

CHATSWORTH PRODUCTS, INC.

VERTICAL CABLE RUNWAY

DES. J. ROBERSON

JOB NO. 11-1131

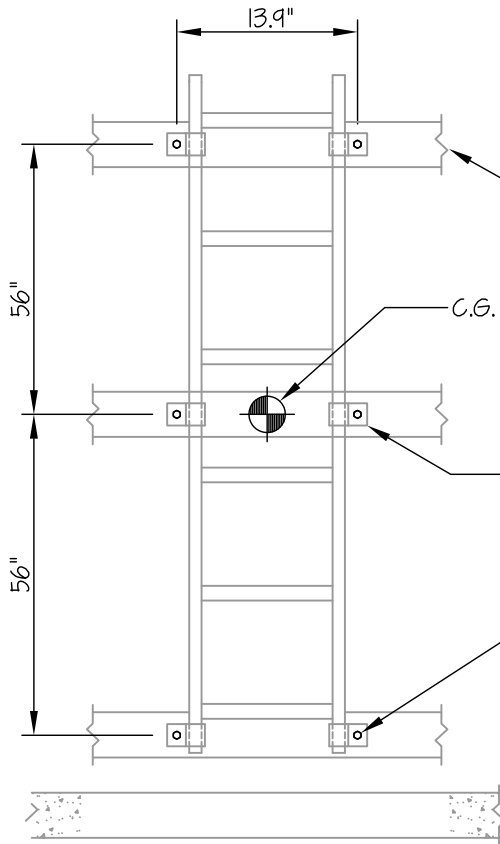
DATE 6/29/12

SHEET

1

OF **1** SHEETS

SEISMIC ANCHORAGE



FRONT ELEVATION

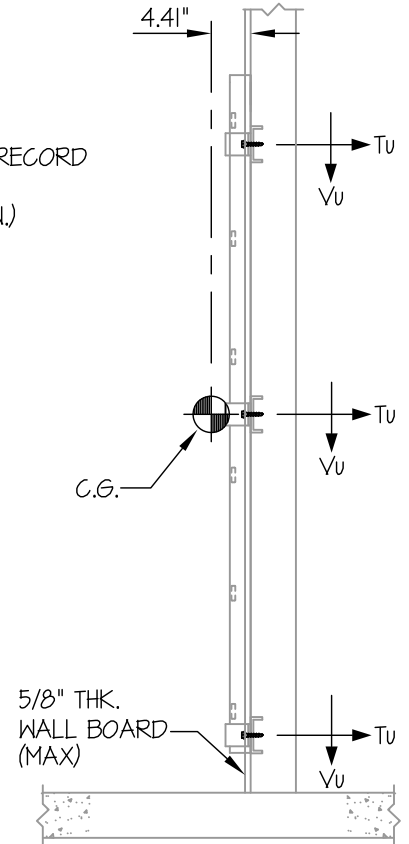
STRUCTURAL ENGINEER OF RECORD SHALL DESIGN THE WALL BACKING (16 GA., 50 KSI MIN.) AND THE WALL STRUCTURE

SEISMIC BRACKET 14 GA., 50 KSI (MIN.) (BY CHATSWORTH) (SHOP ATTACHED)

USE 6- 1/4"φ TEK SCREWS TO BACKING PLATE

$T_u = 86$ LB/BOLT (MAX)
 $V_u = 127$ LB/BOLT (MAX)

WALL MOUNTED



SIDE ELEVATION

LOADS: PER 2010 CALIFORNIA BUILDING CODE AND ASCE 7-05 .

(STRENGTH DESIGN IS USED) ($S_{ds} = 2.00$, $a_p = 2.5$, $I_p = 1.5$, $R_p = 6.0$, $z/h \leq 1.0$)

WEIGHT = 245 LB (INCLUDES MAX LOAD)

HORIZONTAL FORCE (E_h) = $1.50W_p = 368$ LB.

VERTICAL FORCE (E_v) = $0.40W_p = 98$ LB.

TENSION (T)

$$T_{u \text{ VERT.}} = \frac{(1.2(245\#) + 98\#)(4.41'')}{2 \text{ BOLTS}(112'')} = 8 \text{ LB}$$

$$T_{u \text{ PARALLEL}} = \frac{368\#(4.41'')}{2 \text{ BOLTS}(13.9'')} = 58 \text{ LB}$$

$$T_{u \text{ PERP.}} = \frac{368\#}{6 \text{ BOLTS}} = 61 \text{ LB}$$

$$T_{u \text{ MAX}} = 8\# + (0.3)(58) + 61 = 86 \text{ LB/BOLT (MAX)}$$

SHEAR (V)

$$V_{u \text{ MAX}} = \frac{1.2(245\#) + 98\# + 368\#}{6 \text{ BOLTS}} = 127 \text{ LB/BOLT (MAX)}$$

1/4"φ SM SCREWS TO 16 GA., 50 KSI STEEL

φT = 418 LB/SCREW

φV = 362 LB/SCREW

UNITY CHECK:

$$\left(\frac{T_u}{\phi T} \right) + \left(\frac{V_u}{\phi V} \right) \leq 1.0$$

$$\left(\frac{86}{418} \right) + \left(\frac{127}{362} \right) = 0.56 \leq 1.0 \therefore \text{OK}$$

NOTE:

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

