



The Township of Mapleton

2016 Road Condition Assessment

GMBP File: 315-043

October, 2016



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APPENDICES

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1. INTRODUCTION

The Township of Mapleton retained GM BluePlan Engineering (GMBP) to provide engineering services related to the provision of a road condition assessment for all roadways and sidewalks within the Township.

Currently the Township maintains approximately 375 km of roadways, of which approximately 163 km are gravel and 212 km have hard top, such as hot mix asphalt or surface treatment. This assignment excludes bridges and culverts as per the terms of reference.

2. METHODOLOGY

Field data was collected and analysed based on the procedures outlined in “SP-022 Flexible Pavement Rating – Guidelines for Municipalities” (Ministry of Transportation, 1989) and “PAV-86-02 Pavement Condition Index (PCI) for Flexible Pavements” (Ministry of Transportation, 1992). The paved roadways were evaluated by identifying specific pavement defects on the asphalt surface and recording their severity as a proportion of the overall road area in order to establish the Distress Manifestation Index (DMI).

In conjunction with the DMI, a Riding Comfort Rating (RCR) was established for each section of paved roadway evaluated. As per Ministry document SP-022, the RCR was evaluated subjectively by a driver travelling at the posted speed and scoring the ride comfort on a scale from 0 to 10. A rating of 10 would indicate a smooth, stable road with no discomfort to the rider while a rating of 0 would indicate a very rough riding road with serious safety concerns.

The DMI and RCR parameters were used to establish the Pavement Condition Index (PCI) using a mathematical formula outlined in Ministry document PAV-86-02. The PCI ranges between 0 and 100, and is a common single measure of the performance of a pavement. The greater the PCI value, the greater the current pavement performance.

Gravel roadways were rated solely based on distress manifestation, using distresses unique to gravel roads. Severity and frequency of distresses were then used to determine a recommended treatment for the roadway, as well as a Condition Rating (CR). It should be noted that gravel road condition ratings and paved roadway PCIs are not directly comparable, and should only be used to compare within like asset groupings.

All sidewalks within the Township were examined, and visible defects were recorded. These defects included deformities such as heaving, cracking, or tree root intrusion. A listing of sidewalk defect locations is included **Appendix B** to this report.

3. PREVIOUS STUDIES

The following previous studies were consulted as part of this study:

- Road and Structure Management Plan, RJ Burnside & Associates, 2009
- Township of Mapleton Asset Management Plan, Watson & Associates, 2013

4. MAPLETON ROAD INVENTORY

This study inventoried and rated a total of 375.5 kilometres of roadway within the Township of Mapleton. The following charts outline the Mapleton road network based on a number of parameters. All physical inventory data was provided by the Township from their asset database.

Surface Type

Surface type can be defined as Asphalt, which means High Class Bituminous Asphalt (Hot Mix), Surface Treatment which is Low Class Bituminous (Tar & Chip), Gravel, or Earth (mud roads).

Surface Type	Centreline Kilometres	Percentage of Network
Asphalt	202.4	53.9%
Surface Treatment	9.8	2.6%
Gravel	153.2	40.8%
Earth	10.1	2.7%

Roadside Environment

Roadside Environment is divided into three classes, Rural, Semi-Urban, and Urban. Rural Environment means rural roads that generally abut agricultural lands or open spaces such as forests. Semi-Urban roads are those which are adjacent to or inside of built-up areas (eg. Glen Allen), but do not include curb & gutter or storm sewers. Urban Environment refers to roadways that are in an urban or built-up area, and generally include curb & gutter and storm sewers.

Roadside Environment	Centreline Kilometres
Rural	346.2
Semi-Urban	19.5
Urban	9.8

Maintenance Class

The Maintenance Class of a roadway is set as per Section 1(4) of O.Reg 239/02, *Minimum Maintenance Standards for Municipal Highways*. Maintenance Class is determined by using a combination of the posted speed of a highway, and the Annual Average Daily Traffic (AADT). The Maintenance Class helps to set the level of service offered by the Township, in accordance with the Regulations.

Maintenance Class	Centreline Kilometres
Class 3	2.6
Class 4	275.6
Class 5	14.1
Class 6	83.1

It is estimated that by 2026, traffic volume growth will add an additional 13.7 kilometres of Class 3 roadway to the Township's network. This is a relatively significant increase that will need to be planned for in advance, and it is important that traffic counts continue to be collected in an ongoing manner in order to ensure compliance with the Minimum Maintenance Standards. The following table lists class 3 roads in 2016, and roads that are estimated to be class 3 in 2026.

Road Name	Section	From	To
2016 Class 3 Roads (>1,000 AADT)			
Fourth Line	P227 / P227A	Yatton Sideroad	Woolwich Boundary
Concession 8	M248	Wellington Rd 11	Sideroad 15
2026 Additional Class 3 Roads			
Concession 8	M243, M245, M246, M247	Sideroad 6	Sideroad 15
Third Line	P211, P212, P212A, P213, P214	County Road 12	Reid Woods Drive
Concession 3	M216	Wellington Rd 11	Sideroad 15

A full listing of road section inventory data is included as **Appendix A**.

Traffic counts were supplied by the Township where available, and the tables include the most up to date traffic volume data. Where traffic counts were not available, traffic volumes from the most recent previous report were used. Forecasts of ten year traffic volumes were made for all road sections by using an annual growth factor of 1%, which is considered appropriate for a road network of this type.

4.1.1 Visual Inspection and Assessment

GM BluePlan staff, along with Paul Hinsperger of The Township of Mapleton, conducted a systematic and organized visual inspection of all Township roads during June and July of 2016. The inspection assessed road segments in accordance with the Ministry of Transportation Ontario's (MTO) Flexible Pavement Condition Rating Guidelines for Municipalities SP-022 visual condition standards, and to the MTO's 'Inventory Manual for Municipal Roads.' Based on this standard, the inspection looked for following list of defects:

Bleeding/Flushing	Distortion
Alligator Cracking	Longitudinal Cracking
Transverse Cracking	Ripping/Shoving
Potholes	Rutting
Ravelling	

The defects noted on each road section were then graded using the severity scale outlined below:

Rating	Severity	Extent (Percent of Surface Area)	
1	Very Slight	0 to 10	Occasional
2	Slight	10 to 20	Intermittent
3	Moderate	20 to 50	Frequent
4	Severe	50 to 80	Extensive
5	Very Severe	>80	Throughout

Based on this grading criteria, a Distress Manifestation Index (DMI) is calculated for each road segment. The DMI is determined by totalling the defect rating recorded during the visual inspections along with the volume of these defects.

A rideability assessment is also completed to assess the ride comfort level for each road segment and is assigned as the ride comfort rating (RCR). The RCR is measured by driving the road segment at the posted speed limit, and is determined based on the following categories:

Ride Comfort Rating (RCR)		Guidelines
9 – 10	Excellent	Very Smooth
7 – 8	Good	Smooth with a few bumps and depressions
5 – 6	Fair	Comfortable with intermittent bumps or depressions
2 – 4	Poor	Uncomfortable with frequent bumps or depressions
0 – 1	Very Poor	Uncomfortable with constant bumps or depressions

Upon completion of the municipal road network survey, a Pavement Condition Index (PCI) was established for each road segment. This PCI value represents the overall road condition rating and is a combination of the DMI and RCR values. Following this, a Time Of Improvement (TOI) was determined, based solely on condition rating. The TOI is set using the following scale:

Time of Improvement	PCI
Adequate	>80
6 to 10 Years	70-80
1 to 5 Years	50-70
NOW Resurface	25-50
NOW Rehabilitate	<25

Next, all road sections are assigned a Priority Rating (PR) which is a calculated value that combines both the Condition Rating and the Annual Average Daily Traffic (AADT). The PR is used to assist the Township in focussing their road rehabilitation and resurfacing efforts in order to maximize the impact of the annual capital budget.

All data collected as part of this study is included in electronic format and attached to this report.

4.1.2 Gravel Road Inspection

At the same time as the hard-surfaced roads were inspected, GMBP staff also evaluated the condition of all granular roads in the Township's current inventory. Considering that the condition of granular roads can change quickly through seasonal changes or re-grading operations, the inspection results in only a "snapshot" of the road's condition at the time of evaluation.

Gravel roads were inspected in accordance with the Ministry of Transportation Ontario's (MTO) Manual for Condition Rating of Gravel Surface Roads SP-025. Based on this standard, the inspection looked for following list of defects:

Breakup (Boiling)	Washboard
Rutting	Flat/Reverse Crown
Distortion	Excessive Height
Ponding	Overgrowth

Similar to hard top roads, defects are assigned a rating based on both the severity of the observed defect, and the extent of the defect throughout the road section. The severity and density of observed defects is combined to calculate a Condition Rating for gravel roads. The road section is then assigned a maintenance or improvement code based on the observed defects, as follows:

No Action
Grading Only
Grade and Add Gravel
Grade and/or Berm Retrieval
Reconstruction

Time Of Improvement for gravel roads is determined in a different manner from hard top roads, as gravel road Condition Indices are not directly comparable to hard top PCI. TOI for gravel roads is determined based on actual conditions observed during the inspection, and is assigned either 'NOW' for gravel roads with significant structural problems, 'MTCE' for gravel roads with immediate maintenance needs, such as the addition of gravel, but that do not require full reconstruction, or 'ADEQ' for gravel roads that may require only minor maintenance such as grading.

Finally, gravel roads are assigned a Priority Rating (PR) in a similar manner to hard top roads, combining the impacts of Condition Rating and AADT.

4.1.3 Curb and Sidewalk Audit

In conjunction with the Road Condition Assessment, GMBP staff performed a municipal sidewalk audit. GMBP staff walked and visually inspected all curbs and sidewalks in the Township's inventory. During this inspection, both observed deficiencies as well as "root causes" were recorded. The following tables outline the defects that were identified in the field:

Cause
Settlement
Tree Roots - site visit
Tree Roots - no site visit
Trench/Utility - service lines
Vehicular Damage
Snowplow Damage
Salt Damage
Age/Weathering
Other Infrastructure
Other

Defect Description
Depression or Rolling Areas
Spalling or Other Surface Defects
Horizontal or Vertical Cracking
Broken off or Missing portions
Vertical Displacement (minor)
Vertical Displacement (major)

Sidewalk data is included in the deliverable database provided to the Township as an attachment to this report. It should be noted that some of the sidewalk identified is on Wellington County highways. However, it is understood that the provisions of Section 55 of the *Municipal Act* prevail, and that these sections of sidewalk are under the jurisdiction of the Township of Mapleton.

“Upper-tier sidewalks

55. (1) An upper-tier municipality is not responsible for the construction and maintenance of sidewalks on its highways and the lower-tier municipality in which the highways are located is responsible for the construction and maintenance of the sidewalks and has jurisdiction over that part of the highway, unless the municipalities agree otherwise. 2001, c. 25, s. 55 (1).”

All curbs under the jurisdiction of the Township of Mapleton were similarly inspected. There were no sections of curb and gutter identified as deficient on Township roadways. In general, all curb is in good to excellent condition throughout.

4.1.4 Road Improvement Type and Benchmark Costs

Based on the type of roadway (urban or rural), condition index, observed defects, and the amount of traffic, road sections with improvement needs were assigned an improvement type. It is important to note that roadway improvements are generally considered on a “like for like” basis. In other words, roads which currently have Surface Treatment that require improvement will be designated for re-application of surface treatment, unless traffic volumes dictate otherwise. The decision to upgrade roads from gravel or surface treatment to asphalt, or similarly downgrade roads, is a level-of-service decision beyond the scope of this

report. The improvement strategies that can be applied to a road section, for the purposes of this report, are as follows:

Improvement Code	Description
R1	Single overlay of HL4 asphalt, 55mm depth. Includes 20% padding and shoulder gravel, or milling in urban sections
R2	Double overlay of HL4 asphalt, 110mm depth. Includes 20% padding and shoulder gravel, or milling in urban sections
R1ST	Single lift of Surface Treatment
R2ST	Double lift of Surface Treatment
PR1	Pulverize existing asphalt, pave 55mm of HL4. Includes shoulder gravel
PR2	Pulverize existing asphalt, pave 110mm of HL4. Includes shoulder gravel
BS	Rural roads only. New granular 'A', plus single or double hard top (asphalt or surface treatment) depending on AADT
REC	Full depth excavation of rural roads. All new granulars and culverts. New asphalt surface, single or double lift depending on AADT
RECST	Full depth excavation of rural roads. All new granulars and culverts. Surface treatment, single or double lift depending on AADT
RECG	Full depth excavation of rural roads. All new granulars and culverts. Gravel surface roadway.
RNS	Similar to REC, but for urban. May include curbs and storm drains

In order to determine approximate costs for each road section with a needed improvement, improvement types are associated with a benchmark cost. Benchmark costs for improvement types were developed using unit costing for various types of construction materials. These costs were provided by Mapleton staff, and are typical of road construction costs in the local area.

Item	Unit	Cost
Asphalt Removal	m2	\$ 5.00
Excavation	m3	\$ 16.00
HL4 Base Asphalt	tonne	\$ 85.00
HL3 Surface Asphalt	tonne	\$ 100.00
SHF surface treatment	m2	\$ 2.50
Slurry Seal	m2	\$ 3.50
Granular 'B'	tonne	\$ 11.00
Granular 'A'	tonne	\$ 13.50
Granular 'M'	tonne	\$ 12.25
Curb & Gutter (R&R)	Lm	\$ 100.00
Subdrains	Lm	\$ 25.00
Storm Sewer (300mm)	Lm	\$ 150.00
CB Manhole (R&R)	ea.	\$4,500.00
Catchbasin (R&R)	ea.	\$2,750.00
Asphalt Milling	m2	\$ 5.00
Asphalt Pulverizing	m2	\$ 3.00
Ditching	Lm	\$ 20.00
Sidewalk (R&R)	m2	\$ 77.00

Unit costs were then used to develop benchmark costs for the various improvement types, on a per metre basis using carriage way widths deemed appropriate for various traffic volumes. The following table lists the improvement type, and the benchmark cost per metre:

AADT	<200	200-400	400-1000	>1000	Urban
Improvement Code	Cost per Metre				
R1	\$105.72	\$105.72	\$112.30	\$116.07	\$184.14
R2	n/a	n/a	\$208.48	\$216.03	\$318.45
R1ST	\$18.48	\$18.48	n/a	n/a	n/a
R2ST	\$36.96	\$36.96	n/a	n/a	n/a
PR1	\$112.50	\$112.50	\$119.40	\$123.17	n/a
PR2	\$184.12	\$184.12	\$197.56	\$208.57	\$316.06
BS	\$111.59	\$133.40	\$232.98	\$367.52	n/a
REC	\$612.67	\$614.57	\$788.58	\$956.57	n/a
RECST	\$485.16	\$487.07	\$679.01	n/a	n/a
RECG	\$462.31	\$464.22	n/a	n/a	n/a
RNS	n/a	n/a	n/a	n/a	\$1680.99

4.1.5 Replacement Value

The replacement value of all road sections was estimated on the basis of full depth reconstruction of the entire roadway. Replacement values do not include the cost of storm sewers, sanitary sewers or municipal water services, and also do not include the cost of sidewalks as these items are understood to be accounted for as a separate asset class.

