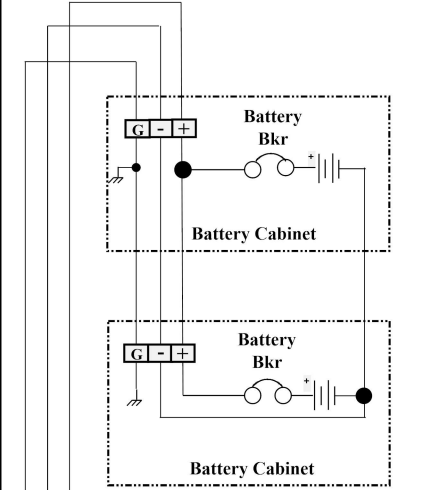
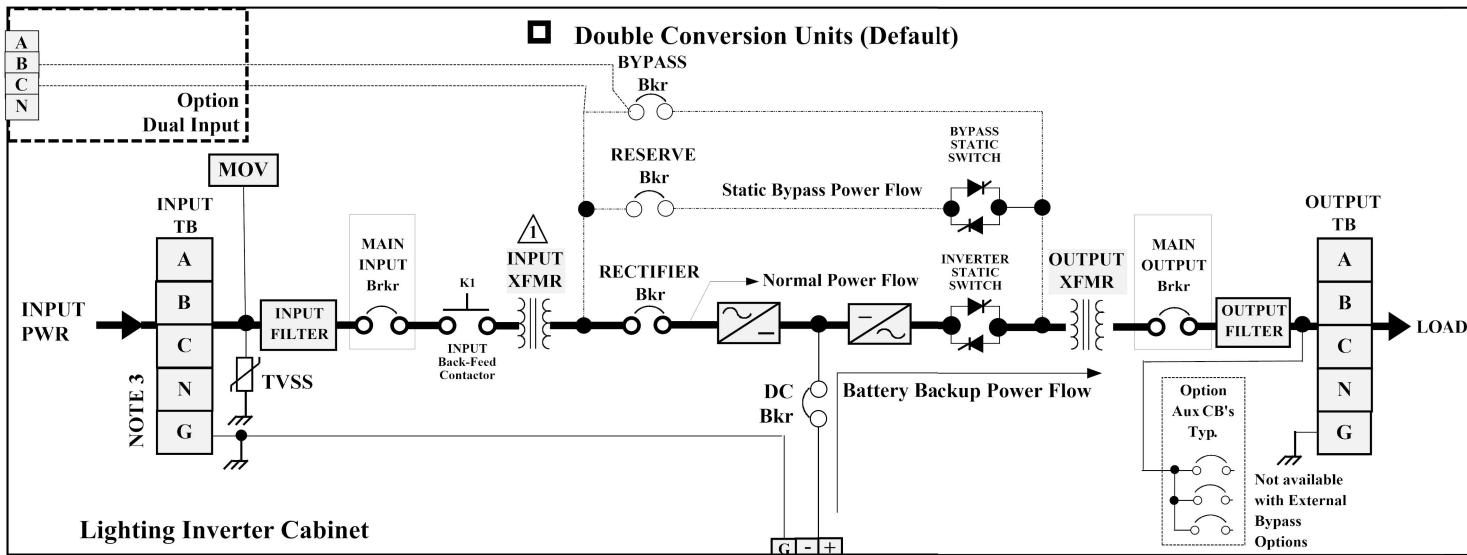
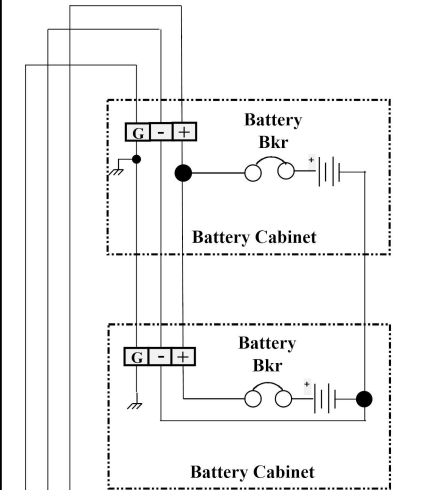
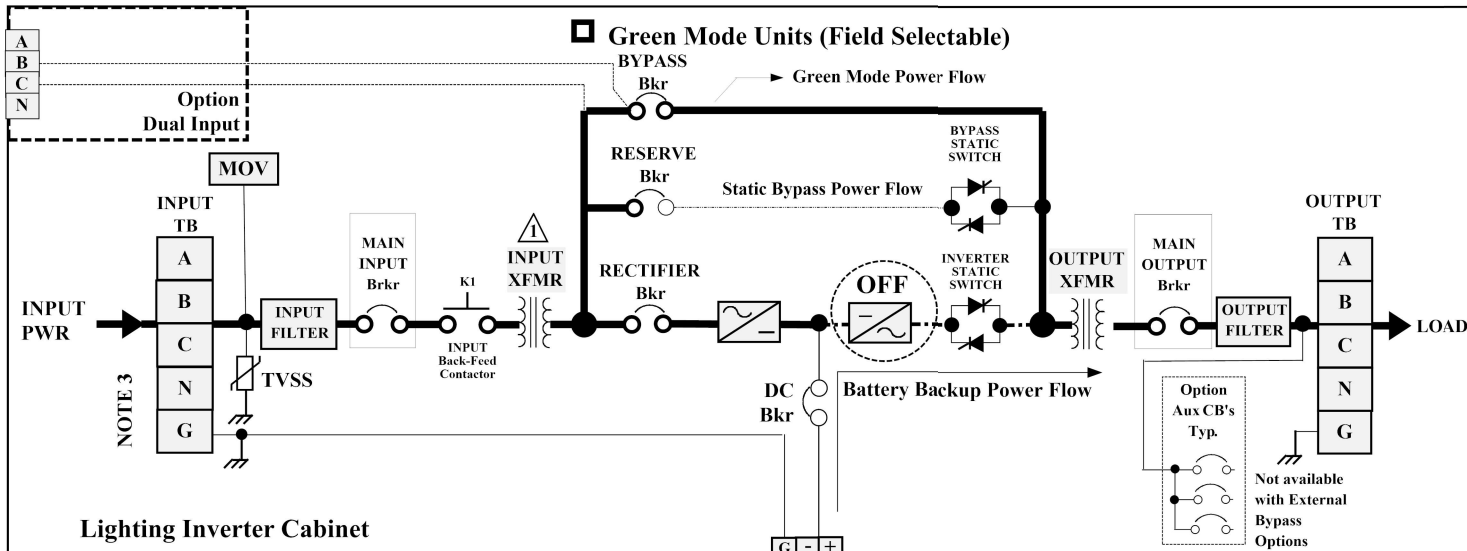


