

Setting Out a Curve

Civil Engineering

A circular curve, pegged on the ground.

Tangent points first, then pegs at a chosen chord interval.

1

Fix the intersection point

Where the two straights would meet, and the deflection angle.

2

Choose the radius

From the geometric standard for the class and speed of road.

3

Compute tangent length

$T = R \tan(\Delta/2)$, measured back along each straight.

4

Mark the tangent points

Where the curve leaves one straight and rejoins the other.

5

Compute the chords

Chord length and deflection angle for each peg interval.

6

Set out and check

Peg by deflection angle, then verify each peg by coordinates.

Educational reference. Transition curves and superelevation development follow the road authority's geometric standard.