

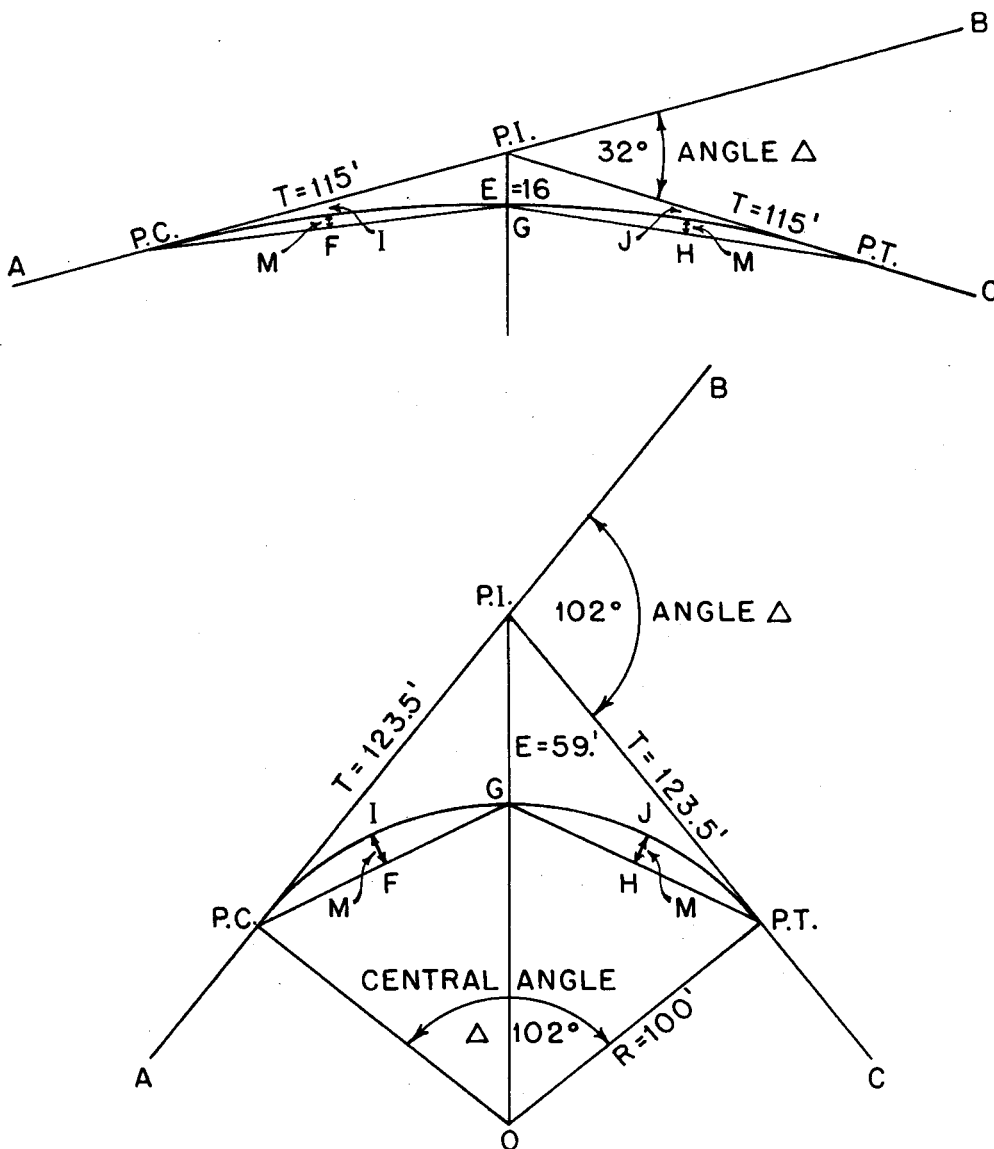


FIG. 304. DIAGRAM FOR STAKING CURVES
BY METHOD OF EXTERNALS

Method of Staking. (See 303 E b, Methods of externals, page 321.)

Produce tangents to P.I.

Measure angle and decide on radius of curve.

Find tangent distance from fig. 302, page 318.

Find length of external from fig. 301, page 317.

From PI measure along each tangent the tangent distance setting points PC and PT.

From PI, lay off external distance E midway between the two tangents, setting point G.

This gives three points on the curve; A, G, and C. If additional points are required, measure the chord length from PC to G and find from fig. 303, page 319, the middle ordinate for that chord length and radius.

From midpoint of chord and at right angles to it lay off middle ordinate M which gives points I and J on curve. This gives five points on curve.

