

TABLE 1 CHANNELIZING DEVICE SPACING				
Work Zone Speed (mph)	Maximum Spacing (feet)			
	Cones or Temporary Tubular Markers		Type I Barricades, Type II Barricades, Vertical Panels, or Drums	
	Taper	Tangent	Taper	Tangent
≤ 45	25	50	25	50
≥ 50	25	50	50	100

TABLE 2 TAPER LENGTH "L"	
FORMULAS	
$S \leq 40$	$L = (WS^2)/60$
$S \geq 45$	$L = WS$
Where: L = Taper Length in feet W = Width of Offset in feet S = Work Zone Speed in mph	
NOTE: See Table 9 for example taper length values.	

TABLE 3 WORK ZONE SIGN SPACING "X"	
Road Type	Minimum Spacing (feet)
Arterials and Collectors with Work Zone Speed ≤ 40 mph	200
Arterials and Collectors with Work Zone Speed ≥ 45 mph	500
Limited Access Roadways (See Note)	1,500
NOTE: For limited access roadways with work zone speed ≤ 55 mph, the minimum spacing may be reduced in accordance with the MUTCD and as approved by the Engineer.	

TABLE 4 BUFFER LENGTH "B"	
Work Zone Speed (mph)	Minimum Length (feet)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
NOTE: When Buffer Length "B" cannot be attained due to geometric constraints, use the greatest length possible, but not less than 155 feet.	

TABLE 5 CLEAR ZONE WIDTHS FOR WORK ZONES		
Work Zone Speed (mph)	Travel Lanes & Multilane Ramps (feet)	Auxiliary Lanes & Single Lane Ramps (feet)
60-70	30	18
55	24	14
45-50	18	10
30-40	14	10
ALL SPEEDS CURB & GUTTER	4' BEHIND FACE OF CURB	4' BEHIND FACE OF CURB
NOTE: For temporary conditions where existing curb has been removed but not reconstructed, curb and gutter values may be used.		

TABLE 6 MINIMUM RADII FOR NORMAL CROWN	
Work Zone Posted Speed (mph)	Minimum Radius (feet)
70	4090
65	3130
60	2400
55	1840
50	1390
45	1080
40	820
35	610
30	430
Superelevate When Smaller Radii is Used	

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**TABLE 7
POST AND FOUNDATION TABLE FOR WORK ZONE SIGNS**

SIGN SHAPE	SIGN SIZE (inches)	NUMBER OF STEEL U CHANNEL POSTS	Notes For Table:
Octagon	30x30	1	
Triangle	36x36x36	1	
	48x48x48	1	
	60x60x60	2	
Rectangle (W x H)	24x18	1	
	24x30	1	
	30x24	1	
	36x18	1	
	36x24	1	
	48x18	1	
	48x24	1	
	36x48	2	
	48x30	2	
	48x36	2	
	54x36	2	
	48x60	3	
	72x48	3	
120x60*	4*		
Square	30x30	1	
	36x36	2	
	48x48	2	
Diamond	48x48	2	
Circle	36Ø	2	

Notes For Table:

- Use 3 lb/ft posts for Clear Height up to 10' and 4 lb/ft posts for Clear Height up to 12'.
- * Use 4 lb/ft U-channel sign post with a mounting height of 7' min. and 8' max. Attach sign panel using Z-bracket detail on Sheet 6.
- Minimum foundation depth is 4.0' for 3 lb/ft posts and 4.5' for 4 lb/ft posts.
- For both 3 lb/ft and 4 lb/ft base or sign posts installed in rock, a minimum cumulative depth of 2' of rock layer is required.
- The soil plate as shown on the APL vendor drawing is not required for base posts or sign posts installed in existing rock (as defined in Note 3), asphalt roadway, shoulder pavement or soil under sidewalk.
- For diamond warning signs with supplement plaque (up to 5 ft² in area), use 4 lb/ft posts for up to 10 ft Clear Height (measure to the bottom of diamond warning sign).

**TABLE 8
DROP-OFF PROTECTION REQUIREMENTS**

Condition	X (ft)	D (in.)	Device Required
1	0-12	> 3	Temporary Barrier
2	> 12-CZ	> 3 to ≤ 5	Channelizing Device
3	0-CZ	> 5	Temporary Barrier
4	Removal of Bridge or Retaining Wall Barrier		Temporary Barrier
5	Removal of portions of Bridge Deck		Temporary Barrier

**TABLE 9
EXAMPLE "L" VALUES**

S (mph)	W (feet)											
	5			8			10			12		
	L	L/2	L/3	L	L/2	L/3	L	L/2	L/3	L	L/2	L/3
25	52	26	17	83	42	28	104	52	35	125	63	42
30	75	38	25	120	60	40	150	75	50	180	90	60
35	102	51	34	163	82	54	204	102	68	245	123	82
40	133	67	44	213	107	71	267	133	89	320	160	107
45	225	113	75	360	180	120	450	225	150	540	270	180
50	250	125	83	400	200	133	500	250	167	600	300	200
55	275	138	92	440	220	147	550	275	183	660	330	220
60	300	150	100	480	240	160	600	300	200	720	360	240
65	325	163	108	520	260	173	650	325	217	780	390	260
70	350	175	117	560	280	187	700	350	233	840	420	280

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LAST REVISION
7/12/21

REVISION



FY 2021-22
STANDARD PLANS

QUICK REFERENCE SHEET
102 SERIES TABLES