

# BYDGO offset to (-19, 0)

$$Z_1 = 19 \text{ mm} \times \sin(17.5^\circ) = 63.1847 \text{ mm}$$

$$BL_1 = 19 \text{ mm} / \tan(17.5^\circ) = 60.2603 \text{ mm}$$

$$BL_2 = 19 \text{ mm} \times \tan(10^\circ) = 3.3502 \text{ mm}$$

$$BL_{1+2} = 60.2603 + 3.3502 = 63.6105$$

$$BL_A = 240.3856 \text{ mm}$$

$$BL_3 = BL_A - BL_{1+2} = 240.3856 - 63.6105 = 176.7751 \text{ mm}$$

$$X_1 = BL_3 \times \tan(17.5^\circ) = 55.737 \text{ mm}$$

$$Z_2 = (BL_4 + BL_3) \times \cos(17.5^\circ) = (5.9907 + 176.7751) / \cos(17.5^\circ) = 191.6353$$

$$Z_{\text{off}} = Z_1 + Z_2 = 63.1847 + 191.6353 = 254.8200 \text{ mm}$$

$$X_{\text{off}} = (X_1 - 19) \times \cos(17.5^\circ) = 37.616 \text{ mm}$$

$X_{\text{off}}$  and  $Z_{\text{off}}$  are to get from  $17.5^\circ$  setup at pole edge to point a (-19, 0), per the drawing

$$BL_4 = 19 \times \tan(17.5^\circ) = 5.9907 \text{ mm}$$

