

# Handbook for Construction Traffic Control Persons



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ISBN 978-1-894761-20-8

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REVISED EDITION, February 1988  
SECOND REVISED EDITION, August 1991  
THIRD REVISED EDITION, July 2000  
FOURTH REVISED EDITION, April 2003  
FIFTH REVISED EDITION, April 2006  
SIXTH REVISED EDITION, November 2010  
SEVENTH REVISED EDITION, April 2013  
EIGHTH REVISED EDITION, May 2014

# Handbook for Construction Traffic Control Persons

For more detailed and complete information, refer to the latest edition of the ***Occupational Health and Safety Act and Regulations for Construction Projects***.

## Attention: Supervisors

Traffic control persons (TCPs) must be given written and oral instructions regarding their duties. This handbook is designed to help you meet the requirement for written instructions set out in Section 69(4).

*A worker who is required to direct vehicular traffic,*

- (a) shall be a competent worker;*
- (b) shall not perform any other work while directing vehicular traffic;*
- (c) shall be positioned in such a way that he or she is endangered as little as possible by vehicular traffic; and*
- (d) shall be given adequate written and oral instructions, in a language that he or she understands, with respect to directing vehicular traffic, and those instructions shall include a description of the signals that are to be used.*

In addition, the written instructions must be kept on the project.

## **What are the objectives of traffic control?**

- To protect construction workers and the motoring public by regulating traffic flow.
- To stop traffic whenever required by the progress of work. Otherwise to keep traffic moving at reduced speeds to avoid tie-ups and delays.
- To allow construction to proceed safely and efficiently.
- To ensure that public traffic has priority over construction equipment.

## **What equipment do I need?**

### **Personal**

- Hard hat: CSA Class E, Type 1 or 2; ANSI Type I Class E; or ANSI Type II Class E.
- Safety boots, CSA-certified, Grade 1 (green triangular CSA patch outside, green rectangular label inside).
- Garment, usually a vest, covering upper body and meeting these requirements:
  - fluorescent blaze or international orange in colour
  - two vertical yellow stripes 5 cm wide on front, covering at least 500 cm<sup>2</sup>

- two diagonal yellow stripes 5 cm wide on back, in an X pattern, covering at least 570 cm<sup>2</sup>
- stripes retro-reflective and fluorescent
- vests to have adjustable fit and side and front tear-away feature on vests made of nylon.

We recommend that garments meet at least Class 2 requirements of CSA standard Z96-09 *High Visibility Safety Apparel*.

## **Sign**

A sign used to direct traffic must be

- octagonal in shape, 450 mm wide, and mounted on a pole 1.2 m long
- made of material with at least the rigidity of plywood 6 mm thick
- high-intensity retro-reflective red on one side, with STOP printed in high-intensity retro-reflective white 150 mm high
- on the other side, high-intensity retro-reflective micro-prismatic fluorescent chartreuse, with a black diamond-shaped border at least 317 mm x 317 mm, with SLOW printed in black 120 mm high.

## **After Dark**

Section 69.1(4) requires that you wear retro-reflective silver stripes encircling each arm and leg, or

equivalent side visibility-enhancing stripes with a minimum area of 50 cm<sup>2</sup> per side.

The following measures are recommended:

- Wear a hard hat with reflective tape.
- Use a flashlight with a red cone attachment as well as the sign and carry spare batteries.
- Place flashing amber lights ahead of your post.
- Stand in a lighted area under temporary or street lighting, or illuminated by light from a parked vehicle (stand fully in the light without creating a silhouette).

## **What are the requirements of a good traffic control person?**

- Sound health, good vision and hearing, mental and physical alertness.
- Mature judgment and pleasant manner.
- A good eye for speed and distance to gauge oncoming traffic.
- Preferably a driver's licence.
- The ability to give motorists simple directions, explain hazards, and answer questions.
- Liking, understanding, and respect for the responsibilities of the job.

