

Municipality of Chatham-Kent

Infrastructure and Engineering Services

Engineering and Transportation Division

To: Mayor and Members of Council

From: Katerina Oliver, A.Sc.T.
Engineering Technologist

Date: May 19, 2016

Subject: Tender Award, Contract T16-102, Surface Treatment

Recommendations

It is recommended that:

1. The 2016 Surface Treatment Maintenance Program be approved.
2. The tender in the amount of \$1,434,450.68 including HST for surface treatment be awarded to Shepley Road Maintenance Limited for the sections of roads noted in Appendix A and B.
3. The Mayor and Clerk be authorized to sign the necessary agreement.

Background

The Municipality of Chatham-Kent has approximately 215 km of roads which consist of surface treatment. Commonly referred to as “tar and chip”, surface treatment is used in rural and semi-urban areas with low to medium volumes of traffic as a more cost effective option to asphalt paving.

The application of surface treatment involves evenly applying hot emulsified asphalt (tar) onto a roadway, followed by an even layer of angular aggregate stones (chip) that are rolled into place. Typically a single application is placed over a corrective asphalt padding base course, while a double application is applied onto compacted granular material after a road is pulverized and re-shaped.

Once application of surface treatment is complete, the stones are further compacted and pushed into the asphalt tar by traffic. As a result for a period of weeks or months following the application, there is some loose crushed stone on top of the road surface. Depending on outside temperature and traffic, the road will eventually resemble the hard pavement of asphalt roads in higher traffic areas.

Roadway maintenance and construction needs are compiled using the Road Analytics Software Program. Surface treatment roads are rated with a distress score ranging from 1 to 5 with the high value representing an excellent rating and a low value representing a poor rating. Evaluation is based on surface distress manifestations, riding condition and maintenance requirements. In addition to these factors, there is consideration for traffic volume, the percentage of developed road frontage and beneficial economic impact to Chatham-Kent.

Similarly to asphalt roads, the further a surface treated road deteriorates, the more significant the cost becomes to rehabilitate. For these reasons, it is imperative that the annual road budget deficit is addressed in upcoming Municipal budgets.

Comments

The 2016 surface treatment contract provides for the supply and application of 21.3 km of surface treatment, which includes provisional items, to be applied on various roads throughout Chatham-Kent as defined in Appendix A - Table 1, Street and Road Quantity Details for Contract T16-102. Appendix B, Surface Treatment Sites key maps are also attached to assist Council in identifying these locations.

The Infrastructure and Engineering Services, Public Works Managers and the staff of Engineering and Transportation Division identified and reviewed sections of roadway for improvement. Road sections were inspected to confirm the ratings, pavement type, geometrics and suitability of the improvements suggested.

Any conflicts with future bridge, water main, and storm sewer improvements requiring completion prior to Surface Treatment were identified and the list adjusted accordingly.

Tenders were called and received by the Purchasing Officer on Thursday, May 19, 2016.

The budget estimate for the 2016 Surface Treatment program was set at \$1,200,000. Funds were included in the 2016 Roads Lifecycle Budget. One (1) contractor submitted a tender for the project.

The result is as follows:

Contract T16-102 Surface Treatment			
Rank	Tenderer	Amount (incl. HST)	Amount (excl. HST)
1	Shepley Road Maintenance Limited, Essex ON	\$1,434,450.68	\$1,269,425.38

Engineering and Transportation Division has reviewed the tender and found it to be complete in all respects with the exception of a rounding error of \$0.01.

The sole bidder, Shepley Road Maintenance Limited, completed the 2013, 2014 and 2015 Surface Treatment Programs.

Considering only a single tender bid was received, it was evaluated to confirm competitive bidding by comparison to the average unit costs for the same type of work. This evaluation found that the bid received is within 4% of the average pricing for the last 3 year bid prices. Also, the sole tender bid is within 10% of the budget estimate.

As a result, it is recommended that the contract be awarded to Shepley Road Maintenance Limited.

Council Directions

The recommendations in this report support the following Council Directions:

- Jobs:**
Everyone in Chatham-Kent who wants to work is able to work in meaningful employment
 - People:**
Chatham-Kent is a welcoming community where people choose to live, learn, work, and play
 - Health:**
Chatham-Kent is a healthy, active, safe, accessible community within a healthy natural and built environment
 - Financial Sustainability:**
The Corporation of the Municipality of Chatham-Kent is financially sustainable
- Has the potential to support **all** Council Directions
 Neutral issues (does not support negatively or positively)

Consultation

The Tenders were opened by the Purchasing Officer and reviewed by the Tendering Committee which includes the Purchasing Officer, Finance, Budget and Information Technology Services, the Director, Financial Services/Treasurer, Finance, Budget and Information Technology Services and Engineering Technologists.

The Managers of Public Works (North and South) were also consulted on the road listing.

Financial Implications

The project is being funded from the 2016 Roads Lifecycle Budget, which includes funds under the Association of Municipalities of Ontario (AMO)/Federal Transfers of Federal Gas Tax Funding Agreement and the Ontario Community Infrastructure Fund.

The project is summarized in the following table:

Contract T16-102 Surface Treatment		
(A)	Description	Total
Project Costs	Tender Bid (includes HST)	\$ 1,434,450.68
	Engineering & Material Testing (includes HST)	\$ 25,000.00
	Less HST Rebate 11.24%	\$ (164,042.26)
	Total	\$ 1,295,408.42
(B) Project Contract Funding Summary	Lifecycle for Surface Treatment, Maintenance	\$ 1,200,000.00
	Project Contract Funding	\$ 1,200,000.00
(C) Lifecycle Federal and Provincial Grant Update Summary	Roads Lifecycle Budget	\$ 10,817,000.00
	Previously Approved Hot Mix Resurfacing	\$ (6,157,451.61)
	Previously Approved Crack Cleaning and Sealing	\$ (293,068.80)
	Previously Approved Concrete Curb Repairs	\$ (48,289.85)
	Previously Tendered Cold In-Place Recycling	\$ (1,755,541.60)
	Previously Tendered Jackson Drive and Glenwood Drive Resurfacing	\$ (206,000.00)
	Current Project	\$ (1,295,408.42)
	Balance Remaining	\$ 1,061,239.72

The remaining roads Lifecycle Budget in the amount of \$1,061,239.72 will be committed to other road program projects that have not been tendered to date. Some of these other committed projects include the following: Road Sub-drainage, and Road Spot and Utility Repairs.

Prepared by:

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Director, Finance, Budget & Information Technology Services
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Attachments:




- Appendix A - Table 1, Street and Road Quantity Details for Contract T16-102,
Surface Treatment
- Appendix B - Surface Treatment Sites

P:\RTC\Infrastructure and Engineering\I & ES\2016\ 3823 - T16-102 Surface Treatment

