

SECTION 701

INTRODUCTION

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701.01 INTRODUCTION

The provisions for public protection established in this division and the Department's Traffic Control Manual (TCM) are for application by all contractors employed under contract by the Department of Transportation & Infrastructure. Traffic safety in construction zones should be an integral and high priority element of every project. The goal should be to route traffic through such areas, with temporary condition signs and devices, as nearly as possible comparable to those for normal situations. The responsibility for temporary condition signs and devices rests with the Contractor.

The purpose of Division 7 and the TCM is to assist users with uniform and consistent methods for installing traffic control devices, thus ensuring safety and minimizing inconvenience to both motorists and workers while completing work activities. Diagrams are provided for most common traffic control scenarios encountered, however the TCM cannot possibly cover all scenarios that may occur. It is incumbent on the Contractor to develop an appropriate traffic control plan using this division and the TCM as a guide along with sound technical judgment. For unique situations, those preparing a traffic control plan may contact the Department of Transportation for advice; however, ultimate responsibility lies with the Contractor to ensure that the traffic control plan complies with

the regulations. A suitably qualified and competent Professional Engineer is required to certify changes to Traffic Control Plans and Sign Layout Diagrams presented in the Traffic Control Manual. (Reference 2012 OHS Regulations 373 to 375)

It is the responsibility of the Contractor working on provincial roadways to ensure that the principles and procedures contained within the Traffic Control Manual are applied. Where a municipality has developed their own traffic control procedures and been granted approval by the Minister representing Occupational Health and Safety (OHS Regulation 373(3), those established procedures may be used as an alternative to the Traffic Control Manual for locations within the municipality. In these cases, the more stringent requirements shall be adhered to.

The appropriate level of traffic control for a situation shall be determined using the guidelines provided and sound technical judgment based upon a review of the work site and local traffic conditions. The decision to use a particular traffic device at a specific location must consider all local conditions. The Traffic Control Manual, and other guidelines available, provide the basis for selecting a traffic control plan, however it is not a substitute for sound technical judgment. Safety should not be compromised in the selection of a traffic control plan. If a variation from the typical layouts provided is considered, the traffic control plan should be approved by a suitable qualified competent professional engineer prior to implementation. The typical traffic control layout diagrams presented in the manual can be used for all types of work.

All costs associated with temporary condition signing to standards as outlined in Division 7 and the Traffic Control Manual shall be the responsibility of the Contractor. Cost of signs, handling, installation, materials, and labour shall be paid by the Contractor and no payment shall be considered by the Department.

701.02 FUNDAMENTAL PRINCIPLES

1. All traffic control signs and devices used for temporary conditions are designed and installed for the safety and convenience of the traveling public and for the safety of the workers.
2. Work sites shall be carefully checked to make sure that traffic controls are changed to suit changing construction conditions due to work staging and progress, or if an immediate improvement to the traffic control is needed. Any problems shall be dealt with immediately and documented.

3. All signs shall conform to the required standards in shape, color, size and position as outlined by the Traffic Control Manual and the Manual of Uniformed Traffic Control Devices for Canada.
4. Throughout the normal construction season, including weekends and overnight, all temporary condition signage shall be securely installed on either portable sign supports or permanently installed sign supports. During periods of inactivity in a construction zone, if signs are not maintained, they may be required to be installed on permanent sign supports. When portable sign supports are used, they shall be vertically adjustable such that signs will be displayed at the minimum required height. If this cannot be achieved, flags shall be added to the top of the sign supports to meet the minimum required height as per Drawing 790-1. The base of the sign supports shall not be appreciably wider than the signs. Bases which require weighting for support shall be weighted using sandbags only. The use of rocks, boulders, concrete blocks, etc, as weights shall not be permitted.
5. When signs are removed from the construction zone, the sandbags must also be removed and not left along the shoulder of the highway. Where portable sign supports are poorly maintained or unable to provide constant uninterrupted support for temporary condition signage, the contractor shall be required to install permanent sign supports.
6. Poorly maintained, defaced, damaged, or dirty temporary condition signs are ineffective and shall be replaced, repaired, or cleaned without delay. Signs which have been defaced or damaged and are not replaced within 24 hours of notification shall be expropriated by the Department. All signage expropriated in this manner will remain the property of the Department of Transportation and Works. Any work or costs associated with sign removal, sign replacement or traffic control will be the responsibility of the Contractor.
7. No work will be permitted to commence until all traffic control devices are installed in position, as shown in the TCM manual and reviewed by the Contractor and Owner's Representative.
8. After a work zone is completed all traffic signs used on that construction zone shall be removed immediately. Any installed signs not applicable during a phase of construction shall be removed or covered. The Department reserves the right to expropriate all temporary condition signs that are left in place after the work zone is completed. In particular the Department especially focuses upon unwarranted and misused speed limit signage and flag person signage. All signage and

associated hardware will remain the property of the Department of Transportation and Infrastructure.

