



To PWOT July 18 2012

To: Public Works and Transportation Committee

Date: June 20, 2012

From: Victor Wei, P. Eng.  
Director, Transportation

File: 01-0140-20-TCAN1-01/2012-Vol 01

Re: DEVELOPMENT OF NATIONAL RAILWAY-ROADWAY GRADE CROSSING STANDARDS AND REGULATIONS

Staff Recommendation

1. That a letter be sent to the Minister of Transport requesting that:
  - the proposed Railway-Roadway Grade Crossings Standards be revised to be engineering guidelines, to allow for a risk-based approach that provides flexibility for owners of railway crossings, including road authorities, to address any identified safety concerns in light of limited financial resources and technical constraints; and
  - a dedicated program be established to provide adequate funding support to owners of railway crossings, including municipalities, for any upgrades required to meet the new guidelines.
2. That a copy of the above letter be sent to all Richmond Members of Parliament and Lower Mainland municipalities affected by the proposed Regulations for support of the above request.

*[Handwritten signature]*

Victor Wei, P. Eng.  
Director, Transportation  
(604-276-4131)

Att. 2

REPORT CONCURRENCE			
ROUTED TO:		CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Engineering .....	<input checked="" type="checkbox"/>		<i>Brian Jackson for JE</i>
Roads and Construction .....	<input checked="" type="checkbox"/>		
REVIEWED BY SMT SUBCOMMITTEE	INITIALS: <i>[Signature]</i>	REVIEWED BY CAO	INITIALS: <i>[Signature]</i>

## Staff Report

### Origin

Transport Canada is in the process of developing Canadian Railway-Roadway Grade Crossings Standards (the Standards) and the associated Railway-Roadway Grade Crossings Regulations (the Regulations) that would enable enforcement of the standards. The Regulations would apply to all public and private grade crossings on federally-regulated rail lines and govern the grade crossing owners (i.e., road authorities, beneficiaries and railway companies) who share ownership of these crossings. As the City is the responsible road authority for over 40 public grade crossings in Richmond, compliance with the proposed standards could materially impact City resources. Accordingly, staff recommend that the proposed standards instead be introduced as guidelines to permit a risk-based approach that allows for engineering judgement on a site-specific basis.

### Analysis

#### 1. Development of Railway-Roadway Grade Crossings Standards and Regulations

According to Transport Canada, the multi-jurisdictional responsibility of grade crossings can make the application of the current requirements, guidelines and manuals of recommended practice for grade crossings complex and difficult for owners. These regulations include legislative requirements (e.g., the *Railway Safety Act*, *Railway-Highway Crossing at Grade Regulations*, *Highway Crossings Protective Devices Regulations*, and *Railway Safety Management System Regulations*) as well as standards and guidelines associated with the design, maintenance and inspection of grade crossings.

The Railway-Roadway Grade Crossings Regulations are intended to resolve existing gaps that continue to impede the appropriate management of safety at grade crossings, such as establishing common and comprehensive safety standards for both public and private grade crossings as well as clear roles and responsibilities for managing the safety of grade crossings. As the knowledge and cooperation of both the road owner and the railway company are required to establish an adequate safety management plan for a grade crossing, the Regulations would also require the sharing of information between the two agencies. The desired outcome is efficiently managed and safer grade crossings that would lead to reductions in collisions, fatalities, injuries, property damage, and the potential for environmental disasters resulting from a spill of dangerous commodities.

##### 1.1 Proposed Roles and Responsibilities

Table 1 below identifies the proposed allocation of roles and responsibilities for grade crossings between the railway company and the road authority (i.e., the City).

**Table 1: Allocation of Roles and Responsibilities**

Area	Railway Company	Road Authority
Information Sharing	<ul style="list-style-type: none"> <li>With road authorities and beneficiaries as required</li> </ul>	<ul style="list-style-type: none"> <li>With railway companies, other road authorities and beneficiaries as required</li> </ul>
Safety	<ul style="list-style-type: none"> <li>Safety documentation and safety reviews</li> </ul>	<ul style="list-style-type: none"> <li>Safety reviews</li> </ul>