The total replacement value of all roads under the jurisdiction of the Township of Mapleton is estimated to be **\$222,706,000**. Individual road section replacement values are included as part of the electronic spreadsheet attached to this report.

4.1.6 Road Condition

As a result of the review, a list of road needs in the Township of Mapleton has been developed. These needs will aid the Township in setting maintenance and capital expenditure programs accordingly.

The needs, identified solely by condition, that have been identified in the ten-year study period are summarized as follows:

Time of Need	Total Length of Roadway
NOW Rehabilitate	38.5 km
NOW Resurface	15.4 km
Gravel Maintenance Needs	18.3 km
1-5 Year	63.1 km
6-10 Year	39.6 km
Adequate	200.6 km

Road sections with the poorest condition ratings (ie. CI<40) are summarized in the following table:

Road Name	Section Number	From	To	Surface Type	CI
Eighteenth Line	P295	Sideroad 19	Sideroad 18	Earth	5.0
Sideroad 17	P123A	Fourth Line	2.45 km. north	Earth	5.0
Sideroad 17	P124	Sixth Line	Eighth Line	Earth	5.0
Sideroad 18	P133	0.568 km N. of Third Line	2.439 km N. of Third Line	Gravel	5.0

Road Name	Section Number	From	To	Surface Type	CI
Sideroad 18	P134	2.439 km N. of Third Line	Fourth Line	Gravel	5.0
Sideroad 19	P150A	0.415 km N. of Wellington Rd. 86	1.243 km N. of Wellington Rd. 86	Earth	5.0
Sideroad 19	P153A	0.338 km N. of Fourth Line	Sixth Line	Earth	5.0
Sideroad 19	P154A	0.41 km N. of Sixth Line	Eighth Line	Gravel	5.0
Sideroad 20	P168A	2.425 km N. of Wellington Rd. 8	Twelfth Line	Gravel	5.0
Sideroad 3	M114	Concession 6	2.365 km north of Concession 6	Gravel	5.0
Sideroad 15	M141A	Kumpville Dr. W.	0.04 km. N.	Asphalt	5.7
Sideroad 20	P169	0.706 km N. of Twelfth Line	Wellington Rd. 7	Surface Treatment	6.2
South Mill St.	P402A	Wellington Rd. 45	Hill St.	Surface Treatment	11.0
Sideroad 17	P125	Eighth Line	Wellington Rd. 8	Gravel	15.0
Lakeview Dr.	P601A	Wellington Rd. 11	Road One B	Surface Treatment	15.8
Lakeview Dr.	P601B	Road One B	Road One B	Surface Treatment	24.1
Concession 6	M233	Wellington Rd. 10	Sideroad 6	Asphalt	28.5
Sideroad 18	P132	Third Line	0.568 km N. of Third Line	Gravel	30.0
Sideroad 3	M115	Wellington Rd. 8	1.188 km N. of Wellington Rd. 8	Gravel	30.0
John St.	D016	0.103 km north of Robin Dr.	End	Asphalt	30.5
Sideroad 17	P121	Wellington Rd. 86	Wellington Rd. 45	Asphalt	31.0
Robin Dr.	D017	John St.	End	Asphalt	31.9
Sideroad 15	M141	Concession 3	Kumpville Dr. W.	Asphalt	35.5
John St.	D015	Robin Street	0.103 km north	Asphalt	35.6

Road Name	Section Number	From	To	Surface Type	CI
Fourth Line	P227	Yatton Sideroad	0.256 km E. of Yatton Sideroad	Asphalt	37.4
Concession 5	M228	Sideroad 15	1.091 km E. of Sideroad 15	Surface Treatment	38.1
Sailing Club Rd.	M162	Wellington Rd. 11	0.813 km N. of Wellington Rd. 11	Surface Treatment	39.0
Sideroad 6	M119	Wellington Rd. 86	Concession 3	Asphalt	39.0
John St.	D013	Main St. E.	Wood St.	Asphalt	39.9

4.1.7 Structural Adequacy

An important component of the road assessment that helps to determine improvement type is Structural Adequacy(SA). Structural Adequacy is a measure of the road's ability to resist the structural loads put on by traffic. SA is rated on a scale of 1 to 20, with 20 representing a road in perfect condition, and ratings of 7 or less representing a road that is in poor condition and requiring full reconstruction. Roads with a SA rating of greater than 7 can be rehabilitated by using a single or double lift of resurfacing. It should be noted that Structural Adequacy is based on visual inspection only, and may not accurately reflect the sub-surface condition of the road. It is always recommended that proper geotechnical investigations be undertaken prior to any road reconstruction project to determine the actual sub-surface condition of the roadway.

The following is a list of roadways with SA ratings of 7 or less, and which are recommended for full depth reconstruction:

Road Name	From	To	Length (m)	SA
Lakeview Dr.	Wellington Rd. 11	Road One B	196	3
Fourth Line	Yatton Sideroad	0.256 km E. of Yatton Sideroad	256	4
Sideroad 20	0.706 km N. of Twelfth Line	Wellington Rd. 7	657	6
Concession 6	Wellington Rd. 10	Sideroad 6	1824	6
Sideroad 15	Concession 3	Kumpville Dr.	1016	6
Sideroad 15	Wellington Rd. 8	Concession 12	2751	6
Concession 5	Sideroad 15	1.091 km E. of Sideroad 15	1091	6
South Mill St.	Wellington Rd. 45	Hill St.	120	6

Road Name	From	To	Length (m)	SA
Sideroad 6	Wellington Rd. 86	Concession 3	2729	6
Sailing Club Rd.	Wellington Rd. 11	0.813 km N. of Wellington Rd. 11	813	6
Leslie Ln.	Hollen Rd.	Hollen Diversion	880	6
Robin Dr.	John St.	End	117	6
Twelfth Line	Sideroad 20	1.277 km E. of Wellington Rd. 12	4204	6
Concession 6	1.094 km E. of Sideroad 15	Sideroad 15	1094	6
Napier St.	Elora St. S.	Alma Queen St. S.	100	6

4.1.8 Prioritization

The previous section outlined road needs based solely on condition. However, it is generally acknowledged that there are additional factors which are taken into account when setting a capital program. GMBP uses a scoring system called the Priority Rating (PR) as noted previously, which combines the effect of Condition Rating and to help prioritize the road needs. Condition being equal, roads with a higher traffic volume will rank as higher priority for capital needs. Likewise, traffic being equal, roads with a lower condition rating will rank higher for capital needs. A full listing of PRs is included in the attached database.

Road sections with high Priority Rating numbers (PR>40) are listed in the following table, along with their estimated improvement cost and type of work proposed.

Road Name	From	To	Length (m)	AADT	PR	Improvement Type	Estimated Improvement Cost
Fourth Line	Yatton Sideroad	0.256 km E. of Yatton Sideroad	256	1399	77.1	REC	\$244,881
Sideroad 15	Kumpville Dr. W.	0.04 km. N.	43	50-199	67.6	REC	\$26,345
Sideroad 20	0.706 km N. of Twelfth Line	Wellington Rd. 7	657	50-199	67.2	RECST	\$320,002
Concession 6	Wellington Rd. 10	Sideroad 6	1824	405	65.7	REC	\$1,438,364

Road Name	From	To	Length (m)	AADT	PR	Improvement Type	Estimated Improvement Cost
Eighth Line	Sideroad 17	Sideroad 16	1844	500-999	61.0	PR1	\$220,168
Sideroad 15	Concession 3	Kumpville Dr. W.	973	382	58.5	REC	\$597,981
Sideroad 17	Wellington Rd. 86	Wellington Rd. 45	2964	282	58.5	PR1	\$333,457
Fourth Line	0.256 km. E. of Yatton Sideroad	Ruggle's Road	435	1399	55.7	R1	\$50,491
John St.	Main St. E.	Wood St.	121	200-499	53.4	PR2	\$38,243
Andrews Dr.	Wellington St. S.	Dales Dr.	117	500-999	53.2	R2	\$37,258
Sideroad 15	Wellington Rd. 8	Concession 12	2751	348	53.2	REC	\$1,690,693
Concession 6	Sideroad 12	Wellington Rd. 10	1825	434	53.1	PR2	\$360,548
Sideroad 15	Hollen Road	Concession 6	1362	382	52.8	PR1	\$153,228
Concession 3	Wellington Rd. 10	1.344 km E. of Wellington Rd. 10	1344	805	52.2	R1	\$150,927
Concession 5	Hollen Diversion	Sideroad 15	995	322	52.0	R2ST	\$36,775
Concession 5	Sideroad 15	1.091 km E. of Sideroad 15	1091	223	51.1	RECST	\$531,389
South Mill St.	Wellington Rd. 45	Hill St.	120	0-49	50.5	RECST	\$58,448
Edward St.	Pine St.	Wellington St. S	307	500-999	50.4	R2	\$97,763
Eighth Line	Wellington Rd. 12	Sideroad 17	1837	926	48.6	R1	\$206,290
Concession 4	Sideroad 3	Wellington Rd. 9	1854	321	48.4	PR1	\$221,362
Lakeview Dr.	Wellington Rd. 11	Road One B	82	0-49	47.8	RECST	\$39,939

Road Name	From	To	Length (m)	AADT	PR	Improvement Type	Estimated Improvement Cost
Sideroad 12	Concession 16	Wellington Rd. 109	273	200-499	47.6	PR1	\$32,595
Twelfth Line	Wellington Rd. 17	Sideroad 20	1785	555	47.4	R1	\$200,450
Sideroad 6	Wellington Rd. 86	Concession 3	2729	187	47.4	REC	\$1,671,965
Concession 8	Wellington Rd. 11	Sideroad 15	1940	1219	47.3	R2	\$419,089
John St.	Robin Street	0.103 km north	103	50-199	46.2	PR1	\$11,588
Sideroad 21	Fourteenth Line	Sixteenth Line	2721	455	45.8	R1	\$305,560
Edward St.	Spring St.	High St.	96	500-999	45.7	R2	\$30,571
Edward St.	Main St. E.	Spring St.	118	500-999	45.2	R2	\$37,577
Edward St.	High St.	Pine Street	316	500-999	45.1	R2	\$100,629
Sailing Club Rd.	Wellington Rd. 11	0.813 km N. of Wellington Rd. 11	813	50-199	43.7	RECST	\$395,984
Smith Dr.	Bonniewood Dr	Union St	117	500-999	43.7	R2	\$37,258
Twelfth Line	Sideroad 18	1.277 km E. of Wellington Rd. 12	544	441	43.2	REC	\$428,986
Lakeview Dr.	Road One B	Road One B	114	0-49	43.1	RECST	\$55,525
Eighth Line	Sideroad 16	Wellington Rd. 11	1841	958	42.8	R1	\$206,739
Leslie Ln.	Hollen Rd.	0.111 km S. of Hollen Rd.	111	50-199	42.6	RECST	\$54,064
Yatton Sdrd.	Third Line	0.725 km N. of Third Line	725	200-499	41.3	R1	\$81,415
Hollen Diversion	Concession 5	Leslie Ln.	598	50-199	41.2	R2ST	\$22,102

Road Name	From	To	Length (m)	AADT	PR	Improvement Type	Estimated Improvement Cost
Andrews Dr.	Dales Dr.	Maple St.	203	200-499	41.0	R2	\$64,645
Yatton Sdrd.	Wellington Rd. 86	0.362 km N. of Wellington Rd. 86	362	714	40.3	R1	\$40,652

A full listing of all roads, along with their Priority Rating, Improvement Type, and Estimated Improvement Cost is listed in **Appendix A**.

Although there are gravel roads in the Township with a very low Condition Rating, the combination of low traffic volumes and relatively high cost to rehabilitate means that all gravel roads in Mapleton are likely considered low priority for rehabilitation no matter how poor their condition. Furthermore, gravel roads with very low traffic volume (ie. <50 AADT) are considered sufficient with regular maintenance, and construction improvements are seldom warranted.

It should be noted that the Priority Rating is a guide only. There may be additional factors which affect the prioritization of capital road needs, including improvement cost, truck traffic, road continuity, roads with especially poor condition, safety considerations, other planned or necessary construction activities (eg. land development, sewer replacement), or site specific conditions such as geometric deficiencies. These additional prioritization factors are beyond the scope of this study.

