



## Council Report 2020-XX

**Title:** Transport Canada Rail Safety Improvement Program (RSIP) Funding

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**Strategic Plan:** Leadership in Change, Sustainable Infrastructure and Services

**Council Date:** October 21, 2020

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### Recommendation

**“Whereas** Council of the County of Northumberland received a report on January 20, 2010 titled “Prince Edward St – Grade Crossing Safety Assessment” noting that the Prince Edward Street (County Road 64) Grade-Level Crossing in Brighton, ON is a high-risk grade crossing;

**And Whereas** Transport Canada has created the Rail Safety Improvement Program (RSIP) to support rail safety improvements that improve public safety at rail properties;

**And Whereas** the RSIP funding is composed of two components (1) funding for Infrastructure, Technology & Research (ITR) and (2) funding for Education & Awareness (EA);

**And Whereas** the County of Northumberland will receive **\$1,043,216** from the ITR component to be used for the construction of safety installments to be implemented at the County Road 64 Grade-Level Rail Crossing in Brighton, ON;

**And Whereas** the County of Northumberland will receive **\$24,896** from the EA component to be used for the Communications Plan which will educate the public regarding the safety installments;

**Now Therefore Be It Resolved That** Council authorizes staff to execute the RSIP funding agreements AND complete the construction and Communications Plan for the County Road 64 Rail Crossing Safety Improvements in Brighton, ON.

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## **Purpose**

The purpose of this report is to provide recommendations and seek Council's approval for the use of Transport Canada's Rail Safety Improvement Plan (RSIP) funding. This funding will be used for the construction and Communications Plan of the County Road 64 Rail Crossing Safety Improvements in Brighton, ON.

## **Background**

Transport Canada created the Rail Safety Improvement Program (RSIP) to provide funding to projects that improve rail safety and reduce injuries and fatalities on rail properties. RSIP has two components:

- 1) Infrastructure, Technology, and Research (ITR) – funding for projects that improve public safety on rail properties and the testing and development of technologies that improve rail safety.
- 2) Education and Awareness (EA) – funding for public education initiatives aimed at reducing rail crossing collisions, particularly in high-risk areas and grade crossings.

County Road 64, in Brighton, ON, is intersected by one (1) set of Canadian National (CN) tracks and one (1) set of Canadian Pacific (CP) tracks. A Safety Assessment report completed by AECOM was presented to council in January 2010 to determine the hazards present at the County Road 64 grade-level crossing (the 'Crossing'). The amended report presented to County Staff in November 2010, titled "Risk Assessment and Control – Prince Edward Street Rail / Road Crossing in Brighton", is included as an attachment.

The report identified the Crossing as a high-risk crossing to vehicular and pedestrian traffic. The following hazards are described in the safety assessment:

- High level of vehicular traffic: County Road 64 is a two-lane urban arterial road with an Average Annual Daily Traffic (AADT) of 6,600 vehicles per day in 2008.
- High level of pedestrian activity due to neighbouring urban areas and presence of a sidewalk.

- High train frequency: 53 trains per day in 2009.
- High train speeds: trains travelling as fast as 160km/h; It was also noted in this report that the length and number of trains would likely increase over time.
- The presence of a nearby switching yard has been reported to cause long trains to block the crossing, as well as false alarms which can cause driver behaviour to change and become less patient.
- Presence of multiple tracks and sightline obstructions: Although a second train warning is present at this location, pedestrian sightlines are inadequate. Sightlines are also obstructed by bungalows adjacent to the crossings. Pedestrians may encounter dangerous second-train situations.
- Uneven sidewalk: Gaps and tripping hazards on the sidewalk approaching the crossing. The sidewalk also exceeds the 2% maximum grade requirement in Transport Canadas Railway Grade Crossing Technical Standards (RTD10).
- Confusing crossing designation: The two-sets of tracks are located 27.9 m apart with two active warning systems (one for CN and one for CP) which act independently. Vehicles may encounter a potentially dangerous situation, such as the possibility of having a car trapped on one set of tracks due to queuing behind a stopped vehicle. This situation was identified as the greatest hazardous situation.