If further points are necessary, chord length from PC to I, I to G, G to J, and J to PT can be measured and M for each chord found from fig. 303.

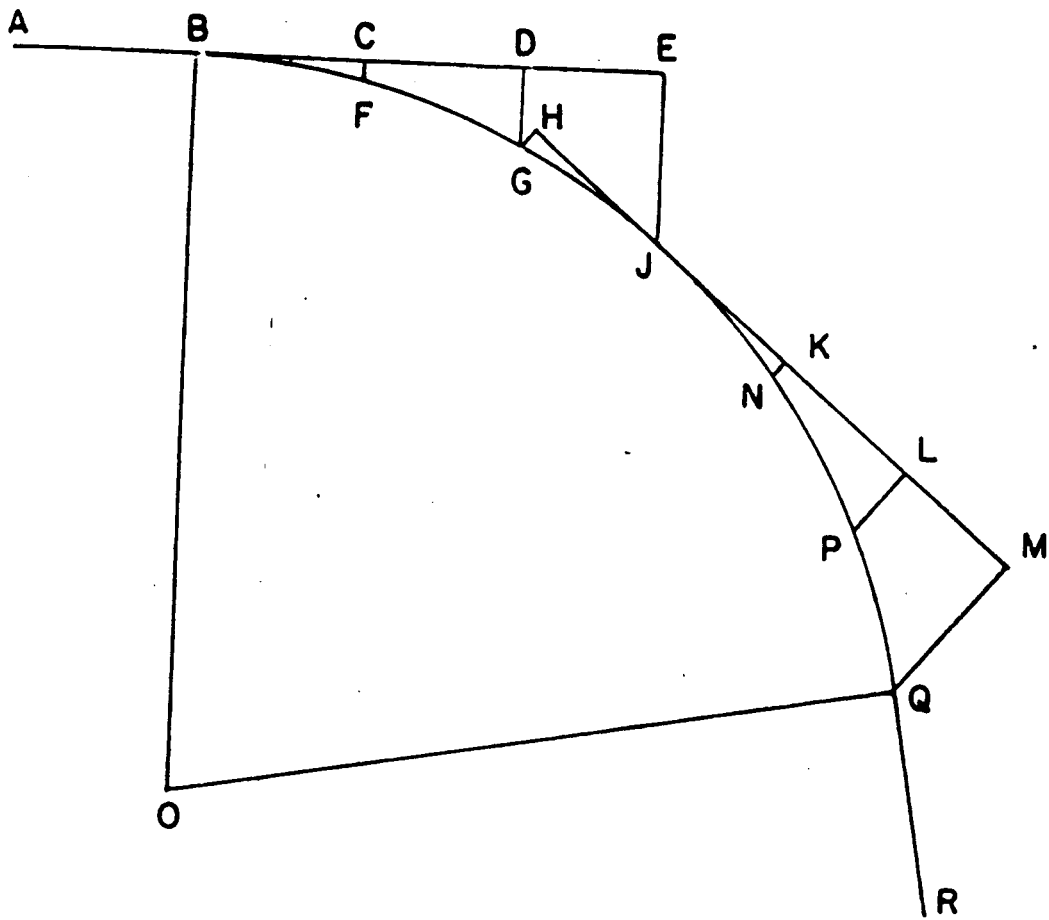
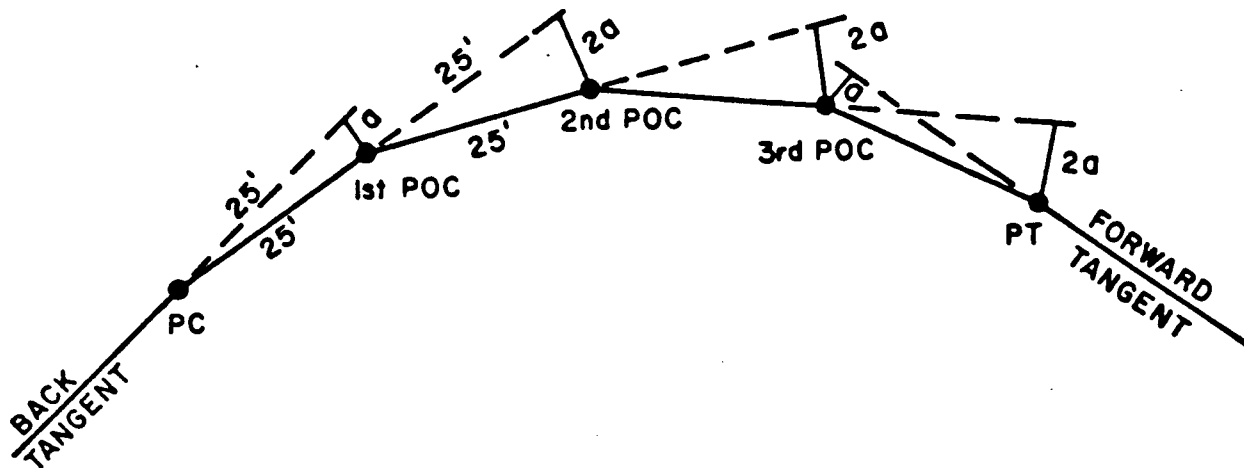