Area	Railway Company	Road Authority
Surfaces	<ul style="list-style-type: none"> <li>• Railway crossing</li> </ul>	<ul style="list-style-type: none"> <li>• Road approaches</li> </ul>
Drainage	<ul style="list-style-type: none"> <li>• Within railway right-of-way</li> </ul>	<ul style="list-style-type: none"> <li>• Within road right-of-way</li> </ul>
Sightlines	<ul style="list-style-type: none"> <li>• Within railway right-of-way</li> <li>• Notify landowners of requirements over owner's land</li> </ul>	<ul style="list-style-type: none"> <li>• Within road right-of-way</li> <li>• Notify landowners of requirements over owner's land</li> </ul>
Signage	<ul style="list-style-type: none"> <li>• Railway crossing, number of tracks, emergency notification, prohibitive stored and standing equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Traffic control devices including interconnected devices on road approaches</li> </ul>
Warning Systems	<ul style="list-style-type: none"> <li>• Grade crossing warning systems</li> </ul>	<ul style="list-style-type: none"> <li>• Stop signs</li> </ul>
Snow Removal	<ul style="list-style-type: none"> <li>• Within crossing surface and railway right-of-way</li> </ul>	<ul style="list-style-type: none"> <li>• On road approaches</li> </ul>
Vehicle Movements	<ul style="list-style-type: none"> <li>• Coordinating trains, engines and other railway equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinating road traffic</li> </ul>

Based on Table 1 above, the resulting added responsibilities for the City would comprise:

- gathering and documenting the information to be shared, which includes roadway specifications, traffic volumes including pedestrians and cyclists, and safe stopping distance;
- conducting safety reviews, which are targeted towards recurring unsafe occurrences at a grade crossing and must be conducted within a reasonable time of being made aware of the occurrence;
- funding the construction and installation of any warranted upgrades identified by a safety review that are within the road right-of-way; and
- notifying landowners of sightline requirements over the owner's land.

### 1.2 Proposed Standards

For road authorities, the basic standards for all public grade crossings that must be met within five years of the Regulations coming into force include:

- *Road Geometry*: specifications regarding vertical and horizontal alignments, maximum gradients, roadway widths, and the angle of intersection between the road and the track;
- *Sightlines*: minimum required sightlines along the roadway;
- *Signs and Road Markings*: required signage (location and type) and pavement markings, including the need for continuous backup power where required;
- *Flashing Light Units*: number, location and alignment of flashing light units installed as part of grade crossing warning systems; and
- *Traffic Signal Pre-emption*: requirements for traffic signal pre-emption where the grade crossing is equipped with a warning system, including the need for continuous backup power where signals and warning systems are interconnected.

Transport Canada acknowledges that the most significant increase in cost due to the Regulations, for both road owners and railway companies, would be associated with the requirement to meet certain safety standards. However, the agency does not intend to establish a dedicated funding program to assist owners of railway crossings to comply with the proposed standards. Transport Canada's existing Grade Crossing Improvement Program provides a contribution of up to 80 per cent of the capital cost of a crossing improvement project (up to a maximum contribution of \$550,000) but there is a limited amount of available funds in a given year for the 14,000 public

grade crossings in Canada. Staff therefore recommend that Transport Canada be requested to establish a dedicated program to provide adequate funding support to owners of railway crossings for any upgrades required to meet the proposed Standards.

## 2. Consultation Process

The draft Policy and Standards documents are available on Transport Canada's website and the agency is currently completing a two-phase consultation process to obtain comments from the general public and stakeholders on the proposed standards. The feedback obtained will be gathered into a Summary Report to be posted on Transport Canada's website and, as required, used to revise the draft Regulations and the Regulatory Impact Analysis Statement.

### 2.1 Phase 1: On-Line Consultation (January-April 2012)

Phase 1 comprised on-line consultations that were conducted between January 30 and April 24, 2012. As part of this phase, staff reviewed the draft Policy and submitted comments as shown in **Attachment 1**. A number of other Greater Vancouver municipalities as well as TransLink submitted similar comments, all of which are posted on Transport Canada's website at: <http://www.tc.gc.ca/eng/railsafety/submissions-796.htm>.

In addition to submitting its own comparable comments as part of Phase 1, the City of Langley submitted an Emergency Resolution regarding the proposed Regulations (see **Attachment 2**) for consideration at the Federation of Canadian Municipalities (FCM) annual conference held June 1-4, 2012 in Saskatoon. The resolution was approved and will be forwarded to the federal Minister of Transport.

### 2.2 Phase 2: Consultation Meetings with Stakeholders (May-June 2012)

Phase 2 was a series of consultation meetings with road authorities, beneficiaries and railway companies across Canada held between May and June 2012. Staff attended a Phase 2 consultation meeting held in Surrey on June 21, 2012. At the workshop, Transport Canada provided an overview of the proposed Regulations and summarized the key themes of the feedback received to date as outlined in Table 2 below. As evidenced by these comments, the City's concerns are shared by other municipalities across the country.

