

MIDMARK

DRESSING/SCOPE NOOK

DES. **R. LA BRIE**

JOB NO. **11-0989**

DATE **8/28/09**

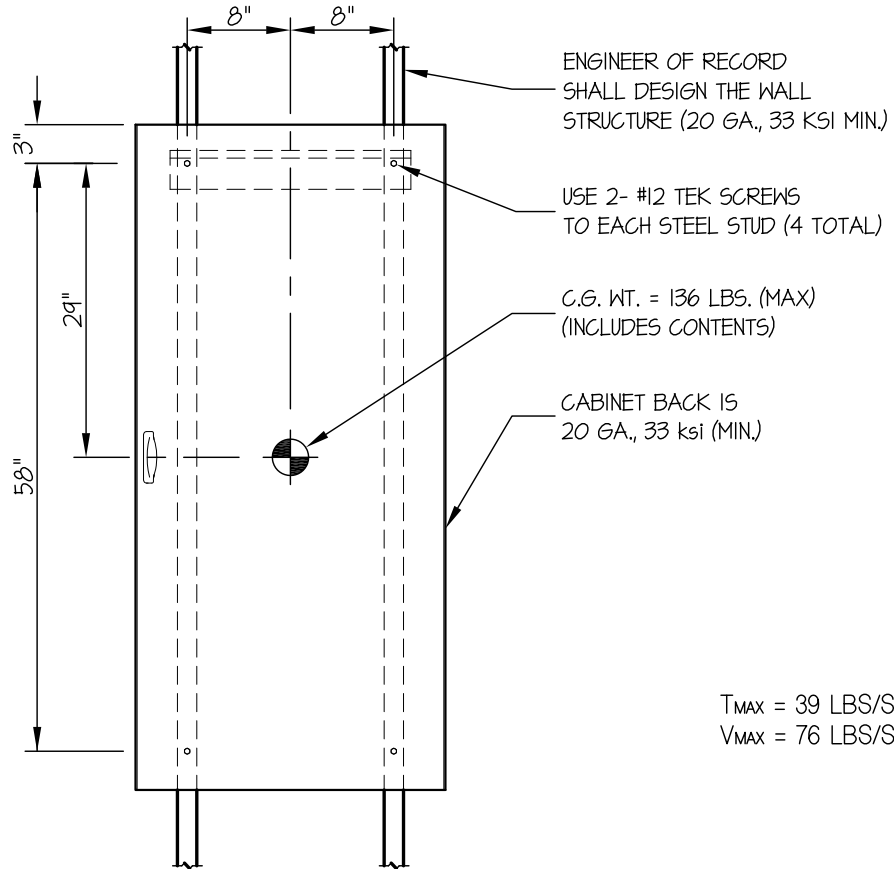
SHEET

1

OF **2** SHEETS

SEISMIC ANCHORAGE

WALL MOUNTED



T_{MAX} = 39 LBS/SCREW
V_{MAX} = 76 LBS/SCREW

FRONT ELEVATION

NOTES:

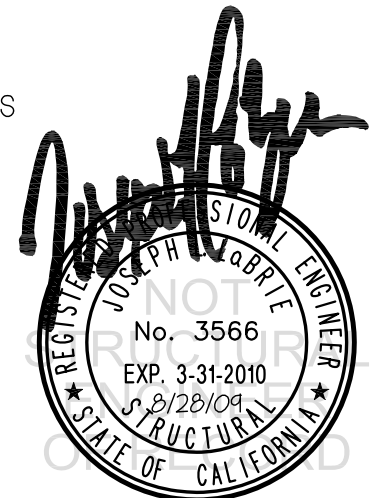
1. FORCES ARE DETERMINED PER 2007 CALIFORNIA BUILDING CODE SECTION 1613A AND ASCE 7-05 SECTIONS 12 AND 13. ALLOWABLE STRESS DESIGN IS USED.

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 SUPPORT STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.