APPENDIX A - Table 1

Street and Road Quantity Details for Contract T16-102, Surface Treatment							
Municipal Area	Street/Road	Location Description	Length (m)	Width (m)	Treatment Area (m2)	Lifts (ea)	Pulverize
Dover	Angler Line	Bridge to 30m east of bridge	50	5.0	250	1	
	Angler Line	30m east of bridge	30	5.0	150	2	Y
	Winter Line	W Lewis Ln to Limits	360	6.0	2,160	2	Y
Chatham	Avon Drive	East of Faubert Dr to Limits	50	5.5	275	2	Y
	Kenny Avenue	Faubert Dr to Lacroix St	100	6.2	620	2	Y
	Ninth Street	All	75	5.2	390	2	Y
	Post Road	East of Marion Av to Limits	30	7.0	210	2	Y
Chatham Twp	McNaughton Line	Prince Albert Rd to 250m east, + Spot Repair	250	6.4	1,600	2	Y
Grande Pointe	Benoit Drive	Winter Ln to Limits	100	6.4	640	2	Y
Harwich	Allison Line	500m west of Harwich Rd	500	6.7	3,350	1	
	Harwich Road	Burk Ln to south of Welch Ln	3,175	6.7	21,273	1	
	River Line	700m west of Kent Bridge Rd	700	6.5	4,550	1	
	River Line	West of Mull Rd to Bedford Rd, 5 Spot Repairs	200	6.5	1,300	1	
Louisville	James Street	Longwoods Rd to Mulberry St	120	5.8	696	1	
	Mulberry Street	Spring St to James St	60	5.8	348	1	
	Spring Street	Longwoods Rd to Mulberry St	110	5.8	638	1	
Morpeth	Bagot & Durham Street	Talbot Trail to Sydenham St	270	4.5	1,215	2	Y
	Erie Street	Hill Rd to Sydenham St	120	5.1	612	2	Y
	Sheldon Street	Hill Rd to Sydenham St	130	5.0	650	2	Y
	Sydenham Street	Talbot Trail to Erie St	435	5.1	2,219	2	Y
Raleigh	Dillon Road	Queen's Ln to 550m north	550	5.8	3,190	2	Y
	Howard Road	420m south of Sixth Ln E	420	7.0	2,940	2	Y
	Sixth Line E	West of Bloomfield Rd Spot Repair	400	6.3	2,520	1	
	Water Street	South of Talbot Trail to Highbanks Rd	500	6.4	3,200	2	Y
Shrewsbury	Albert Street	New Scotland Ln to Prince St	610	4.8	2,928	2	Y
	Bayview Drive	Prince St to south Limit	230	5.5	1,265	2	Y
	Metcalfe Street	Brock St to Tecumseh St + west of Talbot St to Kent St	350	4.8	1,680	1	
	Peel Street	Princess St to St Patrick St	150	4.0	600	2	Y
	Prince Street	Albert St to Brock St	150	4.8	720	2	Y
	St George Street	Albert St to east Limits	155	4.0	620	2	Y
	St Patrick Street	Peel St to south Limits	170	4.0	680	2	Y
	Woods Street	New Scotland Ln to south Limit	320	4.3	1,376	2	Y
Tilbury E	Coutts Line	1250m west of Sinclair Rd	1,250	6.4	8,000	1	
	Rogers Street	All	120	5.5	660	2	Y
Wallaceburg	Bluewater Line	580m west of bridge	580	6.1	3,538	1	
	Duncan Street	University Av to Trafalgar St	140	6.5	910	2	Y
	Hope Street	Gillard St to north Limit	110	7.3	803	2	Y
	Sanford Street	Gillard St to north Limit	100	6.3	630	2	Y
	Trafalgar Street	Duncan St to Nelson St	70	5.4	378	2	Y
	University Avenue	Running Creek Dr to Brander Av	230	6.5	1,495	2	Y
	Wall Street	Creek St to Nelson St	130	5.4	702	2	Y
	Water Street	260m south of Langstaff Ln to Otter Ln	900	7.2	6,480	1	
Wheatley	Camper's Cove Road	200m south of Talbot Trail to south Limit	560	6.3	3,528	1	
	Klondyke Road	North of bridge to Lynn Rd	315	6.1	1,922	2	Y
	Klondyke Road	South of Talbot Trail Spot Repair	70	6.0	420	2	Y
Zone	Zone Road 8	Main Ln to Euphemia Ln	1,560	6.6	10,296	1	
	Zone Road 9	205m south of Elm St E to MacEwan Ln	220	6.7	1,474	1	
PROVISIONAL							
Raleigh	Howard Road	Hitchcock Rd to Sixth Ln E	1,270	7.0	8,890	1	
Tilbury E	Coutts Line	Merlin Rd to Sinclair Rd	2,460	6.4	15,744	1	

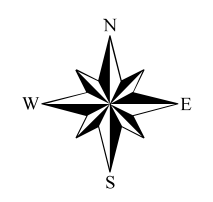
APPENDIX B
 SURFACE TREATMENT SITES
 CHATHAM

- Legend:**
-  1-LIFT
 -  2-LIFT
 -  PROVISIONAL (1-L)

