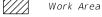
DISTANCE BETWEEN SIGNS					
Speed	Spacing (ft.)				
Speed	Α	В	С		
40 mph or less	200	200	200		
45 mph	350	350	350		
50 mph	500	500	500		
*55 mph or greater	2640	1640	1000		

DOUBLED WHEN WORKERS PRESENT

- \* The ROAD WORK 1 MILE sign may be used as an alternate to the ROAD WORK AHEAD sign and the RIGHT LANE CLOSED 1/2 MILE sign may be used as an alternate to the RIGHT LANE CLOSED AHEAD sign.
- \*\* 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

## SYMBOLS



- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Advance Warning Arrow Board

DESCRIPTION:

## GENERAL NOTES

- 1. Work operations shall be confined to one traffic lane, leaving the adjacent lane open to traffic.
- 2. On undivided highways the median signs as shown are to be omitted.
- 3. When work is performed in the median lane on divided highways, the channelizing device plan is inverted and left lane closed and lane ends signs substituted for the right lane closed and lane end signs.

The same applies to undivided highways with the following exceptions:

- a. Work shall be confined within one median lane.
- b. Additional barricades, cones, or drums shall be placed along the centerline abutting the work area and across the trailing end of the work area.

When work on undivided highways occurs across the centerline so as to encroach on both median lanes, the inverted plan is applied to the approach of both roadways.

- 4. Signs and traffic control devices are to be modified in accordance with INTERMITTENT WORK STOPPAGE details (sheet 2 of 2) when no work is being performed and the highway is open to traffic.
- 5. The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
- 6. When paved shoulders having a width of 8 ft. or more are closed, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the travel way. See Index No. 612 for shoulder taper formulas.
- 7. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
- 8. This TCZ plan does not apply when work is being performed in the middle lane(s) of a six or more lane highway. See Index No. 614.
- 9. For general TCZ requirements and additional information, refer to Index No. 600.

Table I							
Device Spacing							
Max. Distance Between Devices (ft.							
Speed (mph)	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums				
	Taper	Tangent	Taper	Tangent			
25	25	50	25	50			
30 to 45	25	50	30	50			
50 to 70	25	50	50	100			

Table II						
Buffer	Space	and Ta	per Length			
Speed	Buffer Space	Taper Length (12' Lateral Transition)				
(mph)	Dist. (ft.)	L (ft.)	Notes (Merge)			
25	155	125				
30	200	180	$L = \frac{WS^2}{60}$			
35	250	245				
40	305	320				
45	360	540				
50	425	600				
55	495	660	L = WS			
60	570	720				
65	645	780				
70	730	840				

When Buffer Space cannot be attained due to geometric constraints, the greatest attainable length shall be used, but not less than 200 ft.

For lateral transitions other than 12', use formula for L shown in notes column. Where:

- L = Length of taper in feet
- W = Width of lateral transition in feet
- S = Posted speed limit (mph)

## **DURATION NOTES**

- 1. Temporary white edgeline may be omitted for work operations less than 3 consecutive calandar days.
- 2. For work operations up to approximately 15 minutes, signs, channelizing devices, arrow board, and buffer space may be omitted if all of the following conditions
- a. Speed limit is 45 mph or less.
- b. No sight obstructions to vehicles approaching the work area for a distance equal to the buffer space and the taper length combined.
- c. Volume and complexity of the roadway has been considered.
- d. The closed lane is occupied by a class 5 or larger, medium duty truck(s) with a minimum gross weight vehicle rating (GWVR) of 16,001 lb with high-intensity, rotating, flashing, oscillating, or strobe lights mounted above the cab height and operating.
- 3. For work operations up to 60 minutes, arrow board and buffer space may be omitted if conditions a, b, and c in DURATION NOTE 2 are met, and vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

## CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE LANE ADJACENT TO EITHER SHOULDER AND THE AREA 2' OUTSIDE THE EDGE OF TRAVEL WAY.

REVISION 01/01/16



FY 2016-17 DESIGN STANDARDS