WAVE RIDER 4 LIGHTING INVERTER TYPICAL SINGLE LINE DIAGRAM

NOTE 3



NOTE 3

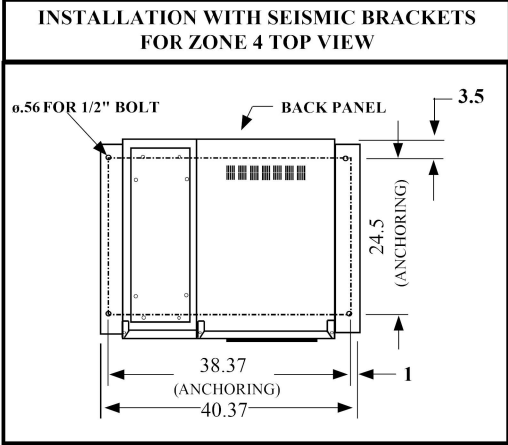
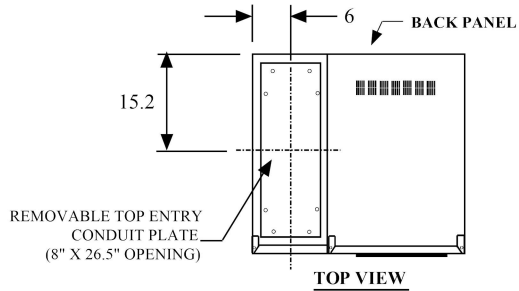


- NOTES:**
1. Bypass and Inverter Static Switches will be powered from the *Input Transformer* for different input and output voltage configurations.
 2. Power Flow is through Static Bypass Switch **(WHEN IN GREEN MODE)** during Input Power Drop
 3. Optional Delta Units are available. Neutral not required.
 4. Battery Cabinet Quantity might vary depending on the Battery type.

