



Traffic Control Device: **Work Zones**

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

Division:

Subject: **Transition Tapers**

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Purpose

Transition tapers are used to channel/direct traffic around an activity area within a work zone. The length of the taper and the channelizer spacing is extremely important. Inadequate tapers result in undesirable traffic movements and increase the potential for accidents.

Policy

Whenever traffic must be moved from the normal path of travel due to the presence of an activity area, a proper transition taper must be installed.

The transition area must be obvious to motorists, and must be delineated with channelizing devices so motorists do not mistakenly follow the wrong path. For long duration projects, existing pavement markings must be removed where they conflict with transition delineation. Additional pavement markings may need to be installed to guide motorists.

Standard

There are four common transition tapers as described below. The included table provides normal taper lengths for the taper types and posted speed limits.

- X **Merging Taper** - Merging tapers, used on multi-lane divided roadways to channel traffic from a closed lane into an adjacent lane, require the greatest length. A merge lane must allow a motorist to locate and move into a gap in the adjacent traffic stream.
- X **Shifting Taper** - When a merge is not required, a shifting taper is used to channel vehicles onto a different travel path. This taper is often used when traffic is routed around a work area by shifting it onto the shoulder or median. Changes in the travel path may also be accomplished with horizontal curves designed for normal highway speeds.
- X **One-Lane Traffic Taper** - A one-lane traffic taper is used in advance of work areas that require a portion of the road be used alternately by traffic in both directions. Traffic is typically controlled by flagpersons and since no merging is taking place, the taper used to direct vehicles onto the one-way road section can be quite short.

RECOMMENDED: _____
Director, Traffic Engineering

APPROVED: _____
Executive Director
Highway Engineering

- X **Downstream Taper** - A downstream taper is placed at the end of the work zone to indicate that vehicles can safely move back onto the lane that was closed. They are placed in the termination area and are the same length as one-lane traffic tapers.

TRANSITION AREA TAPER LENGTHS & CHANNELIZER SPACINGS

Posted Speed (km/h)	MERGING TAPER		SHIFTING TAPER		ONE-LANE TAPER	
	Min. Length (m)	Channelizer Spacing (m)	Min. Length (m)	Channelizer Spacing (m)	Min. Length (m)	Channelizer Spacing (m)
100	250	20	100	10	25	5
90	200	20	100	10	25	5
80	200	20	80	10	25	5
70	150	15	80	10	25	5
60	150	15	50	5	25	5
50	100	10	50	5	25	5