T16-102
 SURFACE TREATMENT



Date: 28/04/2016



APPENDIX B

SURFACE TREATMENT SITES

EAST KENT

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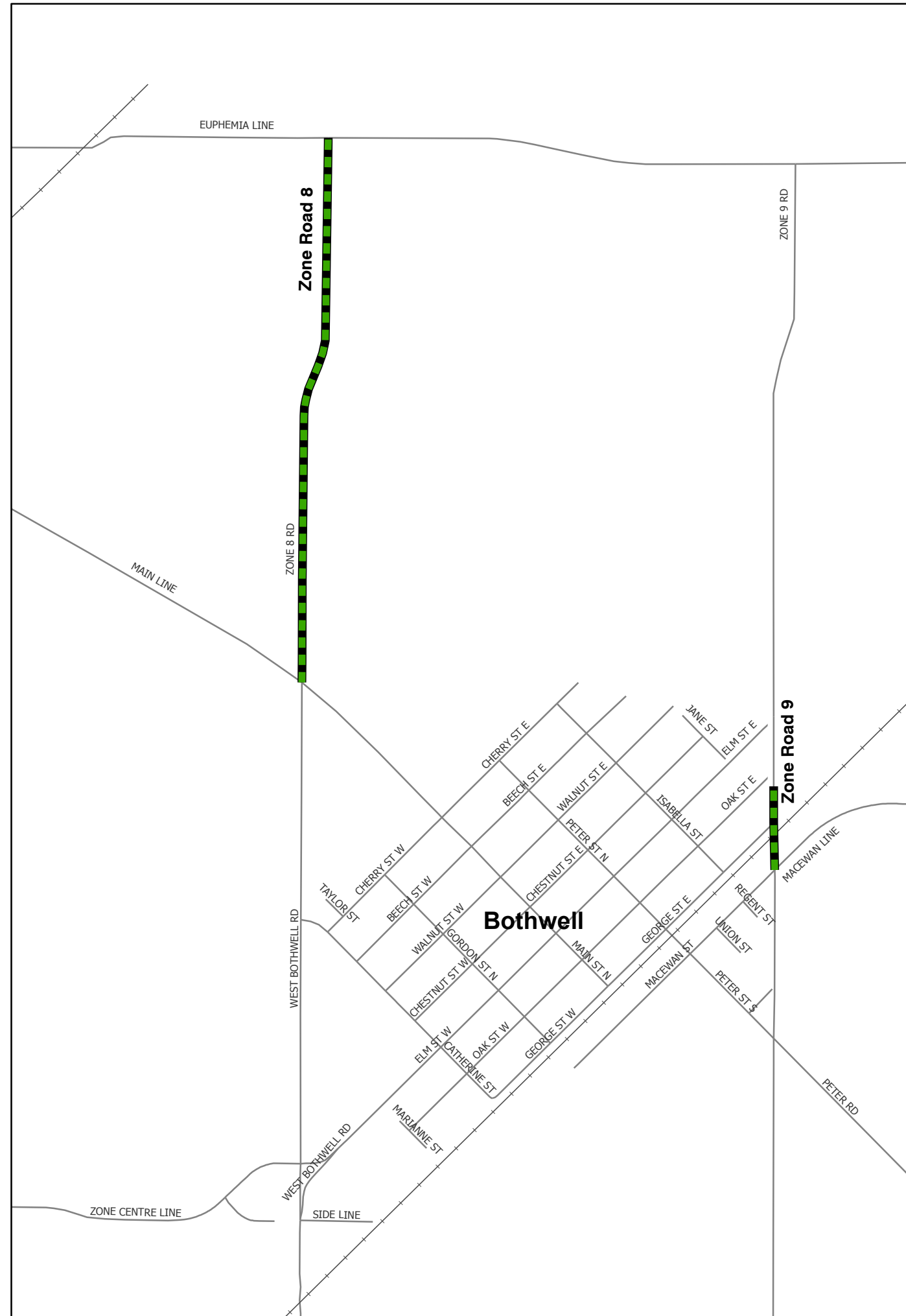