## How do I prepare for each job?

Before starting work, make sure that you know

- the type of construction you will be involved with—paving, installing pipe, grading, cut and fill, etc.
- the type of equipment to be used, such as scrapers, trucks, compactors, and graders
- how the equipment will be operating—for instance, crossing the road, along the shoulder, in culverts, or on a bridge
- whether you will have to protect workers setting up components of the traffic control system such as signs, delineators, cones, and barriers
- any special conditions of the contract governing road use (for instance, many contracts forbid work during urban rush hours)
- how public traffic will flow—for example, along a two-lane highway, around curves or hills, by detour, or on a road narrowed to a single lane. This last is a very common situation and requires two traffic control persons to ensure that vehicles do not move in opposing directions at the same time (page 10). In some cases, where the two cannot see one another, a third is necessary to keep both in view and relay instructions (pages 12–13).

## What should I check each day?

- Make sure that the STOP-SLOW sign is clean, undamaged, and meets height and size requirements.
- Place the TRAFFIC CONTROL PERSON AHEAD sign at an appropriate distance to afford motorists adequate warning.



- Remove or cover all traffic control signs at quitting time or when traffic control is temporarily suspended.
- Arrange with your supervisor for meal, coffee, and toilet breaks.

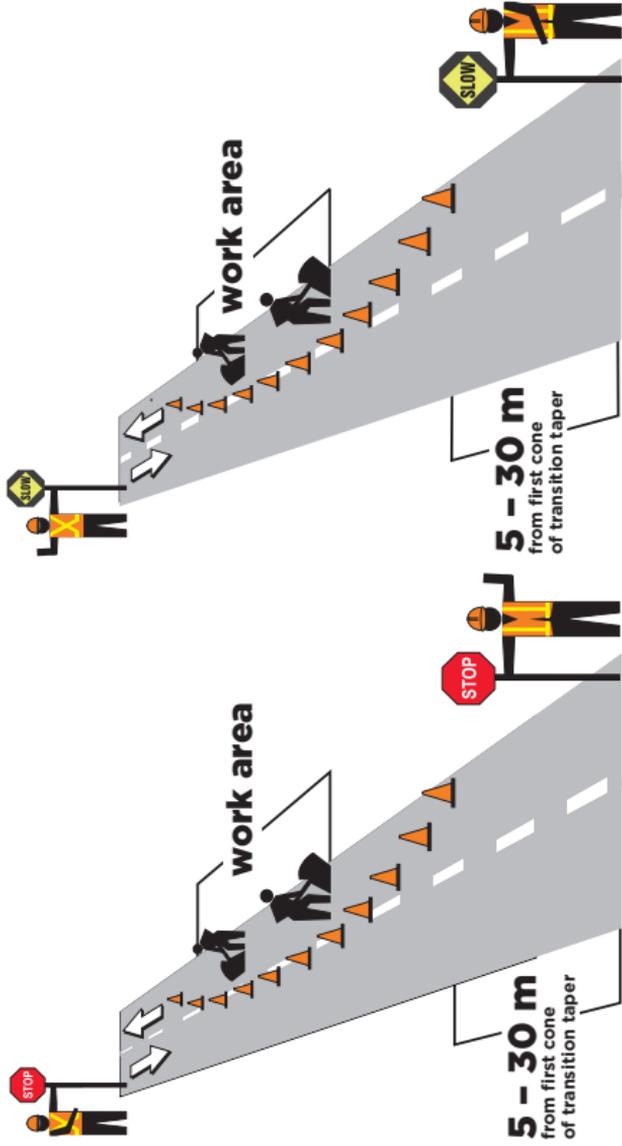
## Where should I stand?

- Stand the correct distance from the work area. Refer to TCP Table on page 9.
- Do not stand on the travelled portion of a roadway and always face oncoming traffic.
- Be alert at all times. Be aware of construction traffic around you and oncoming traffic on the roadway.
- Stand alone. Don't allow a group to gather around you.
- Stand at your post. Sitting is hazardous because your visibility is reduced and the ability of a motorist to see you is reduced.
- Adjust distances to suit road, weather, and speed conditions. Remember these points:
  - Traffic must have room to react to your directions to stop (a vehicle can take at least twice the stopping distance on wet or icy roads).
  - Stand where you can see and be seen by approaching traffic for at least 150 metres (500 feet).
  - Avoid the danger of being backed over or hit by your own equipment.

