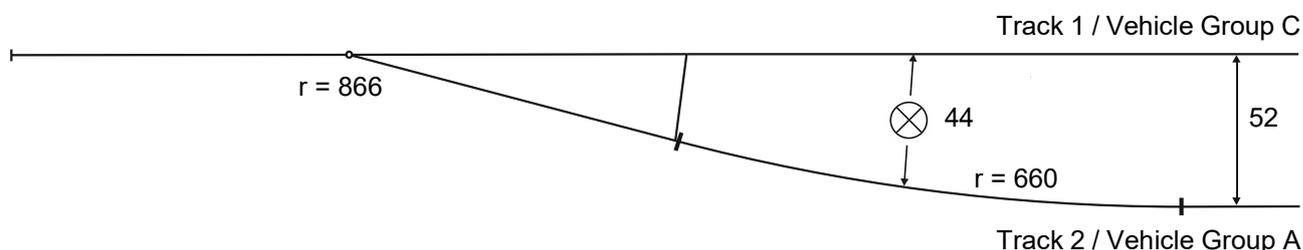


1. Purpose

For a better understanding of NEM 119, the application with regard to the various influences from sheet extensions to be taken into account is shown in this supplement with selected typical case examples, here for the scale H0.

2. Calculation examples

2.1 General simple case with a 15° standard turnout



Traveled track 1: no extension, because no curve

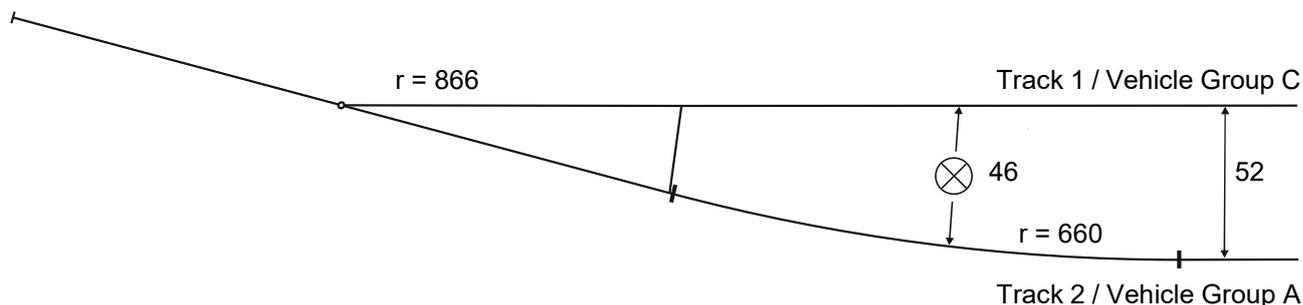
Stand track 2: no extension, because no outer curve to track 1

Stand track 1: no extension because no curve

Traveled track 2: $E_{660A} = 3.4 =$ decisive, because $> E_{866A} = 2.4$

Decisive track spacing at boundary sign $a = BL_3 + z + E = 40^{(1)} + 0.5 + 3.4 = 43.9 \approx 44 \text{ mm}$

2.2 Simple case with reversed turnout branch direction with a 15° turnout



Traveled track 1: $E_{866C} = 5.4$

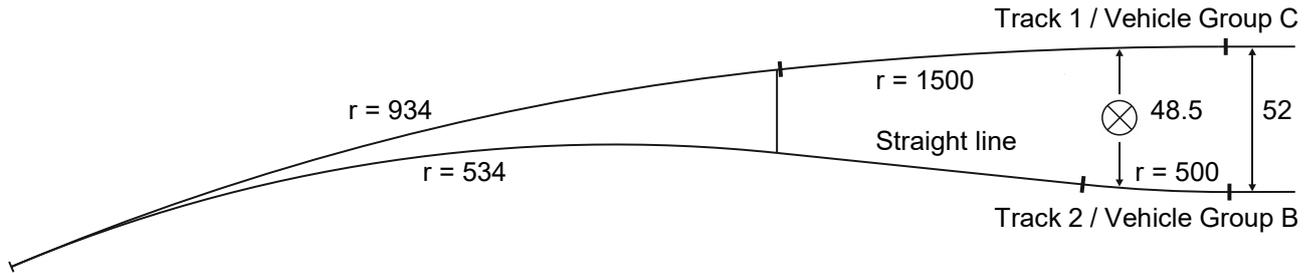
Stand track 2: no extension, because no outer curve to track 1

Stand track 1: no extension because no curve

Traveled track 2: $E_{660A} = 3.4$

Decisive track spacing at boundary sign $a = BL_3 + z + E = 40^{(1)} + 0.5 + 5.4 = 45.9 \approx 46 \text{ mm}$

2.3 Situation at an inside curved turnout 12°

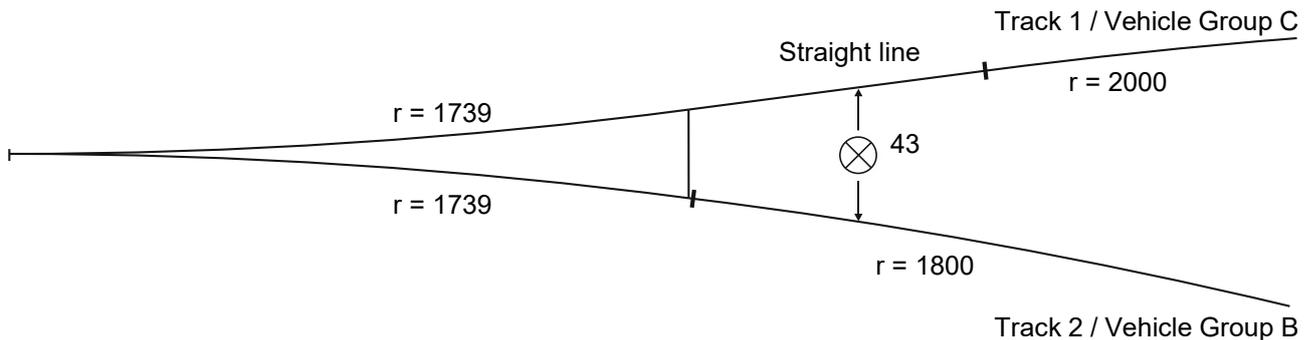


Traveled track 1: $E_{934C} = 4.7 = \text{decisive because } > E_{1500C} = 2$
 Stand track 2: no extension because no outer curve to track 1

Stand track 1: no extension because no outer curve to track 2
 Traveled track 2: $E_{500B} = 8 = \text{decisive because } > E_{534B} = 7.4$

Decisive track spacing at boundary sign $a = BL_3 + z + E = 40^{1)} + 0.5 + 8 = 48.5 \text{ mm}$

2.4 Situation at an outside curved turnout 15°



Traveled track 1: $E_{1739C} = 1.3 = \text{decisive because } > E_{2000C} = 1$
 Stand track 2: $E_{1800B} = 1$, because outer curve to track 1
 Total E for traveled track + stand track = **2.3**

Stand track 1: no extension because no outer curve to track 2
 Traveled track 2: $E_{1739B} = E_{1800B} = 1$

Decisive track spacing at boundary sign $a = BL_3 + z + E = 40^{1)} + 0.5 + 2.3 = 42.8 \approx 43 \text{ mm}$

¹⁾ BL_3 is to be used for the vehicles according to the definition in NEM 102.