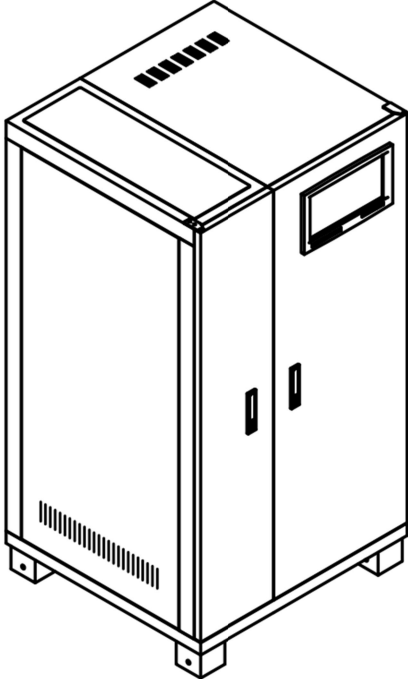
TYPICAL WR4 LIGHTING INVERTER SINGLE LINE DIAGRAM		SHT 1 OF 1
CRUCIAL POWER PRODUCTS SUBJECT TO CHANGE WITHOUT NOTICE		
DRAWN : SS	4/17/24	420-TD-010
APPVD : HN	4/17/24	REV A

ELECTRONIC CABINET ONLY (10 KVA THRU 60 KVA)

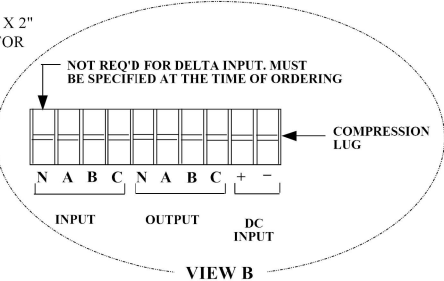
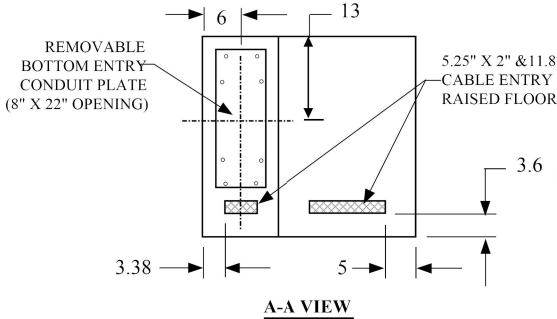
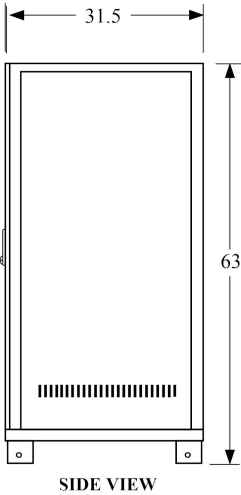
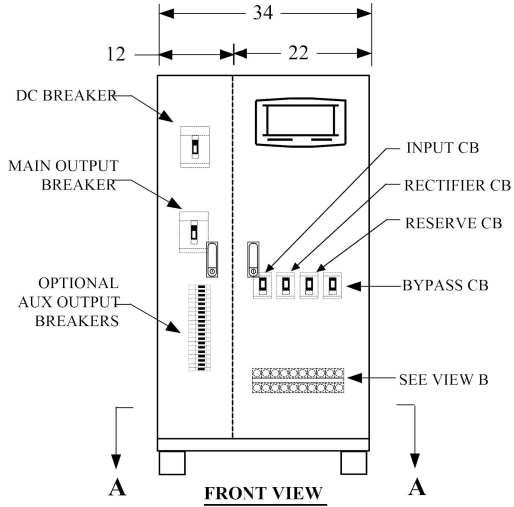
WAVE RIDER 4 INVERTER CABINET



- NOTES:**
- 1) CONSTRUCTION: INDOOR, COLOR BLACK.
 - 2) KNOCKOUTS ON CONDUIT PLATES TO BE DONE BY INSTALLING CONTRACTOR
 - 3) DIMENSIONS ARE IN INCHES