4.1.9 Gravel Road Maintenance Needs

Certain gravel roads were noted during the evaluation to have immediate maintenance needs. These needs, and the associated road sections, are as follows:

Road Name	Section Number	From	To
GRADE AND ADD GRAVEL			
Sideroad 18	P149	Eighteenth Line	Highway 6
Yatton Sdrd.	P176	0.61 km. N. or Sixth Line	2.0 km. N. of Sixth Line
Sideroad 6	M123	Concession 4	Concession 6
Sideroad 6	M120	Concession 3	Concession 4
Centre St.	P401	Wellington Rd. 45	End

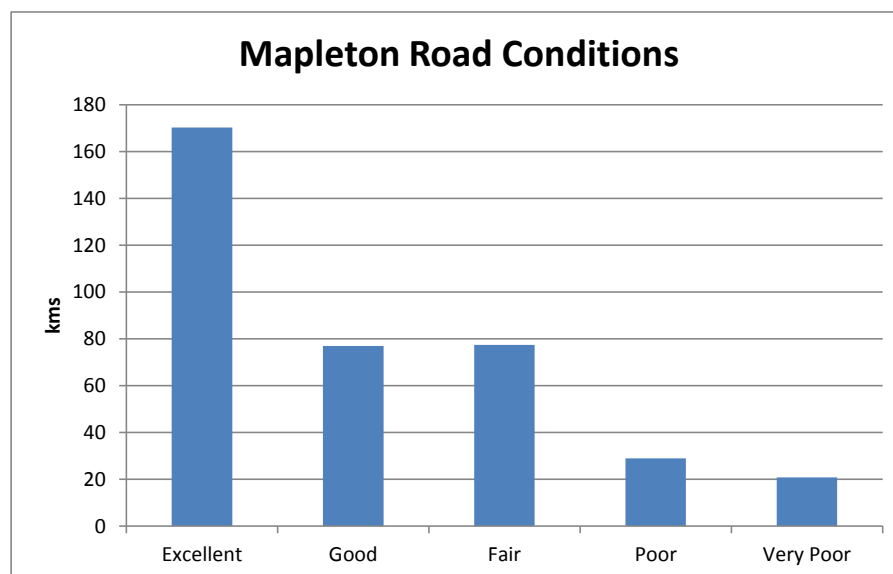
Road Name	Section Number	From	To
Mary St.	P121A	Wellington Rd. 45	End
Lower 4th Rd.	M227	Hollen Diversion	Leslie Ln. S.
Sideroad 17	P123	2.45 km. N. of Fourth Line	Sixth Line
Selinger Rd.	M224	Wellington Rd. 10	End
Lower 4th Rd.	M227A	Leslie Ln. S.	End
Sideroad 19	P158	1.007 km N. of Twelfth Line	Wellington Rd. 7
Sideroad 18	P140	2.174 km N. of Sixth Line	Eighth Line
Sideroad 19	P161A	1.5 km N. of Sixteenth Line	Eighteenth Line
Sideroad 19	P158A	Twelfth Line	1.007 km N. of Twelfth Line
Sideroad 19	P162	1.587 km N. of Sixteenth Line	Highway 6
Sideroad 17	P129	Fourteenth Line	Sixteenth Line
GRADE AND/OR BERM RETRIEVAL			
Leslie Ln. S.	M163	Lower 4th Rd.	0.673 km south of Lower 4th Rd.
GRADE, BERM RETRIEVAL AND ADD GRAVEL			
Sideroad 3	M115	Wellington Rd. 8	1.188 km N. of Wellington Rd. 8
Sideroad 17	P125	Eighth Line	Wellington Rd. 8

5. CONCLUSION

The Township of Mapleton maintains approximately 375.4 kilometres of roadway, of which 56.5% are hard surface roads. On a length adjusted basis, the average Condition Rating for Mapleton roads is 70.7, which equates to Fair to Good condition. Total improvement costs in 2016 dollars, for roads with a Priority Rating (PR) of greater than 40, are estimated as follows:

Priority Rating	Total Length	Estimated Cost
PR >60	4.6 km	\$2,249,761
PR 40-60	33.7 km	\$8,802,188

Overall, Mapleton's road network remains in reasonable condition given the traffic levels experienced. However, a significant portion of the network (~80 km) is currently in Fair (PCI 50-70) condition. Since the cost to rehabilitate roads in Poor (PCI 25-50) or Very Poor (PCI <25) condition is considerably more per kilometre than improving roads in Fair condition, it would be financially wise to address these roads in the near future before they deteriorate further.



This study has been provided to aid the Township of Mapleton in setting their capital plan. It is intended to be a guide only, and should be updated on a regular schedule in order to reflect changing conditions.

Respectfully Submitted,

GM BLUEPLAN ENGINEERING LIMITED

Per:



Matt Ash, C.E.T.
Sr. Project Manager



Appendix A - Road Inventory



MAPLETON ROADS – SORTED BY PRIORITY RATING

Municipal ID	Road Name	Name From	Name To	Road Section Length (m)	Roadside Environment	Surface Type	Annual Average Daily Traffic (AADT)	PCI	PR	Condition Improvement Code	Estimated Improvement Costs To Address Condition
P227	Fourth Line	Yatton Sideroad	0.256 km E. of Yatton Sideroad	256	Semi-Urban	Asphalt	1399	37.4	77.1	REC	\$244,881
M141A	Sideroad 15	Kumpville Dr. W.	0.04 km. N.	43	Rural	Asphalt	50-199	5.7	67.6	REC	\$26,345
P169	Sideroad 20	0.706 km N. of Twelfth Line	Wellington Rd. 7	657	Semi-Urban	Surface Treatment	50-199	6.2	67.2	RECST	\$320,002
M233	Concession 6	Wellington Rd. 10	Sideroad 6	1824	Rural	Asphalt	405	28.5	65.7	REC	\$1,438,364
P242	Eighth Line	Sideroad 17	Sideroad 16	1844	Rural	Asphalt	500-999	42.5	61.0	PR1	\$220,168
M141	Sideroad 15	Concession 3	Kumpville Dr. W.	973	Rural	Asphalt	382	35.5	58.5	REC	\$597,981
P121	Sideroad 17	Wellington Rd. 86	Wellington Rd. 45	2964	Rural	Asphalt	282	31.0	58.5	PR1	\$333,457
P227A	Fourth Line	0.256 km. E. of Yatton Sideroad	Ruggle's Road	435	Rural	Asphalt	1399	54.8	55.7	R1	\$50,491
D013	John St.	Main St. E.	Wood St.	121	Urban	Asphalt	200-499	39.9	53.4	PR2	\$38,243
D032	Andrews Dr.	Wellington St. S.	Dales Dr.	117	Urban	Asphalt	500-999	49.8	53.2	R2	\$37,258
M147	Sideroad 15	Wellington Rd. 8	Concession 12	2751	Rural	Asphalt	348	40.1	53.2	REC	\$1,690,693
M234	Concession 6	Sideroad 12	Wellington Rd. 10	1825	Rural	Asphalt	434	43.1	53.1	PR2	\$360,548
M144	Sideroad 15	Hollen Road	Concession 6	1362	Rural	Asphalt	382	41.8	52.8	PR1	\$153,228
M214	Concession 3	Wellington Rd. 10	1.344 km E. of Wellington Rd. 10	1344	Rural	Asphalt	805	51.6	52.2	R1	\$150,927
M226	Concession 5	Hollen Diversion	Sideroad 15	995	Rural	Surface Treatment	322	40.4	52.0	R2ST	\$36,775
M228	Concession 5	Sideroad 15	1.091 km E. of Sideroad 15	1091	Rural	Surface Treatment	223	38.1	51.1	RECST	\$531,389
P402A	South Mill St.	Wellington Rd. 45	Hill St.	120	Semi-Urban	Surface Treatment	0-49	11.0	50.5	RECST	\$58,448
D044	Edward St.	Pine St.	Wellington St. S	307	Urban	Asphalt	500-999	52.5	50.4	R2	\$97,763
P243	Eighth Line	Wellington Rd. 12	Sideroad 17	1837	Rural	Asphalt	926	56.4	48.6	R1	\$206,290
M221	Concession 4	Sideroad 3	Wellington Rd. 9	1854	Rural	Asphalt	321	44.5	48.4	PR1	\$221,362
P601A	Lakeview Dr.	Wellington Rd. 11	Road One B	82	Rural	Surface Treatment	0-49	15.8	47.8	RECST	\$39,939
M139B	Sideroad 12	Concession 16	Wellington Rd. 109	273	Rural	Asphalt	200-499	46.4	47.6	PR1	\$32,595
P267	Twelfth Line	Wellington Rd. 17	Sideroad 20	1785	Rural	Asphalt	555	52.0	47.4	R1	\$200,450
M119	Sideroad 6	Wellington Rd. 86	Concession 3	2729	Rural	Asphalt	187	39.0	47.4	REC	\$1,671,965
M248	Concession 8	Wellington Rd. 11	Sideroad 15	1940	Rural	Asphalt	1219	60.3	47.3	R2	\$419,089
D015	John St.	Robin Street	0.103 km north	103	Semi-Urban	Asphalt	50-199	35.6	46.2	PR1	\$11,588
P172	Sideroad 21	Fourteenth Line	Sixteenth Line	2721	Rural	Asphalt	455	51.4	45.8	R1	\$305,560
D022	Edward St.	Spring St.	High St.	96	Urban	Asphalt	500-999	56.9	45.7	R2	\$30,571
D023	Edward St.	Main St. E.	Spring St.	118	Urban	Asphalt	500-999	57.4	45.2	R2	\$37,577
D031	Edward St.	High St.	Pine Street	316	Urban	Asphalt	500-999	57.5	45.1	R2	\$100,629
M162	Sailing Club Rd.	Wellington Rd. 11	0.813 km N. of Wellington Rd. 11	813	Rural	Surface Treatment	50-199	39.0	43.7	RECST	\$395,984
D026	Smith Dr.	Bonniewood Dr	Union St	117	Urban	Asphalt	500-999	58.8	43.7	R2	\$37,258
P264A	Twelfth Line	Sideroad 18	1.277 km E. of Wellington Rd. 12	544	Rural	Asphalt	441	53.9	43.2	REC	\$428,986
P601B	Lakeview Dr.	Road One B	Road One B	114	Rural	Surface Treatment	0-49	24.1	43.1	RECST	\$55,525
P241	Eighth Line	Sideroad 16	Wellington Rd. 11	1841	Rural	Asphalt	958	61.9	42.8	R1	\$206,739
M503	Leslie Ln.	Hollen Rd.	0.111 km S. of Hollen Rd.	111	Semi-Urban	Surface Treatment	50-199	40.6	42.6	RECST	\$54,064
P501	Yatton Sdrd.	Third Line	0.725 km N. of Third Line	725	Semi-Urban	Asphalt	200-499	53.5	41.3	R1	\$81,415
M164	Hollen Diversion	Concession 5	Leslie Ln.	598	Rural	Surface Treatment	50-199	42.5	41.2	R2ST	\$22,102
D032A	Andrews Dr.	Dales Dr.	Maple St.	203	Urban	Asphalt	200-499	53.9	41.0	R2	\$64,645
P163A	Yatton Sdrd.	Wellington Rd. 86	0.362 km N. of Wellington Rd. 86	362	Semi-Urban	Asphalt	714	61.5	40.3	R1	\$40,652
M140	Sideroad 15	Wellington Rd. 86	1.3 km N. of Wellington Rd. 86	1164	Rural	Asphalt	401	56.7	39.7	R1	\$130,714
D016	John St.	0.103 km north of Robin Dr.	End	198	Semi-Urban	Asphalt	0-49	30.5	39.5	PR1	\$22,275
M143	Sideroad 15	Concession 5	Hollen Road	1338	Rural	Asphalt	50-199	45.0	39.4	PR1	\$150,528
M222	Concession 4	1.051 km W. of Sideroad 3	Sideroad 3	1051	Rural	Asphalt	321	54.8	39.4	R1	\$118,024
P163	Yatton Sdrd.	0.362 km N. of Wellington Rd. 86	Blind Line	1009	Rural	Asphalt	714	62.6	39.2	R1	\$113,308