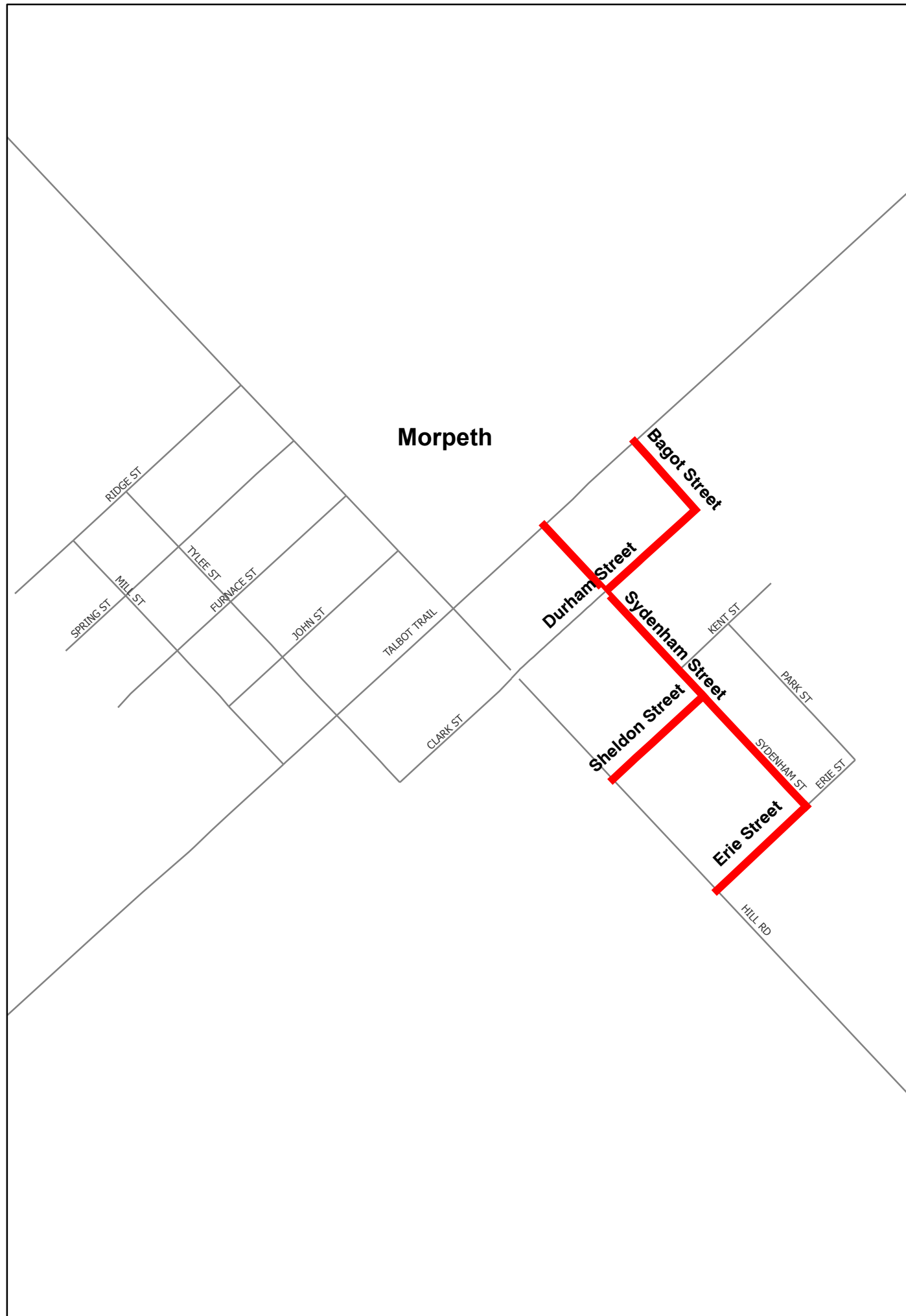
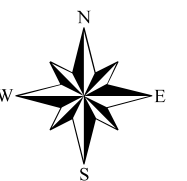
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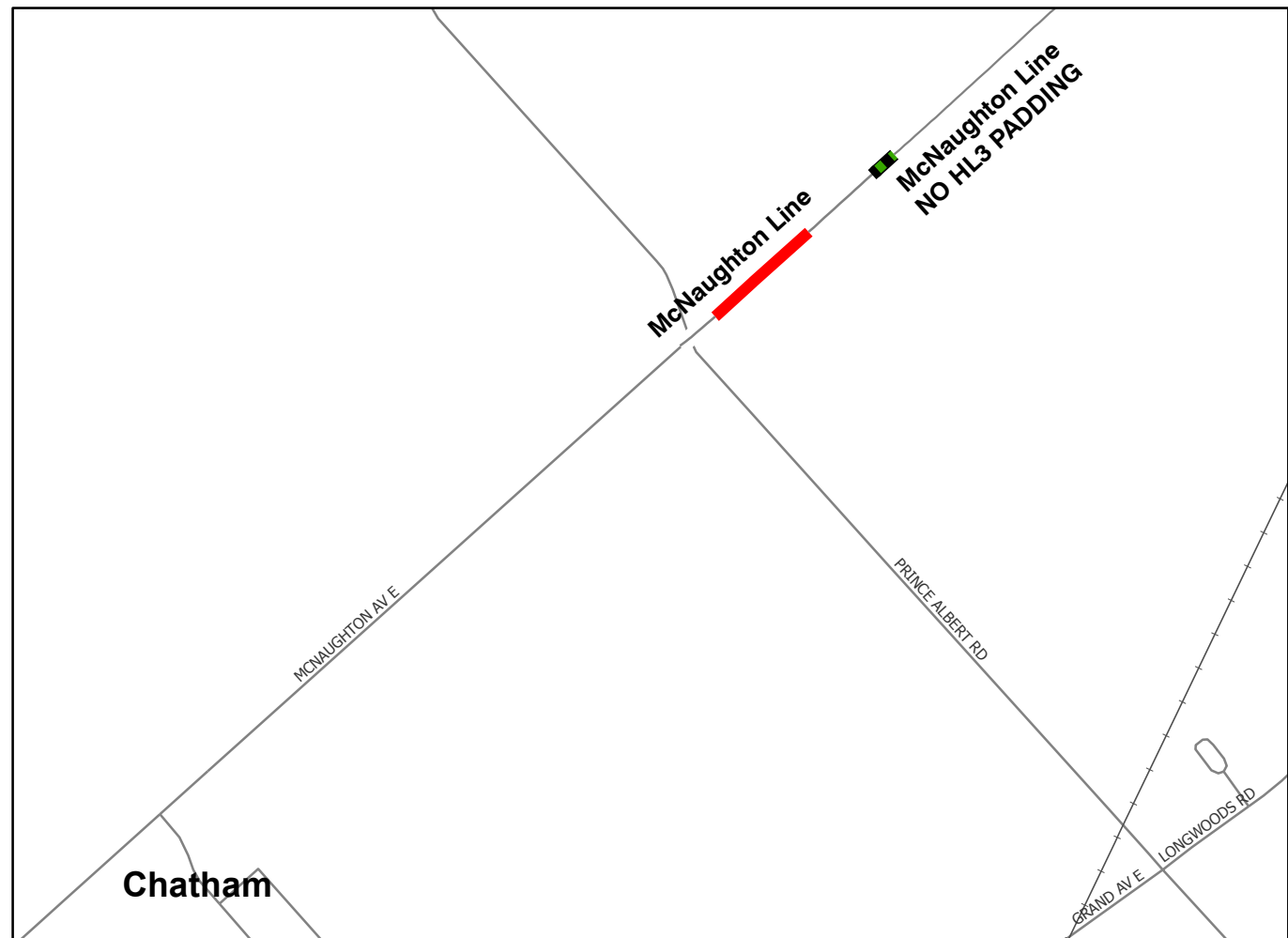