MIDMARK

DRESSING/SCOPE NOOK

DES. **R. LA BRIE**

JOB NO. **11-0989**

DATE **8/28/09**

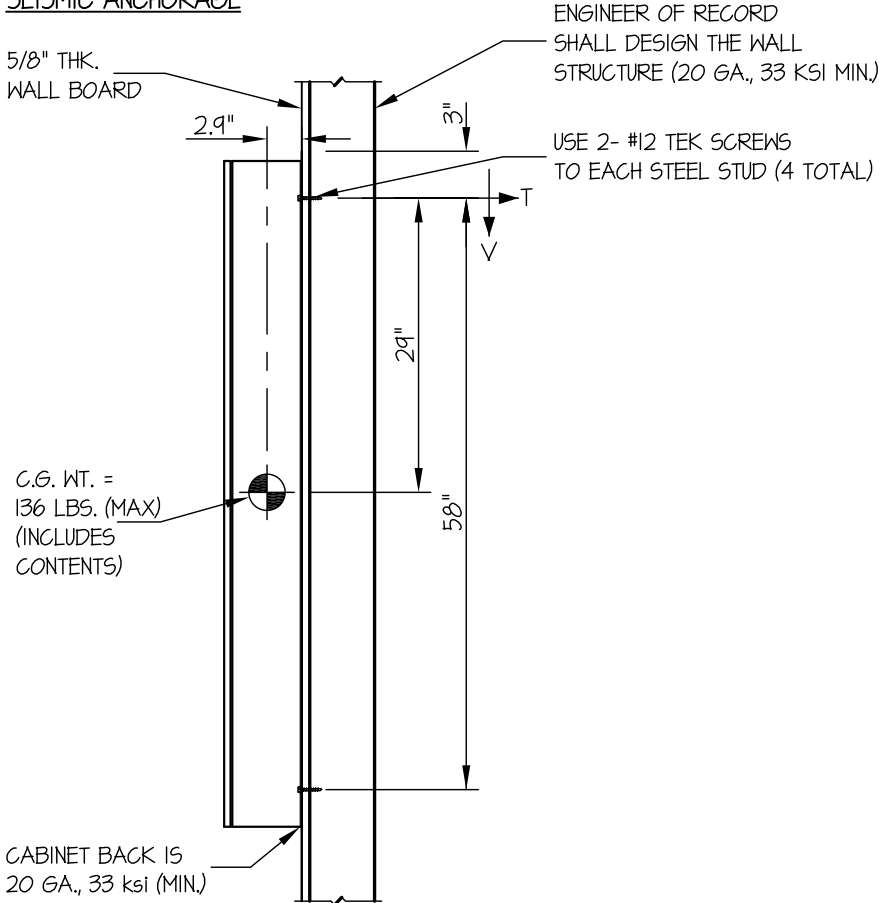
SHEET

2

OF **2** SHEETS

SEISMIC ANCHORAGE

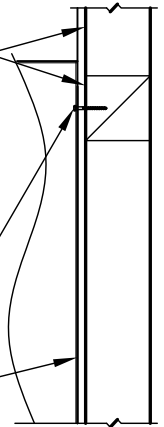
WALL MOUNTED



2 x STUDS OR 4 x BLKG (DOUGLAS-FIR LARCH NUMBER 2 MIN.) (DESIGNED BY ENGINEER OF RECORD)

USE 2- 1/4"φ x 3" LAG BOLTS AT EACH WOOD STUD OR BLKG. (PRE-DRILL HOLES TO SHANK DIAMETER)

5/8" THK. WALL BOARD



SIDE ELEVATION AT WOOD STUD WALL

SIDE ELEVATION AT STEEL STUD WALL

LOADS:

WEIGHT = 136 LBS. (MAX.) (INCLUDES CONTENTS)

HORIZONTAL FORCE (E_h) = 0.97W_p = 132 LBS.

VERTICAL FORCE (E_v) = 0.27W_p = 37 LBS.

SCREW FORCES:

TENSION (T)

$$T_{\text{VERTICAL}} = \frac{(136\# + 37\#)2.9''}{2 \text{ SCREWS}(58'')} = 4 \text{ LBS}$$

$$T_{\text{PARALLEL}} = \frac{132\#(2.9'')} {2 \text{ SCREWS}(16'')} = 12 \text{ LBS}$$

$$T_{\text{PERP.}} = \frac{132\#}{4 \text{ SCREWS}} = 33 \text{ LBS}$$

$$T_{\text{MAX}} = 4\# + \sqrt{12^2 + 33^2} = 39 \text{ LBS/SCREW (MAX)}$$

SHEAR (V)

$$V_{\text{MAX}} = \frac{136\# + 37\# + 132\#}{4 \text{ SCREWS}} = 76 \text{ LBS/SCREW (MAX)}$$

#12 TEK SCREWS TO 20 GAGE, 33 KSI

T_{ALLOW.} = 95 LBS

V_{ALLOW.} = 188 LBS

NOTE:

ARCHITECT OR STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE SUPPORT STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.