Municipal ID	Road Name	Name From	Name To	Road Section Length (m)	Roadside Environment	Surface Type	Annual Average Daily Traffic (AADT)	PCI	PR	Condition Improvement Code	Estimated Improvement Costs To Address Condition
P167A	Reid Woods Dr.	Blind Line	Third Line	1442	Rural	Asphalt	200-499	55.9	39.2	R1	\$161,932
M225	Concession 5	Sideroad 15	Wellington Rd. 10	4017	Rural	Asphalt	250	52.8	39.0	R1	\$451,097
D017	Robin Dr.	John St.	End	117	Semi-Urban	Asphalt	0-49	31.9	38.7	REC	\$71,682
D008	Wood St	Wellington St. N.	Elm St.	156	Urban	Asphalt	200-499	56.5	38.7	R1	\$28,726
M140A	Sideroad 15	1.3 km N. of Wellington Rd. 86	Concession 3	1554	Semi-Urban	Asphalt	401	58.0	38.5	R1	\$174,510
M215	Concession 3	Sideroad 15	Diamond Sideroad	1833	Rural	Asphalt	805	64.6	38.2	R1	\$205,840
D009	Wood St.	Elm St.	John St.	313	Urban	Asphalt	200-499	57.8	37.5	R1	\$57,636
P263	Twelfth Line	Wellington Rd. 12	Sideroad 17	1822	Rural	Asphalt	426	60.0	37.2	R1	\$204,605
M502	Hollen Rd.	Leslie Ln.	0.116 km W. of Leslie Ln.	116	Semi-Urban	Surface Treatment	50-199	48.7	36.8	R1ST	\$2,144
	Hollen Rd.	Sideroad 15	0.116 km W of Leslie Ln.	1084	Rural	Surface Treatment	50-119	48.7	36.8	R1ST	\$20,032
D012	Elm St.	Wood St.	End	161	Semi-Urban	Asphalt	50-199	49.1	36.5	R1	\$18,080
P223	Fourth Line	Wellington Rd. 12	Sideroad 17	1842	Rural	Asphalt	805	66.4	36.2	R1	\$206,851
M164A	Leslie Ln.	Hollen Diversion	0.111 km S. of Hollen Rd.	770	Rural	Surface Treatment	50-199	49.5	36.2	RECST	\$375,041
P266	Twelfth Line	Sideroad 20	Sideroad 19	1832	Rural	Asphalt	50-199	50.0	35.8	REC	\$1,122,404
P265	Twelfth Line	Sideroad 19	Sideroad 18	1828	Rural	Asphalt	50-199	50.5	35.5	REC	\$1,119,953
P231	Sixth Line	Sideroad 16	Wellington Rd. 11	1840	Rural	Asphalt	492	63.4	35.2	R1	\$206,627
D020	High St.	Wellington St. S.	Edward St.	154	Urban	Asphalt	500-999	67.5	34.5	R2	\$49,041
M504	Hollen Rd.	Leslie Ln.	0.14 km. East	138	Semi-Urban	Surface Treatment	0-49	40.2	34.0	R1ST	\$2,550
P226	Fourth Line	Yatton Sdrd.	Sideroad 19	1832	Rural	Asphalt	366	62.3	33.8	R1	\$205,728
P601C	Lakeview Dr.	Road One B	Road Eleven N.	108	Rural	Surface Treatment	0-49	40.9	33.6	R1ST	\$1,996
P222	Fourth Line	Sideroad 17	Sideroad 16	1825	Rural	Asphalt	500-999	68.4	33.5	R1	\$204,942
M236	Concession 6	1.094 km E. of Sideroad 15	Sideroad 15	1094	Rural	Surface Treatment	297	61.3	33.2	RECST	\$532,850
M214A	Concession 3	Diamond Sideroad	0.499 km W. of Diamond Sideroad	499	Rural	Asphalt	805	69.5	32.9	R1	\$56,036
P171	Sideroad 21	0.203 km N. of Raglan St. N.	Fourteenth Line	686	Rural	Asphalt	200-499	63.3	32.6	R1	\$77,036
M213	Concession 3	Sideroad 6	Wellington Rd. 10	1840	Rural	Asphalt	805	70.1	32.2	R1	\$206,627
P246	Eighth Line	Floradale Rd.	Sideroad 19	2115	Rural	Asphalt	701	69.5	31.8	R1	\$237,508
P264	Twelfth Line	1.277 km E. of Wellington Rd. 12	Wellington Rd. 12	1277	Rural	Asphalt	441	66.1	31.8	R1	\$143,403
P317	Napier St.	Elora St. S.	Alma Queen St. S.	100	Semi-Urban	Asphalt	50-199	56.2	31.4	REC	\$61,267
P295	Eighteenth Line	Sideroad 19	Sideroad 18	1612	Rural	Earth	0-49	5.0	31.2	RECG	\$745,248
P123A	Sideroad 17	Fourth Line	2.45 km. north	2445	Rural	Earth	0-49	5.0	31.2	RECG	\$1,130,355
P124	Sideroad 17	Sixth Line	Eighth Line	2729	Rural	Earth	0-49	5.0	31.2	RECG	\$1,261,651
P133	Sideroad 18	0.568 km N. of Third Line	2.439 km N. of Third Line	1871	Rural	Gravel	0-49	5.0	31.2	RECG	\$864,987
P134	Sideroad 18	2.439 km N. of Third Line	Fourth Line	313	Rural	Gravel	0-49	5.0	31.2	RECG	\$144,704
P150A	Sideroad 19	0.415 km N. of Wellington Rd. 86	1.243 km N. of Wellington Rd. 86	828	Rural	Earth	0-49	5.0	31.2	RECG	\$382,795
P153A	Sideroad 19	0.338 km N. of Fourth Line	Sixth Line	2394	Rural	Earth	0-49	5.0	31.2	RECG	\$1,106,777
P154A	Sideroad 19	0.41 km N. of Sixth Line	Eighth Line	2331	Rural	Gravel	0-49	5.0	31.2	RECG	\$1,077,651
P168A	Sideroad 20	2.425 km N. of Wellington Rd. 8	Twelfth Line	256	Rural	Gravel	0-49	5.0	31.2	RECG	\$118,352
M114	Sideroad 3	Concession 6	2.365 km north of Concession 6	2365	Rural	Gravel	0-49	5.0	31.2	RECG	\$1,093,370
D027A	Bonniewood Dr	Smith Dr.	Hillview Dr.	56	Urban	Asphalt	200-499	64.9	31.2	R2	\$17,833
M216	Concession 3	Wellington Rd. 11	Sideroad 15	1924	Rural	Asphalt	890	71.8	31.1	R1	\$216,060
P224	Fourth Line	Sideroad 18	Wellington Rd. 12	1847	Rural	Asphalt	366	65.7	30.8	R1	\$207,413
D003A	Drayton Queen St	0.135 km south of Main St.	End	144	Urban	Asphalt	50-199	58.1	30.0	R1	\$26,516
P306	Simpson St. W.	Pellisier St. N.	Graham St. W.	138	Semi-Urban	Asphalt	200-499	66.8	29.5	R1	\$15,497
D018	Spring St.	Wellington St. S	Edward. St.	154	Urban	Asphalt	50-199	59.0	29.4	R1	\$28,358
M501	Leslie Ln.	Hollen Rd.	0.235 km N. of Hollen Rd.	235	Semi-Urban	Surface Treatment	0-49	48.4	29.3	RECST	\$114,460
P308A	Graham St. W.	Simpson St. W.	End	334	Semi-Urban	Asphalt	50-199	59.2	29.2	R1	\$37,507
P232	Sixth Line	Sideroad 17	Sideroad 16	1838	Rural	Asphalt	492	69.6	29.2	R1	\$206,402

Municipal ID	Road Name	Name From	Name To	Road Section Length (m)	Roadside Environment	Surface Type	Annual Average Daily Traffic (AADT)	PCI	PR	Condition Improvement Code	Estimated Improvement Costs To Address Condition
P244	Eighth Line	Sideroad 18	Wellington Rd. 12	1844	Rural	Asphalt	688	71.9	29.2	R1	\$207,076
P245	Eighth Line	Sideroad 19	Sideroad 18	1838	Rural	Asphalt	688	72.0	29.1	R1	\$206,402
P308B	Graham St. W.	Queen St. N.	Queen St.N.	367	Semi-Urban	Asphalt	50-199	59.6	29.0	R1	\$41,213
P262	Twelfth Line	Sideroad 17	Sideroad 16	1849	Rural	Asphalt	50-199	60.0	28.7	R1	\$207,637
M212	Concession 3	Sideroad 6	1.84 Km. W.	1841	Rural	Asphalt	810	73.5	28.6	R1	\$206,739
P214	Third Line	Reid Woods Dr.	0.302 km E. of Yatton Sdrd.	1050	Rural	Asphalt	891	74.2	28.5	R1	\$117,912
P504	Third Line	0.302 km E. of Yatton Sdrd.	Yatton Sdrd.	302	Semi-Urban	Asphalt	891	74.2	28.5	R1	\$33,914
D004	King St.	Main St. W.	End	168	Urban	Asphalt	0-49	50.0	28.4	R1	\$30,936
M211	Concession 3	Wellington Rd. 9	1.823 km E. of Wellington Rd. 9	1823	Rural	Asphalt	810	73.8	28.3	R1	\$204,718
P221	Fourth Line	Sideroad 16	Wellington Rd. 11	1077	Rural	Asphalt	739	73.5	28.0	R1	\$120,944
M231	Concession 6	Sideroad 3	Wellington Rd. 9	1822	Rural	Asphalt	462	70.9	27.5	R1	\$204,605
D001	Wortley St.	Main St. W.	End	106	Semi-Urban	Asphalt	0-49	51.6	27.5	R1	\$11,903
P310C	Queen St. N.	Peel St. W.	Graham St. W.	121	Semi-Urban	Asphalt	50-199	61.7	27.5	R1	\$13,588
P225	Fourth Line	Sideroad 19	Sideroad 18	1836	Rural	Asphalt	366	69.8	27.1	R1	\$206,177
D050	River Run Rd.	Faith Dr.	Mill St.	171	Urban	Asphalt	200-499	69.7	26.9	R2	\$54,454
P233	Sixth Line	Wellington Rd. 12	Sideroad 17	1842	Rural	Asphalt	492	72.1	26.8	R1	\$206,851
D027	Bonniewood Dr.	Hillview Dr.	End	226	Urban	Asphalt	50-199	63.3	26.3	R1	\$41,616
D026A	Smith Dr.	Main St. E.	Bonniewood Dr.	193	Urban	Asphalt	500-999	75.5	26.0	R2	\$61,460
P277	Fourteenth Line	Wellington Rd. 17	Sideroad 21	707	Rural	Asphalt	231	68.2	25.8	R1	\$79,394
P125	Sideroad 17	Eighth Line	Wellington Rd. 8	2698	Rural	Gravel	0-49	15.0	25.6	RECG	\$1,247,320
P174	Sideroad 21	Highway 6	Jones Baseline	1409	Semi-Urban	Asphalt	50-199	64.4	25.5	R1	\$158,227
P271	Fourteenth Line	Sideroad 16	Wellington Rd. 11	1913	Rural	Asphalt	123	64.5	25.4	R1	\$214,824
P272A	Fourteenth Line	Wellington Rd. 12	Sideroad 17	1828	Rural	Asphalt	123	64.8	25.2	R1	\$205,279
M326	Hilwood Dr.	McGivern St.	End	155	Semi-Urban	Asphalt	50-199	65.0	25.1	R1	\$17,406
D029A	Conestoga Dr	Hillview Dr.	End	31	Urban	Asphalt	0-49	56.0	25.0	R1	\$5,708
M401	Queen St.	Elora St. W.	Head St.	102	Semi-Urban	Asphalt	200-499	71.9	25.0	R1	\$11,454
M401A	Rothsay Queen St	Head St.	Elgin St.	102	Semi-Urban	Asphalt	200-499	72.1	24.8	R1	\$11,454
P313C	Queen St. S.	Hanna St.	Napier St. W.	128	Semi-Urban	Asphalt	50-199	65.6	24.7	R1	\$14,374
M129A	Sideroad 6	1.207 km. N. of Concession 14	Wellington Rd. 109	175	Rural	Asphalt	50-199	66.1	24.3	R1	\$19,652
D003	Queen St.	Main St. W.	0.135 km south	135	Urban	Asphalt	50-199	66.2	24.2	R1	\$24,859
P306B	Simpson St. W.	Elora St. N.	Alma Queen St. N.	98	Semi-Urban	Asphalt	200-499	72.8	24.2	R1	\$11,005
P502	Third Line	Yatton Sdrd.	1.54 km E. of Sideroad 19	321	Semi-Urban	Asphalt	931	78.4	24.1	R1	\$36,047
P117	Sideroad 16	Wellington Rd. 8	1.097 km N. of Wellington Rd. 8	1097	Rural	Asphalt	277	71.5	24.1	R1	\$123,190
P315	Muir Cres.	Nesbitt St.	End	170	Urban	Asphalt	0-49	57.7	24.0	R1	\$31,304
P167	Reid Woods Dr.	Wellington Rd. 86	Blind Line	130	Rural	Asphalt	200-499	73.0	24.0	R1	\$14,599
D011	Elm St.	Main St. E.	Wood St.	122	Urban	Asphalt	200-499	73.5	23.6	R1	\$22,465
P272	Fourteenth Line	Sideroad 17	Sideroad 16	1828	Rural	Asphalt	123	67.2	23.4	R1	\$205,279
M247	Concession 8	Sideroad 15	Sideroad 12	1849	Rural	Asphalt	916	79.1	23.2	R2	\$399,431
M264	Concession 12	Sideroad 12	Wellington Rd. 10	1585	Rural	Asphalt	264	72.7	22.8	R1	\$177,991
P306A	Simpson St. W.	Alma Queen St. N.	Pellisier St. N.	100	Semi-Urban	Asphalt	200-499	74.6	22.6	R1	\$11,230
P313B	Queen St. S.	Alexander St. W.	Napier St. W.	139	Semi-Urban	Asphalt	50-199	68.8	22.4	R1	\$15,609
D033	Dales Dr.	Andrews Dr.	Andrews Dr.	310	Urban	Asphalt	50-199	69.2	22.1	R1	\$57,084
P177	Floradale Rd.	Eighth Line	Wellington Rd. 17	879	Rural	Asphalt	782	79.7	21.7	R1	\$98,709
M163A	Leslie Ln.	Hollen Diversion	0.14 km. south	141	Rural	Surface Treatment	0-49	61.9	21.6	R1ST	\$2,606
D010	Wood St.	John St.	End	243	Urban	Asphalt	50-199	69.9	21.6	R1	\$44,746
D029	Conestoga Dr	Hillview Dr.	End	48	Urban	Asphalt	0-49	62.4	21.4	R1	\$8,839
P236	Sixth Line	Yatton Sdrd.	Sideroad 19	1368	Rural	Asphalt	231	74.0	21.1	R1	\$153,622

