Road Camber (Cross Fall): Crown Height and Slope

Height of the crown above the edges of a cambered road from the carriageway width and cross fall, with the camber as 1 in n and the drop at a distance from crown.

Method: Straight (two-plane) camber geometry

Input parameters

Unit system: SI

Parameter	Value	Unit
Carriageway width	7.0000	m
Cross fall From your road standard for the surface type and rainfall.	2.5000	%
Distance from the crown (for the drop)	2.0000	m

Calculated results

Parameter	Value	Unit
Crown height above the edge c W/2	87.500	mm
Camber as 1 in n	40.000	
Drop at the distance x	50.000	mm

Formula and method

$$h = c\,\frac{W}{2}, \quad n = \frac{1}{c}$$

Variables

W	Carriageway width	m
c	Cross fall	-
x	Distance from the crown (for the drop)	m
h	Crown height above the edge c W/2	m
n	Camber as 1 in n	-
Δh_x	Drop at the distance x	m

Method and standards

Straight-line camber.

Assumptions and limits

- Two-plane camber.

References

- Straight (two-plane) camber geometry

Report details

Report reference	FCC-MA1D-SKAY (the same inputs always give the same reference)
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Calculator	Road Camber (Cross Fall): Crown Height and Slope
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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/roads/road-camber

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.