

## Staff Memo

A message from Joseph Kelly, Traffic Management Supervisor

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**Date:** Nov 13, 2024

**To:** Bryan Robinson, Director of Public Works

**From:** Joseph Kelly, Traffic Management Supervisor, Engineering – Technical Services

**Re:** Traffic Analysis of Detour for Elm Tree Road Bridge Closure

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### Background

On November 1, 2024, Engineering staff were requested to provide a review of the intersections of Little Britain Road/Valentia Road and Ramsay Road/Valentia Road to determine if any traffic mitigation measures were recommended in response to the imminent closure of the Elm Tree Road bridge and subsequent detour.

### Detour

The proposed detour would route vehicles which normally would travel on Elm Tree Road from Little Britain Road destined to south of the bridge or through to Valentia, redirecting them to Valentia Road at Little Britain Road. A key map can be seen in Appendix A.

### Current Conditions

Elm Tree Road is a rural, arterial road designed with wide shoulders with a posted speed limit of 80 km/hr. According to the latest available road needs study, the estimated annual average daily traffic (AADT) on Elm Tree Road is 2391 vehicles between Little Britain Road and the bridge, and 1767 vehicles south of the bridge.

Valentia Road from Little Britain Road to Ramsey Road is a rural local road with narrow shoulders, unposted for speed. Continuing south from Ramsey Road to Elm Tree Road it becomes a rural arterial road designed as such with a posted speed limit of 80 km/hr, then 60 km/hr as it transitions into the 40 km/hr community speed zone for Valentia.

The volumes on Valentia Road warrant a speed posting. The maximum speed limit for non-arterial rural roads is 60 km/hr or lower if built-up. This area is not considered built-up.

## Intersections

### **Little Britain Road and Valentia Road**

The intersection is in the middle of a bend where left turning vehicles can catch drivers by surprise. In the last 36 months of available collision records, there have been no collisions attributed to turning movements. The addition of southbound left hand turning vehicles that usually travel on Elm Tree Road would likely warrant a left turn lane. The absence of a turning lane or paved shoulder “slip-around” presents a hazard.

Just south of Little Britain Road there is a sharp curve at Cricket Hollow Road. An average of 4 collisions per year has occurred at this curve over the last 36 months (Appendix B). This curve has an advisory speed of 30 km/hr posted on the curve ahead sign. Chevron placement meets Ontario Traffic Manual (OTM) requirements. There is currently a checkerboard sign with a flashing yellow beacon above.

Collision risks will increase when introducing an influx of drivers not familiar to this curve.

### **Ramsey Road and Valentia Road**

A turning movement count was performed in the summer of 2024 at this intersection to determine if an all-way stop is warranted. It was not warranted at the time. Staff noted concerns with the volume split being almost 50/50. Two of the four legs are arterial designs and one leg is a no exit. Drivers stopped at Ramsey Road are accustomed to the majority of traffic on Valentia Road making a southbound right hand turn, and therefore are emboldened to make risky maneuvers. The additional through traffic from the detour would defy driver expectations and pose a risk.

There were no reported collisions at this intersection in the latest 36 months of available collision data.

