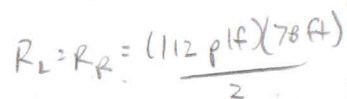


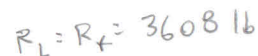
TRANSFER AREA $P_L = P_R = 48 \text{ lb}$
 $V_L = V_R = 8 \text{ pft}$

$$V_L = V_R = 8 \text{ pV}$$
$$\omega = 200 \text{ rad/s}$$


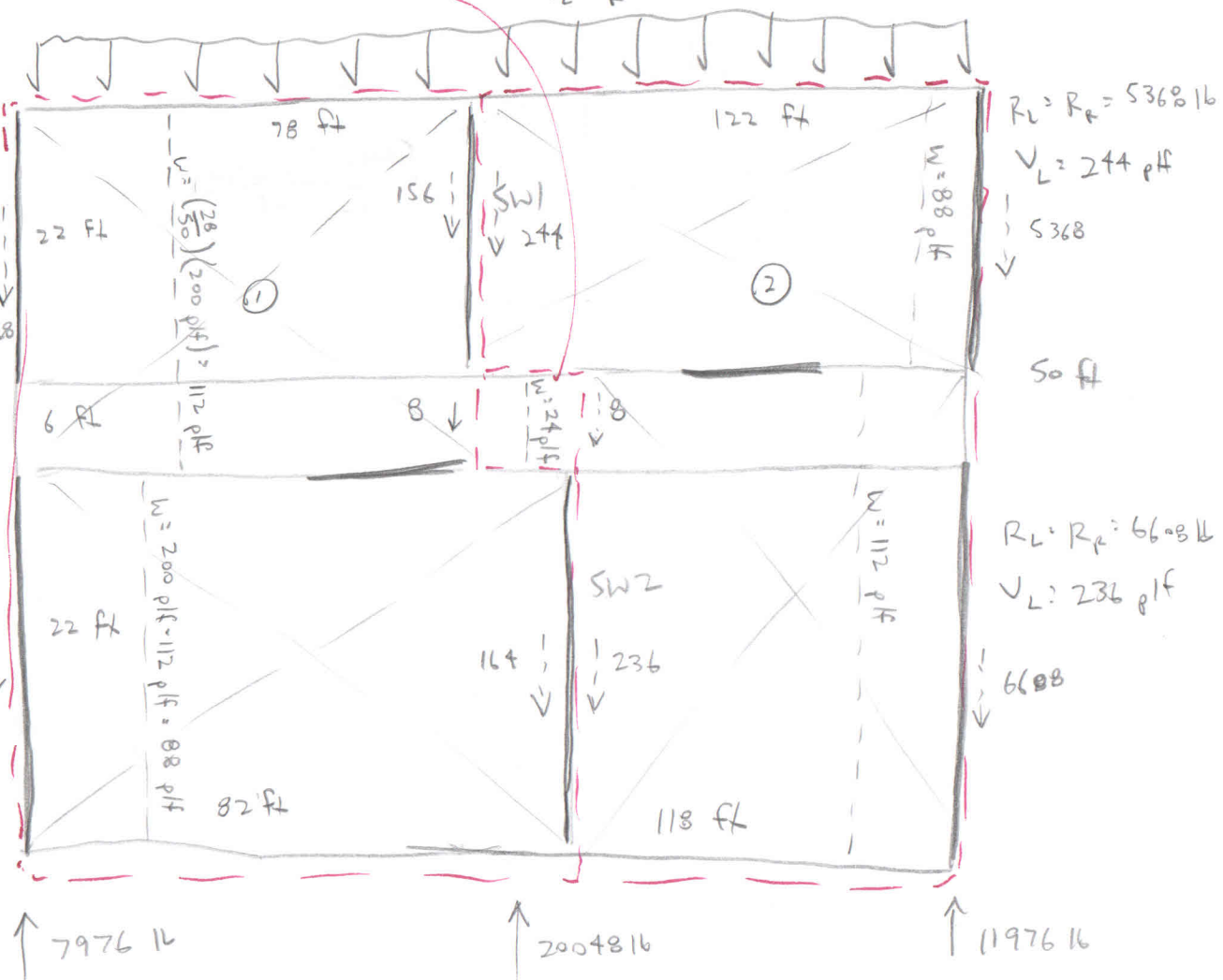
$$R_L: R_F = 1368 \text{ lb}$$

$$V_R = 436 \text{ g/l} / 2.8 \text{ R}$$

$$v_R = 156 \text{ p/f}$$



$$V_R = 164 \text{ pH}$$



$7976 + 20048 + 11976 = 40000 \text{ lb}$
 $(200 \text{ plf})(200 \text{ ft}) = 40000 \text{ lb}$