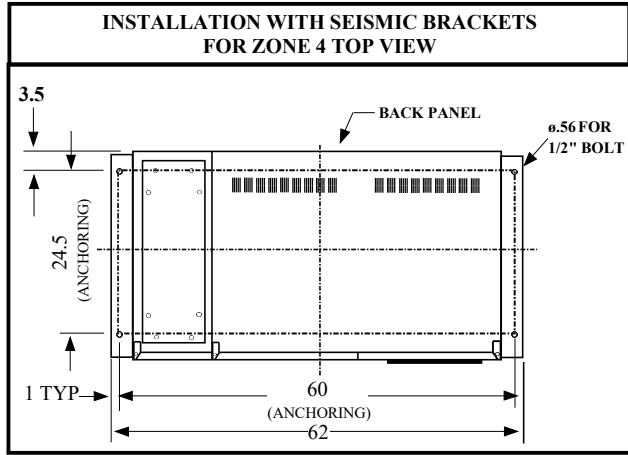
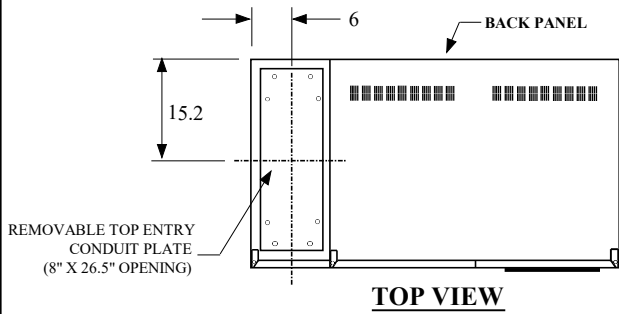
ISOMETRIC VIEW



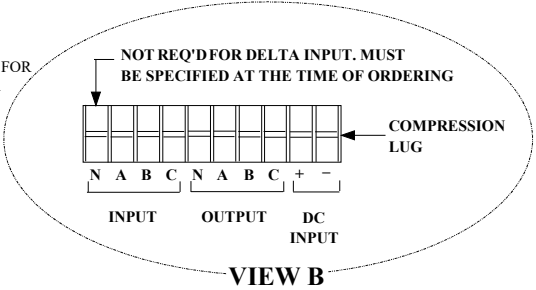
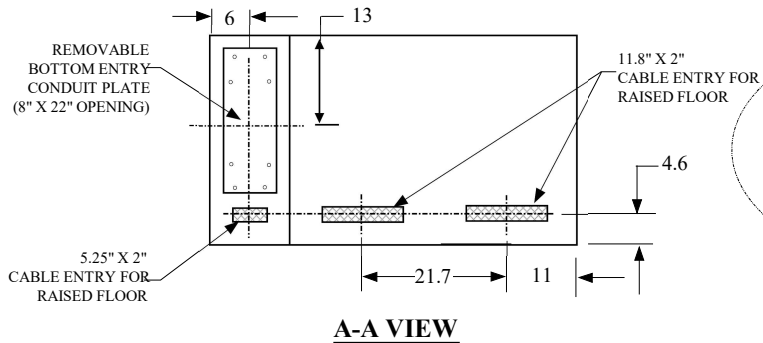
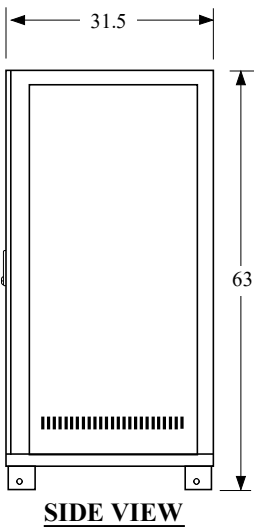
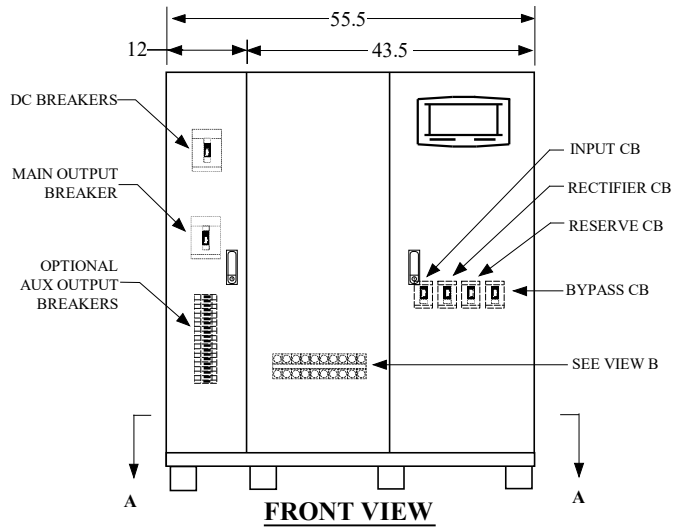
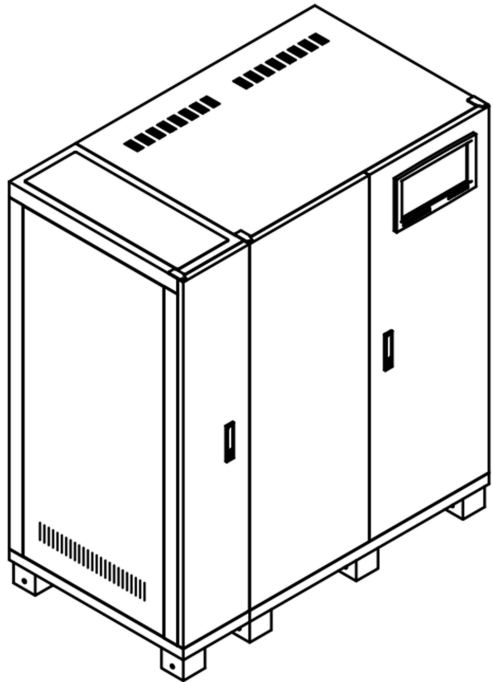
WAVE RIDER 4 INVERTER CABINET		SHT 1 OF 1	
SUBJECT TO CHANGE WITHOUT NOTICE			
DRAWN :SHERRIS.	04/17/24	420-TD-011	REV A
APPVD: HN	04/17/24		