County staff collaborated with CN, CP, the Municipality of Brighton, Transport Canada and AECOM to determine an interim solution until a grade separation can be implemented at the site. The recommended interim solution is to operate the two rail crossings as a single rail crossing for vehicular traffic and as two-separate crossings for non-motorized traffic on the sidewalk.

The following activities will take place to deliver the interim solution:

- 1) Removal of warning signal assembly, including gate, flashing lights and bell, from south of the CN tracks (i.e. north set of tracks) for northbound vehicular traffic.
- 2) Removal of warning signal and assembly, including gate, flashing lights, and bell, from north of the CP tracks (i.e. south set of tracks) for southbound vehicular traffic.
- 3) Installation of signs and cross hatch pavement marking
- 4) Installation of automated pedestrian gates
- 5) Installation of pedestrian railings on both sides of the sidewalk on the approaches on both sets of tracks
- 6) Installation of flex posts at the center of the road north of the CN tracks and south of the CP tracks.

County staff are currently working closely with AECOM to complete the detailed design for this project. Conceptual design drawings approved by CN, CP, Transport Canada, and Municipality of Brighton are included as attachments.

Working in collaboration with AECOM, Operation Lifesaver Canada, Canadian National Railway, and Municipality of Brighton, the objective of the Communications Plan is to educate the general

public/professional drivers (bus and transport)/youth in Brighton, ON and across Northumberland County about the:

- 1) New safety installments at the Crossing;
- 2) Potential hazards of ALL road/railway grade crossings in Northumberland County; as well as
- 3) Dangers associated with trespassing on railway property (specifically crossing the railway against safety installment/signage warning) so that drivers/cyclists/pedestrians may navigate through railway crossings safely.

Communication Plan project deliverables will include: two 2-minute instructional videos, direct mail print collateral, print handouts, one construction notification, four half-page and one full-page print advertisements (to be included in four local publications), two 30-second radio advertisement scripts (aired with three local radio stations), social media schedule and content, a dedicated project web page, and two media releases.

## **Consultations**

The County of Northumberland has collaborated with CN, CP, Transport Canada, the Municipality of Brighton, and AECOM to determine and implement the interim solution until a grade-separation can be implemented at the Crossing.

For the purposes of the Communications Plan, the County is collaborating with:

- AECOM, which will be contracted to develop a Construction Notification and Print Advertisement.
- Operation Lifesaver Canada, which has agreed to allow Northumberland County to incorporate key messaging/resources into project deliverables and link to Operation Lifesaver Canada's website; partner to develop additional rail safety materials as needed; and direct rail safety partners to the final Crossing/Trespassing Accident Prevention Awareness and Education Plan.
- Canadian National Railway, which will support the project by: 1) reviewing and providing feedback on all content that features the CN logo; and 2) making the Crossing/Trespassing Accident Prevention Awareness and Education Plan available (in digital format) for communities across Canada to adopt/modify/reuse.
- Municipality of Brighton has agreed to review/provide feedback on all content that features its logo; and host communication material at municipal locations.

## **Legislative Authority/Risk Considerations**

Results from AECOM's 2010 Safety Assessment report revealed that the County Road 64 grade-level rail crossing is a high-risk location. Project delays will allow vehicular and pedestrian traffic to continue being exposed to the hazards listed in the attached safety assessment report.

## Discussion/Options

N/A

## Financial Impact

### Detailed Design and Construction

RSIP ITR funding percentages are based on the following:

- 50% of total eligible expenditures for CN and CP related work.
- 80% of total eligible expenditures for municipal related work.

The contributions made by each party are organized by activity in the attachment labelled: “*Project Summary ITR*”.

Northumberland County’s contribution, approved in the 2020 capital budget for the construction/design and Communications Plan, was \$200,000.

Northumberland County’s contribution to the construction and communications plan will be \$300,000 for the 2021-2022 fiscal year as included in the transportation 10-year plan, which is subject to Council’s approval of the 2021 Budget.