Municipal ID	Road Name	Name From	Name To	Road Section Length (m)	Roadside Environment	Surface Type	Annual Average Daily Traffic (AADT)	PCI	PR	Condition Improvement Code	Estimated Improvement Costs To Address Condition
D028	Hillview Dr.	Bonniewood Dr	Conestoga Dr.	201	Urban	Asphalt	50-199	70.7	21.0	R1	\$37,012
D014	John St.	Wood St.	Robin Dr.	103	Urban	Asphalt	50-199	70.9	20.9	R1	\$18,967
D019	Spring St.	Edward. St.	Union St.	158	Urban	Asphalt	50-199	71.2	20.6	R1	\$29,094
M245	Booth St. E.	John St.	McGivern St.	492	Semi-Urban	Asphalt	983	81.8	20.6		
M702A	Highview St.	Scenic Dr.	End	50	Semi-Urban	Asphalt	50-199	71.4	20.5	R1	\$5,615
P314	Hanna St.	Elora St. S.	Queen St. S.	99	Semi-Urban	Asphalt	50-199	72.1	20.0	R1	\$11,117
M323C	Robb St.	Hendrie St	Maudsley St.	72	Semi-Urban	Asphalt	50-199	72.6	19.6	R1	\$8,085
P234	Sixth Line	Sideroad 18	Wellington Rd. 12	1842	Rural	Asphalt	315	77.4	19.6	R1	\$206,851
P212A	Third Line	Sideroad 19	0.576 km E. of Sideroad 18	1315	Rural	Asphalt	931	82.7	19.3		
P211	Third Line	Sideroad 18	Wellington Rd. 12	1849	Rural	Asphalt	884	82.5	19.3		
P301	Simpson St. E.	Elora St. N.	King St. N.	109	Semi-Urban	Asphalt	200-499	78.4	19.2	R1	\$12,240
P312B	Alexander St. W.	Elora St. S.	Alma Queen St. S.	103	Semi-Urban	Asphalt	50-199	73.3	19.1	R1	\$11,567
P122	Sideroad 17	Wellington Rd. 45	0.127 km N. of Wellington Rd. 45	127	Rural	Surface Treatment	84	71.4	19.1	R1ST	\$2,347
P301A	Simpson St. E.	King St. N.	Raglan St. N.	99	Semi-Urban	Asphalt	200-499	78.6	19.0	R1	\$11,117
M242	Concession 8	Sideroad 6	Sideroad 3	1842	Rural	Asphalt	694	81.9	18.8		
P235	Sixth Line	Sideroad 19	Sideroad 18	1836	Rural	Asphalt	231	77.0	18.7	R1	\$206,177
P213	Third Line	1.54 km E. of Sideroad 19	Sideroad 19	1540	Rural	Asphalt	931	83.3	18.6		
P313A	Queen St. S.	Peel St. W.	Alexander St. W.	141	Semi-Urban	Asphalt	50-199	74.0	18.6	R1	\$15,834
P201A	Blind Line	Wellington Rd. 86	1.841 km E. of Yatton Sdrd.	87	Rural	Surface Treatment	50-199	74.1	18.6	R1ST	\$1,608
P283	Sixteenth Line	0.331 km E. of Sideroad 17	Sideroad 17	331	Rural	Asphalt	378	79.7	18.4	R1	\$37,170
P282	Sixteenth Line	Sideroad 17	Sideroad 16	1829	Rural	Asphalt	378	79.9	18.2	R1	\$205,391
P316A	Nesbitt St.	Muir Cres.	Wellington Road 17	539	Urban	Asphalt	200-499	80.2	17.6	R2	\$171,643
P307B	Rebecca St. W.	Elora St. .N.	Alma Queen St. N.	100	Semi-Urban	Asphalt	50-199	75.6	17.5	R1	\$11,230
M312A	Parkview Dr.	McGivern St.	Adam Brown St.	77	Semi-Urban	Asphalt	50-199	75.7	17.4	R1	\$8,647
M266	Concession 12	Wellington Rd. 11	Sideroad 15	1956	Rural	Asphalt	372	80.7	17.4	R1	\$219,653
P283A	Sixteenth Line	Wellington Rd. 12	0.331 km E. of Sideroad 17	1493	Rural	Asphalt	378	81.1	17.1		
P132	Sideroad 18	Third Line	0.568 km N. of Third Line	568	Rural	Gravel	0-49	30.0	17.0	RECG	\$262,594
P281	Sixteenth Line	Sideroad 16	Wellington Rd. 11	1828	Rural	Asphalt	378	81.2	17.0		
P503	Yatton Sdrd.	1.150 km N. of Blind Line	Third Line	220	Semi-Urban	Asphalt	714	83.8	17.0		
M265	Concession 12	Sideroad 15	Sideroad 12	1807	Rural	Asphalt	372	81.2	16.9		
M323B	Robb St.	Moore St.	Hendrie St	154	Semi-Urban	Asphalt	50-199	76.4	16.9	R1	\$17,294
M241	Concession 8	Sideroad 3	Wellington Rd. 9	1813	Rural	Asphalt	694	83.8	16.9		
M232	Concession 6	Sideroad 6	Sideroad 3	1835	Rural	Asphalt	462	82.5	16.6		
P316	Nesbitt St.	Elora St. S.	Muir Cres.	113	Urban	Asphalt	200-499	81.4	16.5		
P173	Sideroad 21	Sixteenth Line	Highway 6	1043	Semi-Urban	Asphalt	200-499	81.5	16.4		
M274	Concession 14	Sideroad 12	Wellington Rd. 10	1839	Rural	Asphalt	257	80.5	16.2	R1	\$206,514
M139A	Sideroad 12	Concession 14	0.17 km N. of Concession 14	170	Rural	Surface Treatment	50-199	77.6	16.1	R1ST	\$3,142
P176A	Floradale Rd.	2.0 km. N. of Sixth Line	Eighth Line	842	Rural	Asphalt	50-199	77.7	16.0	R1	\$94,554
M313A	Maudsley St.	Carson St.	Robb St.	75	Semi-Urban	Asphalt	50-199	77.9	15.8	R1	\$8,422
M146	Sideroad 15	Concession 8	Wellington Rd. 8	2663	Rural	Asphalt	442	83.1	15.8		
P303A	King St. N.	Rebecca St. E.	Simpson St. E.	177	Semi-Urban	Asphalt	50-199	78.1	15.7	R1	\$19,877
M701	Scenic Dr.	Highview St	Wellington Rd. 11	520	Semi-Urban	Asphalt	50-199	78.2	15.6	R1	\$58,394
M325B	Adam Brown St.	Moore St.	Hendrie St	149	Semi-Urban	Asphalt	50-199	78.3	15.6	R1	\$16,732
M125A	Sideroad 6	Concession 8	0.052 km North	52	Rural	Asphalt	50-199	78.3	15.6	R1	\$5,839
P212	Third Line	0.576 km E. of Sideroad 18	Sideroad 18	576	Rural	Asphalt	931	86.1	15.5		
P301B	Sideroad 21	Raglan St. N.	0.203 km N. of Raglan St. N.	203	Semi-Urban	Asphalt	200-499	82.7	15.4		
M263	Concession 12	Wellington Rd. 10	Sideroad 6	2053	Rural	Asphalt	204	81.1	14.9		

Municipal ID	Road Name	Name From	Name To	Road Section Length (m)	Roadside Environment	Surface Type	Annual Average Daily Traffic (AADT)	PCI	PR	Condition Improvement Code	Estimated Improvement Costs To Address Condition
D006	Mill St.	Wellington St. S	River Run Road	95	Urban	Asphalt	200-499	83.4	14.8		
P406	Snyder Ave.	Mill St. N.	Bridge St.	115	Semi-Urban	Asphalt	0-49	74.2	14.7	R1	\$12,914
M145	Sideroad 15	Concession 6	Concession 8	2764	Rural	Asphalt	690	86.0	14.6		
M325A	Adam Brown St.	Booth St. W.	Moore St.	145	Semi-Urban	Asphalt	50-199	79.7	14.6	R1	\$16,283
P308D	Graham St. W.	Elora St. N.	Queen St. N.	97	Semi-Urban	Asphalt	50-199	79.7	14.6	R1	\$10,893
M243	Concession 8	Robb St.	Sideroad 6	1600	Rural	Asphalt	911	86.9	14.5		
M261	Concession 12	Sideroad 3	Wellington Rd. 9	1844	Rural	Asphalt	50-199	79.9	14.4	R1	\$207,076
P261	Twelfth Line	Sideroad 16	Wellington Rd. 11	1851	Rural	Asphalt	123	79.9	14.4	R1	\$207,862
M262	Concession 12	Sideroad 6	Sideroad 3	1811	Rural	Asphalt	182	81.6	14.2		
P164	Yatton Sdrd.	Blind Line	1.150 km N. of Blind Line	1150	Rural	Asphalt	714	86.6	14.0		
P274	Fourteenth Line	Sideroad 19	Sideroad 18	1828	Rural	Asphalt	231	82.9	13.9		
D047	Andrews Dr. W.	Faith Dr.	River Run Road	182	Urban	Asphalt	200-499	84.4	13.9		
D056	Industrial Rd.	Wellington Rd. 8	End	489	Rural	Asphalt	0-49	75.7	13.8	R1	\$54,913
M312	Parkview Dr.	Adam Brown St.	End	58	Semi-Urban	Asphalt	0-49	75.7	13.8	R1	\$6,513
M276	Concession 14	Wellington Rd. 11	Sideroad 15	1920	Rural	Asphalt	239	83.6	13.4		
M702	Highview St.	Wellington Rd. 11	Scenic Dr.	92	Semi-Urban	Asphalt	50-199	81.3	13.4		
M316A	Hendrie St.	Carson St.	Robb St.	77	Semi-Urban	Asphalt	50-199	82.0	12.9		
P273	Fourteenth Line	Sideroad 18	Wellington Rd. 12	1826	Rural	Asphalt	172	83.3	12.7		
M316B	Hendrie St.	Adam Brown St.	Carson St.	76	Semi-Urban	Asphalt	50-199	82.5	12.5		
M149	Sideroad 15	Concession 12	Wellington Rd. 7	1343	Rural	Asphalt	200-499	85.9	12.5		
M319A	Moore St.	Carson St.	Robb St.	75	Semi-Urban	Asphalt	50-199	82.7	12.4		
M319B	Moore St.	Adam Brown St.	Carson St.	77	Semi-Urban	Asphalt	50-199	82.9	12.3		
D051	Faith Dr.	River Run Rd	Andrews Dr. W.	398	Urban	Asphalt	50-199	83.2	12.0		
M319C	Moore St.	McGivern St	Adam Brown St.	79	Semi-Urban	Asphalt	50-199	83.4	11.9		
P310B	Queen St. N.	Graham St. W.	Rebeccas St. W.	120	Semi-Urban	Asphalt	50-199	83.4	11.9		
D021	High St.	Edward St.	Union St.	158	Urban	Asphalt	500-999	89.1	11.6		
M315	Caroline St.	McGivern St	End	144	Urban	Asphalt	50-199	83.9	11.5		
P303B	King St. N.	Graham St. E.	Rebecca St. E.	121	Semi-Urban	Asphalt	50-199	84.0	11.5		
P275	Fourteenth Line	Sideroad 20	Sideroad 19	1826	Rural	Asphalt	231	86.1	11.3		
M324C	Carson St.	Hendrie St	Maudsley St.	71	Semi-Urban	Asphalt	50-199	84.3	11.3		
D046	Andrews Dr. W.	River Run Road	Faith Dr.	41	Urban	Asphalt	500-999	89.4	11.2		
M316C	Hendrie St	McGivern St.	Adam Brown St.	76	Semi-Urban	Asphalt	50-199	84.5	11.1		
M273	Concession 14	Wellington Rd. 10	Sideroad 6	1829	Rural	Asphalt	247	86.9	10.8		
M313B	Maudsley St.	Adam Brown St.	Carson St.	77	Semi-Urban	Asphalt	50-199	85.0	10.8		
M133A	Sideroad 12	2.432 km. N of Concession 6	Concession 8	320	Rural	Asphalt	50-199	85.0	10.8		
M324B	Carson St.	Moore St.	Hendrie St	151	Semi-Urban	Asphalt	50-199	85.5	10.4		
M324A	Carson St.	Booth St. W.	Moore St.	140	Semi-Urban	Asphalt	50-199	85.8	10.2		
M275	Concession 14	Sideroad 15	Sideroad 12	1853	Rural	Asphalt	257	87.8	10.1		
P407	Mill St. N.	Wellington Rd. 45	Snyder Ave.	57	Semi-Urban	Asphalt	0-49	82.4	10.0		
M323A	Robb St.	Booth St. W.	Moore St.	135	Semi-Urban	Asphalt	50-199	86.6	9.6		
P166B	Yatton Sdrd.	Fourth Line	0.075 km. N. of Fourth Line	75	Rural	Asphalt	50-199	86.6	9.6		
P276	Fourteenth Line	Sideroad 21	Sideroad 20	1834	Rural	Asphalt	231	88.2	9.6		
M325C	Adam Brown St.	Hendrie St	Maudsley St.	67	Semi-Urban	Asphalt	50-199	86.8	9.5		
M325D	Adam Brown St.	Maudsley St.	Parkview Dr.	88	Semi-Urban	Asphalt	50-199	86.8	9.5		
D035	Andrews Dr.	Maple St.	Parkside St.	89	Urban	Asphalt	200-499	89.6	9.2		
P303C	King St. N.	Peel St. E.	Graham St. E.	117	Semi-Urban	Asphalt	50-199	87.2	9.2		
M272	Concession 14	Sideroad 6	Sideroad 3	1877	Rural	Asphalt	146	87.6	9.2		

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M244A	Booth St. W.	Carson St.	Robb St.	76	Semi-Urban	Asphalt	500-999	91.4	9.1		
M244B	Booth St. W.	Adam Brown St.	Carson St.	78	Semi-Urban	Asphalt	500-999	91.4	9.1		
M244C	Booth St. W.	Wellington Rd. 10	Adam Brown St.	76	Semi-Urban	Asphalt	500-999	91.4	9.1		
P310A	Queen St. N.	Rebecca St. W.	Simpson St. W.	123	Semi-Urban	Asphalt	50-199	87.5	9.0		
D048	River Run Rd.	Andrews Dr. W.	Andrews Dr. W.	438	Urban	Asphalt	50-199	87.8	8.7		
M136A	Sideroad 12	2.041 km N. of Wellington Rd. 8	Concession 12	690	Semi-Urban	Surface Treatment	90	87.3	8.6		
D039	Maple St.	Pine St.	0.040 km north	40	Urban	Asphalt	50-199	88.1	8.5		
D024	Union St.	Spring St.	High St.	95	Urban	Asphalt	50-199	88.2	8.5		
D037	Pine St.	Edward St.	Maple St.	94	Urban	Asphalt	200-499	90.5	8.4		
M235	Concession 6	Sideroad 15	Sideroad 12	1823	Rural	Asphalt	297	90.5	8.1		
P302C	Raglan St. N.	Peel St. E.	Graham St. E.	117	Semi-Urban	Asphalt	50-199	88.7	8.1		
D042	Parkside St.	Andrews Dr.	Maple St.	243	Urban	Asphalt	50-199	88.9	8.0		
D025	Union St.	Main St. E.	Spring St.	119	Urban	Asphalt	50-199	89.0	7.9		
P305A	Graham St. E.	Elora St. N.	King St. N.	104	Semi-Urban	Asphalt	50-199	89.1	7.8		
P302B	Raglan St. N.	Graham St. E.	Rebeccas St. E.	119	Semi-Urban	Asphalt	50-199	89.1	7.8		
P304A	Rebecca St. E.	Elora St. .N.	King St. N.	100	Semi-Urban	Asphalt	50-199	89.1	7.8		
P180	Nichol-Peel Townline	Highway 6	Jones Baseline	1229	Rural	Asphalt	50-199	89.2	7.7		
D049	River Run Rd	Andrews Dr. W.	Faith Dr.	316	Urban	Asphalt	50-199	89.2	7.7		
M311	Ball Ave.	McGivern St.	End	133	Semi-Urban	Asphalt	0-49	86.4	7.7		
P405	Bridge St.	Snyder Ave.	Wellington Rd. 45	61	Semi-Urban	Asphalt	0-49	86.4	7.7		
M405	James St. S.	Wellington Rd. 10	Cathrine St. S.	432	Semi-Urban	Surface Treatment	0-49	86.6	7.6		
D036	Maple St.	Andrews Dr.	Pine Street	207	Urban	Asphalt	50-199	89.4	7.6		
P302A	Raglan St. N.	Rebecca St. E.	Simpson St. E.	205	Semi-Urban	Asphalt	50-199	89.4	7.6		
P285	Sixteenth Line	Sideroad 19	Sideroad 18	1821	Rural	Asphalt	421	92.6	6.9		
M246	Concession 8	Sideroad 12	John St.	1314	Rural	Asphalt	916	94.0	6.7		
P286	Sixteenth Line	Sideroad 21	Sideroad 19	3418	Rural	Asphalt	421	92.8	6.7		
P284	Sixteenth Line	Sideroad 18	Wellington Rd. 12	1833	Rural	Asphalt	489	93.3	6.4		
M271	Concession 14	Sideroad 3	Wellington Rd. 109	1178	Rural	Asphalt	146	91.7	6.1		
P286A	Sixteenth Line	Sideroad 21	Sideroad 21	233	Rural	Asphalt	421	93.5	6.0		
P305B	Graham St. E.	King St. N.	Raglan St. N.	99	Semi-Urban	Asphalt	0-49	89.4	6.0		
M222A	Concession 4	Sideroad 6	0.763 km W. of Sideroad 6	763	Rural	Asphalt	321	93.3	5.8		
M282	Concession 16	Wellington Rd. 11	Sideroad 15	1958	Rural	Asphalt	346	93.5	5.8		
M223	Concession 4	Wellington Rd. 10	Sideroad 6	1854	Rural	Asphalt	321	93.5	5.7		
M281	Concession 16	Sideroad 15	Sideroad 12	1838	Rural	Asphalt	291	93.4	5.6		
D058	Ridgeview Dr.	Bedell Dr.	Pioneer Dr.	258	Urban	Asphalt	0-49	90.3	5.5		
D045	Andrews Dr. W.	Wellington St. S.	River Run Road	82	Urban	Asphalt	500-999	94.9	5.4		
D060	Green St.	Maple St.	Green St.	120	Urban	Asphalt	0-49	90.5	5.4		
P287	Sixteenth Line	Wellington Rd. 17	Sideroad 21	1450	Rural	Asphalt	421	94.3	5.3		
D061	Green St.	Green St. (Bend)	Green St. (East)	230	Urban	Asphalt	0-49	91.2	5.0		
D040	Maple St.	Maple St.	Parkside St.	86	Urban	Asphalt	50-199	93.1	4.9		
P304B	Rebecca St. E.	King St. N.	Raglan St. N.	101	Semi-Urban	Asphalt	50-199	93.1	4.9		
D054	Bedell Dr.	Main St. W.	Ridgeview Dr.	76	Urban	Asphalt	50-199	93.3	4.8		
D043	Andrews Dr.	Parkside St	End	180	Urban	Asphalt	50-199	93.8	4.4		
D053	Ridgeview Dr.	Bedell Dr.	Pioneer Dr.	263	Urban	Asphalt	50-199	94.4	4.0		
D052	Pioneer Dr.	Main St. W.	Ridgeview Dr.	74	Urban	Asphalt	50-199	94.7	3.8		
D059	Maple St.	Andrews Dr.	South End	38	Urban	Asphalt	0-49	93.8	3.5		
D057	Bedell Dr.	Ridgeview Dr.	End	261	Urban	Asphalt	0-49	94	3.4		

