall Life Cycle Extension program for 2024 has a balance of funds once identified projects are complete, then staff will utilize these approved funds for the next priority as well.

Alignment to Strategic Priorities

The recommendations within this report directly align with all Strategic Goals, through our Value of Collaboration namely:

1. Healthy Environment
2. A Vibrant and Growing Economy
3. Good Government

Financial/Operation Impacts:

- The work as listed in Table 2 and Table 3 is estimated to cost approximately \$670,000 which is identified in the budget in line 983240704 and 983240706 in the Life Cycle Extension program for asphalt overlays.
- The work as listed in Table 4 is approximately \$950,000 as identified in the project line 983240705 for Slurry Sealing.

Once works are added to existing tenders any variances between project lines within the program will be adjust based on available funds within the entire Life Cycle Program. And if there are any remaining funds after identified projects are complete then they could be used on the next required priority(s).

Consultations:

Public Works

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Department Head: Juan Rojas, Director of Engineering and Corporate Assets