**Table 2: Key Themes of Stakeholder Feedback to Date**

Key Theme	Stakeholder Comments
Roles & Responsibilities	<ul style="list-style-type: none"> <li>concerns regarding the allocation of responsibilities between owners</li> <li>lack of clarity regarding roles during implementation and dispute resolution processes</li> </ul>
Timelines	<ul style="list-style-type: none"> <li>proposed timelines are too tight and extensions are required</li> <li>municipalities lack sufficient resources (staff and budget) to comply and will need to forgo other higher priority items</li> </ul>
Sharing of Information	<ul style="list-style-type: none"> <li>requirements will result in additional administrative burden</li> <li>certain elements and their allocated responsibilities need to be clarified</li> </ul>
Safety Documentation & Reviews	<ul style="list-style-type: none"> <li>requirements present significant burden for municipalities</li> <li>need to clarify responsibilities and the credentials of the "qualified person" who completes the safety documentation and reviews</li> </ul>

Key Theme	Stakeholder Comments
Standards	<ul style="list-style-type: none"> <li>• prefer guidelines versus standards</li> <li>• requirements for closing and re-opening grade crossings are excessive</li> <li>• lack of clarity regarding grandfathering of existing crossings</li> </ul>
Other Technical Components	<ul style="list-style-type: none"> <li>• maintenance, testing and inspection requirements need to be reviewed to confirm feasibility</li> </ul>
Train Operations	<ul style="list-style-type: none"> <li>• municipalities support the requirement that public crossings not to be obstructed for more than 10 minutes but train operators advise they cannot confirm compliance with proposed regulation</li> <li>• who will enforce the maximum obstruction duration of 10 minutes</li> <li>• need additional requirement regarding the co-ordination of subsequent trains to ensure that vehicle queues are cleared at the crossing</li> </ul>
Proximity to Crossing	<ul style="list-style-type: none"> <li>• whistling cessation process needs to be clarified and defined in Regulations</li> <li>• responsibility for preventing trespassing should rest with railway companies not municipalities</li> </ul>

### 3. Timelines and Next Steps

Notwithstanding the stakeholder comments received to date, Transport Canada intends to publish the Regulations and Regulatory Impact Analysis Statement in the *Canada Gazette*, Part I in Fall 2012. Stakeholders and the public will be allowed 90 days to provide formal feedback. The Regulations will then be finalized and published in the *Canada Gazette*, Part II by Winter 2013. Once the Regulations come into force upon final publication, they will be phased in whereby:

- all grade crossing information is to be shared by the end of Year 2;
- all grade crossing safety documentation is to be completed by the end of Year 3; and
- basic standards are to be met for all public grade crossing by the end of Year 5.

To emphasize the City’s concerns with proposed Regulations, staff propose that a letter be sent to the Minister of Transport requesting that the proposed policies be introduced as guidelines rather than standards to allow for a risk-based approach that provides flexibility for road authorities to address any identified safety concerns. Compliance with the proposed standards is likely to create an additional burden for the City and, given limited resources, may displace other municipal priorities.

#### Financial Impact

None.

Should the proposed Standards come into force, staff would report back on the estimated financial impacts to the City following a more comprehensive analysis of any upgrades required at each grade crossing in Richmond. At this time, staff expect the potential costs could range from \$5,000 per crossing for signage and pavement markings up to more than \$100,000 per crossing to address road geometry and sightline deficiencies.

#### Conclusion

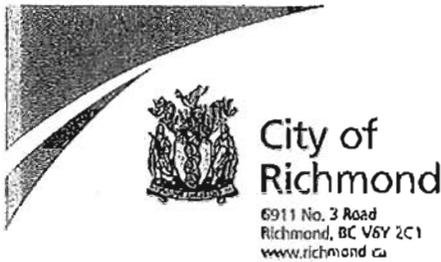
Transport Canada is currently seeking feedback from stakeholders regarding its proposed Canadian Railway-Roadway Grade Crossings Standards and associated Regulations. Staff support the intent of the Regulations to increase public safety at grade crossings but advise that compliance

with the Standards could create a burden as the City is the responsible road authority for over 40 public railway-roadway grade crossings in Richmond. This concern is shared by municipalities across Canada as evidenced by a recent Federation of Canadian Municipalities resolution on this issue. While staff have already submitted comments on the proposed Regulations, a letter from the City would underline the City's concerns with a prescribed approach rather than guidelines that provide flexibility for meeting the safety objectives of the proposed Standards and Regulations.



Joan Caravan  
Transportation Planner  
(604-276-4035)

JC:jc



April 24, 2012  
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Planning and Development Department  
Transportation

Luc Bourdon  
Director General, Rail Safety Branch  
Transport Canada  
427 Laurier Street West  
Ottawa, Ontario K1A 0N5

Dear Mr. Bourdon:

**Re: Consultation on Development of Railway-Roadway Grade Crossing Regulations**

Thank you for the opportunity to offer comments on the proposed regulations. The City of Richmond, located in the Greater Vancouver area, currently has a number of roadway-railway crossings within its boundaries and, in principle, is supportive of the objective to improve safety at all railway crossings. At this time, we offer the following preliminary comments on the proposed regulations for your consideration.

