

Trail Construction / Maintenance and Trail Crossings

Purpose

This procedure is intended to provide district staff consistent guidance when approached by government agencies or recognized trail groups seeking approval to either construct trails or trail crossings on highway right-of-way.

For the purpose of this procedure, the Department of Transportation and Infrastructure Renewal (the "Department") recognizes there are two main categories of trail users, motorized and non-motorized users. The motorized users include, but are not limited to, all off-highway vehicles while the non-motorized users include, but are not limited to, pedestrians, equestrians, bicyclists and cross country skiers.

Procedure(s)

- 1 General
 - 1.1 Approval for the construction and maintenance of trails and trail crossings will only be granted to municipalities or recognized trail organizations that hold a certification of incorporation issued pursuant to the *Societies Act* R.S.N.S., c. 435 or other Government agencies (herein referred to as "trail developers").
 - 1.2
 - a Non-motorized trail construction will be as outlined in TIR Manual PO1001, Sidewalk Construction and Maintenance Policy. Non-motorized trail construction and maintenance is the responsibility of the municipal unit as outlined in the Provincial Municipal Services Exchange.
 - b Construction and maintenance of trail crossings for both motorized and non-motorized trails is the responsibility of the trail developer or municipal unit.
 - 1.3 Motorized trail construction and maintenance will only be permitted, in limited circumstances, as per Section 2.1 (Trail Construction) of

this procedure. In those cases, an agreement must be reached between the trail developer and the Department.

- 1.4 The trail developer or municipal unit will obtain the 'Work Within Highway Right-Of-Way Permit' prior to any trail development within the highway right-of-way. The Area Manager may request additional information from the trail developer or municipality as part of the trail development approval process.

2 Trail Construction

- 2.1 Construction of trails for motorized use will not be constructed along (parallel to) any roadway on Department right-of-way. Notwithstanding the above, there may be exceptional situations that exist to warrant the construction of small portions of trails within TIR right-of-way. These include:
 - a Extending an established trail to permit the trail to cross a non-controlled access highway at the nearest practical crossing location. These crossing locations must comply with section 4.2 of this procedure.
 - b. Locations where trails have been severed by highway construction.
 - c Locations where geographical features impede trail connectivity.

Trail construction that may intersect with existing or future property access locations should be avoided.

This trail construction must be approved by the Executive Director Maintenance and Operations. The Area Manager will send the completed "Work Within Highway Right of Way Permit" to him/her for review and approval. The signed / approved permit will be returned to the Area Manager.

- 2.2 Trail construction for all other non motorized users must be in accordance with Appendix C (Walking and Non-Motorized Multi-Use Trail Treatments - Cross Sections).

2.3 Where established trails are affected by new highway construction, the Department will work with trail groups and accommodate off-highway-vehicle use, to the extent possible, into the design of the highway. Design plans must be approved by the Executive Director Highway Engineering and Construction.

3 Trails on 'K' Class Roads

3.1 As with all other roads, "K" Class Roads are governed by the *Public Highways Act* and the *Motor Vehicle Act* and as such are not available for the exclusive use of off-highway vehicles. The Off-Highway Vehicles General regulations allow off-highway vehicles to operate on "K" Class Roads.

Construction within the right-of-way of "K" Class Roads to render the road exclusively for trail use is strictly prohibited. The option to use the right-of-way of "K" Class Roads exclusively for trail development would require the road to be formally closed by government. A number of factors would have to be considered before Government relinquishes control of any right-of-way:

- I Access by abutting land owners
- II Potential for future highway development
- III Access to natural resources (Eg. pulp companies)
- IV Subdivision potential
- V Access to beaches, etc.
- VI Ownership / title issues (abutting owners)
- VII Land swap
- VIII *Special Places Protection Act*. R.S., c.438, s.1
- IX Interest of Other Government Departments

3.2 Upgrades to "K" Class Roads by Trail Developers

a Any trail group requesting to perform work within the Highway right-of-way on a "K" Class Road, must submit this request in writing to the Area Manager.

- b Any upgrades to these roads must follow all procedures and adhere to all standards as outlined in the TIR Manual “Road Upgrading” procedure PR5035.
- c All costs associated with the upgrades and the maintenance of such upgrades shall be the responsibility of the trail developers.
- d TIR will make no compensation to the trail developer in the event that damage is done, by any party, to the improvements made to the “K” Class Roads.