Municipal ID	Road Name	Name From	Name To	Road Section Length (m)	Roadside Environment	Surface Type	Annual Average Daily Traffic (AADT)	PCI	PR	Condition Improvement Code	Estimated Improvement Costs To Address Condition
D041	Maple St.	Parkside St	End	43	Urban	Asphalt	0-49	94.6	3.1		
D055	Bedell Dr.	Ridgeview Dr.	End	96	Urban	Asphalt	0-49	94.7	3.0		
D062	Maple St.	Andrews Dr.	Green St.	87	Urban	Asphalt	0-49	94.9	2.9		
P312A	Alexander St. W.	Queen St. S.	Church St.	99	Semi-Urban	Gravel	0-49	85.0	0.0		
P201	Blind Line	1.841 km E. of Yatton Sdrd.	Yatton Sdrd.	1841	Rural	Gravel	151	100.0	0.0		
P401	Centre St.	Wellington Rd. 45	End	60	Semi-Urban	Gravel	0-49	75.0	0.0		
P311	Church St. S.	Peel St. W.	Alexander St. W.	137	Semi-Urban	Gravel	0-49	85.0	0.0		
M236A	Concession 6	1.094 km E. of Sideroad 15	Leslie Ln.	112	Rural	Gravel	0-49	100.0	0.0		
M237	Concession 6	Leslie Ln.	0.275 km E. of Leslie Ln.	275	Rural	Gravel	0-49	85.0	0.0		
M130	Diamond Sideroad	Concession 3	End	83	Rural	Gravel	0-49	85.0	0.0		
P292	Eighteenth Line	Sideroad 17	End	650	Rural	Gravel	0-49	75.0	0.0		
P293	Eighteenth Line	Wellington Rd. 12	Sideroad 17	1839	Rural	Gravel	50-199	80.0	0.0		
P294	Eighteenth Line	Sideroad 18	Wellington Rd. 12	1813	Rural	Gravel	50-199	80.0	0.0		
P294A	Eighteenth Line	Sideroad 18	Sideroad 18	56	Rural	Gravel	50-199	85.0	0.0		
M402	Head St.	0.060 km. E. of Queen St.	James St. N.	100	Semi-Urban	Gravel	0-49	85.0	0.0		
M402A	Head St.	Queen St	0.060 km E. of Queen St.	60	Semi-Urban	Gravel	0-49	85.0	0.0		
P403	Hill St.	South Mill St.	End	209	Semi-Urban	Gravel	0-49	75.0	0.0		
M403	James St. N.	Elora St. W.	0.068 km N. of Elora St. W.	68	Semi-Urban	Gravel	0-49	85.0	0.0		
M403A	James St. N.	0.068 km N. of Elora St. W.	Head Street	33	Semi-Urban	Gravel	0-49	85.0	0.0		
P296	Jones Baseline	Sideroad 9	1.3km SE of Sideroad 9	1307	Rural	Gravel	50-199	85.0	0.0		
P296A	Jones Baseline	1.3km SE of Sideroad 9	Sideroad 21	725	Semi-Urban	Gravel	50-199	85.0	0.0		
P297	Jones Baseline	Nichol-peel Townline	Sideroad 21	1647	Rural	Gravel	50-199	85.0	0.0		
M165	Leslie Ln.	235m NE of Hollen Rd.	Road Four S.	276	Rural	Gravel	0-49	85.0	0.0		
M165A	Leslie Ln.	Road Four S.	Road Four N.	156	Rural	Gravel	0-49	85.0	0.0		
M165B	Leslie Ln.	Road Four N.	Concession 6	687	Rural	Gravel	0-49	85.0	0.0		
M163	Leslie Ln. S.	Lower 4th Rd.	0.673 km south of Lower 4th Rd.	673	Rural	Gravel	0-49	60.0	0.0		
M227	Lower 4th Rd.	Hollen Diversion	Leslie Ln. S.	226	Rural	Gravel	0-49	75.0	0.0		
M227A	Lower 4th Rd.	Leslie Ln. S.	End	324	Rural	Gravel	0-49	75.0	0.0		
D002	Market St.	Main St. W.	End	84	Semi-Urban	Gravel	0-49	85.0	0.0		
D007	Mary St.	Wellington St. N.	End	99	Semi-Urban	Gravel	0-49	100.0	0.0		
P121A	Mary St.	Wellington Rd. 45	End	85	Rural	Gravel	0-49	60.0	0.0		
D005	Mill St.	River Run Road	End	22	Semi-Urban	Gravel	0-49	75.0	0.0		
P309A	Pellisier St. N.	Rebecca St. W.	Simpson St. W.	97	Semi-Urban	Gravel	0-49	80.0	0.0		
P307	Rebecca St. W.	Pellisier St. N.	End	43	Semi-Urban	Gravel	0-49	85.0	0.0		
P307A	Rebecca St. W.	Alma Queen St. N.	Pellisier St. N.	96	Semi-Urban	Gravel	0-49	80.0	0.0		
P167B	Reid Woods Dr.	Third Line	0.43 km. north	426	Rural	Gravel	50-199	85.0	0.0		
M224	Selinger Rd.	Wellington Rd. 10	End	310	Rural	Gravel	0-49	55.0	0.0		
M133	Sideroad 12	Concession 6	2.432 Km N. of Concession 6	2432	Rural	Gravel	50-199	85.0	0.0		
M134	Sideroad 12	Concession 8	End	1761	Rural	Gravel	0-49	80.0	0.0		
M135	Sideroad 12	0.891 km S. of Wellington Rd. 8	Wellington Rd. 8	891	Rural	Gravel	0-49	85.0	0.0		
M136	Sideroad 12	Wellington Rd. 8	2.041 km N. of Wellington Rd. 8	2041	Rural	Gravel	90	85.0	0.0		
M137	Sideroad 12	Concession 12	Wellington Rd. 7	1358	Rural	Gravel	50-199	85.0	0.0		
M138	Sideroad 12	Wellington Rd. 7	Concession 14	1363	Rural	Gravel	50-199	85.0	0.0		
M139	Sideroad 12	0.17 km No. of Concession 14	Concession 16	2542	Rural	Gravel	50-199	85.0	0.0		
M142	Sideroad 15	Road Six E.	Concession 5	957	Rural	Gravel	50-199	85.0	0.0		
M142A	Sideroad 15	Road Six W.	Road Six E.	164	Rural	Gravel	0-49	85.0	0.0		
M150	Sideroad 15	Wellington Rd. 7	Concession 14	1360	Rural	Gravel	50-199	85.0	0.0		

Municipal ID	Road Name	Name From	Name To	Road Section Length (m)	Roadside Environment	Surface Type	Annual Average Daily Traffic (AADT)	PCI	PR	Condition Improvement Code	Estimated Improvement Costs To Address Condition
M160	Sideroad 15	Concession 14	Concession 16	2723	Rural	Gravel	50-199	85.0	0.0		
M161	Sideroad 15	Concession 16	Wellington Rd. 109	1048	Rural	Gravel	50-199	80.0	0.0		
P111	Sideroad 16	Wellington Rd. 86	Wellington Rd. 45	2729	Rural	Gravel	50-199	100.0	0.0		
P112	Sideroad 16	Wellington Rd. 45	End	147	Rural	Gravel	0-49	80.0	0.0		
P113	Sideroad 16	Fourth Line	1.101 km S. of Fourth Line	1101	Rural	Gravel	0-49	85.0	0.0		
P114	Sideroad 16	Fourth Line	Sixth Line	2727	Rural	Gravel	0-49	85.0	0.0		
P115	Sideroad 16	Sixth Line	Eighth Line	2735	Rural	Gravel	50-199	85.0	0.0		
P116	Sideroad 16	Eighth Line	Wellington Rd. 8	2707	Rural	Gravel	50-199	85.0	0.0		
P117A	Sideroad 16	1.097 km N. of Wellington Rd. 8	Twelfth Line	1614	Rural	Gravel	50-199	85.0	0.0		
P118	Sideroad 16	Twelfth Line	Wellington Rd. 7	1365	Rural	Gravel	50-199	85.0	0.0		
P119	Sideroad 16	Wellington Rd. 7	Fourteenth Line	1359	Rural	Gravel	50-199	80.0	0.0		
P120	Sideroad 16	Fourteenth Line	Sixteenth Line	2736	Rural	Gravel	50-199	85.0	0.0		
P291	Sideroad 16A	Wellington Rd. 109	End	406	Rural	Gravel	0-49	80.0	0.0		
P122A	Sideroad 17	0.127 km N. of Wellington Rd. 45	Fourth Line	2606	Rural	Gravel	70	85.0	0.0		
P123	Sideroad 17	2.45 km. N. of Fourth Line	Sixth Line	299	Rural	Gravel	0-49	60.0	0.0		
P126	Sideroad 17	Wellington Rd. 8	0.701 km N. of Wellington Rd. 8	698	Rural	Gravel	0-49	80.0	0.0		
P126A	Sideroad 17	0.701 km. N. of Wellington Rd. 8	Twelfth Line	2008	Rural	Gravel	0-49	85.0	0.0		
P127	Sideroad 17	Twelfth Line	Wellington Rd. 7	1358	Rural	Gravel	0-49	80.0	0.0		
P128	Sideroad 17	Wellington Rd. 7	0.449 km N. of Wellington Rd. 7	449	Rural	Gravel	0-49	85.0	0.0		
P128A	Sideroad 17	0.449 km N. of Wellington Rd. 7	Fourteenth Line	919	Rural	Gravel	0-49	85.0	0.0		
P129	Sideroad 17	Fourteenth Line	Sixteenth Line	2739	Rural	Gravel	0-49	55.0	0.0		
P130	Sideroad 17	Sixteenth Line	Eighteenth Line	2709	Rural	Gravel	50-199	85.0	0.0		
P131	Sideroad 17	Eighteenth Line	Wellington Rd. 109	781	Rural	Gravel	50-199	75.0	0.0		
P135	Sideroad 18	Fourth Line	0.288 km N. of Fourth Line	288	Rural	Gravel	0-49	85.0	0.0		
P136	Sideroad 18	0.288 km N. of Fourth Line	Sixth Line	2442	Rural	Gravel	0-49	80.0	0.0		
P138	Sideroad 18	Sixth Line	0.518 km N. of Sixth Line	518	Rural	Gravel	0-49	85.0	0.0		
P139	Sideroad 18	0.518 km N. of Sixth Line	2.174 km N. of Sixth Line	1656	Rural	Gravel	0-49	85.0	0.0		
P140	Sideroad 18	2.174 km N. of Sixth Line	Eighth Line	560	Rural	Gravel	0-49	60.0	0.0		
P141	Sideroad 18	Eighth Line	0.08 km. north	80	Rural	Gravel	0-49	80.0	0.0		
P142	Sideroad 18	0.08 km. N. of Eighth Line	2.432 km. N. of Eighth Line	2352	Rural	Gravel	0-49	85.0	0.0		
P143	Sideroad 18	2.432 km. N. of Eighth Line	Wellington Rd. 8	273	Rural	Gravel	0-49	85.0	0.0		
P144	Sideroad 18	Wellington Rd. 8	0.517 km N. of Wellington Rd. 8	517	Rural	Gravel	0-49	85.0	0.0		
P144A	Sideroad 18	0.517 km. N. of Wellington Road 8	Twelfth Line	2182	Rural	Gravel	0-49	85.0	0.0		
P145	Sideroad 18	1.056 km N. of Twelfth Line	Wellington Rd. 7	302	Rural	Gravel	0-49	85.0	0.0		
P145A	Sideroad 18	Twelfth Line	1.056 km N. of Twelfth Line	1056	Rural	Gravel	0-49	85.0	0.0		
P146	Sideroad 18	Wellington Rd. 7	Fourteenth Line	1376	Rural	Gravel	50-199	85.0	0.0		
P147	Sideroad 18	Fourteenth Line	0.832 km N. of Fourteenth Line	833	Rural	Gravel	0-49	85.0	0.0		
P147A	Sideroad 18	0,832 km N. of Fourteenth Line	Sixteenth Line	1896	Rural	Gravel	0-49	85.0	0.0		
P148	Sideroad 18	Sixteenth Line	Eighteenth Line	2449	Rural	Gravel	50-199	85.0	0.0		
P149	Sideroad 18	Eighteenth Line	Highway 6	1019	Rural	Gravel	50-199	55.0	0.0		
P150	Sideroad 19	Wellington Rd. 86	0.415 km N. of Wellington Rd. 86	415	Rural	Gravel	0-49	85.0	0.0		
P151	Sideroad 19	0.601 km S. of Third Line	Third Line	601	Rural	Gravel	0-49	80.0	0.0		
P152	Sideroad 19	Third Line	1.66 km N. of Third Line	1660	Rural	Gravel	0-49	75.0	0.0		
P152A	Sideroad 19	1.66 km N. of Third Line	Fourth Line	1037	Rural	Gravel	0-49	75.0	0.0		
P153	Sideroad 19	Fourth Line	0.338 km N. of Fourth Line	338	Rural	Gravel	0-49	75.0	0.0		

