

APPENDIX 15

VERTICAL CURVES

(Applicable where A is greater than or equal to 1%)

Design Speed (MPH)	Assumed Speed for Condition (MPH)	Stopping Sight Distance (Rounded for Design) (ft)	K Value ^a for Crest Vertical Curves (Rounded)	K Value ^a for Sag Vertical Curves (Rounded)
20	20-20	125-125	10-10	20-20
25	24-25	150-150	20-20	30-30
30	28-30	200-200	30-30	40-40
35	32-35	225-250	40-50	50-50
40	36-40	275-325	60-80	60-70
45	40-45	325-400	80-120	70-90
50	44-50	400-475	110-160	90-110
55	48-55	450-550	150-220	100-130
60	52-60	525-650	190-310	120-160
65	55-65	550-725	230-400	130-180
70	58-70	625-850	290-540	150-220

^aK value is a coefficient by which the algebraic difference in grade may be multiplied to determine the length in feet of the vertical curve, which will provide minimum sight distance. See Chapter III section "Sight Distance".

Where:

$$L = KA$$

L = Minimum Length of Vertical Curve
K = Value from table above
A = Algebraic Difference of grades (expressed as a percent)

Note: Not used when calculated L is less than 50'.