4 Trail Crossings

A trail crossing is defined as a location where a trail crosses a provincial public highway.

4.1 Trails crossing Controlled Access Highways

- a. Trails will not be permitted to cross controlled access highways, without a grade separation specifically designed for that purpose. The *Off-highway Vehicles General regulations* prohibit a person from operating or driving an off-highway vehicle upon or across a highway designated as a controlled access highway pursuant to the *Public Highways Act*.
- b. Where construction of a controlled access highway crosses a trail corridor the following will apply:
 - l Installation of grade separated trail crossings will be considered by the Department where the highway alignment crosses an existing established trail. Trail owners / users must be able to provide documentation (maps, leases, permits, deeds), that the trail is well established and that the trail approaches are safe, legal, and undisputed. Minimum spacing between highway / trail crossings is 5 km.

- II The definition of an established trail, for the purpose of this procedure will be as defined in the Off-highway Vehicles General Regulations: *“Established trail” means a route or path in existence before April 1, 2006, that has, through traditional use, become a trail for use by off-highway vehicles, and permission to use that route or path has not been withdrawn.*
 - III A tunnel type structure, under the highway, is preferred for the crossing, however, other designs may be used where determined to be appropriate by the Department. The structure may be constructed a reasonable distance on either side of the existing trail, depending on topography. In this case, the trail must be realigned, by the trail developer, to meet the structure and minimize travel in the ditch or on the highway slopes.
 - IV Where new or realigned highways cross existing trails, the Department may consider funding a portion of, or all of, the crossing infrastructure, on an individual basis, depending on the circumstances that exist at the time.
- c Any changes to structures on the highway right-of-way, as a result of trail development, will require approval from the Executive Director Highway Engineering and Construction. Costs for evaluation of trail developer designs, such as an addition of cantilever crosswalks on bridge overpasses, will be at the expense of the group or organization requesting trail development.

4.2 Trails crossing Non-Controlled Access Highways

- a Trails crossing public roads will only be permitted at locations deemed appropriate by the Area Manager, who will take the following criteria into consideration:
 - I The intersection of a trail with a public road should be a minimum of one hundred (100) metres from an existing intersection of two (2) public roads.

- II The minimum stopping sight distance on the highway, at a trail crossing must satisfy commercial / crosswalk stopping sight distance requirements of one hundred and fifty (150) mm object height.
- III The trail crossing must intersect the road at a right angle.
- IV The trail crossing must be installed in accordance with the instructions for the installation of a culvert and must be level (+/- 2%) with the edge of the shoulder for a distance of five (5) metres.
- V The Area Manager may request from the trail developer the number of recreational vehicles expected to use the trail crossing.
- VI Trail developers must provide documentation (maps, leases, permits, deeds) ensuring the trail is well established and that the trail approaches are legal and undisputed.
- VII The trail developer must provide a plan, drawn to scale, showing the requested crossing location and meeting all requirements identified above.
- VIII The trail developer must provide the Department with written consent for access to their lands, from property owners which are adjacent to the highway at the proposed trail crossing.

As part of the approval process, the District Traffic Supervisor will prepare a trail crossing signage plan for the identified crossing location. This plan will incorporate all required signage and other safety devices as shown on the Appendix A (Newly Developed Trail Crossing - Typical Signage).

The Department will supply, install and maintain Trail Crossing Signs as shown on the typical signage plans approved by the District Traffic Supervisor. Appendix D -

Trail Crossing Sign Assembly - Shared-Use Trail Crossing (Motorized Vehicles Permitted); and Appendix E - Trail Crossing Sign Assembly - Multi-Use Trail Crossing (Motorized Vehicles Prohibited)

The trail developer is responsible for the provision, installation, inspection and maintenance of all other signs, bollards, barricades or gates required as shown on the approved signage plan.

b Trail Crossings Along Abandoned Rail Corridors.

The *Off-highway Vehicles Act* (the “*OHV Act*”) permits off-highway vehicles to cross public highways provided various conditions within the *OHV Act* are met. The off-highway vehicle operator or driver is responsible for complying with the requirements of the *OHV Act* when crossing a highway.

