

ANCHORING BRACKET INSTALLATION

6001-277

SHT 1 OF 2

CALCULATIONS

CADD: 8.8. 9/14/12 CHKD: SHERRI S. 9/14/12

APPVD: R VERA 9/16/12 SCALE

NOTES:

1. ESIGN SPERT THE 303 BC / 2010 CBC / 2020 LBC /

1. ESIGN SPERT THE 303 BC / 2010 CBC / 2020 LBC /

2. STORAGE CHACATY E 2,000 MAX. VIBIGHT.

3. ANCHORS HILT HOME BOUT TZ,

4. CONCEST ET HICKS 2,000 FBL.

4. CONCEST ET HICKS 2,000 FBL.

6. EVALUATION BBE DE 300 KERTING EL GOAT DO.

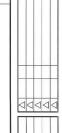
6. EVALUATION BBE DE 300 KERTING EL GOAT DO.

(ONE OF THE HOMEST LA FALLT AREAS)

WITH THE 7. JOWNES CALCULATOR AS TYPICAL EXAMPLE.

(ASSUMED GROUND FLOOR INSTILLATION)

POWER COMPANY 9301 TAMPA AVE. NORTHRIDGE, CA 91324



DATE BY DESCRIPTOR

SEIZMIC 3 38T. 1985 SEIZMIC ENCIMEERING, INC. 1139 E. Cypress St. Covina, California 937 Tel. (009)369-0939

TOL (909)365-0939

DRAINIBR: MLV. / T.C.
DATE 03/13/20

LAST SEV. EV;

REV. DATE:

TYPE:

SOLLE: N.F.S.