**ELECTRONIC
CABINET ONLY
(80 KVA THRU 160 KVA)**

WAVE RIDER 4 INVERTER CABINET

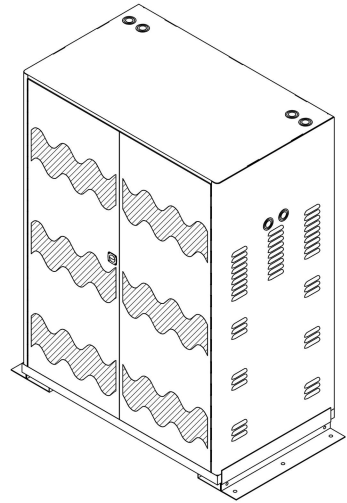


- NOTES:**
- 1) CONSTRUCTION: INDOOR, COLOR BLACK.
 - 2) KNOCKOUTS ON CONDUIT PLATES TO BE DONE BY INSTALLING CONTRACTOR
 - 3) DIMENSIONS ARE IN INCHES

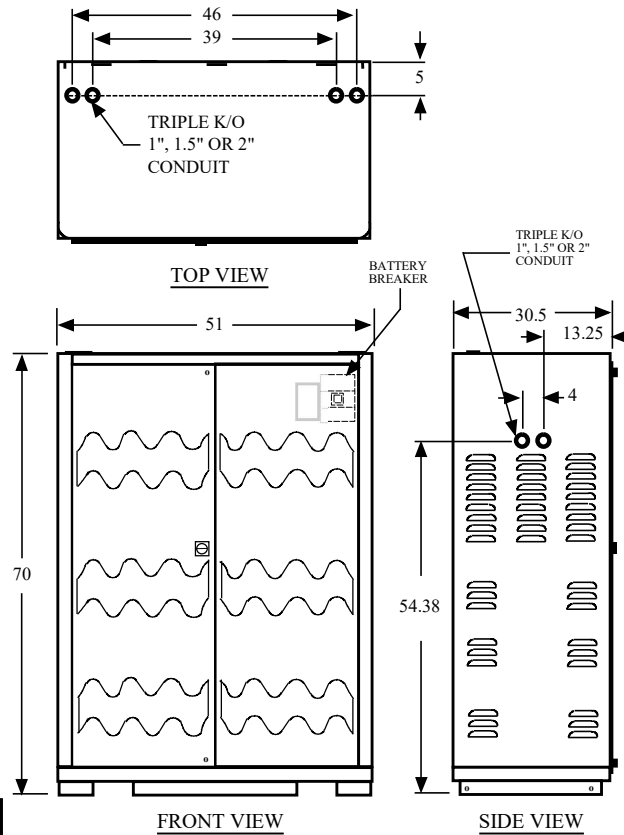


WAVE RIDER 4 INVERTER CABINET		SHT 1 OF 1	
CRUCIAL POWER PRODUCTS		SUBJECT TO CHANGE WITHOUT NOTICE	
DRAWN : SHERRIS.	04/17/24	420-TD-012	REV A
APPVD : HN	04/17/24		