> THESE SHOULD BE
 EQUAL

LOAD TO GRID LINES 2 & 3

$$V = 20048 \text{ lb}$$

$$V = \frac{20048 \text{ lb}}{22 \text{ ft} + 22 \text{ ft}} = 455.64 \text{ p/f} \quad (A)$$

$$V_{\text{net SW1}} = 455.64 \text{ p/f} - 156 - 244 = 55.64 \text{ p/f}$$

$$V_{\text{net SW2}} = 455.64 \text{ p/f} - 164 - 236 = 55.64 \text{ p/f}$$

THESE SHOULD BE EQUAL

SW1

$$F_{2AB} = (55.64 \text{ p/f})(22 \text{ ft}) = 1224 \text{ lb}$$

$$F_{2BC} = (156 \text{ p/f} + 8 \text{ p/f})(6 \text{ ft}) = 984 \text{ lb}$$

$$F_{2C} = 1224 \text{ lb} - 984 \text{ lb} = 240 \text{ lb}$$

SW2

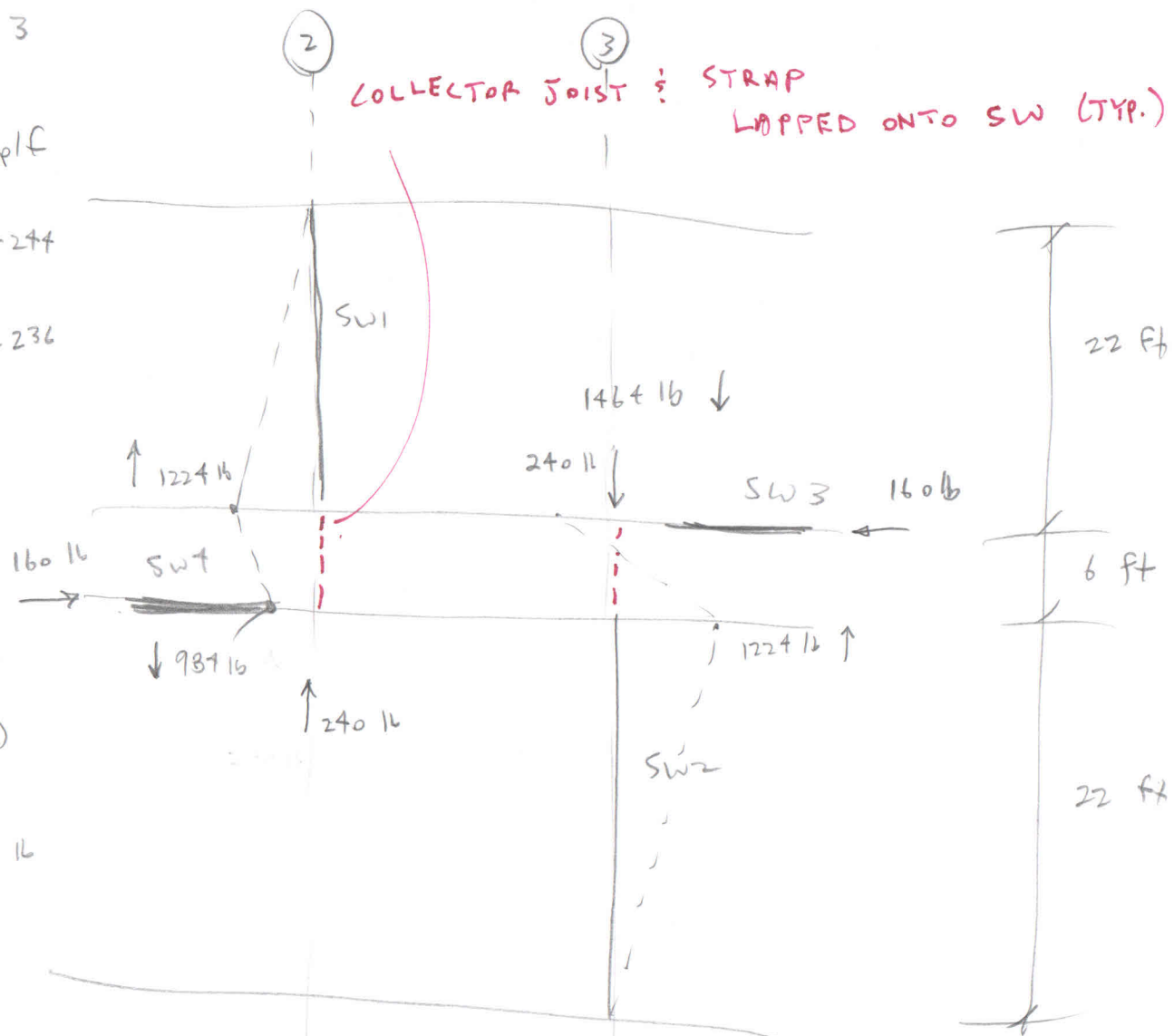
$$F_{3CD} = (55.64 \text{ p/f})(22 \text{ ft}) = 1224 \text{ lb}$$

$$F_{3CB} = (236 \text{ p/f} + 8 \text{ p/f})(6 \text{ ft}) = 1464 \text{ lb}$$

$$F_{3B} = 1224 - 1464 = -240 \text{ lb}$$

SHOULD BE EQUAL & OPPOSITE (OK)

COLLECTOR JOIST & STRAP
LAPPED ONTO SW (TYP.)



FORCE COUPLE:

$$(240 \text{ lb})(4 \text{ ft}) = 960 \text{ lb-ft}$$

RESULTING FORCE TO SW3 & SW1

$$\frac{960 \text{ lb-ft}}{6 \text{ ft}} = 160 \text{ lb}$$