The Department recognizes there are existing trails along the abandoned railway corridor that cross public highways. The Department of Natural Resources (DNR) have issued letters of authority to various trail groups allowing them to establish these trails. The Department will not assess the stopping sight distance at these crossings except when a request from a trail developer to upgrade an existing trail crossing location or a public complaint is received or a safety issue becomes known. The Department will not assess the intersecting angle except when a request from a trail developer to upgrade an existing established trail crossing location is received.

The Area Manager, in consultation with the District Traffic Supervisor, may approve these upgrades provided the safety of the trail crossing location is improved. The trail developer must provide a plan, drawn to scale, of the proposed crossing location upgrades. Safety improvements may include, but are not limited to, improvements to stopping sight distance and/or improved intersecting angles. The trail

developer will be responsible for all costs associated with the proposed upgrade(s).

The Area Manger will ensure that all existing trail crossings along the abandoned railway corridor, which are operating under a letter of authority from DNR, have all required signage and other safety devices as shown on Appendix B (Existing Rail Trail Crossing - Typical Signage) with the exception of advisory speed tabs.

If a complaint from the general public is received or when a safety issue becomes known, the Area Manager, in consultation with the District Traffic Supervisor and trail developer, will review the location to ensure all required signage and safety devices are in place. After this review the Department may install advisory speed tabs if stopping sight distance as described in Section 4.2 (a)(II) is inadequate.

The trail developer is responsible for the provision, installation, inspection and maintenance of all other signs, bollards, barricades or gates required as shown on the approved signage plan.

5 Surplus Government Assets

- 5.1 The Minister, or his designate, will consider any reasonable request for surplus government assets provided the trail developer making the request is a registered or recognized Nova Scotia community based non-profit organization. Such requests must be directed, in writing, to the Minister of Transportation and Infrastructure Renewal and must include an itemized description of the items desired as well as the intended use of such items. Requests will be considered on a first come first serve basis and the request will be retained for a period of three (3) months. If the requested item(s) does not become available within that time, the request will be returned to the organization.

5.2 Department machinery will not be made available for use by trail developers.

6 Insurance

The Trail Developer shall be required to take out and maintain insurance coverage with a limit of not less than two million dollars (\$2,000,000.00) inclusive for any one occurrence. The Trail Developer shall name the Department as an additional insured under this insurance contract. The Trail Developer shall provide proof of this insurance in the form of a "Certificate of Insurance" before any trail construction or trail maintenance begins.

7 Parking

Parking for trail users is the responsibility of the trail developer.

Accountability

Area Managers and Construction Managers are responsible for ensuring adherence to this procedure.

Monitoring

Highway Operations Staff, in conjunction with field staff will periodically audit this procedure's effectiveness and make modifications as required.

References

TIR Manual - PO1033 Trail Policy
TIR Manual - PR5035 Road Upgrading
The Off-Highway Vehicle's Act
The Off-Highway Vehicles General Regulations, Chapter 323, Amended 2007
The Motor Vehicles Act
The Public Highways Act
The Societies Act
Availability of Surplus Government Assets for Non-Profit Organisations (Real Property Services - Inventory Control
Provincial Municipal Services Exchange
Work Within Highway Right of Way Permit

Division: Highway Programs
Section: General
Function: Operations (HP 2.11.26)
Procedure number: PR5092

