## SECTION 705

## LOCATION AND PLACEMENT OF SIGNS

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### 705.01 GENERAL

Six categories of signing are distinguished with regard to location of devices relative to work sites, namely, Advance Warning Area, Approach Area, Buffer Zone, Taper, Work Zone and Intersecting Roads.

The work site as used in this Division is defined by the beginning of tapers, buffer and the work itself.

### 705.02 ADVANCE WARNING AREA

The advance area is the section of the roadway where motorists are first alerted about roadwork ahead. Signing in this area may begin up to 2 km from the approach area and ending at the TC-1 CONSTRUCTION AHEAD sign.

### 705.03 APPROACH AREA

The approach area is the section of the roadway where motorists are given final warning and information on what actions to take before entering the work zone. Signing in this area typically begins immediately following the TC-1 CONSTRUCTION AHEAD sign and ends at the beginning of the buffer zone.

### 705.04 BUFFER ZONE

The buffer zone is the distance from the last sign in the approach signing to the work site.

### 705.05 TAPER

The gradual narrowing of a lane using successive cones or markers is intended to safely guide drivers into the next lane. The taper length is the length of the section of roadway required to achieve the closure and shall be as follows:

| $50 \mathrm{~km} / \mathrm{h}$ or less | 30 m |
| :--- | :---: |
| $60-70 \mathrm{~km} / \mathrm{h}$ | 60 m |
| $80 \mathrm{~km} / \mathrm{h}$ | 120 m |
| $90 \mathrm{~km} / \mathrm{h}$ and TCH | 240 m |

The work zone is that portion of the roadway which contains the work activity (workers, equipment, and construction materials).

Work areas may be fixed or moved as the work progresses. The area is usually delineated by channelizing devices or in some instances shielded by barriers.

Potential hazards and conflicts will increase in the work area if:
< The work area is close to the travel lane(s);
< A physical obstruction exists (uneven pavement, trucks turning, etc.);
< Speed of traffic increases;
< The distance the traffic is shifted gets greater or more complex.
Long term work areas (in excess of 12 hours) have a greater need for delineation.

### 705.07 INTERSECTING ROADS

Consideration shall be given to signing intersecting secondary roadways that exist within a work zone and the area reserved for the approach signage to the work zone. As a minimum, this signing shall consist of a TC-1 Construction Ahead sign displaying an appropriate directional arrow. See drawings 756-1 and 756-2 on pages 69 and 70 for examples of signing intersecting roads. Additional signage on the intersecting roadway may only be considered if the last two signs in the sequence of approach signage are not apparent to motorists on the intersecting roadway. Adjusting sign spacing may also be considered as a means of reducing sign requirements on intersecting roadways while providing pertinent information that is apparent to all motorists. In all situations, the placing of signs shall be based on a review of traffic conditions, traffic volumes, sight distances and sound engineering judgment.

### 705.07 BASIS OF PAYMENT

All costs associated with temporary condition signing to standards as outlined in this Section shall be the responsibility of the Contractor. Cost 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 of Works, Services and Transportation.