## Recommendations

### **Preferred Option**

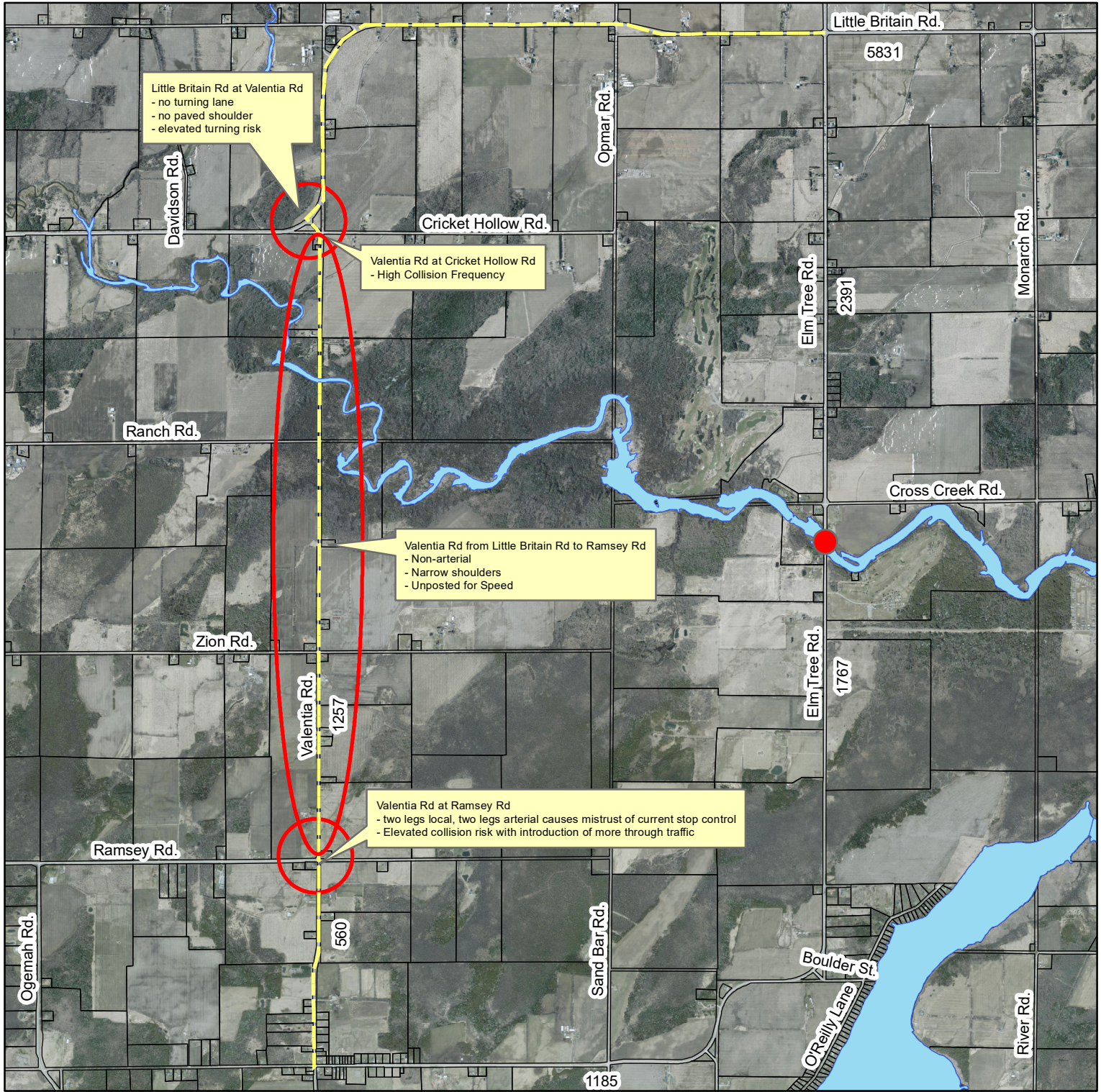
It is recommended that traffic being diverted from part of CKL’s arterial road system be directed to arterial roads which are designed for the traffic type, amount and flow usually seen on arterial roads. The closest arterial route would be Little Britain Road -> Eldon Road -> Ramsey Road -> Valentia Road -> Elm Tree Road. This would add approximately 6km to the detour compared to using the non-arterial portion of Valentia Road off of Little Britain Road.

It is recognized that drivers who know the area or are re-routed via gps will likely ignore signage for the preferred route. Therefore, mitigation measures recommended for the originally proposed detour should still be implemented.

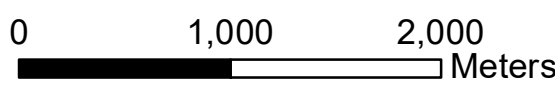
### **Originally Proposed Detour**

If the preferred route is chosen and signed or the original detour is chosen and signed, Engineering staff recommend mitigation measures be implemented for the specified hazards.

