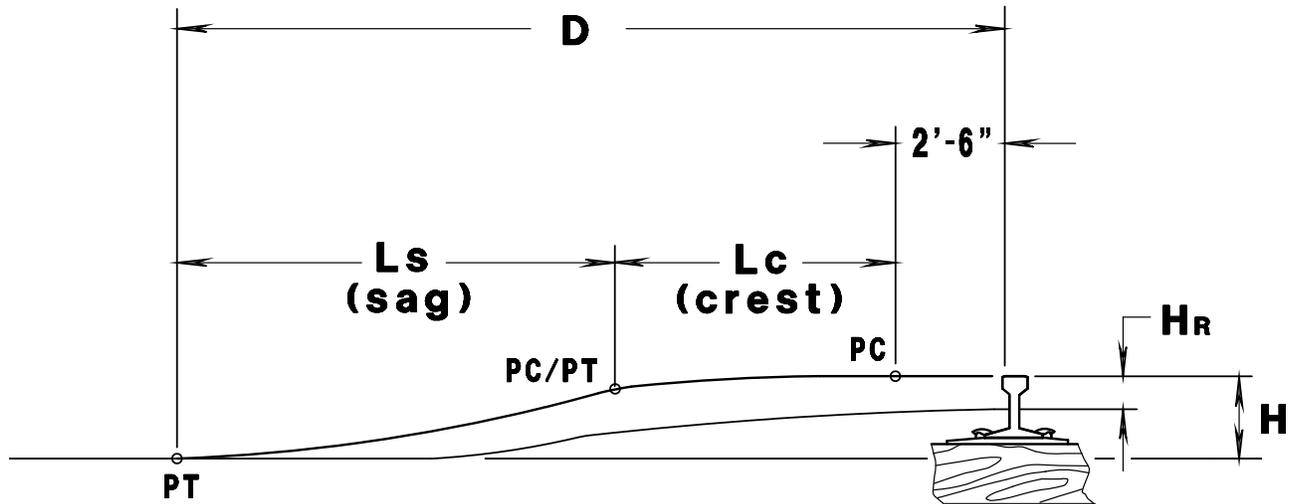


EXAMPLE PROFILES ILLUSTRATING ALLOWABLE GRADE VARIATION OF ROADWAY SURFACE RELATIVE TO NEAREST RAIL AT POINT 30 FEET FROM RAIL

- ① PROVIDE A GREATER K VALUE IF REQUIRED BY THE ROADWAY DESIGN SPEED.
- ② RAILROAD TRACKS TYPICALLY NOT IN THE SAME PLANE AS SUPER ELEVATION OF RAILROAD TRACKS. USE 2'-6" ON INSIDE OF TRACKS BEFORE BREAKING POINT. CONFER WITH CENTRAL OFFICE RAIL AND HARBOR FOR GUIDANCE.
- ③ SKEW WILL RESULT IN GREATER DISTANCE



Runout Distance D on Approach to Track assuming contiguous reverse vertical curves

Kc= 15.13 H is the Height of track raise. It is the vertical distance (in inches) between the original roadway elevation and the top of rail after the track raise.

V (posted)	Ks	H	1	2	3	4	5	6	7	8	9	10	11	12
30 mph	19.4	Ls	13	19	23	27	30	33	36	38	40	43	45	47
		Lc	11	15	18	21	24	26	28	30	32	33	35	36
		D	26.5	36.5	43.5	50.5	56.5	61.5	66.5	70.5	74.5	78.5	82.5	85.5
40 mph	34.4	Ls	20	28	35	40	45	49	53	56	60	63	66	69
		Lc	9	12	15	18	20	21	23	25	26	28	29	30
		D	31.5	42.5	52.5	60.5	67.5	72.5	78.5	83.5	88.5	93.5	97.5	101.5
50 mph	53.8	Ls	26	37	46	53	59	65	70	75	79	84	88	92
		Lc	7	11	13	15	17	18	20	21	22	24	25	26
		D	35.5	50.5	61.5	70.5	78.5	85.5	92.5	98.5	103.5	110.5	115.5	120.5
60 mph	77.4	Ls	33	46	57	66	73	80	87	93	99	104	109	114
		Lc	6	9	11	13	14	16	17	18	19	20	21	22
		D	41.5	57.5	70.5	81.5	89.5	98.5	106.5	113.5	120.5	126.5	132.5	138.5

Ls = Length of sag vertical curve

Lc = Length of crest vertical curve

D = Runout Distance on Approach to Track Raise (in Feet)

HR = Confer with Regional Railroad Coordinator for Typical Track Raise.