



Traffic Control Device: **Work Zone**

Date of Revision: **March 15, 2002**

Division:

Subject: **Introduction**

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### **Purpose**

The Department of Transportation and Government Services provides uniform policies and standards for traffic control devices in work zones on or adjacent to Provincial Trunk Highways and Provincial Roads. Traffic control devices include signs, delineators, channelizers, barricades, pavement markings, lighting devices, flagpersons/flagging equipment, and any other device placed upon a public roadway which warns motorists of changing conditions or provides for the safe movement of traffic. All organizations performing work on or adjacent to a highway are required to install and maintain such traffic control devices as identified in this policy/standard as necessary to provide a safe work environment and ensure safe passage for the travelling public.

### **Policy**

All employees, contractors, and utilities doing work on or adjacent to Provincial Trunk Highways and Provincial Roads are required to implement and maintain a Work Zone Traffic Management Plan consistent with the Policies and Standards outlined herein.

### **Standard**

The standards contained herein are minimum standards and may have to be increased to accommodate traffic safely.

Modifications must be approved by the Director of Traffic Engineering or his representative before plans are implemented in the field to ensure that the safety of workers and motorists is not compromised.

### **Driver Expectations**

Primarily because of driver expectations, safety in construction and maintenance zones is difficult to achieve effectively. Although most motorists understand that unusual roadway conditions may be encountered, the general expectation is that evasive actions or significant reductions in vehicle speed will not be required.

RECOMMENDED: \_\_\_\_\_  
Director, Traffic Engineering

APPROVED: \_\_\_\_\_  
Executive Director  
Highway Engineering

While maintenance and construction activities can be unexpected, most maintenance and construction zones are relatively static, providing the traffic authority with the opportunity to provide effective warning or guidance through the zone.

### **Effectiveness of Traffic Control Devices**

For the most part, this warning or guidance can be provided through the use of standard traffic control devices. To achieve optimum effectiveness, the traffic control at all maintenance and construction zones **must** be regularly reviewed and enhanced where required:

Motorist safety is generally most compromised in construction and maintenance zones during hours of darkness. Consequently, the adequacy of traffic controls in these areas, particularly detours, **must** be regularly reviewed, especially at night to ensure that the intended traffic control is not compromised. This review should include an assessment of:

- X sign reflectivity
- X sign lateral, longitudinal and vertical position
- X relationships between other temporary or permanent traffic control devices

Only those temporary signs and devices that are approved by the Department may be used on the highway right-of-way. All signs and devices must be reflectorized to show the same colour by night as by day, and the reflectivity levels must be maintained by cleaning or replacing signs, etc. when necessary.

Special emphasis is required when a speed drop greater than 30 km/h is encountered, between the normal highway travel speed and the speed necessary to smoothly and safely traverse a detour or construction area.

### **Positive Guidance**

Where possible, positive guidance (pavement markings, plastic drums, cones, delineation, etc.) must be provided through a work area or detour. Under all circumstances this positive guidance should always create a consistent visual image. This is created by ensuring both uniform spacing and uniform offsets of the delineators/channelizers. If uniform offsets are not possible, smooth transitions from one offset to another must be used to avoid abrupt changes in the visual roadway alignment.

As oncoming headlights may obscure the change in alignment, special emphasis such as illumination, positive guidance, or flashing arrow boards may be required at the transition from four-lane divided to a two-lane two-way (2L2W) highway where a change in alignment occurs.

To obtain adequate impact, under some circumstances, traffic control devices (signs, pavement markings, etc.) may be enhanced by:

- X oversizing signs
- X supplementing with fluorescent orange flags
- X removing unnecessary existing signs (route markers, guide signs, etc.)
- X roadway illumination

Under some circumstances, the existing speed limit signs in the work area should be removed or covered.

When one side of a divided highway is closed and the other side is used to carry two-lane, two-way (2L2W) traffic, the opposing traffic flows must be separated from each other by some form of a physical barrier such as cones, delineator posts, plastic drums or portable concrete barriers or plastic water-filled barriers.

#### **Requirements of The Highway Traffic Act (HTA):**

- X Section 74 - "All contractors' and Department vehicles, unless physically engaged in maintaining or constructing a highway, must comply at all times with the rules of the road as established in The Highway Traffic Act."
- X Section 77(7) - "The closest construction traffic control device shall not be further than 450 m from the start of the work area." (Note: Under review.)
- X Section 77(9) - "Construction traffic control devices shall be removed when the work is sufficiently completed to render it unnecessary for the devices to remain in place."
- X Section 81 - Only those traffic control devices approved by the Highway Traffic Board or by the Director of Traffic Engineering may be used on provincial highways.

#### **Lane Widths**

Detours with travel speeds of 70 km/h or greater should have clear lane widths of at least 3.7 m, excluding shoulders.