9. Objects within the roadway or immediately adjacent to the roadway, which constitute a hazard to traffic shall be marked with a delineator device.
10. Construction Speed Zones shall be implemented only as shown on the applicable drawing. A hazard assessment shall be part of determining an appropriate speed limit in a construction zone. The Department representative shall be consulted prior to implementing a posted speed limit change on a provincial roadway.
11. After dark, all signs shall be checked for visibility and those that cannot be clearly seen shall be cleaned, replaced or adjusted.
12. Any signs not supplied by the Department of Transportation and Infrastructure shall meet all specifications in the Manual of Uniform Traffic Control Devices for Canada and the Traffic Control Manual.
13. Sound technical judgment must be utilized in the application of the principles put forward in this Division and the Traffic Control Manual. Traffic plans within the TCM requiring adjustment to local conditions must be reviewed and approved by a suitably competent and qualified Professional Engineer or other person named by the Contractor and acceptable to the assistant deputy minister representing Occupational Health and Safety. (Reference OHS Regulations 373 to 375 and other 2012 OHS Regulations). The location of all traffic control devices and operations shall be documented on a daily basis, including any changes made to adjust to current conditions. Work site conditions vary greatly from Traffic Control Manual layouts presented and it is up to the Contractor to adapt the principles of the manual to the given situation. The Traffic Control Manual layouts shall be considered minimum standards for required signage for the noted situations.

701.03 SPECIFICATIONS AND CLASSIFICATION OF SIGNS

Unless modified by the following, the specifications outlined in the Manual of Uniform Traffic Control Devices for Canada will apply to temporary condition signs in all details concerning symbols, lettering, illumination, reflectorization, position, installation, material, support, and maintenance.

One sign only shall be placed on each support, with the exception of tab signs installed to provide supplementary or complementary information associated with warning signs or

detour signs, or with the exception of signs placed on the back (reverse) side of the same support, which is intended for motorists traveling in the opposite direction.

Temporary Condition Signs – shall have black symbols or lettering on an orange retro-reflectorized High Intensity Prismatic background. *The use of florescent paint on signage shall not be considered and is not acceptable.*

Regulatory and Information Signs – which may be used for temporary traffic control or guidance shall have the same color and shape as described in the Manual of Uniform Traffic Control Devices for Canada.

701.04 COLORS, SHAPES, SIZES AND MATERIALS

The color, shape, size and material requirements for all signage for use on Department projects shall be in accordance with the standards set forth in the Manual of Uniform Traffic Control Devices for Canada.

All temporary condition signage shall be made with a rigid backing consisting of either plywood or aluminum. Flexible or roll up type signage will not be permitted.

701.05 PORTABLE OR REMOVABLE SIGN SUPPORTS WITH FLAGS

In construction zones, where the use of permanently installed rigid sign supports are not considered or required, temporary condition signs shall be installed on portable or removable sign supports. Signs shall be located on the right side of the roadway not to exceed 4 metres from the edge of the traveled portion of the roadway. Supplementary signs shall also be located on the left hand side of the roadway on divided highways.

If portable sign supports do not elevate temporary condition signs to the minimum required height, then two orange flags must be installed on the portable sign support, such that the required height is achieved. See drawing 790-1.

701.06 PERMANENTLY INSTALLED TEMPORARY CONDITION SIGN SUPPORTS

In construction zones, where the use of portable sign supports are not desired or properly maintained, temporary condition signs shall be installed on permanently installed rigid sign posts, as directed by the Owner's Representative. Signs shall be located on the right side of the roadway not to exceed 4 metres from the edge of the traveled portion of the roadway. Supplementary signage shall also be located on the left hand side of the roadway on divided highways.

Signs 900 millimetres or less in width/length shall be installed on a single post to a height of 1.5 to 2.5 metres above the traveled portion of the roadway to the bottom edge of the sign. Most signs in this category can be securely installed on 100 x 100 millimetre wooden posts with a minimum of 1 metre of the post in the ground. Care must be exercised to ensure that the post is securely anchored in the ground so that it cannot be 'turned' or removed by vandals.

Signs exceeding 900 millimetres in width/length shall be installed according to Section 580, for the corresponding size of the sign.

The use of flags to achieve minimum required heights on permanently installed sign posts shall not be permitted.

701.07 MOUNTING CHEVRON AND HAZARD MARKERS ON REBAR FOR INSTALLATION ON PAVED SURFACES

Where traffic has to be diverted or channelized to cross multi-lanes of paved surfaces, delineator devices, such as hazard markers and chevrons, shall be installed as outlined in the TCM.

Signs 300 millimetres or less in width shall be installed on a single piece of 25 millimetre rebar to a height of 1 metre minimum above the traveled portion of the roadway to the bottom edge of the sign.

Signs greater than 300 millimetres in width shall be installed on two pieces of 25 millimetre rebar to a height of 1 metre minimum above the traveled portion of the roadway to the bottom edge of the sign.

701.08 CHEVRON AND HAZARD MARKERS USED DURING THE WINTER SEASON

Chevrons and Hazard markers shall be mounted on rebar or wooden posts in order to delineate traffic through a transition. Signs shall be installed as outlined Sections 701.06 and 701.07 as appropriate.

701.09 BASIS OF PAYMENT

All costs associated with temporary condition signing to standards as outlined in this section shall be the responsibility of the Contractor. Costs of the signs, handling, installation, removal, asphalt reinstatement and / or repair, materials, and labour shall be paid by the Contractor and no payment shall be considered by the Department.