Haul Road Running Width for the Number of Lanes

Running width of a haul road from the widest truck and the number of lanes, with an allowance for sharp curves and berm width.

Input parameters

Unit system: SI

Parameter	Value	Unit
Width of the widest vehicle	8.5000	m
Number of lanes	2.0000	
Curve widening factor (1 on straights)	1.0000	
Width of safety berms and ditch (total)	10.000	m

Calculated results

Parameter	Value	Unit
Running width on straights	29.750	m
Running width with curve widening	29.750	m
Total formation width	39.750	m
Width factor	3.5000	

Notes for this case

- Half a truck width of clearance on each side and between lanes. On sharp curves Atkinson's guide adds 25 % (rigid trucks) to 55 % (articulated) at 6 m inside radius, falling to 10-15 % at 60 m. Berm height should equal the axle height of the largest vehicle.

Formula and method

$$W = (1.5L + 0.5)X$$

Variables

X	Width of the widest vehicle	m
L	Number of lanes	-
k_c	Curve widening factor (1 on straights)	-
b	Width of safety berms and ditch (total)	m
W	Running width on straights	m
W_c	Running width with curve widening	m
W_t	Total formation width	m
W/X	Width factor	-

Method and standards

Tannant and Regensburg haul road width.

Assumptions and limits

- Guidelines; very large trucks may need more clearance on the operator's blind side.

Report details

Report reference	FCC-3G6K-FN4G (the same inputs always give the same reference)
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Release checks	3 reference cases of this calculator, computed independently, are checked on every release

Results are for engineering estimation. Verify critical designs against the referenced standards and your own data.

This calculator online

https://calc.firecad.com/civil/mine-design/haul-road-width-lanes

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.