



$$\sum M_D^R = +(F_{E_x} * 29.0000") + F_{E_y} * 1.00000 - (F_{D_F} * 11.0489") + (F_{h_j} * 20.8304") = 0$$

$$M_D^R = +(3061.24 * 29.0000") + 9.14992 * 1.00000 - (3943.00 * 11.0486") + (F_{h_j} * 20.8304") = 0$$

$$2170.89 = F_{h_j}$$

$$\sum \vec{F}_x = +F_{E_x} - F_{D_F} \cos 7.4168^\circ + h_j \cos 29.6870^\circ - F_{g_x} = 0$$

$$+3061.24 - 3943.00 \cos 7.4168^\circ - 2170.89 \cos 29.6870^\circ + F_{g_x} = 0$$

$$2734.71 = F_{g_x}$$

$$\sum \vec{F}_y = +F_{E_y} - F_{D_F} \sin 7.4168^\circ + h_j \sin 29.6870^\circ - F_{g_y} = 0$$

$$+9.14992 - 3943.00 \sin 7.4168^\circ + 2170.89 \sin 29.6870^\circ - F_{g_y} = 0$$

$$575.321\# = F_{g_y}$$