LOAIDS: PER 2001 CALIFORNIA BUILDING CODE - SECTION 1632A (WORKING LOADS, NOT ULTIMATE)
WEIGHT = 185 LBS
HORIZONTAL FORCE \( V_H \) = 0.94W = 174 LBS
VERTICAL FORCE \( V_V \) = 0.33\( V_H \) = 58 LBS

BOLT FORCES:
TENSION (T)
\[
T_{\text{SIDE to SIDE}} = \frac{174 \#(15.0") - (185 \# - 58\#)5.2"}{2 \text{bolts}(14.4")} = 68 \text{ LBS/BOLT}
\]
\[
T_{\text{FRONT to BACK}} = \frac{174 \#(15.0") - (185 \# - 58\#)1.0"}{2 \text{bolts}(15.4")} = 54 \text{ LBS/BOLT}
\]
\[
T = 68\# + 54\# (0.3) = 84 \text{ LBS/BOLT (MAX)}
\]

SHEAR (V)
\[
V = \frac{174 \#(9.2")}{14.4(2)} = 56 \text{ LBS/BOLT (MAX)}
\]

NOTE:
COUNTERTOP STRUCTURE SHALL BE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN BY OTHERS.