## TRAFFIC CONTROL PERSON PLACEMENT (TCP TABLE)

Normal Regulatory Posted Speed	60 km/h or lower, one lane or reduced to one lane		70 km/h to 90 km/h, one lane or reduced to one lane	
	Low	High	Low	High
Traffic Volume	Low		High	
Distance of TCP From First Cone of Transition Taper	5 – 10 m	10 – 15 m	15 – 25 m	20 – 30 m

Table taken from *Ontario Traffic Manual, Book 7: Temporary Conditions, 2014 ed.*



**Typical Arrangement on a Two-Lane Roadway**

- Hills and curves call for three TCPs or some other means of communication. The job of the TCP in the middle is to relay signals between the other two. (See pages 12–13).
- Once you have been assigned a traffic control position by your supervisor, look over the area for methods of escape—a place to get to in order to avoid being injured by a vehicle heading your way, if for some reason the driver has disregarded your signals. If this should happen, protect yourself by moving out of the path of the vehicle and then warn the crew.

## **Where am I not allowed to direct traffic?**

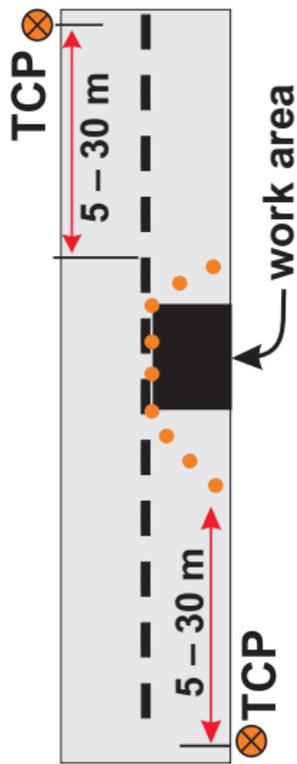
Section 69 of Ontario Regulation 213/91 specifies that:

*A worker shall not direct vehicular traffic for more than one lane in the same direction.*  
s. 69(2)

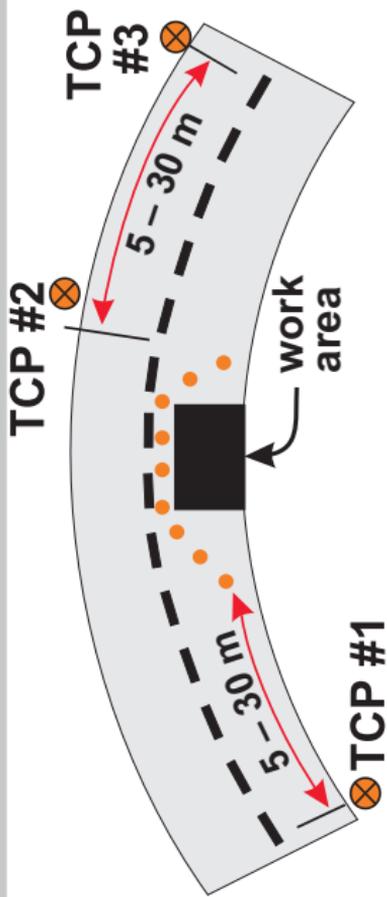
*A worker shall not direct vehicular traffic if the normal posted speed limit of the public way is more than 90 kilometres per hour.* s. 69(3)

## Positioning of TCPs

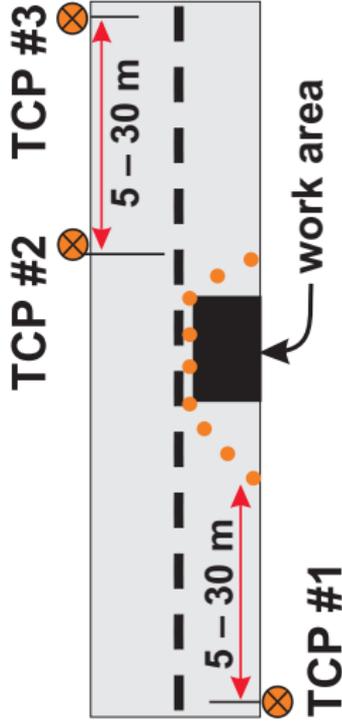
### Straight Road



### Curve

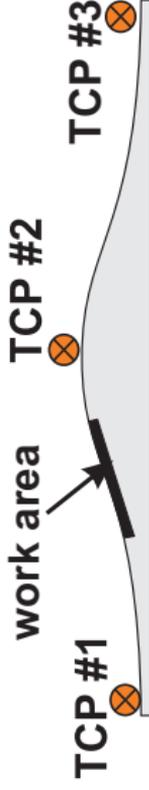


## Hill



## Hill

(cross-section)