Appendices

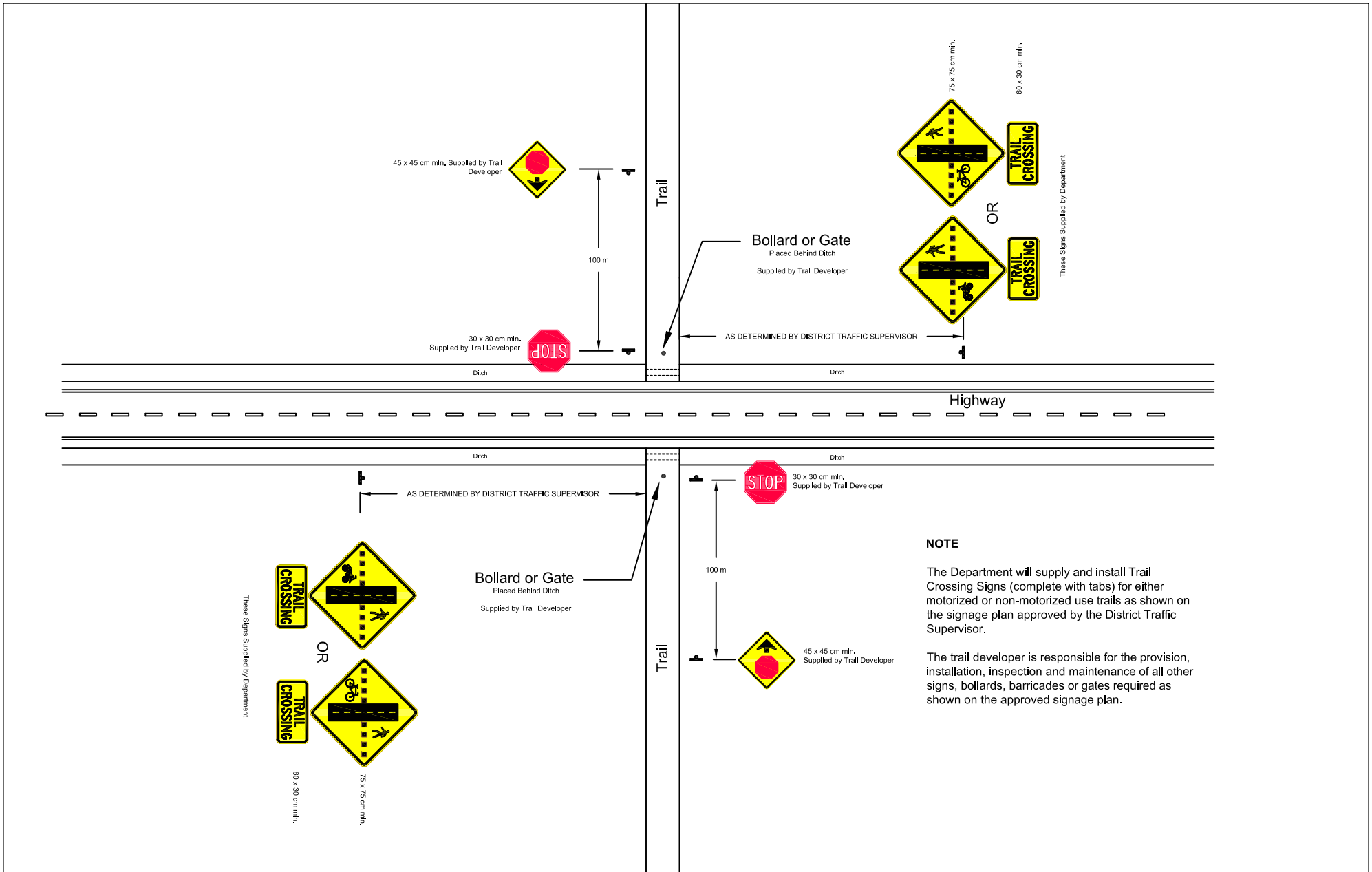
- Appendix A - Newly Developed Trail Crossing - Typical Signage
- Appendix B - Existing Rail Trail Crossing - Typical Signage
- Appendix C - Walking and Non-Motorized Multi-Use Trail Treatments (Cross Sections)
- Appendix D - Trail Crossing Sign Assembly - Shared-Use Trail Crossing (Motorized Vehicles Permitted)
- Appendix E - Trail Crossing Sign Assembly - Multi-Use Trail Crossing (Motorized Vehicles Prohibited)

Enquiries

Highway Maintenance and Operations Division

Approved by: Bruce Fitzner, CEHP
Approval date: 26-NOV-2012
Effective date: 26-NOV-2012

Transportation & Infrastructure Renewal
Policies and Procedures Manual
Revision date: NEW 26-NOV-2012