FIG. 306. TANGENT OFFSET DIAGRAM

324

$$2FFSET = R - (R^2 - x^2)^{1/2}$$

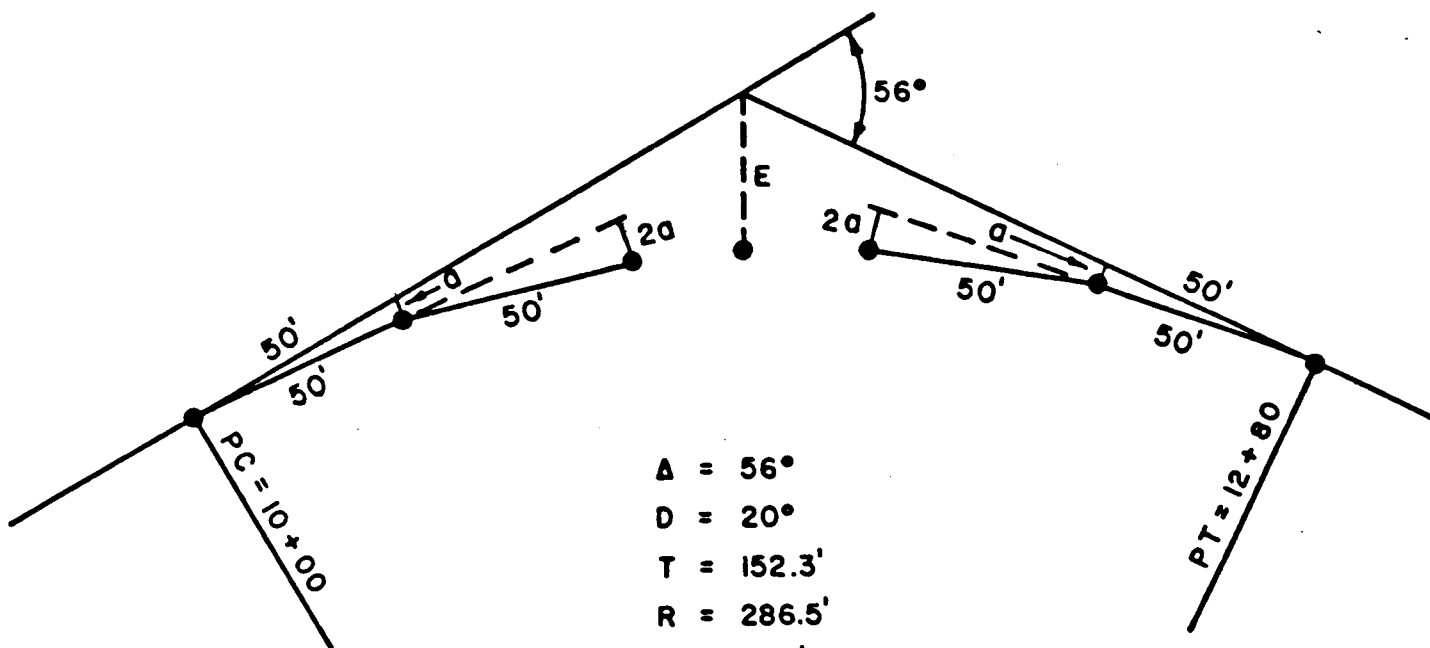


WHERE:

TO TEST FIT,

1. PC IS CHOSEN OR APPROXIMATED.
2. R IS A CHOSEN RADIUS, EXAMPLE 200'.
3. CHORD (C) IS CHOSEN (USUALLY 25').
4. a = CHORD OFFSET WHERE:

$$a = \frac{C^2}{2R}$$



$$A = 56^\circ$$

$$D = 20^\circ$$

$$T = 152.3'$$

$$R = 286.5'$$

$$L = 280'$$

$$E = 38'$$

$$a = \frac{C^2}{2R}$$

WHERE $C = 50'$

$$a = \frac{50 \times 50}{2 \times 286.5} = 4.4'$$

