

NMRA RECOMMENDED PRACTICES RP-13.6 Guard Rails

Guard Rails are shown in two lengths. the shorter is suitable for Turnouts with Frogs numbered from #4 thru #7, while the longer is required for Turnouts with Frogs numbered from #8 thru #10. Flare and Bevel lengths are common to both sizes.

To reduce confusion, the sketch shows only the railhead.



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Note **

SCALE:	#4, #5, #6, #7 Frogs		(See RP-13.8)		#8, #9, #10 Frogs		
	Overall Length [33]	Parallel Length [34]	Bevel Length [31]	Flare Length [32]	Overall Length [33]	Parallel Length [34]	
0	2 1/16"	7/8"	9/32"	19/32"	2 5/16	1 1/8"	
S	l 9/16"	11/16"	13/64"	7/16"	1 11/16"	13/16"	
On3/00	1 5/16"	9/16"	11/64"	3/8"	1 1/2"	3/4"	
HO Sn3	1 3/16" 1 3/16"	1/2" 1/2"	5/32" 5/32"	11/32" 11/32"	1 3/8" 1 3/8"	11/16" 11/16"	
TT HOn3	7/8" 7/8"	3/8" 3/8"	7/64" 7/64"	1/4" 1/4"	1" 1"	1/2" 1/2"	
N	11/16"	5/16"	5/64"	3/16"	13/16"	7/16"	

If necessary to reduce rail section base to achieve desired flangeway, always file the Guard Rail base - do not disturb stock rail.

To avoid damage on account of dragging equipment, the overall length [33] may be increased by 7 scale inches to allow a $3 \frac{1}{2}$ scale inch by 45 degree chamfer at each end.

Most wheelsets, when riding the Gage line of the frog rail, will contact the Parallel Portion of the Guard Rail. Consequently it is necessary to provide a flare (see **RP-13.8**) with enough 'gather' to lead the interfering wheel safely and smoothly past the Guard Rail and the Frog Point it guards.

While the critical dimension governing the positioning of the Guard Rail is Check Gage (C in S-3), and it should be laid to this dimension from the Frog-Rail, its flangeway as a minimum may be determined by (G - C). In general, it is good practice to use flangeway width as close as practicable to this minimum within the limits of Track Gage (G in S-3) and Check Gage as well as Span (C & S in S-3).

As the name implies, the Parallel Portion [34] of the Guard Rail should lie parallel to its stock rail. Its longitudinal position should be as shown in **RP-13.5**.

** Note:

Circled numbers on the drawing are represented by numbers in brackets in the text. [31] represents the number 31 in a circle