No.	Date	By	Revision

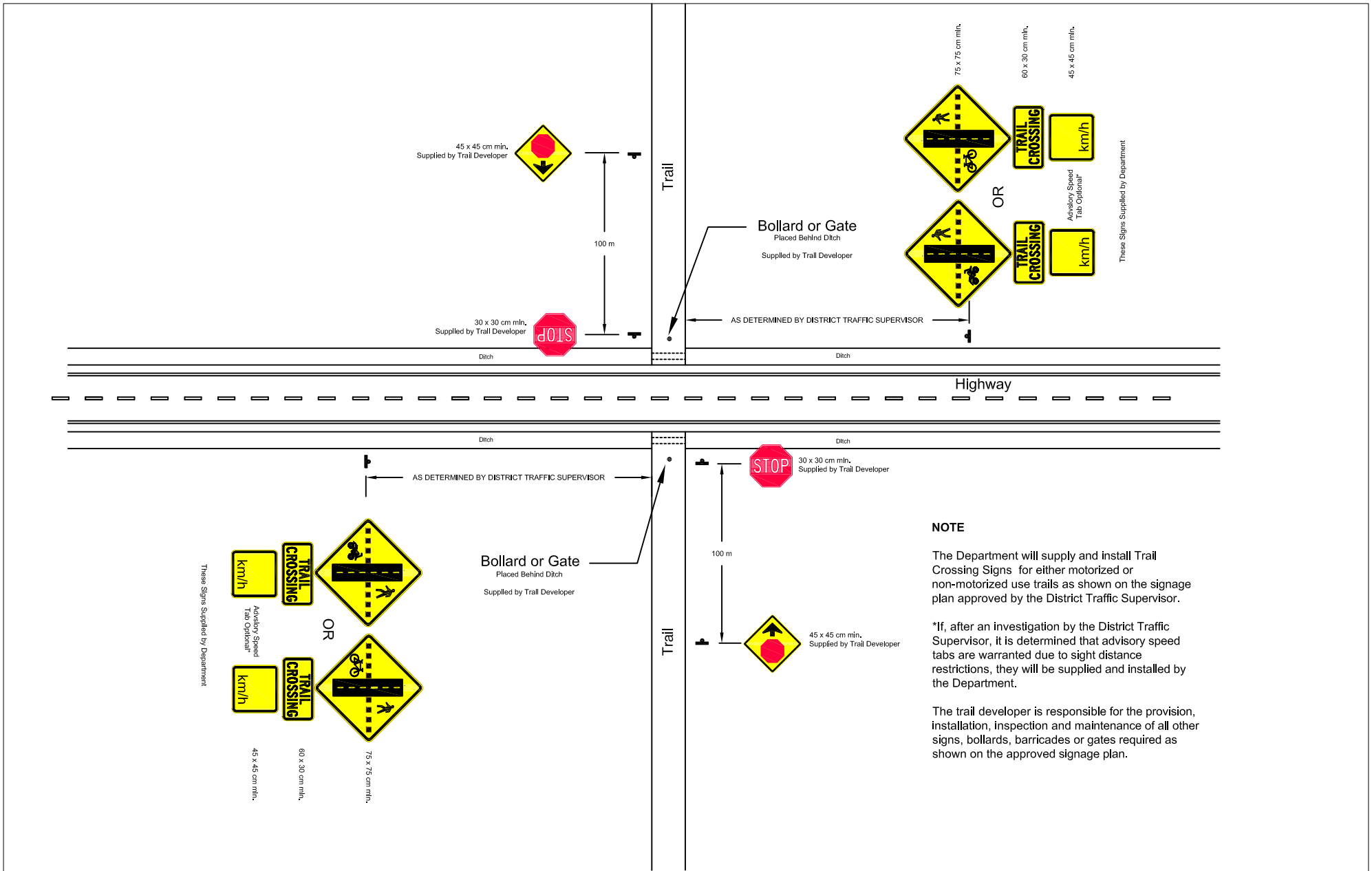
RH Prepared	Oct. 25, 2012 Date
Provincial Traffic Authority	_____ Date

Drawing Title: PRXXXX--APPENDIX "A"