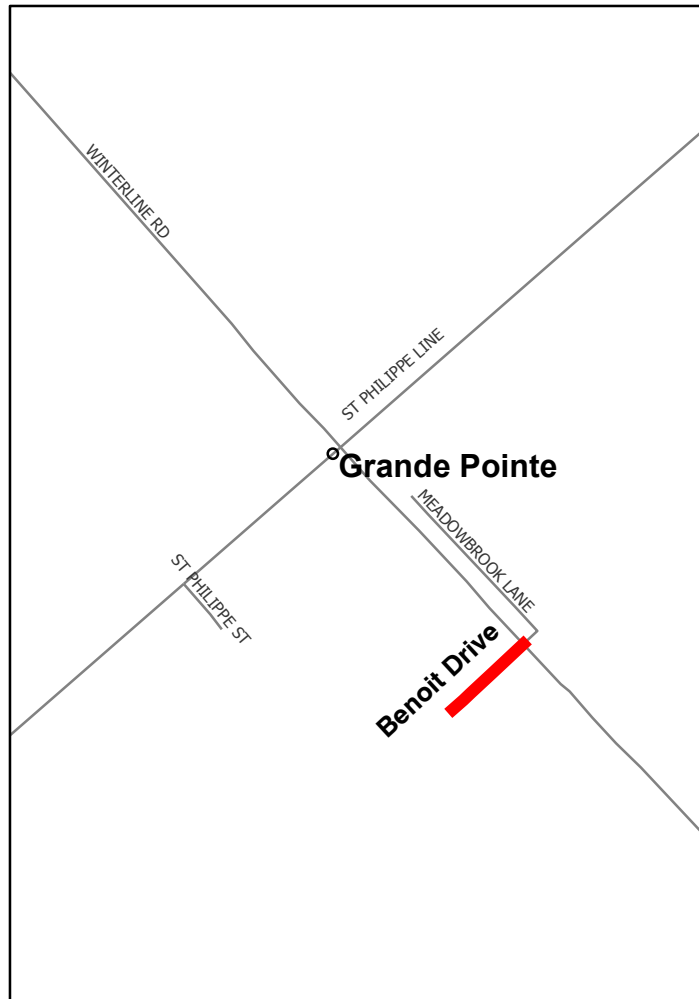
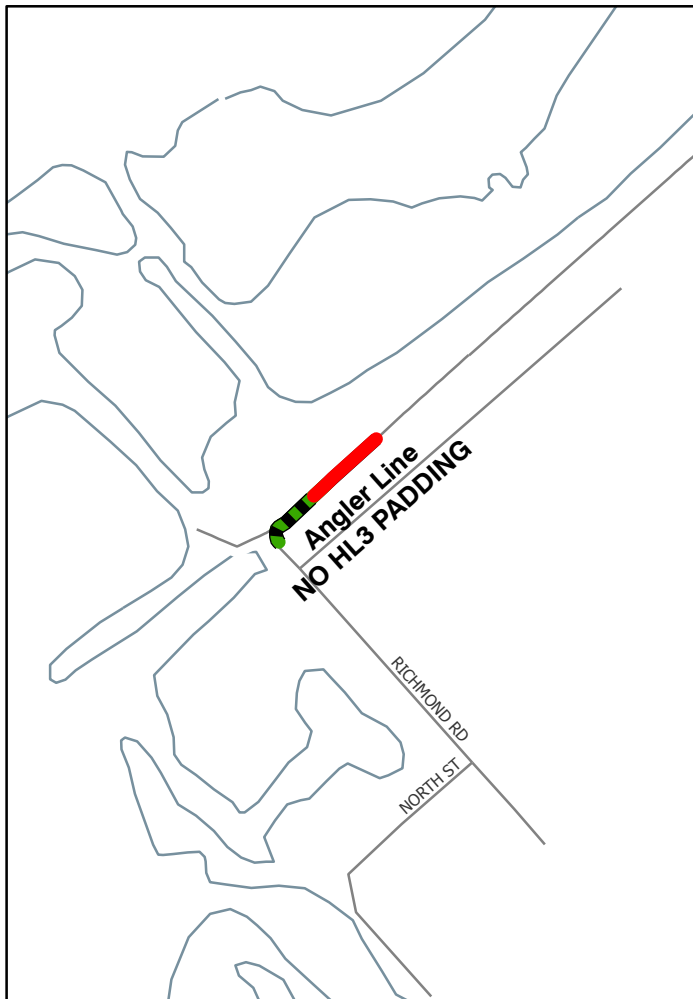
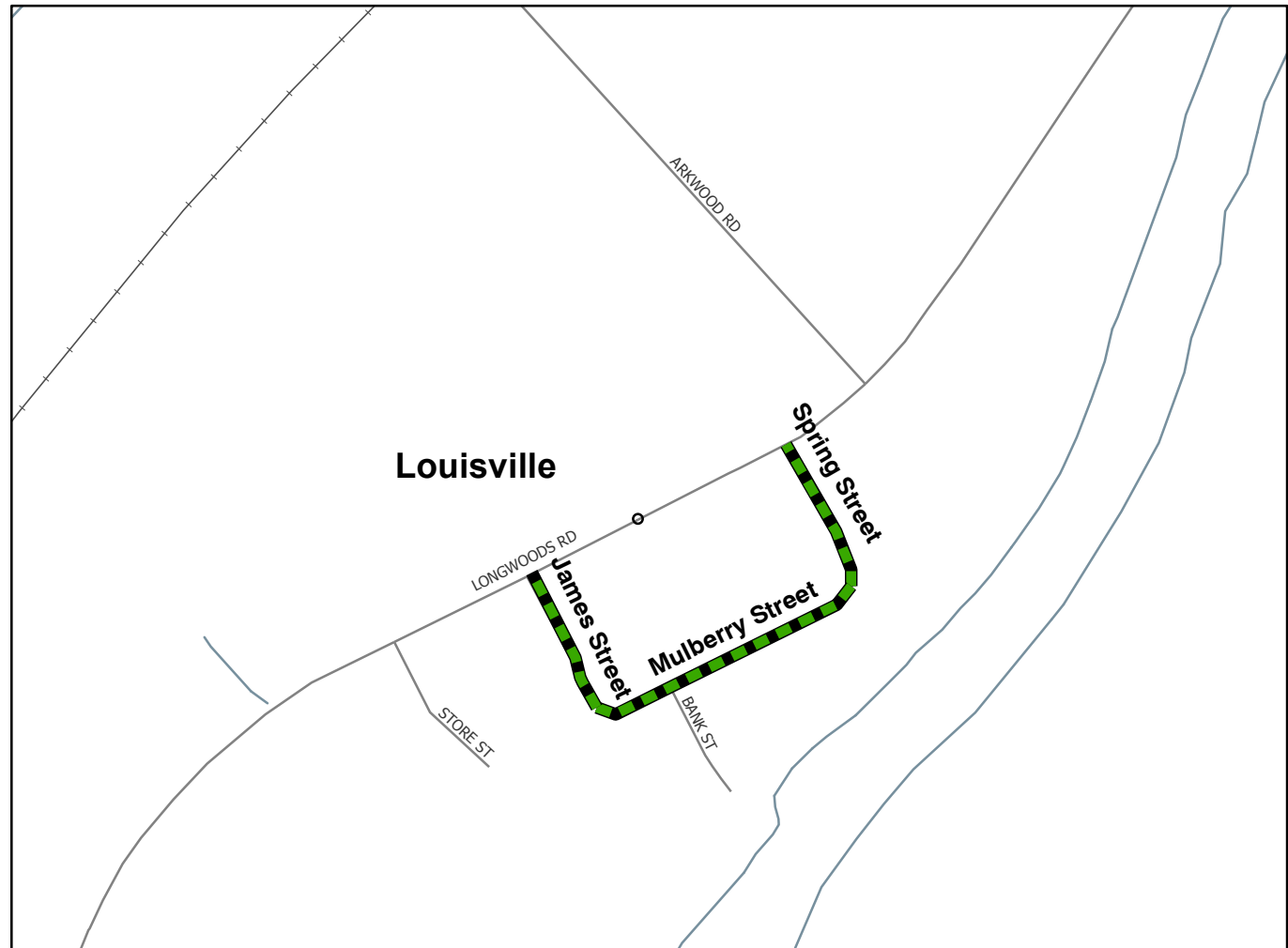
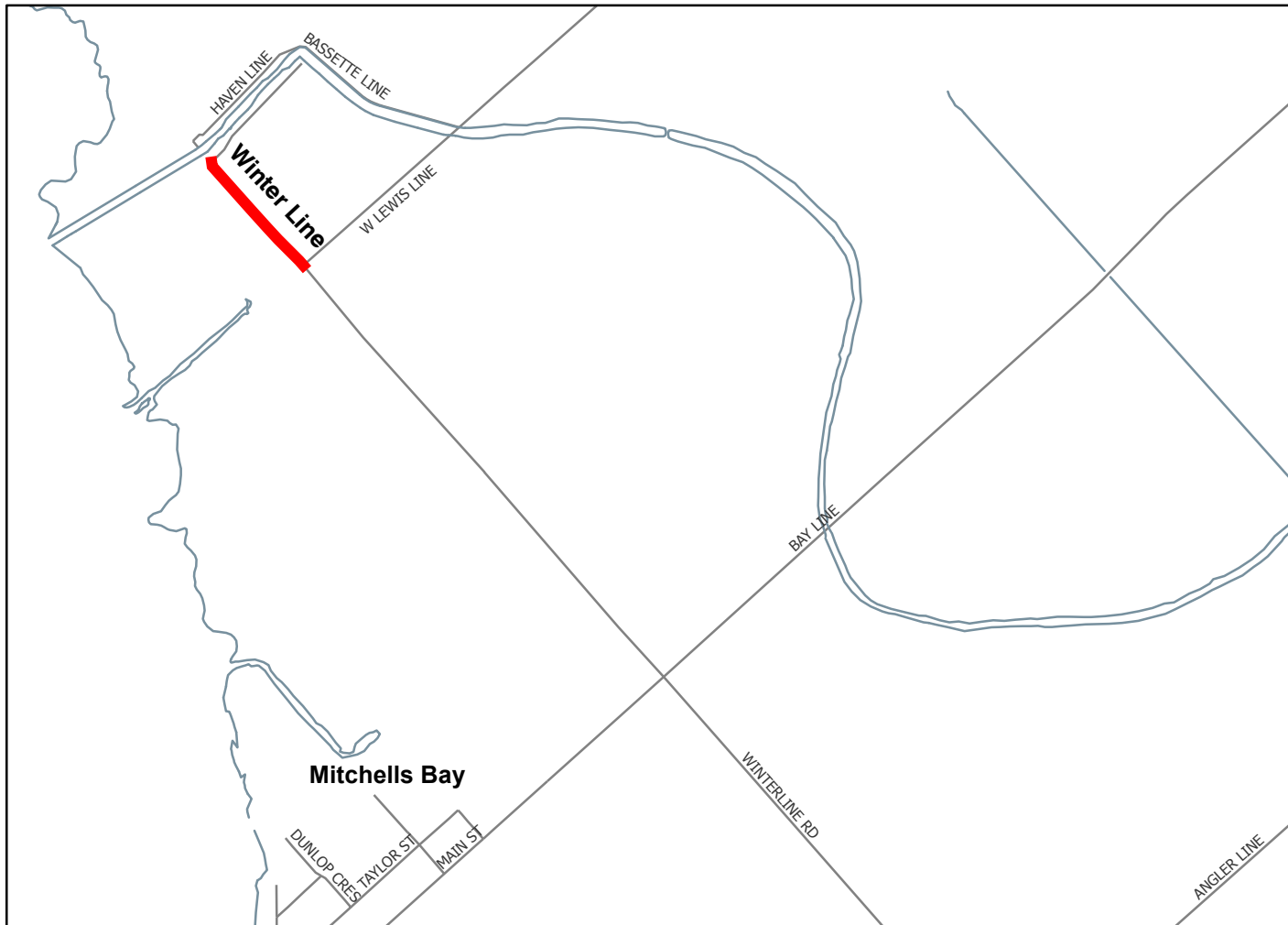
T16-102