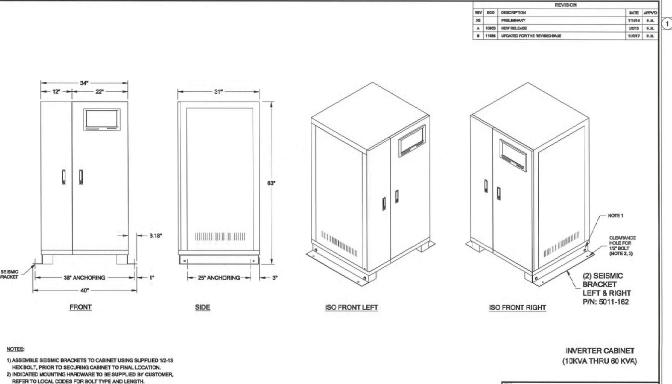
AYRYO BY: SAIL E. FATEEN

vyolES/10/4 vyolES/10/4 E FA77

DPIRES 12-31-2023

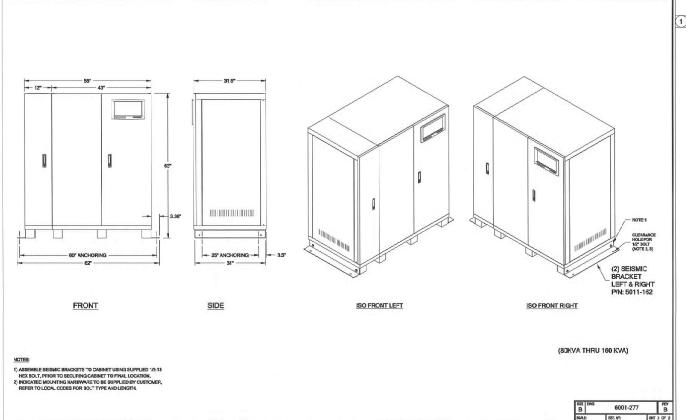
CABINET DETAILS

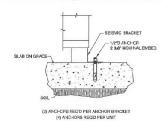
20-0491-C



LOADS & DISTRIBUTION: INVERTER CABINET ANALYSIS BASED ON SECTION 13.3 OF THE ASCE 7-16 SPECIFICATION REFERENCED IN CHAPTER 16 OF THE 2013 IBC/2019 CBC/2020 LABC Fp (13.3-1)=  $0.4 \times ap \times S_{D6} \times Wp / [Rp / Ip]$ Fp (13.3-2)= 1.6 x S<sub>DS</sub> x lp x Wp Fp (13.3-3)= 0.3 x S<sub>DS</sub> x lp x Wp SHALL NOT BE GEFATER THAN 2.335 x Wa 0.438 x Wo SHALL NOT BE LESS THAN SITE CLASS = D Fa = 1.2  $S_{0S} = 1.83$   $S_{0S} = 1.45$   $I_{0} = 1.00$ ASCE 7-16 Table 13.5-1. ASCE 7-16 Table 13.5-1. Rp = 2.5 ap= 1 Wp = 2500 LB 0.7Fp= 0.7\*0.438\*\Vp = 0.31\*2500 LB = 767 LB OVERTURNING ANALYSIS:

CABINET HEIGHT, Ft = 63.0 IN
ANCHORS SPACING, D = 25.0 IN Mot= Vtctal\*(1/2 Ht) = 767 LB \* 63 IW \* 1/2 = 24,145 IN-LB Mst= 'Wp\*D/2 = 2500 LB \* 25 IN/2 = 31,250 IN-LB ANCHORS
ALLOWABLE CAPACITY PEF ICC FEPORT AND ACI 318-L4 CHAPTEF 17 PULICUT: 830 LB SHEAF: 900 LB Fallowable, ASD COMBINED STRESS = (216 LB/1660 LB) + (767 LB/3500 LB) = 0.34 < 1.2 OK USE 1/2"Ø x 2-3/8"MIN. EMBED. HILTI KB-TZ (ICC ESR-1917) OR APPROVED EQUAL.





## 

1 ANCHOR DETAIL

## LOADS & DISTRIBUTION: INVERTER CABINET

ANALYSIS BASED ON SECTION 13.5 OF THE ASCE 7-16 SPECIFICATION REFERENCED IN CHAPTER 16 OF THE 2018 IBC/2019 CBC/2020 LABC

Fp (13.3-1)= 0.4 x ap x S<sub>35</sub> x 'Np/[Rp/lp] SHALL NOT BE GREATER THAN Fp (13.3-2)= 1.6 x S<sub>DS</sub> x ID x WD Fp (13.3-3)= 0.3 x S<sub>DS</sub> x ID x WD 2.336 x Wp 0.438 x Wp SHALL NOT BE LESS THAN

> SITE CLASS = D Fa = 1.2 Ss = 1.83 S<sub>CS</sub> = 1.46 Ip = 1.00 Rp = 2.5

ASCE 7-16 Table 13.5-1 ap = 1 ASCE 7-16 Table 13.5-1

Wp = 4000 LB

0.7Fp = 0.7\*0.438\*Wp = 0.31\*4000 LB = 1,226 LB

## OVERTURNING ANALYSIS:

CABINET HEIGHTI, Ht = 63.0 IN ANCHORS SPACING, D = 25.0 IN

Mot = Vtotal\*(1/2 Ht) = 1226 LB \* 63 IN \* 1/2 = 38,632 IN-LB

Mst = Wp\*0/2 = 4000 LB \* 25 IN/2 = 50,000 IN-LB

Publift = (Mot- 0.6\*Mst)/C = (38632 IN-LB - 0.5 \* 50000 IN-LB//25 IN = 345 LB <= UPLIFT

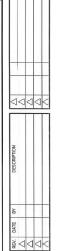
ANCHORS
ALLOWABLE CAPACITY PER IDC REPORT AND ACI 318-14 CHAPTER 17 PULLDUT: 830 LB SHEAR: 900 LB

Tallowable, ASD Vallowable, ASD COMBINED 5TFESS = (345 LB/1660 LB) + (1226 LB/36CO LB)

= 0.55

USE 1/2"Ø < 2-3/8"MIN. EMBED. HILTI KB-TZ (ICC ESR-1917) OR APPROVED EQUAL

POWER COMPANY 9301 TAMPA AVE. NORTHRIDGE, CA 91324









CABINET

CALCULATIONS

20-0491-D