WEIGHT = 700 LBS
HORIZONTAL FORCE (E_h) = 0.90W_f = 630 LBS
VERTICAL FORCE (E_v) = 0.40W_f = 280 LBS

BOLT FORCES:

TENSION (T)

\[ T_{\text{MAX}} = \left[ \frac{630\#(28.5\text{''}(15\text{)})}{38.6\text{''}(31\text{)})} \times (0.3) \right] + \frac{630\#(28.3\text{'}(23.2\text{'})}{31\text{'}(38.6\text{'})} - \frac{(700\#(0.9) - 280\#(15\text{'})(23.2\text{'}}}{31\text{'}(38.6\text{'})} = 311 \text{ LBS/BOLT (MAX)} \]

SHEAR (V)

\[ V_{\text{MAX}} = \frac{630\#(23.2\text{'})}{2 \text{BOLTS}(38.6\text{'})} = 189 \text{ LBS/BOLT (MAX)} \]

NOTE:
ENGINEER OF RECORD SHALL PROVIDE WALL STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN.
SEISMIC ANCHORAGE

ELEVATED FLOOR

C.G. WT. = 100 LBS

L 3 X 3 X 1/4" X 3"
W/2 - 1/4" φ TEK SCREWS TO UNIT FRAME (4 PLACES)

USE 4 - 3/8" φ (A36) THREADED RODS THRU FLOOR (HOLES TO BE 1/6" LARGER THAN BOLT DIAMETER MAX)

STRUT OR OTHER SUPPORTING MEMBER (BY ENGINEER OF RECORD)

FRONT ELEVATION

T_{max} = 558 LBS/BOLT
V_{max} = 303 LBS/BOLT

SIDE ELEVATION

WEIGHT = 700 LBS
HORIZONTAL FORCE (E_{H}) = 144W = 1008 LBS
VERTICAL FORCE (E_{V}) = 0.40W = 280 LBS

BOLT FORCES:

TENSION (T)

\[ T_{\text{MAXIMUM}} = \left( \frac{1008 \times (28.3\times15^\circ)}{38.6\times31^\circ} \times 0.3 \right) + \left( \frac{1008 \times (28.3\times23.2^\circ)}{31\times38.6} \right) - \left( \frac{(700 \times 0.9) - 280 \times (15\times23.2^\circ)}{31\times38.6} \right) = 558 \text{ LBS/BOLT (MAX)} \]

SHEAR (V)

\[ V_{\text{MAXIMUM}} = \frac{1008 \times (23.2^\circ)}{2 \times 38.6^\circ} = 303 \text{ LBS/BOLT (MAX)} \]

NOTE:

ENGINEER OF RECORD SHALL PROVIDE WALL STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN.