

FOLLETT CORPORATION

MEDICAL GRADE REFRIGERATOR REF 1

DES. **J. ROBERSON**

JOB NO. **11-1420**

DATE **4/23/14**

SHEET

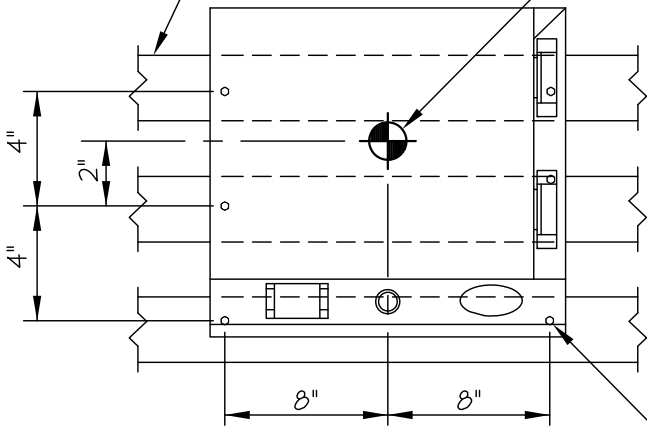
1

OF **1** SHEETS

SEISMIC ANCHORAGE

WALL MOUNTED

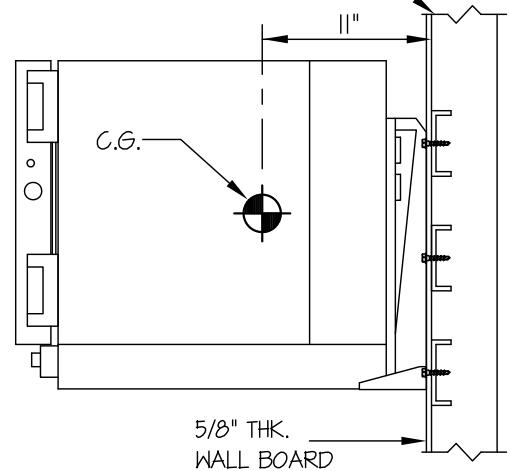
WHERE STUDS DO NOT
LINE UP WITH SCREWS
PROVIDE WALL BACKING
16 GA., 50 KSI MIN. (BY S.E.O.R.)
C.G. WT. = 89 LB.



FRONT ELEVATION

USE (6) #12 TEKS SCREWS
TO BACKING PLATE

STRUCTURAL ENGINEER OF RECORD
SHALL DESIGN THE BACKING
PLATE (16 GA., 50 KSI MIN.)
AND THE WALL STRUCTURE



SIDE ELEVATION

LOADS: PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10.

(STRENGTH DESIGN IS USED) ($S_{ds} = 2.5$, $a_p = 10$, $I_p = 15$, $R_p = 2.5$, $z/h \leq 1$)

WEIGHT = 89 LB

HORIZONTAL FORCE (E_h) = 1.80 $W_p = 160$ LB

VERTICAL FORCE (E_v) = 0.50 $W_p = 45$ LB

SCREW FORCES:

$T_u = 172$ LB/SCREW (MAX)

$V_u = 48$ LB/SCREW (MAX)

#12 TEK SCREWS 16 GAGE, 50 KSI

$\phi T = 328$ LB/SCREW (TENSION)

$\phi V = 288$ LB/SCREW (SHEAR)

TENSION (T)

$$T_{u \text{ VERTICAL}} = \frac{(1.2(89\#) + 45\#)11''}{2 \text{ SCREWS } (8'')} = 105 \text{ LB/SCREW}$$

$$T_{u \text{ PARALLEL}} = \frac{160\#(11'')} {2 \text{ SCREWS } (16'')} = 55 \text{ LB/SCREW}$$

$$T_{u \text{ PERP.}} = \frac{160\#}{4 \text{ SCREWS}} = 40 \text{ LB/SCREW}$$

$$T_{u \text{ MAX}} = 105\# + (40\#)(0.3) + 55\# = 172 \text{ LB/SCREW (MAX)}$$

SHEAR (V)

$$V_{u \text{ MAX}} = \sqrt{\left(\frac{1.2(89\#) + 45\#}{6 \text{ SCREWS}}\right)^2 + \left(\frac{160\#}{4 \text{ SCREWS}}\right)^2} = 48 \text{ LB/SCREW (MAX)}$$

NOTE:

STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE RIGID ($a_p = 10$) SUPPORT STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.

