

This specification outlines the requirements for the location, placement, supply and installation of delineation devices relative to Work Sites.

PART 1 REFERENCES

Government of Newfoundland and Labrador, Department of Transportation and Infrastructure

TI Traffic Control Manual

PART 2 GENERAL

2.1 APPLICATION

- .1 Delineation devices shall be used to channelize traffic when the traffic flow is impeded as a result of obstructions, Work Areas or a narrowing of the roadway. They form part of the general category called Traffic Control Devices and shall be used as a supplement to signs and barricades.
- .2 Where the temporary condition will exist during the hours of darkness, delineation shall be achieved by the use of construction markers, traffic barrels, barricades, chevron markers, delineator posts, flashing beacons or similar devices. In all cases, markers used to achieve delineation during the hours of darkness shall be retro-reflectorized using high intensity grade sheeting to show the same colour and shape by night as by day. Fluorescent paint shall not be used as a reflectorized substitute and is not acceptable.
- .3 Delineators including all construction markers, chevrons, barricades etc. shall be in reasonable condition to be effective for both day and night conditions. While delineation devices cannot always be in new condition, they shall always be in reasonable condition. Unacceptable conditions that warrant replacing shall be those which are: covered in asphalt splatter, dirt, dust or snow; have several large abrasions or tears; have deformation and dented considerably; have significant loss of lettering; lettering has been touched up or poorly modified; message is partly missing or illegible; have colour fading or loss of more than 20 % of its reflectivity.
- .4 Traffic cones may be used where the temporary condition will exist during daylight hours only and where the roadway will be in its normal operations, they shall be reflectorized.

2.2 LOCATION OF DELINEATION DEVICES

- .1 Any construction or maintenance activity on or within 1 metre of a roadway shall be marked by delineators along the approaches to the work site or obstruction. Delineation devices shall also be placed alongside the obstruction in order to guide the road user.
- .2 The angle at which the delineations are placed across the closed portion of the road is called the taper and should vary according to both the nature of the road and the maximum regulatory speed and shall be as follows:

Regulatory Speed Limit (km/h)	Minimum Taper Length (m)
100	180
90	110
80	90
70	60
60	40
50	30

- .3 If the work area effects more than one traffic lane width, each traffic lane shall be closed separately and a tangent section provided between the two tapers. The minimum length of the tangent section shall be as follows:

Regulatory Speed Limit (km/h)	Minimum Tangent Between Tapers
90 or greater	240
80	150
60 to 70	100
50 or less	50

2.3 SPACING OF DELINEATORS

- .1 The centre-to-centre distance between delineators varies with the regulatory speed for both tapers and tangents. Refer to the Construction Distance Table 799-1 in the TI Traffic Control Manual for further details.

.2 Examples of temporary conditions signing illustrate the delineation recommended for use on various temporary work sites.

Regulatory Speed Limit (km/h) Minimum Tangent Between Tapers

90 or greater	240
80	150
60 to 70	100
50 or less	50

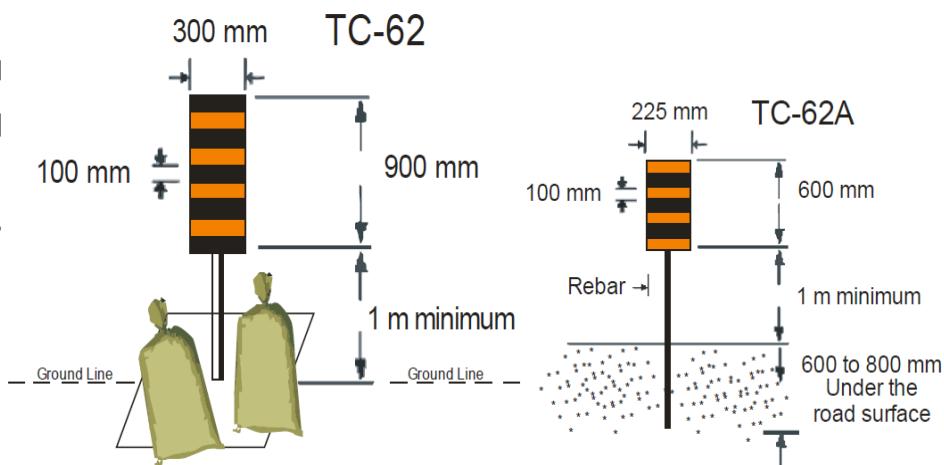
2.4 DESIGN AND COLOUR

.1 Delineators, with the exception of traffic cones, shall be designed with alternating striped orange and black colour placed in horizontal position. Traffic cones shall be solid orange in colour.

2.5 FORMS OF DELINEATORS

.1 A number of forms of delineation may be used, as outlined in the following:

.1 Construction markers shall be of the dimension indicated. They shall be reflectorized using high intensity grade orange reflective sheeting to indicate the same colour and shape by night as by day.



- .2 Where Construction Markers are required for a distance greater than 300 metres, the use of the 225 mm x 600 mm marker is permissible (TC-62A).
- .3 Drums are to be flexible and typically 200 litres in capacity, set on end and used as delineators. Drums shall be reflectorized to indicate the same colour and shape by night as by day. The drums are to be predominately orange, not fluorescent, but a minimum of two (2) white strips (100 mm width minimum) per drum is required.
- .4 Flexible drums may be used as an alternative method to channelize or delineate flow and shall be approximately 1000 mm in height and a minimum of 550 mm in diameter at the base. The markings on the flexible drums shall be horizontal, circumferential alternating black and reflectorized orange strips. Drums frequently require weighted bases to prevent movement.
- .5 The required height of traffic cones is related to the related to the normal maximum posted speed of the roadway and shall comply with the following minimum requirements.

Maximum Speed (km/h)	Minimum Heights (mm)
50 or less	450
More than 50	700

PART 3 PRODUCTS

3.1 NOT APPLICABLE

PART 4 EXECUTION

4.1 NOT APPLICABLE

PART 5 PAYMENT

5.1 MEASUREMENT FOR PAYMENT

.1 Work under this section shall be measure and paid for in accordance with Section 01570 – Traffic Regulations.

PART 65.2 BASIS OF PAYMENT

.1 No separate or direct payment will be made for work as outlined in this specification. All costs associated with the work outlined in this

specification shall be deemed to be included in the appropriate unit and
lump sum prices quoted as outlined in the Measurement for Payment
subsection of this section and as included in the MERX Schedule of
Quantities and Prices. All costs associated with temporary condition
signing of standards as outlined in this specification shall be the
responsibility of the Contractor. Cost of the signs, handling, installation,
materials, and labour shall be paid by the Contractor and no payment shall
be considered by the Owner

Not For Construction

Not For Construction