Municipal ID	Road Name	Name From	Name To	Road Section Length (m)	Roadside Environment	Surface Type	Annual Average Daily Traffic (AADT)	PCI	PR	Condition Improvement Code	Estimated Improvement Costs To Address Condition
P154	Sideroad 19	Sixth Line	0.41 km N. of Sixth Line	410	Rural	Gravel	0-49	75.0	0.0		
P155	Sideroad 19	Eighth Line	2.439 km N. of Eighth Line	2439	Rural	Gravel	0-49	80.0	0.0		
P156	Sideroad 19	2.439 km N. of Eighth Line	Wellington Rd. 8	274	Rural	Gravel	0-49	80.0	0.0		
P157	Sideroad 19	Wellington Rd. 8	Twelfth Line	2697	Rural	Gravel	50-199	75.0	0.0		
P158	Sideroad 19	1.007 km N. of Twelfth Line	Wellington Rd. 7	351	Rural	Gravel	0-49	45.0	0.0		
P158A	Sideroad 19	Twelfth Line	1.007 km N. of Twelfth Line	1007	Rural	Gravel	0-49	45.0	0.0		
P159	Sideroad 19	Wellington Rd. 7	0.692 km N. of Wellington Rd. 7	692	Rural	Gravel	0-49	75.0	0.0		
P159A	Sideroad 19	0.692 km N. of Wellington Rd. 7	Fourteenth Line	678	Rural	Gravel	0-49	75.0	0.0		
P160	Sideroad 19	Fourteenth Line	1.887 km N. of Fourteenth Line	1887	Rural	Gravel	0-49	75.0	0.0		
P160A	Sideroad 19	1.887 km N. of Fourteenth Line	Sixteenth Line	841	Rural	Gravel	0-49	75.0	0.0		
P161	Sideroad 19	Sixteenth Line	1.5 km	1587	Rural	Gravel	0-49	75.0	0.0		
P161A	Sideroad 19	1.5 km N. of Sixteenth Line	Eighteenth Line	579	Rural	Gravel	0-49	55.0	0.0		
P162	Sideroad 19	1.587 km N. of Sixteenth Line	Highway 6	1015	Rural	Gravel	0-49	55.0	0.0		
P168	Sideroad 20	Wellington Rd. 8	2.425 km N. of Wellington Rd. 8	2425	Rural	Gravel	0-49	75.0	0.0		
P169A	Sideroad 20	Twelfth Line	0.706 km N. of Twelfth Line	706	Rural	Gravel	50-199	80.0	0.0		
P170	Sideroad 20	Wellington Rd. 7	Fourteenth Line	1369	Rural	Gravel	200	80.0	0.0		
M112	Sideroad 3	Concession 4	1.067 km. north	1067	Rural	Gravel	0-49	75.0	0.0		
M112A	Sideroad 3	1.067 km north of Concession 4	2.279 km north of Concession 4	1214	Rural	Gravel	0-49	85.0	0.0		
M113	Sideroad 3	2.279 km north of Concession 4	Concession 6	440	Rural	Gravel	0-49	85.0	0.0		
M114A	Sideroad 3	2.365 km north of Concession 6	Concession 8	348	Rural	Gravel	0-49	85.0	0.0		
M115	Sideroad 3	Wellington Rd. 8	1.188 km N. of Wellington Rd. 8	1188	Rural	Gravel	0-49	30.0	0.0		
M116	Sideroad 3	Concession 12	Wellington Road 7	1359	Rural	Gravel	50-199	85.0	0.0		
M117	Sideroad 3	Wellington Rd. 7	Concession 14	1376	Rural	Gravel	50-199	85.0	0.0		
M118	Sideroad 3	Concession 14	Wellington Rd. 109	558	Rural	Gravel	50-199	85.0	0.0		
M120	Sideroad 6	Concession 3	Concession 4	2725	Rural	Gravel	50-199	60.0	0.0		
M123	Sideroad 6	Concession 4	Concession 6	2714	Rural	Gravel	50-199	60.0	0.0		
M124	Sideroad 6	Concession 6	Concession 8	2719	Rural	Gravel	50-199	85.0	0.0		
M125	Sideroad 6	Concession 8	Wellington Rd. 8	2595	Rural	Gravel	50-199	85.0	0.0		
M126	Sideroad 6	Wellington Rd. 8	Concession 12	2704	Rural	Gravel	50-199	85.0	0.0		
M127	Sideroad 6	Concession 12	Wellington Rd. 7	1361	Rural	Gravel	50-199	85.0	0.0		
M128	Sideroad 6	Wellington Rd. 7	Concession 14	1371	Rural	Gravel	50-199	85.0	0.0		
M129	Sideroad 6	Concession 14	1.207 km N. of Concession 14	1207	Rural	Gravel	50-199	85.0	0.0		
P181	Sideroad 9	Highway 6	Jones Baseline	663	Rural	Gravel	50-199	85.0	0.0		
P402	South Mill St.	Hill St.	End	114	Semi-Urban	Earth	0-49	75.0	0.0		
M322	William St.	McGivern St.	End	41	Semi-Urban	Gravel	0-49	80.0	0.0		
P165	Yatton Sdrd.	0.725 km N. of Third Line	Fourth Line	1940	Rural	Gravel	200-499	85.0	0.0		
P166	Yatton Sdrd.	0.075 km. N. of Fourth Line	0.59 km N. of Fourth Line	590	Rural	Gravel	50-199	100.0	0.0		
P166A	Yatton Sdrd.	0.59 km N. of Fourth Line	Sixth Line	2197	Rural	Gravel	366	85.0	0.0		
P175	Yatton Sdrd.	Sixth Line	0.61 km. N.	613	Rural	Gravel	366	85.0	0.0		
P176	Yatton Sdrd.	0.61 km. N. or Sixth Line	2.0 km. N. of Sixth Line	1410	Rural	Gravel	50-199	70.0	0.0		
M328	John St.	Concession 8	End	38	Rural	Gravel	0-49				



Appendix B - Sidewalk Inventory



MAPLETON SIDEWALK INVENTORY

Road Name	Location Description	Observation Type	Description	Cause	Priority	Comments
Andrews Dr.	All	Defect	Vertical Displacement (major)	Settlement	TRUE	Trip hazards at house #60,50
Bonniewood Dr	Hillview to End	Defect	Vertical Displacement (major)	Trench/Utility - service lines	TRUE	trip hazard at fire hydrant
Carson St.	Booth St. to Moore St.	Defect	Vertical Displacement (major)	Vehicular Damage	TRUE	East - medium vertical displacements - at red brick house towards Moore, at tree stump/trees
Drayton - Main St. E	Edward St. to Union St.	Defect	Vertical Displacement (major)	Settlement	TRUE	South - severe settlement along exterior curb face
Drayton - Main St. E	Union St. to Smith Dr.	Defect	Vertical Displacement (major)	Trench/Utility - service lines	TRUE	North - settlement at hydrant with cracking
Edward St.	High St. to Spring St.	Defect	Depression or Rolling Areas	Settlement	TRUE	settlement with trip hazard at multiple locations
Graham St. E.	King St. to Raglan St.	Defect	Vertical Displacement (major)	Tree Roots - no site visit	TRUE	trip hazard at tree approximately 5m from Raglan St.
Hendrie St.	Adam Brown St. to Carson St.	Defect	Vertical Displacement (major)	Settlement	TRUE	settlement causing vertical displacements at multiple locations
John St.	Wood St. to Robin Dr.	Defect	Depression or Rolling Areas	Settlement	TRUE	medium to severe settlement at house #20
McGivern St.	Ball Ave to end	Defect	Depression or Rolling Areas	Settlement	TRUE	settlement at exterior curb face
McGivern St.	Booth St. to Moore St.	Defect	Vertical Displacement (major)	Tree Roots - site visit	TRUE	West - severe upheaval (roughly 50mm) at two trees
Moore St.	Carson St. to Robb St.	Defect	Depression or Rolling Areas	Tree Roots - no site visit	TRUE	severe settlement and upheaval throughout causing trip hazards
Moore St.	Adam Brown St. to McGivern St.	Defect	Horizontal or Vertical Cracking	Settlement	TRUE	South - severe cracking and settlement throughout, worst area at eastern most driveway
Peel St. W	Church St. to end	Defect	Depression or Rolling Areas	Settlement	TRUE	large settlement with ponding (approximately 100mm to 150mm) towards south end; several other small settlement areas with cracking.
Smith Dr.	Bonniewood to Main St.	Defect	Vertical Displacement (major)	Trench/Utility - service lines	TRUE	upheaval with trip hazard at catch basin at corner of Bonniewood
Wood St.	from John St. to End	Observation	Vertical Displacement (major)	Vehicular Damage	TRUE	severe trip hazard at driveway #70
Adam Brown St.	Parkview Dr. to Maudsley St.	Defect	Vertical Displacement (minor)	Tree Roots - no site visit	FALSE	small vertical displacements at trees
Adam Brown St.	Parkview Dr. to Maudsley St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	
Adam Brown St.	Maudsley St. to Hendrie St.	Defect	Vertical Displacement (minor)	Tree Roots - no site visit	FALSE	small vertical displacements at tree location
Adam Brown St.	Maudsley St. to Hendrie St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	
Adam Brown St.	Moore St. to Hendrie St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	medium cracking throughout
Adam Brown St.	Moore St. to Hendrie St.	Defect	Vertical Displacement (minor)	Tree Roots - no site visit	FALSE	small vertical displacement at tree
Adam Brown St.	Booth St. to Moore St.	Observation	Depression or Rolling	Settlement	FALSE	East - settlement with ponding and sediment build up at north end

Road Name	Location Description	Observation Type	Description	Cause	Priority	Comments
			Areas			
Adam Brown St.	Booth St. to Moore St.	Defect	Vertical Displacement (major)	Tree Roots - no site visit	FALSE	East - severe vertical displacement at tree
Adam Brown St.	Booth St. to Moore St.	Defect	Vertical Displacement (minor)	Tree Roots - no site visit	FALSE	West - medium vertical displacement at 2 trees
Andrews Dr.	Maple St (SE) to Parkside St.	Defect	Horizontal or Vertical Cracking	Vehicular Damage	FALSE	cracks at driveways #101, 97
Andrews Dr.	Parkside St. to Maple St.	Defect	Horizontal or Vertical Cracking	Vehicular Damage	FALSE	cracks at dirveways #77, 81
Andrews Dr.	All	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 11 panels
Andrews Dr. W.	Wellington St to Faith Dr.	Observation	None	None	FALSE	no visible defects
Andrews Dr. W.	Faith Dr. to River Run Rd.	Observation	None	None	FALSE	no visible defects
Ball Ave.	McGivern St. to end	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	settlement with wide cracks throughout
Ball Ave.	McGivern St. to end	Defect	Depression or Rolling Areas	Settlement	FALSE	low spot that ponds at second house
Bedell Dr.		Observation	None	None	FALSE	
Bonniewood Dr	Smith Dr to Hillview	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 4 panels
Bonniewood Dr	Hillview to End	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 12 panels
Booth St. E.	Mcgivern St. to end	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	medium cracking throughout
Booth St. W.	McGivern St. to Adam Brown St.	Defect	Vertical Displacement (minor)	Settlement	FALSE	Medium vertical displacement at edges of driveways
Booth St. W.	McGivern St. to Adam Brown St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking and spalls at driveways
Booth St. W.	Adam Brown St. to Carson St.	Observation	Horizontal or Vertical Cracking	Age/Weathering	FALSE	light to medium cracks at several locations along length
Booth St. W.	Carson St. to end	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	medium cracks at 2 locations
Caroline St.	McGivern St. to end	Defect	Spalling or Other Surface Defects	Vehicular Damage	FALSE	South - large spalled section at east most driveway
Caroline St.	McGivern St. to end	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	North- cracks at driveway corners, randomly throughout
Carson St.	Booth St. to Moore St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	East - wide cracking at driveways
Carson St.	Booth St. to Moore St.	Defect	Vertical Displacement (minor)	Settlement	FALSE	West - settlement at driveways with medium vertical displacement
Carson St.	Booth St. to Moore St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	West - cracking at 11 panels
Conestoga Dr	all		None	None	FALSE	no visible defects
Dales Dr.	Andrews Dr. to Andrews Dr.	Defect	Vertical Displacement (major)	Settlement	FALSE	trip hazard at house #40
Dales Dr.	Andrews Dr. to Andrews Dr.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 10 panels

