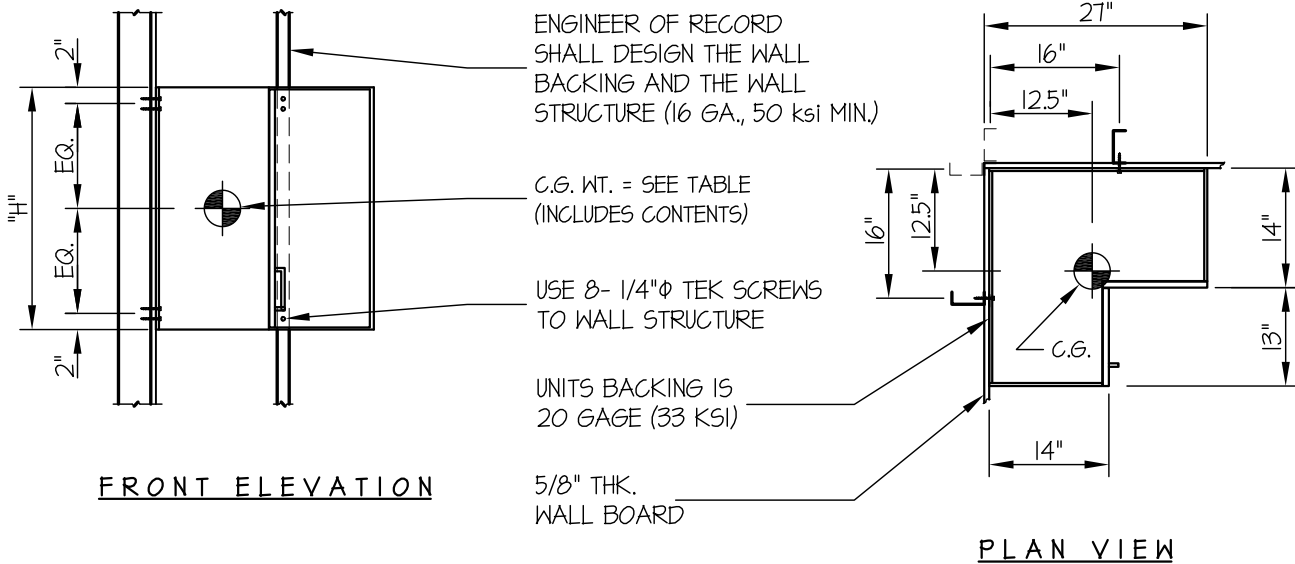


EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING www.equipmentanchorage.com	DES. R. LA BRIE	SHEET 1
	EASE JOB NO. 11-0927	2
	DATE 3/25/10	OF 2 SHEETS
MIDMARK CORPORATION		
CORNER WALL CABINETS		

SEISMIC ANCHORAGE

WALL MOUNTED



NOTES:

1. FORCES ARE DETERMINED PER 2007 CALIFORNIA BUILDING CODE SECTION 1613A AND ASCE 7-05 SECTIONS 12 AND 13. ALLOWABLE STRESS DESIGN IS USED.

HORIZONTAL FORCE (E_h) = $0.97 W_p$ ($S_{Ds} = 1.93$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 2.5$)

VERTICAL FORCE (E_v) = $0.27 W_p$

2. CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS CALCULATION ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.

3. ARCHITECT OR STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE RIGID ($a_p = 1.0$) SUPPORT STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.



MIDMARK CORPORATION

CORNER WALL CABINETS

DES. **R. LA BRIE**

EASE JOB NO. **11-0927**

DATE **3/25/10**

SHEET

2

OF **2** SHEETS

SEISMIC ANCHORAGE

WALL MOUNTED

UNIT NAME	MAX WEIGHT (LBS)	W (in.)	H (in.)	D (in.)	T _{MAX} (LBS/BOLT)	V _{MAX} (LBS/BOLT)
* OC047L	408	27	36	14	101	120
OC032L	323	27	30	14	88	102
OC003L	229	27	18	14	93	100

* THIS UNIT IS USED IN THE CALCULATION

LOADS:

WEIGHT = 408 LBS

HORIZONTAL FORCE (E_h) = 0.97 W_p = 396 LBS

VERTICAL FORCE (E_v) = 0.27 W_p = 110 LBS

1/4"Ø TEK SCREWS

IN 16 GA., 50 KSI STEEL

T_{ALLOW.} = 261 LBS

V_{ALLOW.} = 226 LBS

SCREW FORCES:

TENSION (T)

$$T_{\text{VERTICAL}} = \frac{\frac{1}{2}[(408\# + 110\#)12.5"]}{2 \text{ SCREWS (32")}} = 51 \text{ LBS/SCREW}$$

$$T_{\text{PERP.}} = \frac{\frac{1}{2}(396\#)}{4 \text{ SCREWS}} = 50 \text{ LBS/SCREW}$$

$$T_{\text{MAX}} = 51\# + 50\# = 101 \text{ LBS/SCREW (MAX)}$$

SHEAR (V)

$$V_{\text{VERTICAL}_1} = \frac{\frac{1}{2}[(408\# + 110\#)12.5"]}{2 \text{ SCREWS (32")}} = 51 \text{ LBS/SCREW} \rightarrow$$

$$V_{\text{VERTICAL}_2} = \frac{408\# + 110\#}{8 \text{ SCREWS}} = 65 \text{ LBS/SCREW} \downarrow$$

$$V_{\text{PARALLEL}} = \frac{\frac{1}{2}(396\#)}{4 \text{ SCREWS}} = 50 \text{ LBS/SCREW} \rightarrow$$

$$V_{\text{MAX}} = \sqrt{(51\# + 50\#)^2 + (65\#)^2} = 120 \text{ LBS/SCREW (MAX)}$$

UNITY CHECK:

$$\left(\frac{T_{\text{ACTUAL}}}{T_{\text{ALLOW.}}}\right) + \left(\frac{V_{\text{ACTUAL}}}{V_{\text{ALLOW.}}}\right) \leq 1.0 \quad \left(\frac{101}{261}\right) + \left(\frac{120}{226}\right) = .92 \leq 1.0 \therefore \text{O.K.}$$