**NOTE** On curves and hills, three TCPs or some other means of communication are required.

The duty of TCP #2 is to relay signals between TCP #1 and TCP #3.

## How should I signal?

- Use the STOP-SLOW sign and your arms as shown below.





- Stand off the travelled portion of the roadway and hold your sign firmly in full view of oncoming traffic.
- Give the motorist plenty of warning. Don't show the STOP sign when the motorist is too close. The average stopping distance for a vehicle travelling at 50 kilometres per hour (30 miles per hour) is 45 metres (150 feet). Higher speeds require more stopping distance.
- When showing the SLOW sign, avoid bringing traffic to a complete halt. When motorists have slowed down, signal them to keep moving slowly.
- When showing the STOP sign, use firm hand signals and indicate where you want traffic to stop. When traffic has stopped, you may move to a point on the road where traffic in the queue can see you.
- Before moving traffic from a stopped position, make sure the opposing traffic has stopped and that the last opposing vehicle has passed your post. Then turn your sign and step back on the shoulder of the road.
- Stay alert, keep your eyes on approaching traffic, make your hand signals crisp and positive.

- Coordinate your effort with nearby traffic signals to avoid unnecessary delays, tie-ups, and confusion.
- Do not use flags to control traffic.

## How can I improve safety for myself and others?

- Don't be distracted by talking to fellow workers or passing pedestrians. If you must talk to motorists, stay at your post and keep the conversation brief.
- When using two-way radios to communicate with another traffic control person, take the following precautions:
  - Establish clear voice signals for each situation and stick to them.
  - Be crisp and positive in your speech.
  - Test the units **before** starting your shift and carry spare batteries.
  - Avoid unnecessary chit-chat.
  - Don't use two-way radios in blasting zones.
- When two traffic control persons are working together, you should always be able to see each other in order to coordinate your STOP-SLOW signs. Signals between you should be understood. If you change your sign from STOP to SLOW or vice-versa, you must signal the other person by moving the sign

up and down or sideways. This will ensure that traffic control is coordinated. Two-way radios are the best way of communicating.

## **What are my rights under the law?**

Additional requirements for traffic control are spelled out in the *Ontario Traffic Manual, Book 7: Temporary Conditions*. This handbook has been updated to reflect the changes in the January 2014 edition of Book 7.

The information applies to traffic control by any persons or agencies performing construction, maintenance, or utility work on roadways in Ontario.

The Regulations for Construction Projects under the *Occupational Health and Safety Act* make it mandatory that traffic control persons be protected from hazards. This includes not only personal protective clothing and equipment but measures and devices to guard against the dangers of vehicular traffic. Safety should receive prime consideration in planning for traffic control. Regulations under the *Occupational Health and Safety Act* are enforced by the Ministry of Labour.

Amendments to the *Highway Traffic Act*, effective March 31, 2006, make it a requirement for drivers to obey the STOP/SLOW sign displayed by the traffic control person. If problems arise, follow these steps:

- Report dangerous motorists to your supervisor.
- Keep a pad and pencil to jot down violators' licence numbers.
- Ask your supervisor for assistance from police in difficult or unusual traffic situations.
- Never restrain a motorist forcibly or take out your anger on any vehicle.
- Always be alert to emergency services. Ambulance, police, and fire vehicles have priority over all other traffic.

## **Remember**

- Always face traffic.
- Plan an escape route.
- Wear personal protective clothing.
- Maintain proper communication with other traffic control persons.
- Stay alert at all times.
- Be courteous.

Traffic control is a demanding job, often a thankless job, but always an important job. How well you succeed will depend largely on your attitude.





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ISBN 978-1-894761-20-8



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