

**Table 6B-1. Recommended Advance
Warning Sign Minimum Spacing**

Road Type	Distance between Signs**		
	A	B	C
Urban (low speed) * 25 mph or less***	100 feet	100 feet	100 feet
Urban – 30 mph***	150 feet	150 feet	150 feet
Urban – 35 mph***	200 feet	200 feet	200 feet
Urban – 40 mph***	250 feet	250 feet	250 feet
Urban – 45 mph***	300 feet	300 feet	300 feet
Urban (high speed) * 50 mph or more***	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,640 feet

* ~~Speed category to be determined by the highway agency or owner of site roadways open to public travel.~~

** The column headings A, B, and C are the dimensions shown in Figures 6P-1 through 6P-54. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The “first sign” is the sign in a three-sign series that is closest to the TTC zone. The “third sign” is the sign that is furthest upstream from the TTC zone.)

*** Posted speed limit, off-peak 85th – percentile speed prior to work starting, or other anticipated operating speed in mph.

Table 6B-2. Stopping Sight Distance as a Function of Speed on Level Roads.
(Used as suggested longitudinal buffer space length or location for flagger station)

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet
60 mph	570 feet
65 mph	645 feet
70 mph	730 feet
75 mph	820 feet

* Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.

**Table 6B-2(CA). Stopping Sight Distance as a Function of Speed on Downgrades.
(Used as suggested longitudinal buffer space length or location for flagger station)**

Speed (mph)	% Downgrade (Buffer Space)		
	- 3% (feet)	- 6% (feet)	- 9% (feet)
20	116	120	126
25	158	165	173
30	205	215	227
35	257	271	287
40	315	333	354
45	378	400	427
50	446	474	507
55	520	553	593
60	598	638	686
65	682	728	785
70	771	825	891
75	866	927	1003

*Exhibit 3-2. A Policy on Geometric Design on Highways and Streets, AASHTO, 2001, p.115

Table 6B-3. Taper Length Criteria for Temporary Traffic Control Zones

Type of Taper	Taper Length
Merging Taper	at least L
Shifting Taper	at least 0.5 L
Shoulder Taper	at least 0.33 L
One-Lane, Two-Way Traffic Taper	50 feet minimum, 100 feet maximum
Downstream Taper	50 feet minimum, 100 feet maximum

Note: Use Table 6B-4 to calculate L

**Table 6B-3(CA). Taper Length Criteria for Temporary Traffic Control Zones
(for 12 feet Offset Width)**

Speed S (mph)	Minimum Taper Length** For Width of Offset 12 feet (W)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)***
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50
60	720	360	240	50
65	780	390	260	50
70	840	420	280	50
75	900	450	300	50

* - Posted speed limit, off-peak 85th -percentile speed prior to work starting, or the anticipated operating speed in mph

** - For other offsets use the following merging taper length formula for L:

For speeds of 40 mph or less, $L = WS^2/60$

For speeds of 45 mph or more, $L = WS$

Where:

L = taper length in feet

W = width of offset in feet

S = posted speed limit, off-peak 85th -percentile speed prior to work starting, or the anticipated operating speed in mph.

***-Maximum downstream taper in length is 100 feet. See Section 6B.08

**Table 6B-4. Formulas for Determining
Taper Length**

Speed (S)	Taper Length (L) in feet
40 mph or less	$L = \frac{WS^2}{60}$
45 mph or more	$L = WS$

Where: L = taper length in feet
W = width of offset in feet
S = posted speed limit, or off-peak 85th-percentile speed
prior to work starting, or the anticipated operating
speed in mph