- 1) **Little Britain Road** – no left hand turn lane or paved shoulders at Valentia Road
  - a. Temporary traffic signals or;
  - b. A roadside electronic billboard or trailer sign on both approaches to Valentia Road warning drivers of the potential stop caused by increased turning demand .
  
- 2) **Valentia Road** – Unposted for speed and high collision frequency at Cricket Hollow Road
  - a. Post a speed limit of 60 km/hr on Valentia Road from Little Britain Road to Ramsey Road.
  - b. A temporary digital speed sign be installed approaching the curve at Cricket Hollow Road. The board should flash “Slow Down” and “Curve Ahead” in alternating pattern when it detects vehicles traveling over 30 km/hr.
  
- 3) **Valentia Road and Ramsey Road** – Increased collision risk at intersection
  - a. Install an all-way stop with flashing red beacons.
  
- 4) **Winter Maintenance** –
  - a. The gravel shoulder on the north side of Little Britain Road at Valentia Road will be used, possibly at high speeds, to avoid vehicles stopped to make a left hand turn. This shoulder should be maintained to the highest possible standard.
  - b. Compliance with a posted speed limit of 60 km/hr will be low. Road maintenance class should remain as if the speed limit is 80 km/hr.



- Bridge Closure
- - - Proposed Detour
- Area of Interest
- 1234 Estimated AADT



Map produced by the City of Kawartha Lakes Engineering Department with data obtained under license. Reproduction without permission is prohibited.

The foregoing information is given for convenience only and it should be clearly understood that you must satisfy yourself as to whether the premises and the existing or proposed use thereof are, or would be, in conformity with all applicable by-laws and regulations of the municipality.

All distances and locations are approximate and are not of survey quality. This map is illustrative only. Do not rely on it as being a precise indicator of privately or publicly owned land, routes, locations or features, nor as a guide to navigate.





# CKL Collision Records Report

Produced on: 11/12/24

Produced by: Engineering - Technical Services

Filter Criteria: Reported collisions in latest 36 months up to Sept 1, 2024

## Valentia Rd - Collisions at curve near Cricket Hollow Rd

**ID** 5072686

**Report Num** E220079760

**Classification** 03 Property damage only

**Environment** 01 Clear

**Date/Time** 2022-01-24T09:52:00-05:00

**Impact Type** 07 SMV other

**Light** 01 Daylight

**X** -78.8236      **Y** 44.2937

**Driver Actions** 04 Speed too fast for condition

**Vehicle Manoeuvre** 01 Going ahead

Road	Rd Alias	Road Surface	Road Condition	Surface Conditions	Alignment
VALENTIA RD	<null>	01 Asphalt	01 Good	01 Dry	01 Straight on level
Cricket hollow rd	<null>	03 Gravel or crusher	01 Good	01 Dry	01 Straight on level

### Police Statement

V1 northbound on Valentia Road, hard on brakes, traveled straight through intersection knocking over sign and coming to a stop in ditch

**ID** 5169728

**Report Num** E220301089

**Classification** 03 Property damage only

**Environment** 01 Clear

**Date/Time** 2022-03-25T23:58:00-04:00

**Impact Type** 07 SMV other

**Light** 07 Dark

**X** -78.8236      **Y** 44.2939

**Driver Actions** 07 Disobeyed traffic control

**Vehicle Manoeuvre** 01 Going ahead

Road	Rd Alias	Road Surface	Road Condition	Surface Conditions	Alignment
VALENTIA RD	<null>	01 Asphalt	01 Good	01 Dry	03 Curve on level
CRICKET HOLLOW RD	<null>	01 Asphalt	01 Good	01 Dry	01 Straight on level

### Police Statement

V1 WAS TRAVELING NORTHBOUND ON VALENTIA ROAD WHEN IT FAILED TO NEGOTIATE A TURN AND PROCEEDED TO STRIKE A CURVE INDICATOR SIGN