Road Name	Location Description	Observation Type	Description	Cause	Priority	Comments
Drayton - Main St. E	John St. to end	Defect	Horizontal or Vertical Cracking	Vehicular Damage	FALSE	South - wide crack at driveway #73
Drayton - Main St. E	John St. to end	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	North side - medium to wide cracks at several driveways along length
Drayton - Main St. E	Edward St. to Main St.	Observation	Spalling or Other Surface Defects	Salt Damage	FALSE	North - isolated small popouts throughout
Drayton - Main St. E	Edward St. to Main St.	Observation	Spalling or Other Surface Defects	Salt Damage	FALSE	South - small popouts throughout, medium scaling of concrete surface
Drayton - Main St. E	Edward St. to Union St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	North - settlement cracks in 6 panels
Drayton - Main St. E	Edward St. to Union St.	Defect	Depression or Rolling Areas	Settlement	FALSE	North - settlement with cracks at driveway #38
Drayton - Main St. E	Edward St. to Union St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	South - cracking in 11 panels
Drayton - Main St. E	Union St. to Smith Dr.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	South - settlement/ age cracks in 6 panels along length
Drayton - Main St. E	Union St. to Smith Dr.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	North - cracks in 5 panels along length
Drayton - Main St. E	Union St. to Smith Dr.	Defect	Depression or Rolling Areas	Settlement	FALSE	South - Settlement at catch basin at house #55
Drayton - Main St. W	Wellington St. to King St.	Observation	None	None	FALSE	No defects noted between Wellington St and bridge - bridge under construction, west of bridge not inspected.
Drayton - Main St. W	King St. to Drayton Queen St.	Observation	None	None	FALSE	not inspected - street under construction at time of inspection' From Flower Dr. Sidewalk appeared to be ripped up.
Drayton - Main St. W	Drayton Queen St. to Flower Dr.	Observation	None	None	FALSE	not inspected due to construction - North side of sidewalk ripped up at time of inspection, looked as though south would also be replaced.
Drayton - Main St. W			None	None	FALSE	no sidewalk at time of inspection due to construction.
Drayton - Wellington St. N	Wood St. to Main St.	Observation	Spalling or Other Surface Defects	Salt Damage	FALSE	East - isolated small popouts along length
Drayton - Wellington St. S	Spring St. to Main St.	Observation	None	None	FALSE	no visible defects
Drayton - Wellington St. S	Spring St. to High St.	Defect	Spalling or Other Surface Defects	Salt Damage	FALSE	West - medium scaling starting at house #42
Drayton - Wellington St. S	Spring St. to High St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	West - cracking in 3 panels
Drayton - Wellington St. S	Spring St. to High St.	Defect	Horizontal or Vertical Cracking	Vehicular Damage	FALSE	East - Cracking at driveway #43
Edward St.	High St. to Spring St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 7 panels
Edward St.	High St. to Pine St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracks in 7 panels
Edward St.	Pine St to Wellington St.	Defect	Horizontal or Vertical Cracking	Vehicular Damage	FALSE	cracks in 15 panels
Edward St.	Pine St to Wellington St.	Defect	Vertical Displacement (minor)	Settlement	FALSE	settlement and upheaval at multiple driveways along length
Edward. St.	Main St. to Spring St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	Wide crack at corner of Main

Road Name	Location Description	Observation Type	Description	Cause	Priority	Comments
Elm St.	Wood St. to End	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	cracking in 6 panels
Elm St.	Wood St to Main St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracks and settlement at #12 driveway
Elora St. N	Peel St. to Graham St.	Defect	Broken off or Missing portions	Vehicular Damage	FALSE	South - abrasion damage/plow damage to curb at Graham St.
Elora St. N	Peel St. to Graham St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	North - medium to wide cracks at several locations along length, mostly at driveways
Elora St. N	Peel St. to Graham St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	South - cracking in 1 panel
Elora St. N	Graham St. to Rebecca St.	Defect	Broken off or Missing portions	Other Infrastructure	FALSE	South - missing section between house #24 and 28.
Elora St. N	Graham St. to Rebecca St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	South - 2 cracked sections at corner lot at Graham St.
Elora St. N	Graham St. to Rebecca St.	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	North - crack at corner lot (at Rebecca) driveway, crack at corner lot (at Graham)
Elora St. N	Graham St. to Rebecca St.	Defect	Broken off or Missing portions	Vehicular Damage	FALSE	South - abrasion damage to curb along length
Elora St. N	Rebecca St. to Simpson St.	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	South - corners of 2 panels cracked off, crack at another panel.
Elora St. N	Rebecca St. to Simpson St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	North - cracking through 2 panels
Elora St. S	Peel St. to Alexander St	Defect	Vertical Displacement (minor)	Settlement	FALSE	South - approximate 20mm vertical disp at 15m east of intersection
Elora St. S	Peel St. to Alexander St	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	South - cracking at 5 panels
Elora St. S	Peel St. to Alexander St	Defect	Broken off or Missing portions	Age/Weathering	FALSE	South - large spall at house #12
Elora St. S	Peel St. to Alexander St	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	North - cracking in 2 panels
Elora St. S	Alexander St. to end	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	cracking in 19 panels, spall at house #0021
Faith Dr.	All	Observation	None	None	FALSE	no visible defects
Graham St. E.	Elora St. to King St.	Defect	Vertical Displacement (major)	Settlement	FALSE	vertical displacements at 3 locations along length, close to each intersection, 1 at driveway edge
Graham St. E.	Elora St. to King St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracks in 6 panels
Graham St. E.	King St. to Raglan St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 6 panels, 2 at driveway edges
Graham St. E.	King St. to Raglan St.	Defect	Spalling or Other Surface Defects	Other	FALSE	footprints from time of forming - almost 25mm deep
Green St.		Defect	Horizontal or Vertical Cracking	Settlement	FALSE	crack at driveway #40
Head St./Wellingto Rd. 10	Head St/Wellington Rd 10 bend to James st.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	severe cracking at all driveways

Road Name	Location Description	Observation Type	Description	Cause	Priority	Comments
Hendrie St	McGivern St. to Adam Brown St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	South - cracking with spall spalls in approximately half of panels
Hendrie St	McGivern St. to Adam Brown St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	North - cracks in 10 panels
Hendrie St.	Adam Brown St. to Carson St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	medium to wide settlement cracks throughout.
High St.	Union St. to Edward St.		None	None	FALSE	no visible defects
High St.	Edward St. to Wellington St.	Defect	Broken off or Missing portions	Vehicular Damage	FALSE	chunk of curb missing at catch basin at house #14
High St.	Edward St. to Wellington St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 11 panels
High St.	Edward St. to Wellington St.	Defect	Spalling or Other Surface Defects	Salt Damage	FALSE	severe scaling and disintegration at driveway #22
Hillview Dr.	All	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 11 panels
James St. N.	Wellington Rd. 10 to Head St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	Sidewalk severely cracked and disintegrating, overgrown, with multiple trip hazards.
John St.	John St. from Main St. to Wood St.	Defect	Horizontal or Vertical Cracking	Vehicular Damage	FALSE	Medium cracks in 11 panels
John St.	John St. from Main St. to Wood St.	Defect	Vertical Displacement (minor)	Vehicular Damage	FALSE	Several small (<12mm) vertical displacements
John St.	John St. from Main St. to Wood St.	Observation	Depression or Rolling Areas	Age/Weathering	FALSE	Medium settlement at driveways with ponding and sediment build up
John St.	Wood St. to Robin Dr.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking at 5 panels
Maple St.	Parkside St. to Green St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracks in 2 panels
Maple St.	Andrews Dr. to Green St (SE)		None	None	FALSE	no visible defects
Maple St.	Andrews Dr. to Pine St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 9 panels
Maudsley St.	Adam Brown St. to Carson St.	Defect	Depression or Rolling Areas	Settlement	FALSE	North - severe settlement with cracking and sediment build up
Maudsley St.	Adam Brown St. to Carson St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	North - settlement cracks throughout length
Maudsley St.	Adam Brown St. to Carson St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	South - medium to wide cracking throughout
Maudsley St.	Adam Brown St. to Carson St.	Defect	Spalling or Other Surface Defects	Settlement	FALSE	South - large spall and settlement at west most lot
McGivern St.	Ball Ave to end	Defect	Spalling or Other Surface Defects	Age/Weathering	FALSE	corners of several panels spalled off
McGivern St.	Ball Ave. to Caroline St.	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	West - wide crack at corner of Parkview Dr.
McGivern St.	Ball Ave. to Caroline St.	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	East - cracking at several panels along length
McGivern St.	Moore St. to Caroline St.	Defect	Spalling or Other Surface Defects	Salt Damage	FALSE	East - long crack at building #48; Sidewalk raised, disintegration or curb along building #40.
McGivern St.	Moore St. to Caroline St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	West - cracking at buildings # 35, 39, 49.

Road Name	Location Description	Observation Type	Description	Cause	Priority	Comments
McGivern St.	Booth St. to Moore St.	Defect	Depression or Rolling Areas	Other	FALSE	East - very high in comparison to street elevation at south end; railing should be considered
Moore St.	Adam Brown St. to Carson St.	Defect	Vertical Displacement (minor)	Tree Roots - no site visit	FALSE	south - small vertical displacements at several locations
Moore St.	Adam Brown St. to Carson St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	North - Severe cracking and settlement throughout; worst area towards west end.
Moore St.	Adam Brown St. to Carson St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	South - Medium cracking throughout
Moore St.	Carson St. to Robb St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	medium to wide cracking throughout
Moore St.	Adam Brown St. to McGivern St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	North - Medium cracks throughout, worst areas at driveways.
Parkside St.	Andrews Dr. to Maple St.	Defect	Horizontal or Vertical Cracking	Vehicular Damage	FALSE	cracks at driveways #13, 33
Peel St. E	Elora St. to King St.	Observation	Spalling or Other Surface Defects	Other	FALSE	roughened section from time of forming - more aesthetic
Peel St. E	King St to Raglan St.	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	cracks in 3 panels along length
Peel St. E	King St to Raglan St.	Defect	Vertical Displacement (minor)	Settlement	FALSE	minor vertical displacement at driveway #0021
Peel St. E	Raglan St to end	Defect	Vertical Displacement (minor)	Settlement	FALSE	minor vertical displacements at 2 locations - hydropole, driveway.
Peel St. E	Raglan St to end	Observation	Horizontal or Vertical Cracking	Age/Weathering	FALSE	wide cracks across concrete at driveway.
Peel St. W	Elora St to Alma Queen St.	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	cracks in 3 panels along length
Peel St. W	Elora St to Alma Queen St.	Defect	Vertical Displacement (minor)	Settlement	FALSE	several small vertical displacements along length (>20mm)
Peel St. W	Alma Queen St. to Church St.	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	cracking of 3 panels
Peel St. W	Alma Queen St. to Church St.	Defect	Vertical Displacement (minor)	Settlement	FALSE	small vertical displacements at sides of driveway
Peel St. W	Church St. to end	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	cracking in 13 panels, including at several driveways
Peel St. W	Church St. to end	Defect	Broken off or Missing portions	Other	FALSE	paved driveway has gaps and poor surface acting as sidewalk
Pine St.	Edward St. to Maple St.	Defect	Vertical Displacement (minor)	Settlement	FALSE	upheaval at stop sign at Edward
Pine St.	Edward St. to Maple St.	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	cracks in 2 panels
Pioneer Dr.	Main St. to Ridgeview Dr.	Observation	None	None	FALSE	no visible defects
Raglan St. N.	Graham St. to end	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	cracking at 3 panels along length
Ridgeview Dr.	Bedell Dr. to Pioneer Dr.	Observation	None	None	FALSE	no visible defects
River Run Rd	Andrews Dr. to Faith Dr.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	crack at corner of Andrews
River Run Rd.	Andrews Dr. to Andrews Dr.	Observation	None	None	FALSE	no visible defects

Road Name	Location Description	Observation Type	Description	Cause	Priority	Comments
Robb St.	Maudsley St. to Hendrie St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	settlement with wide cracking at ends of private sidewalks
Sideroad 17	Glen Allen Park to Mill Stt. N	Defect	Vertical Displacement (minor)	Settlement	FALSE	small vertical displacement (<15mm) at house #7801
Sideroad 17	Mill St. N to Bridge St.	Observation	None	None	FALSE	no visible defects
Simpson St. E.	Elora St to King St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	crack at ball diamond entrance
Simpson St. E.	Elora St to King St.	Defect	Vertical Displacement (minor)	Settlement	FALSE	small vertical displacement at school sign.
Smith Dr.	Union St. to Bonniewood	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 4 panels
Smith Dr.	Bonniewood to Main St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 5 panels
Spring St.	Edward St. to Wellington St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	medium to wide crack at church steps
Spring St.	Edward St. to Union St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking and popouts throughout
Union St.	Spring St. to Main St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in approximately 1/2 panels
Walking Path	Muir Cres. To Peel St.	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	crack at 1 location
Wellington Rd. 10	Wellington Rd 10 to Head St.	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking in 5 panels along length.
Wellington Rd. 10	Wellington Rd 10 to Head St.	Defect	Spalling or Other Surface Defects	Settlement	FALSE	severe settlement at driveway with wide cracking
Wellington Rd. 7	Wellington Rd 10 to James St	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	cracking 3 panels along length
Wellington Rd. 7	Wellington Rd 10 to James St	Defect	Spalling or Other Surface Defects	Vehicular Damage	FALSE	severe spalling of curb both sides
Wellington Rd. 7	James St. to Wellington Rd 10	Defect	Spalling or Other Surface Defects	Vehicular Damage	FALSE	sections of curb severely spalled
Wellington Rd. 7	James St. to Wellington Rd 10	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	wide cracking at 10 panels along length
Wellington Rd. 7	Wellington Rd 10 to end	Defect	Spalling or Other Surface Defects	Salt Damage	FALSE	spalls at driveway
Wood St	Elm St to Wellington Rd 7	Defect	Horizontal or Vertical Cracking	Age/Weathering	FALSE	North - cracking in 8 panels
Wood St	Elm St to Wellington Rd 7	Observation	Depression or Rolling Areas	Settlement	FALSE	North - ponding and settlement at driveway #30,34
Wood St	Elm St to Wellington Rd 7	Defect	Horizontal or Vertical Cracking	Settlement	FALSE	South - settlement with cracking at driveway #29
Wood St.	from John St. to End	Defect	Horizontal or Vertical Cracking	Vehicular Damage	FALSE	cracks at 7 panels
Wood St.	from John St. to End	Defect	Depression or Rolling Areas	Settlement	FALSE	settlement at catch basins at stop sign
Wood St.	John St. to Elm St.	Defect	Horizontal or Vertical	Age/Weathering	FALSE	cracks 19 panels

Road Name	Location Description	Observation Type	Description	Cause	Priority	Comments
			Cracking			
Wood St.	John St. to Elm St.	Defect	Vertical Displacement (minor)	Trench/Utility - service lines	FALSE	upheaval at CSP crossing
Wood St.	John St. to Elm St.	Defect	Depression or Rolling Areas	Settlement	FALSE	settlement at driveways 42,40