SURFACE TREATMENT



Date: 29/04/2016








APPENDIX B

SURFACE TREATMENT SITES

NORTH KENT

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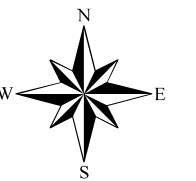
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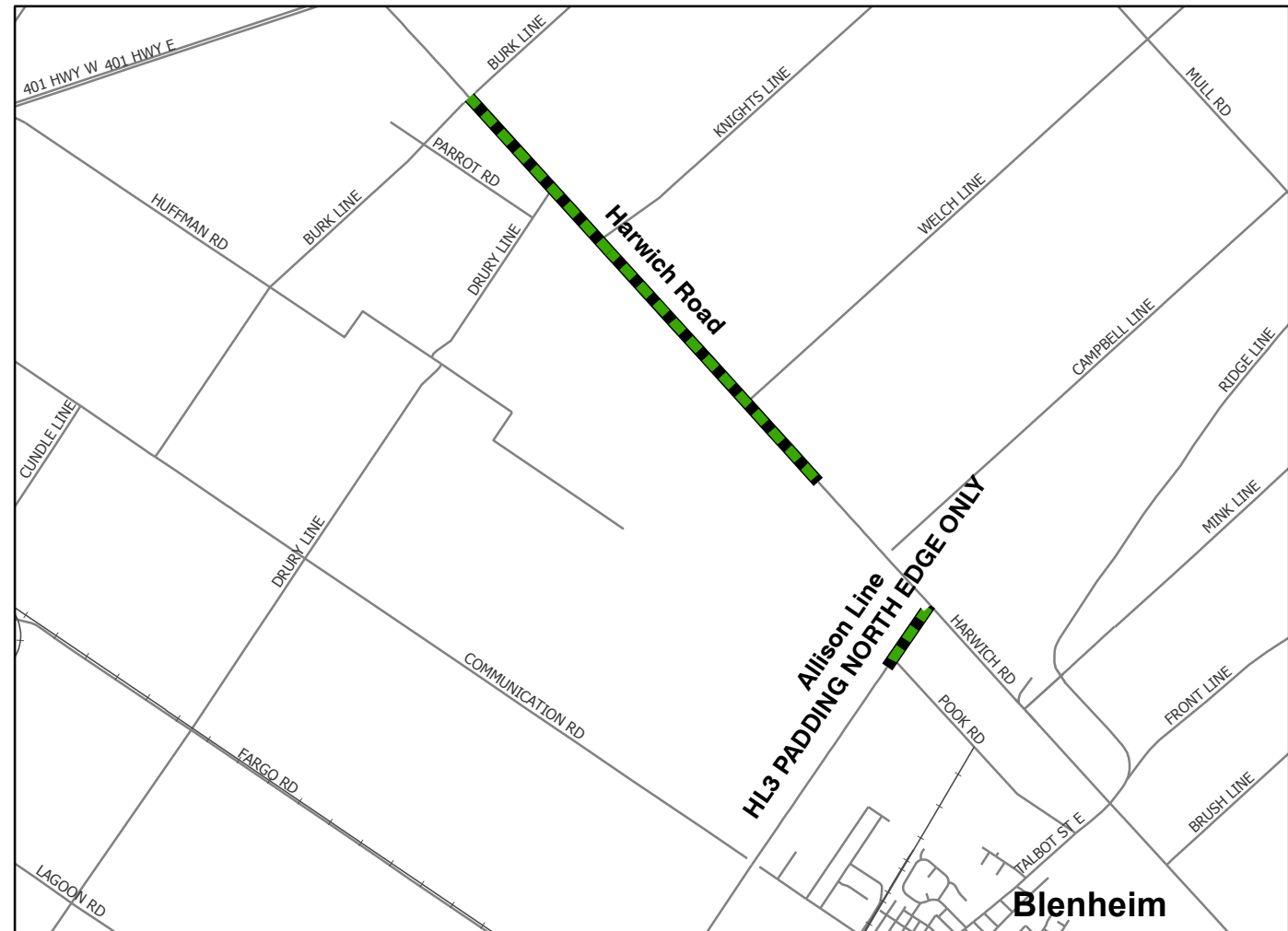
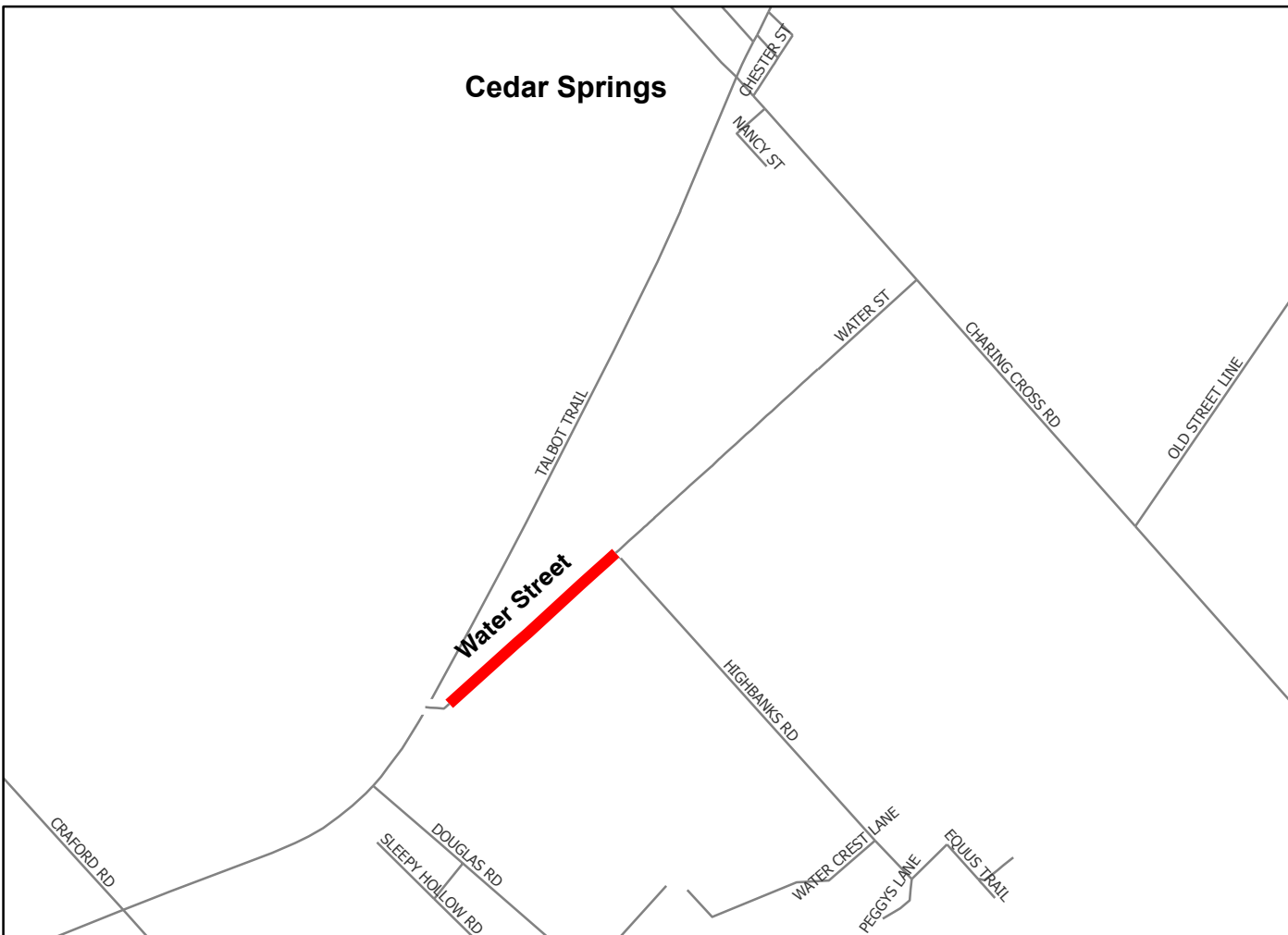
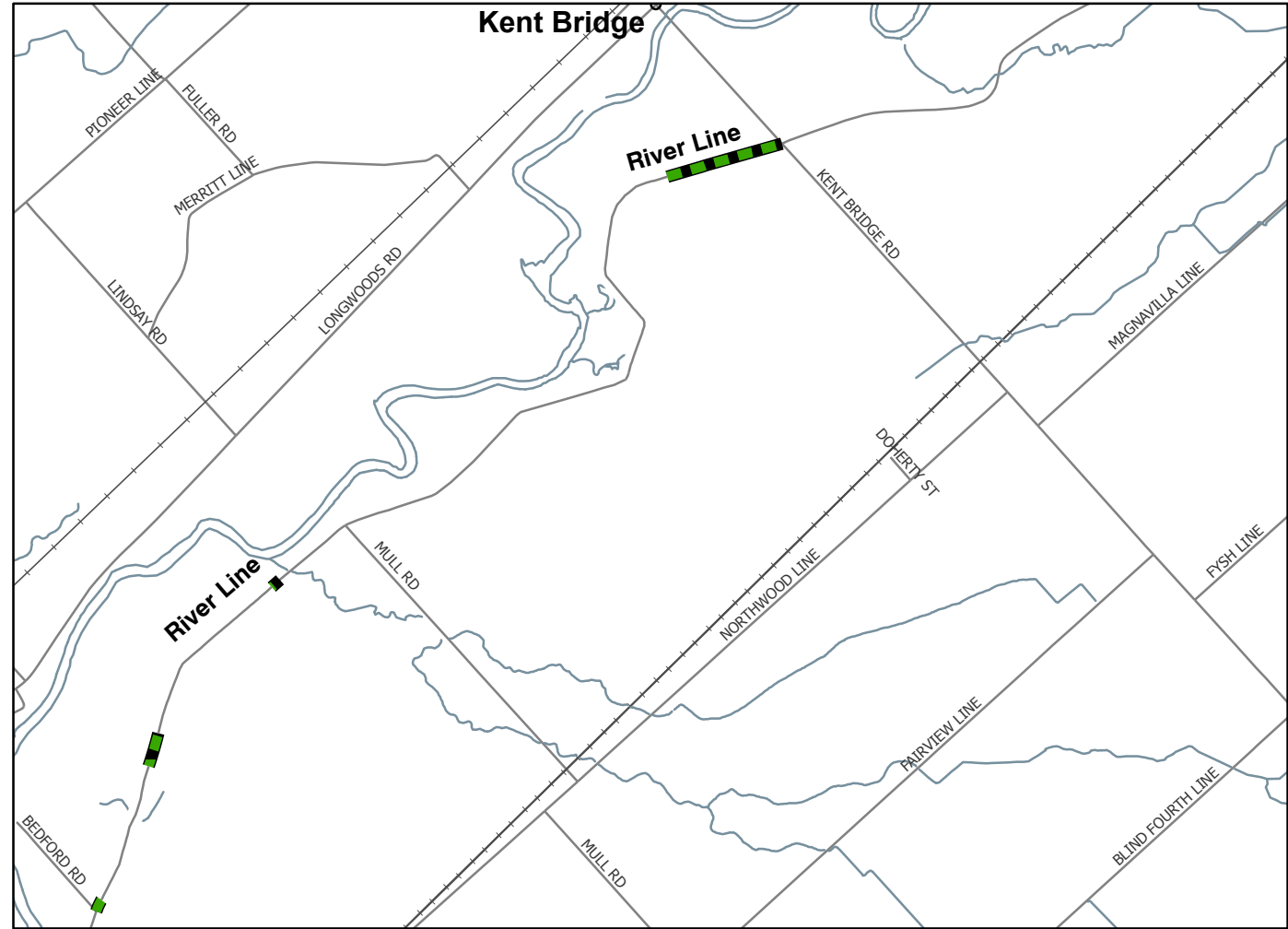
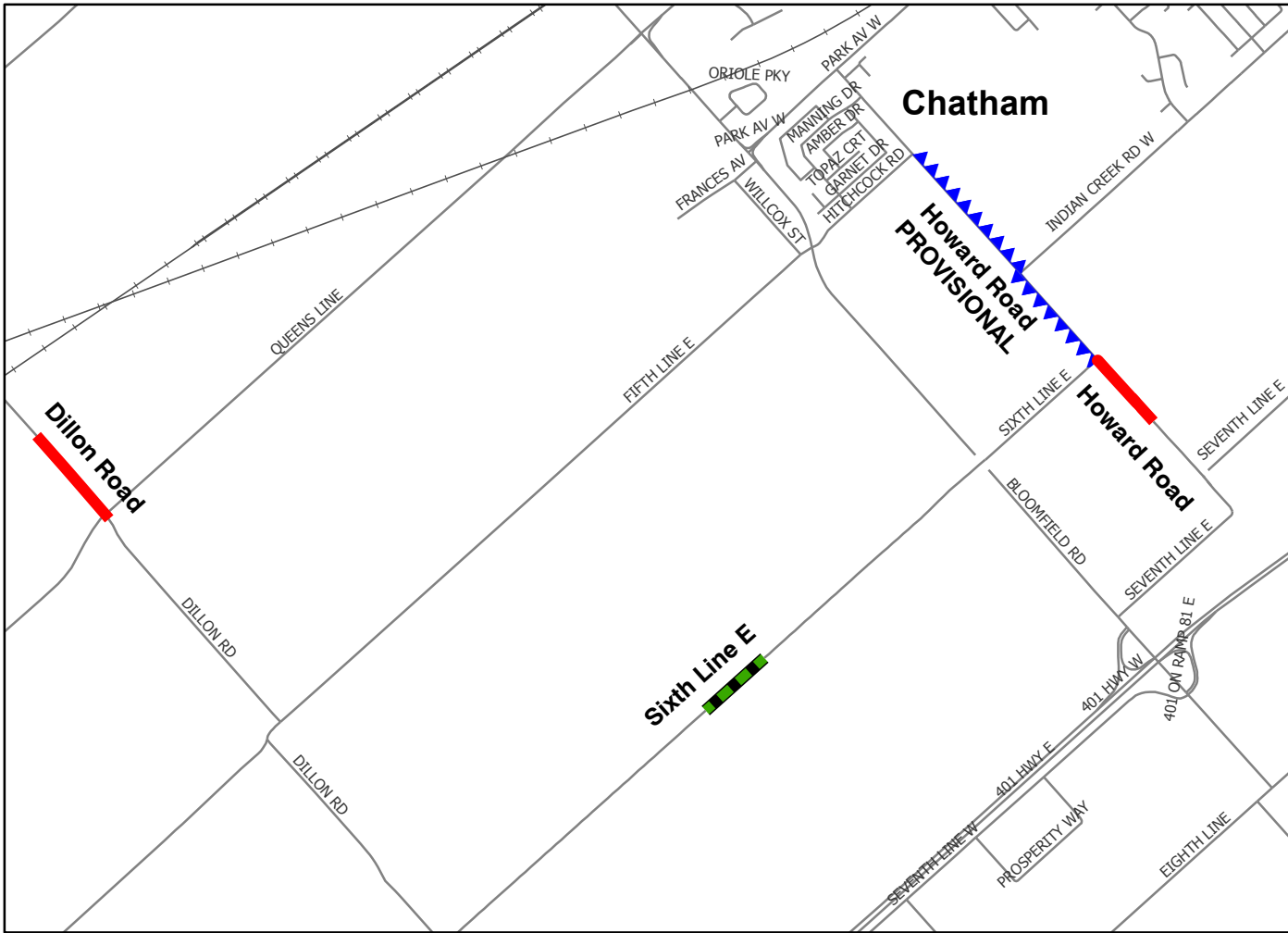
T16-102