## Valentia Rd - Collisions at curve near Cricket Hollow Rd

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**ID** 5184211

**Report Num** E220332708

**Classification** 03 Property damage only

**Environment** 01 Clear

**Date/Time** 2022-04-03T05:00:  
00-04:00

**Impact Type** 07 SMV other

**Light** 07 Dark

**X** -78.8235      **Y** 44.2938

**Driver Actions** 10 Lost control

**Vehicle Manoeuvre** 04 Turning left

Road	Rd Alias	Road Surface	Road Condition	Surface Conditions	Alignment
693 Valentia Rd	<null>	01 Asphalt	01 Good	01 Dry	01 Straight on level
VALENTIA RD	<null>	01 Asphalt	01 Good	01 Dry	01 Straight on level

### Police Statement

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**ID** 5588442

**Report Num** E220964813

**Classification** 03 Property damage only

**Environment** 01 Clear

**Date/Time** 2022-08-17T01:35:  
00-04:00

**Impact Type** 07 SMV other

**Light** 07 Dark

**X** -78.8234      **Y** 44.2934

**Driver Actions** 04 Speed too fast for condition

**Vehicle Manoeuvre** 01 Going ahead

Road	Rd Alias	Road Surface	Road Condition	Surface Conditions	Alignment
VALENTIA RD	<null>	01 Asphalt	01 Good	01 Dry	03 Curve on level
Cricket Hollow	<null>	<null>	<null>	<null>	<null>

### Police Statement

D1 was driving on R1 and left the roadway on a bend entering the ditch ultimately coming to rest in a farmers field.

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## Valentia Rd - Collisions at curve near Cricket Hollow Rd

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**ID** 5681955

**Report Num** E221093869

**Classification** 02 Non-fatal injury

**Environment** 07 Fog, mist,  
smoke, dust

02 Rain

**Date/Time** 2022-09-12T23:54:  
00-04:00

**Impact Type** 07 SMV other

**Light** 07 Dark

**X** -78.8237      **Y** 44.2942

**Driver Actions** 04 Speed too fast for condition

**Vehicle Manoeuvre** 01 Going ahead

Road	Rd Alias	Road Surface	Road Condition	Surface Conditions	Alignment
Valentia Drive	<null>	01 Asphalt	01 Good	02 Wet	03 Curve on level
CRICKET HOLLOW RD	<null>	01 Asphalt	01 Good	02 Wet	01 Straight on level

### Police Statement

V1 did not manage to make the sharp left turn and went straight into the ditch. It was foggy and wet roads. Driver was not from here and didn't realize the turn.

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**ID** 6182999

**Report Num** RM22242371

**Classification** 03 Property damage only

**Environment** 03 Snow

**Date/Time** 2022-12-01T11:00:  
00-05:00

**Impact Type** 07 SMV other

**Light** 01 Daylight

**X** -78.8237      **Y** 44.2939

**Driver Actions** 04 Speed too fast for condition

**Vehicle Manoeuvre** 02 Slowing or stopping

Road	Rd Alias	Road Surface	Road Condition	Surface Conditions	Alignment
CRICKET HOLLOW RD	<null>	02 Oil treated grave	01 Good	06 ice	01 Straight on level
VALENTIA RD	<null>	01 Asphalt	01 Good	06 ice	03 Curve on level

### Police Statement

V1 N/B on R1 approaching intersection with R2. Uninvolved vehicle partially in ditch ahead of V1. V1 began to slide due to ice and D1 swerved to avoid other uninvolved vehicle already in the ditch and entered ditch

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## Valentia Rd - Collisions at curve near Cricket Hollow Rd

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**ID** 6955605

**Report Num** E231495404

**Classification** 02 Non-fatal injury

**Environment** 04 Freezing rain

**Date/Time** 2023-11-08T21:31:00.000-05:00

**Impact Type** 07 SMV other

**Light** 07 Dark

**X** -78.824      **Y** 44.2939

**Driver Actions** 10 Lost control

**Vehicle Manoeuvre** 01 Going ahead

Road	Rd Alias	Road Surface	Road Condition	Surface Conditions	Alignment
VALENTIA RD	<null>	01 Asphalt	01 Good	06 ice	03 Curve on level
CRICKET HOLLOW RD	<null>	01 Asphalt	01 Good	06 ice	01 Straight on level

### Police Statement

V1 Travelling North on Valencia, Driver failed to negotiate curve in road and slide off into ditch due to icy weather conditions. Vehicle then rolled, coming to rest in grassy area.