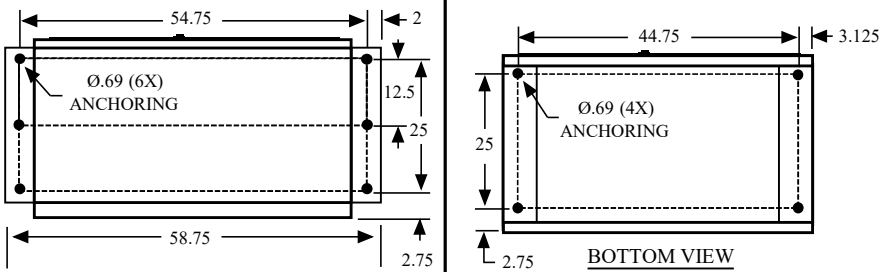
BATTERY CABINET (10KVA THRU 60KVA), STANDARD VRLA BATTERY



ISO VIEW SHOWN WITH SEISMIC BRACKETS



INSTALLATION WITH SEISMIC BRACKETS FOR ZONE 4 BOTTOM VIEW



NOTES:

- 1) CONSTRUCTION NEMA1 INDOOR
- 2) OPTIONAL SEISMIC BRACKETS AVAILABLE:
ANCHORS FOR EXTERNAL SEISMIC BRACKET:
 1. USE 1/2" DIA x 2-3/8" MIN. EMBED. HILTI KB-TZ, ICC ESR-1917 OR APPROVED EQUAL (6) TOTAL PER CABINET.
 2. CONCRETE: 5" THICK x 2,500 PSI. (MIN. REQ'D).
 3. SOIL BEARING PRESSURE: 500 PSF. (MIN. REQ'D).