SURFACE TREATMENT



Date: 29/04/2016








APPENDIX B

SURFACE TREATMENT SITES

SOUTH KENT

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-  2-LIFT
-  PROVISIONAL (1-L)

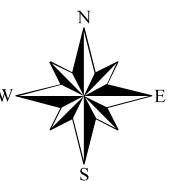
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SURFACE TREATMENT



INFRASTRUCTURE & ENGINEERING SERVICES
ENGINEERING & TRANSPORTATION DIVISION

Date: 29/04/2016








SHREWSBURY

APPENDIX B

SURFACE TREATMENT SITES

SHREWSBURY

Legend:

-  1-LIFT
-  2-LIFT
-  PROVISIONAL (1-L)

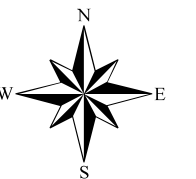
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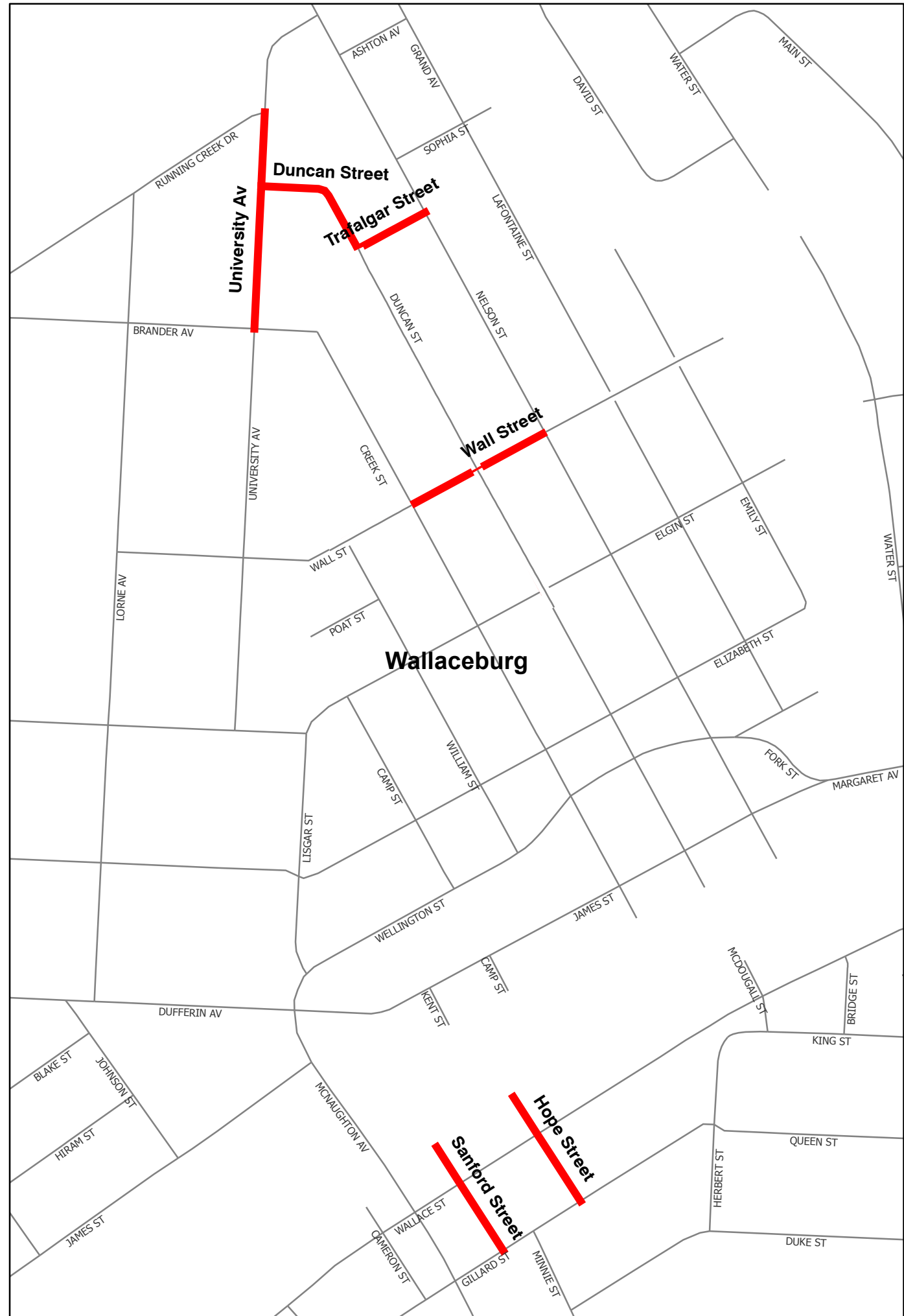
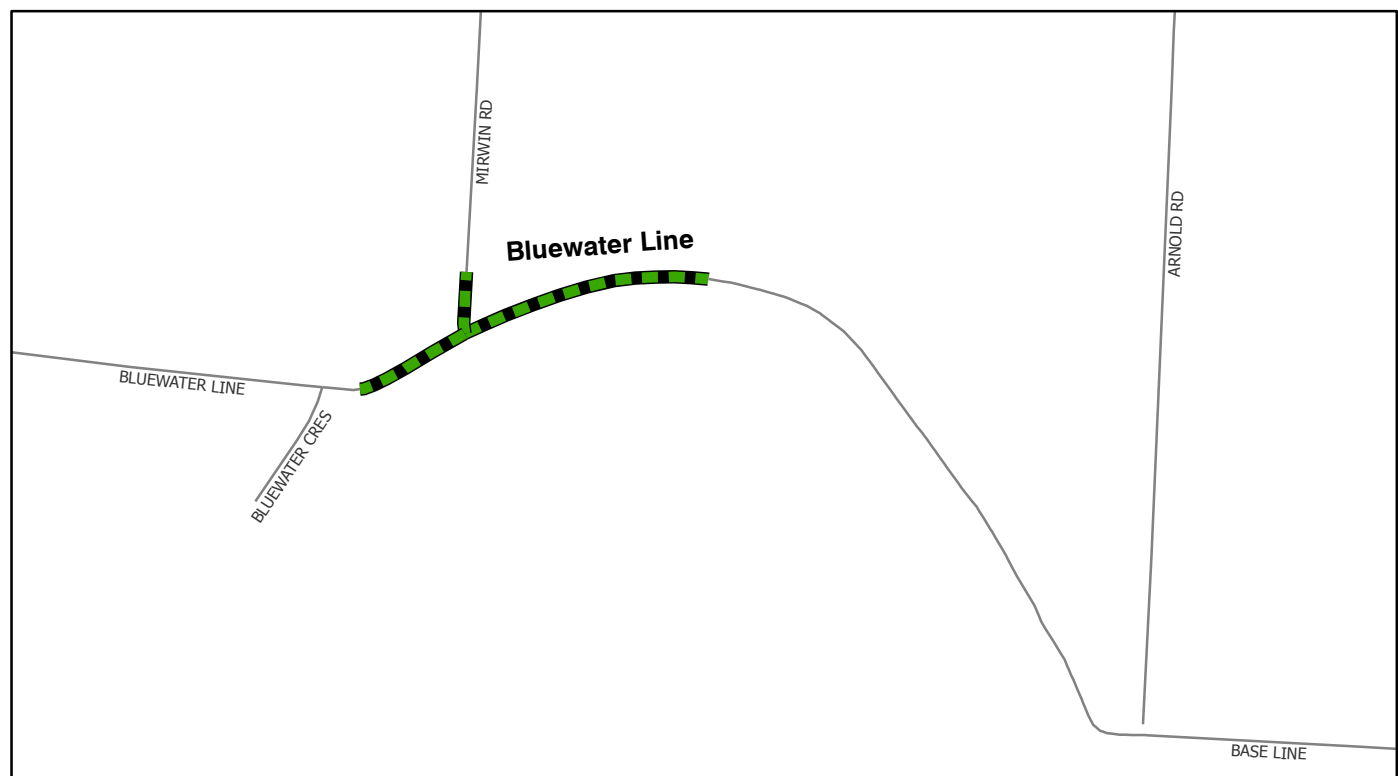
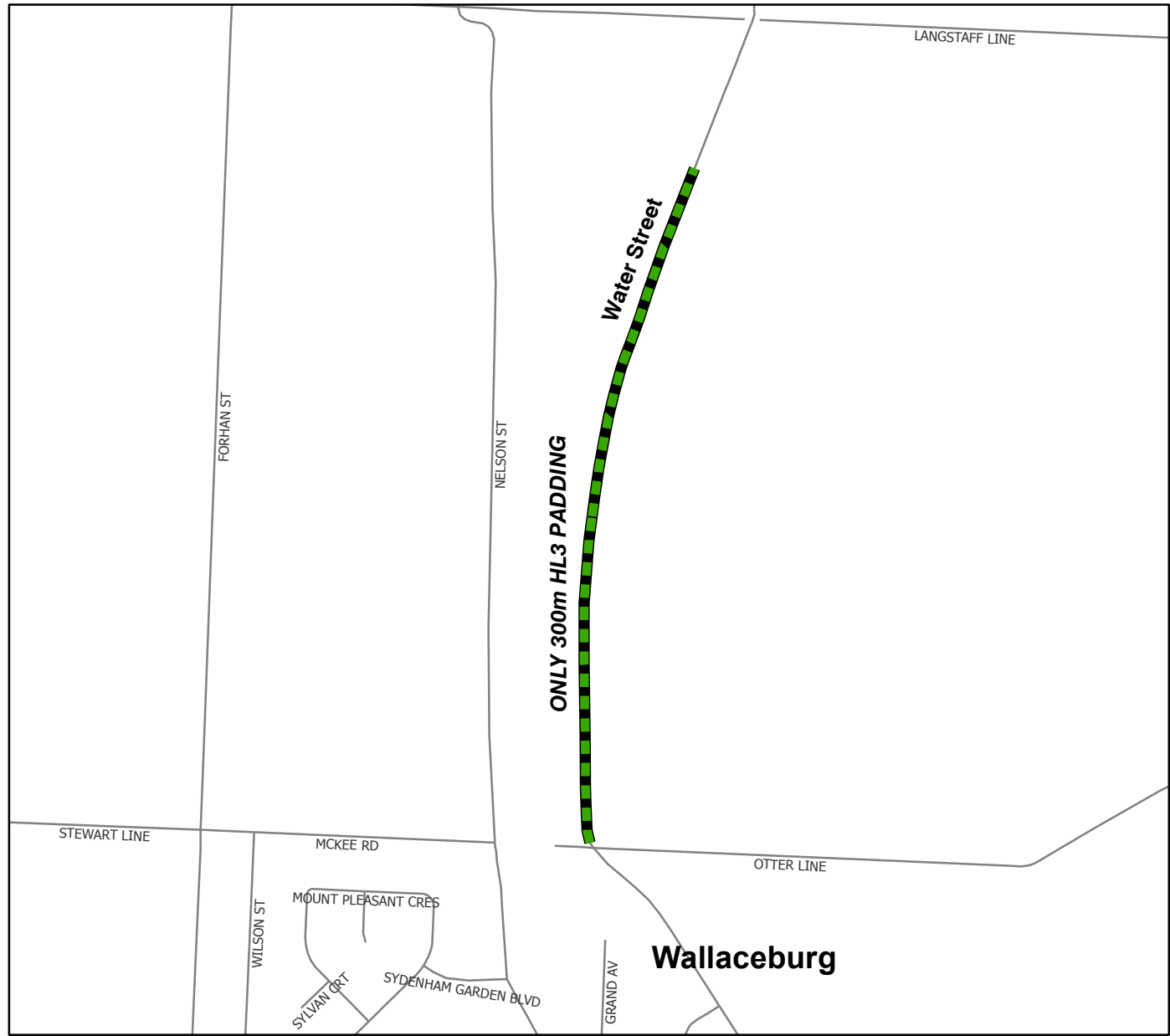
SURFACE TREATMENT



INFRASTRUCTURE & ENGINEERING SERVICES
ENGINEERING & TRANSPORTATION DIVISION

Date: 29/04/2016








APPENDIX B

SURFACE TREATMENT SITES

WALLACEBURG

Legend:

-  1-LIFT
-  2-LIFT
-  PROVISIONAL (1-L)

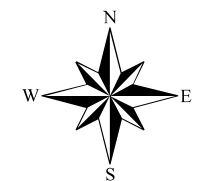
T16-102

SURFACE TREATMENT



INFRASTRUCTURE & ENGINEERING SERVICES
ENGINEERING & TRANSPORTATION DIVISION

Date: 28/04/2016



APPENDIX B

SURFACE TREATMENT SITES

WEST KENT

Legend:

- 1-LIFT
- 2-LIFT
- PROVISIONAL (1-L)

T16-102

SURFACE TREATMENT



INFRASTRUCTURE & ENGINEERING SERVICES
ENGINEERING & TRANSPORTATION DIVISION

Date: 27/04/2016