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**ID** 6939262

**Report Num** E231592277

**Classification** 03 Property damage only

**Environment** 01 Clear

**Date/Time** 2023-12-02T11:16:00.000-05:00

**Impact Type** 07 SMV other

**Light** 01 Daylight

**X** -78.8239      **Y** 44.2939

**Driver Actions** 10 Lost control

**Vehicle Manoeuvre** 01 Going ahead

Road	Rd Alias	Road Surface	Road Condition	Surface Conditions	Alignment
VALENTIA RD	<null>	01 Asphalt	01 Good	02 Wet	03 Curve on level
LITTLE BRITAIN RD	<null>	<null>	<null>	<null>	<null>

### Police Statement

V1 was travelling north bound on R1.  
V1 lost control and failed to navigate the turn in the road.  
V1 struck the east ditch of R1.

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## Valentia Rd - Collisions at curve near Cricket Hollow Rd

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**ID** 6903982

**Report Num** RM23289348

**Classification** 03 Property damage only

**Environment** 01 Clear

**Date/Time** 2023-12-04T18:00:00.000-05:00

**Impact Type** 07 SMV other

**Light** 07 Dark

**X** -78.8241      **Y** 44.294

**Driver Actions** 01 Driving properly

**Vehicle Manoeuvre** 01 Going ahead

08 Failed to yield right-of-way

01 Going ahead

Road	Rd Alias	Road Surface	Road Condition	Surface Conditions	Alignment
CRICKET HOLLOW RD	<null>	<null>	<null>	<null>	<null>
VALENTIA RD	<null>	01 Asphalt	01 Good	01 Dry	03 Curve on level

### Police Statement

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**ID** 6956831

**Report Num** E240046536

**Classification** 03 Property damage only

**Environment** 01 Clear

**Date/Time** 2024-01-12T15:27:00.000-05:00

**Impact Type** 07 SMV other

**Light** 01 Daylight

**X** -78.8238      **Y** 44.2939

**Driver Actions** 07 Disobeyed traffic control

**Vehicle Manoeuvre** 04 Turning left

Road	Rd Alias	Road Surface	Road Condition	Surface Conditions	Alignment
VALENTIA RD	<null>	01 Asphalt	01 Good	01 Dry	01 Straight on level
Cricket Hollow Rd	<null>	01 Asphalt	01 Good	01 Dry	01 Straight on level

### Police Statement

V1 traveling on Valentia Road unable to navigate bend, lost control and entered north ditch

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## Valentia Rd - Collisions at curve near Cricket Hollow Rd

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**ID** 6993275

**Report Num** E240047878

**Classification** 03 Property damage only

**Environment** 05 Drifting snow

**Date/Time** 2024-01-13T20:40:00.000-05:00

**Impact Type** 07 SMV other

**Light** 07 Dark

**X** -78.8241      **Y** 44.294

**Driver Actions** 10 Lost control

**Vehicle Manoeuvre** 01 Going ahead

<b>Road</b>	<b>Rd Alias</b>	<b>Road Surface</b>	<b>Road Condition</b>	<b>Surface Conditions</b>	<b>Alignment</b>
VALENTIA RD	<null>	01 Asphalt	02 Poor	03 Loose snow	03 Curve on level
Cricket Hollow Road	<null>	<null>	<null>	<null>	<null>

### Police Statement

V1 was travelling North on Valentia Road approaching Little Britain Road. Lost control due to snow storm and snow covered road, resulting in sliding into the ditch. Roll over ensued.

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