**NEWLY DEVELOPED
TRAIL CROSSING**

TYPICAL SIGNAGE

Scale:	NOT TO SCALE
Date:	October 25, 2012
Drawing No.:	
Sheet No.:	1 of 1



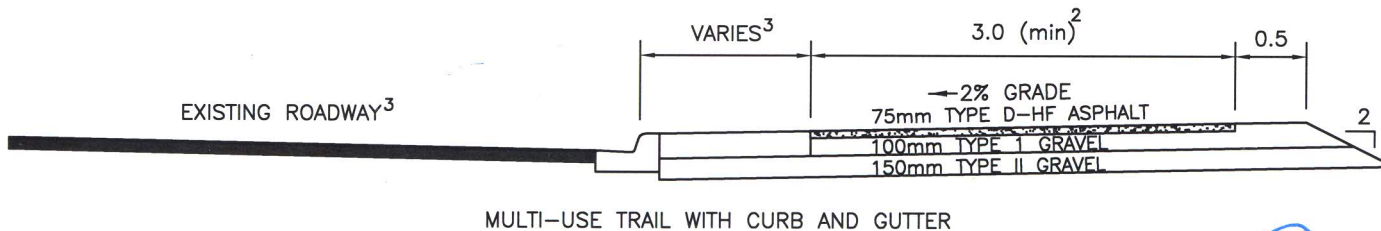
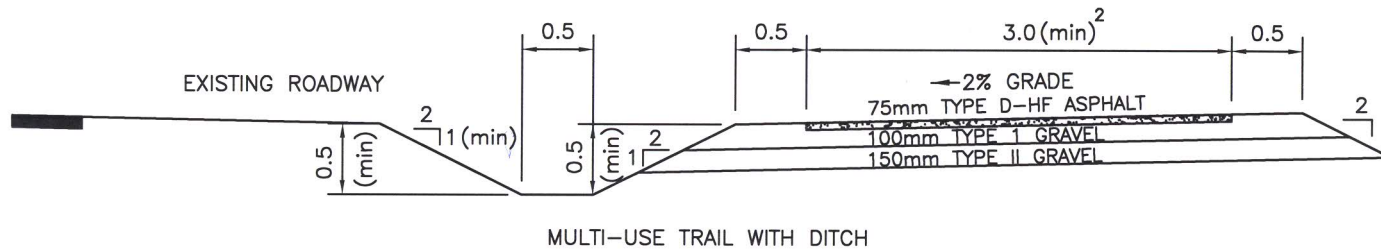
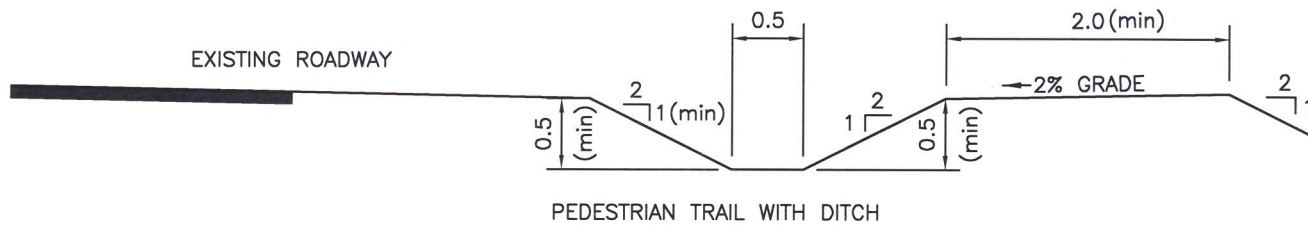
NOTE

The Department will supply and install Trail Crossing Signs for either motorized or non-motorized use trails as shown on the signage plan approved by the District Traffic Supervisor.

*If, after an investigation by the District Traffic Supervisor, it is determined that advisory speed tabs are warranted due to sight distance restrictions, they will be supplied and installed by the Department.

The trail developer is responsible for the provision, installation, inspection and maintenance of all other signs, bollards, barricades or gates required as shown on the approved signage plan.

					Drawing Title: PRXXXX--APPENDIX "B" EXISTING RAIL TRAIL CROSSING TYPICAL SIGNAGE	Scale: NOT TO SCALE
						Date: October 25, 2012
						Drawing No.:
						Sheet No.: 1 of 1
	No.	Date	By	Revision	RH Prepared Oct 25, 2012 Date Provincial Traffic Authority Date	



NOTES:

1. SURFACE TYPE - GROOMED GRAVEL (min)
2. THIS MAY BE INCREASED BASED ON EXPECTED VOLUME AND TYPE OF USE
3. REFER TO STANDARD DRAWING FOR "SIDEWALK DETAILS" (S-2009-014,HS501) FOR DETAILS
4. MAXIMUM LONGITUDINAL GRADE: 5%
5. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.