#### 1. Roles and Responsibilities

The responsibilities of the railway and roadway authorities are not easily understood and greater clarification is needed, particularly with respect to:

- apportionment of costs (e.g., maintenance, inspection, upgrades required, etc);
- Transport Canada's role should the proposed standards/policy come into force; and
- process for resolving disputes.

#### 2. Canadian Railway-Roadway Grade Crossings Standards (formerly RTD 10)

- Standards versus Guidelines: rather than a prescriptive standard, we would prefer a more flexible approach that allows for the application of engineering judgement and the ability to prioritize based on risk. What happens if the proposed standards cannot be met (e.g., meeting proposed standards would require significant road reconfiguration)?
- Whistle Cessation: a consistent process should be established and the role of Transport Canada in this process should be clarified.
- Trespassing: need to clarify responsibilities of authorities. Generally, the rail authority should be responsible for its corridor. The City would prefer definition/delineation (e.g., planting, other visual queues) versus securing (e.g., full height fencing) of the rail corridor.
- Sightline Management: this may be difficult to manage for private property. Who would be responsible for the proposed notification procedures?
- Inspection Requirements: clarity is required regarding what agency conducts the safety reviews (e.g., need to define what is "within a reasonable time"?), the frequency of inspections

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and tests, and the timeline and apportionment of costs to complete the work identified in the inspections.

3. **Timellue**

The schedule should allow for more flexibility as more time is needed to fully assess the implications of the proposed standards and policy document lot alone comply with the proposed standards within the five-year time horizon.

4. **Conclusion**

In summary, the City has two key concerns:

- current ambiguity regarding the responsibilities of the railway and roadway authorities; and
- potentially significant capital and operating cost implications for local governments of the proposed regulations that would need to be addressed within a five-year time horizon.

We suggest that:

- a streamlined document summarizing the variations of the current draft regulations from the existing be prepared and made available for all stakeholders by Transport Canada for a more focused review; and
- further discussion and consultation is needed, particularly with local municipalities on the issues of engineering and financial feasibility to meet the new regulations, prior to finalization and publication of the regulations.

Please feel free to contact me at 604-276-4131 or [ywei@richmond.ca](mailto:ywei@richmond.ca) if you have any questions regarding the City's comment or wish to discuss this matter further.

Yours truly,



Victor Wei, P. Eng.  
*Director, Transportation*

cc: John Irving, Director, Engineering  
Tom Stewart, Director, Public Works  
Wisdom Chan, Transportation Engineer, TransLink

JC:lcc

## FCM Resolution: Annual Conference, Saskatoon 2012

### Proposed Transport Canada's Railway-Roadway Grade Crossing Regulations

**WHEREAS** Transport Canada is seeking input to the consultation process regarding the proposed changes to the Canadian Railway-Roadway Grade Crossing Standards (CRRGCS); and

**WHEREAS** The City of Langley is concerned with the proposed introduction of the draft CRRGCS as standards as opposed to guidelines to allow for flexibility to meet specific site conditions, allow for the use of a risk based approach to prioritize improvements, and address concerns with potential liability; and

**WHEREAS** The City of Langley has some specific concerns with the proposed document, including:

- a clear and consistent whistling cessation process;
- a process to resolve disputes between railways and road authorities;
- clarification on the distribution of financial responsibility between Transport Canada, the road authorities, and the rail companies regarding safety assessments and upgrades such as the installation of grade crossing warning systems; and,
- that the regulations propose that local governments will be responsible for private property owners removing or relocating existing obstructions within private property which is unreasonable and in many cases impractical, given that:
  - a local government may not have the authority to require the removal of structures within private property that have been legally constructed;
  - the impact to private properties may be significant and at a high cost;
  - the requirement of local governments to remove or relocate obstructions on the road right of way without consideration of any potential negative impacts on the delivery of other government or community services; and

**WHEREAS** The policy on safety documents and safety reviews is unclear on the responsibility for completing the safety assessment and the specific instances or circumstances that would necessitate a review, which may require significant resources (both staff and financial) to achieve the data inventory and the safety inspection requirements of the draft policy; and

**WHEREAS** The City of Langley supports the intent of the draft regulation and policy in terms of seeking improvements to road-rail safety, but the City does not support the proposed draft CRRGCS standard and policy due to our concerns around:

- significant cost implications for local government;
- the roles and responsibilities and financial implications to affected parties; and
- the proposed "standards" instead of "guidelines"; therefore be it

**RESOLVED** That the Federation of Canadian Municipalities urge the Federal Government to allow for additional time for a more thorough review of the proposed Railway-Roadway Grade Crossing Standards draft policy and regulations and the implications to local governments; and be it further

**RESOLVED** That the Federation of Canadian Municipalities urge the Federal Government to reconsider the decision within the CRRGCS to instill standards as opposed to guidelines, as this places increased liability and financial strain upon local governments.