**Table 1: Contributions by Fiscal Year (April-March) to the Detailed Design and Construction of Safety Installments**

Contributor Name	Contribution to eligible costs for 2020-2021 (\$)	Contribution to ineligible costs for 2020-2021 (\$)	Contribution to eligible costs for 2021-2022 (\$)	Contribution to ineligible costs for 2021-2022 (\$)	Total (\$)
CN	30,548	11,890	265,437	11,890	319,765
CP	30,548	8,705	265,437	8,705	313,396
Transport Canada (RSIP – ITR)	137,747	-	905,469	-	1,043,216
The Corporation of the County of Northumberland	30,548	61,530	265,437	2,000	359,515
<b>Total</b>	<b>229,390</b>	<b>82,125</b>	<b>1,701,780</b>	<b>22,595</b>	<b>2,035,891</b>

### Communications Plan

RSIP EA will reimburse 50% of eligible expenditures. The contributions made by each party are organized by activity in the attachment labelled: “*Project Summary EA*”.

**Table 2: Contributions by Fiscal Year (April-March) to the Communications Plan**

Contributor Name	Contribution to eligible costs for 2020-2021 (\$)	Contribution to ineligible costs for 2020-2021 (\$)	Contribution to eligible costs for 2021-2022 (\$)	Contribution to ineligible costs for 2021-2022 (\$)	Total (\$)
Transport Canada (RSIP – EA)	6,224.11	-	18,672.32	-	24,896.43
Third Party In-Kind Contributions (CN, Municipality of Brighton)	5,625	-	1,875	-	7,500
The Corporation of the County of Northumberland	6,185	-	18,711	-	24,896
<b>Total</b>	<b>18,035</b>	<b>0</b>	<b>39,258</b>	<b>0</b>	<b>57,293</b>

## Member Municipality Impacts

The County and the Municipality of Brighton have participated in meetings for the detailed design of this project. The Municipality of Brighton will also provide an in-kind contribution for the execution of the Communications Plan.

Project deliverables developed through the Communications Plan will be made available at the conclusion of this initiative. The Communications Plan will include content that is specific to the safety installments at the Crossing AND broaden the general rail safety messaging through leveraging Operation Lifesaver Canada resources. At project conclusion, this convenient, reusable, digital document will be made available by Northumberland County AND the project partners to interested parties across Canada who wish to adopt/modify the material in order to reduce railway grade crossing collisions and trespassing incidents on railway property in their own communities.

## Conclusion/Outcomes

It is understood that most rail accidents can be categorized as either track collisions/derailments OR crossing/trespasser accidents. In 2019, there were 230 railway crossing and trespassing incidents in Canada, with 66 fatalities and 46 serious injuries (Transportation Safety Board of Canada, 2019). Fatalities and injuries resulting from crossing and trespassing incidents are preventable.

To mitigate key hazards at the County Road 64 Grade-Level Rail Crossing in Brighton, ON, it is recommended that Northumberland County accept the Transport Canada RSIP funding in order to: remove the warning signal assembly from south of the CN tracks AND north of the CP tracks;

install signs and cross-hatch pavement marking to clarify the intended operation of the two crossings as a single crossing for vehicles; install four automated pedestrian gates (two on either side of each set of tracks) for non-motorized traffic on the sidewalk; widen the sidewalk as it approaches the two crossings; add pedestrian railings on to the sidewalk; install flex posts at the center of the road north of the CN tracks and south of the CP tracks; AND execute the Communications Plan as previously outlined.

It is anticipated that this initiative will enhance safety during and after the construction project at the County Road 64 grade-level rail crossing and at road-railway grade crossings in Northumberland County.

## **Attachments**

- 1) Prince Edward St – Grade Crossing Safety Assessment (dated January 20, 2010)
  - a. Risk Assessment and Control – Prince Edward Street Rail / Road Crossing in Brighton (dated November 29, 2010)
- 2) AECOM Preliminary Design Drawings
- 3) Project Summary ITR
- 4) Project Summary EA