Philip Cohen
 Manager Highway Planning and Design

[Signature]
 Director Highway Engineering Services

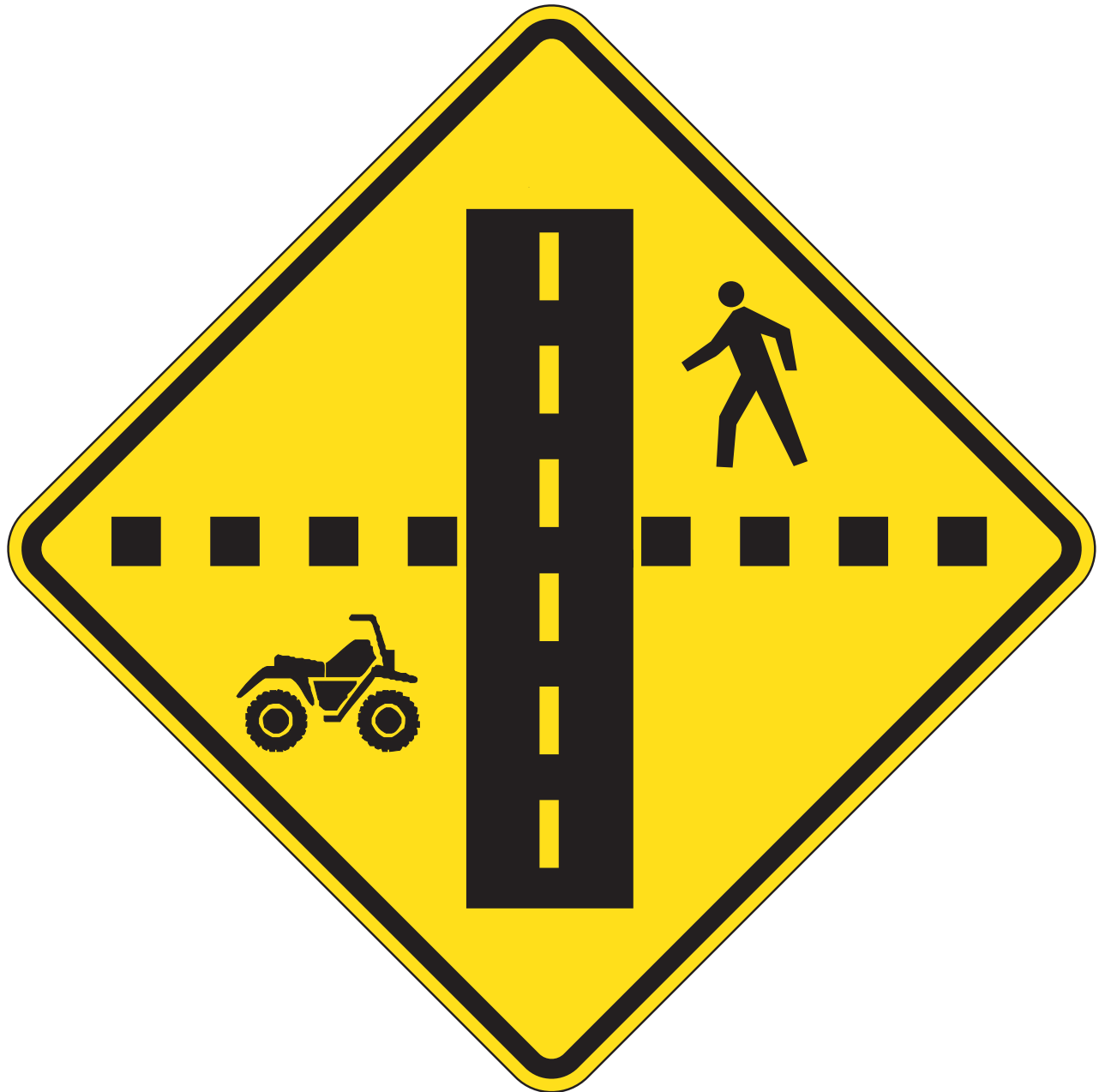
[Signature]
 Executive Director Engineering and Construction



No.	REVISION
2	Materials Depth Added 13 DEC 2011
1	Note 3 Added 19 July 2011

Scale : N.T.S.
 Drawn by : C.DOYLE
 Checked by : E.PUGH
 Date of Plan : AUG2010
 File No. : S-2011-201

**WALKING AND NON MOTORIZED
 MULTI-USE TRAIL TREATMENTS**



Shared Use Trail Crossing Sign Assembly
(Motorized Vehicles Permitted on Trail)



Multi-Use Trail Crossing Sign Assembly
(Motorized Vehicles Prohibited on Trail)