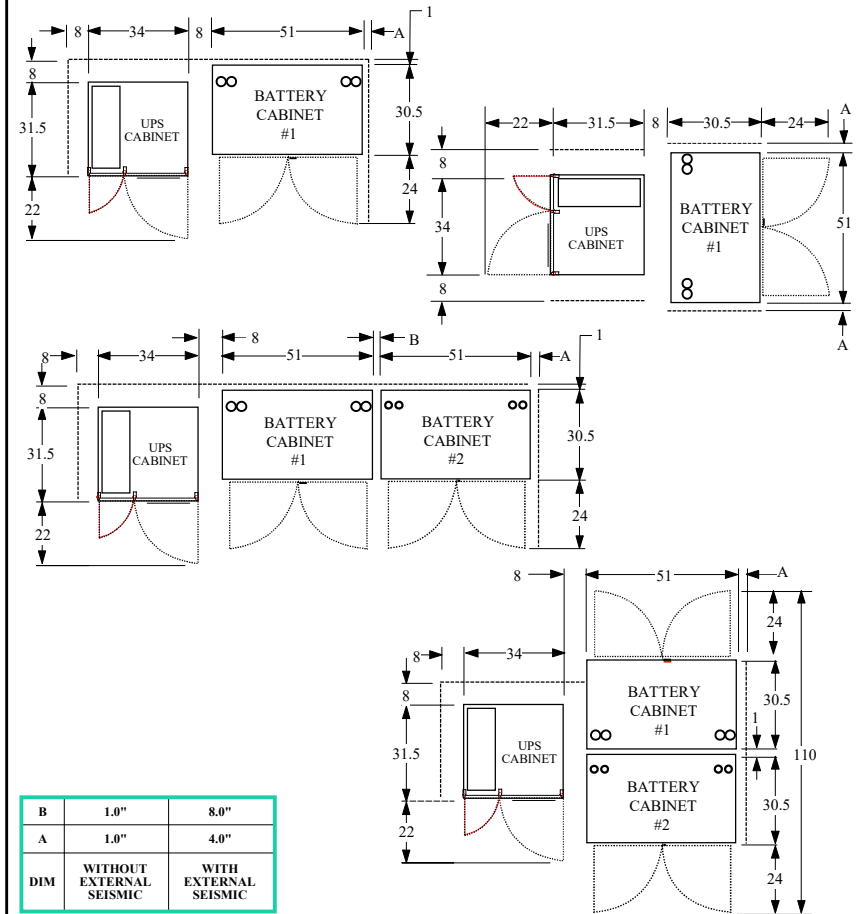
FOR ALL DETAILS REFER TO SEISMIC DWG. FOR EACH CABINET MOUNTING

- 3) DIMENSIONS ARE IN INCHES

RECOMMENDED SYSTEM LAYOUT

STANDARD VRLA BATTERY

KVA/KW	BATTERY CABINET QTY 90 MIN.	BATTERY CABINET QTY 120 MIN.
10KVA/8KW	1	1
20KVA/16KW	1	1
30KVA/24KW	1	1
40KVA/32KW	2	2
50KVA/40KW	2	2
60KVA/48KW	2	2



DIM	WITHOUT EXTERNAL SEISMIC	WITH EXTERNAL SEISMIC
B	1.0"	8.0"
A	1.0"	4.0"

WAVE RIDER 4 BATTERY CABINET (51" WIDE)

SHT
1 OF 1



SUBJECT TO CHANGE WITHOUT NOTICE

DRAWN : SS

4/17/24

420-TD-013

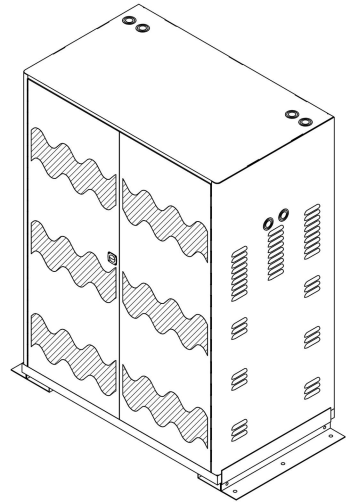
REV

APPVD : HN

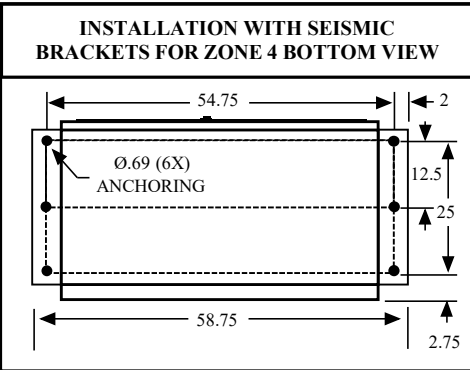
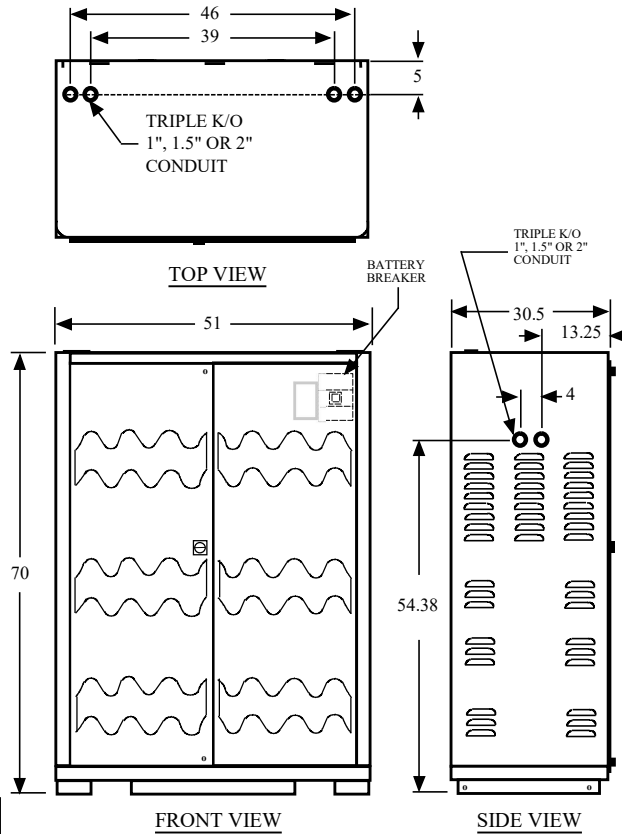
4/17/24

A

BATTERY CABINET (80KVA THRU 160KVA), STANDARD VRLA BATTERY



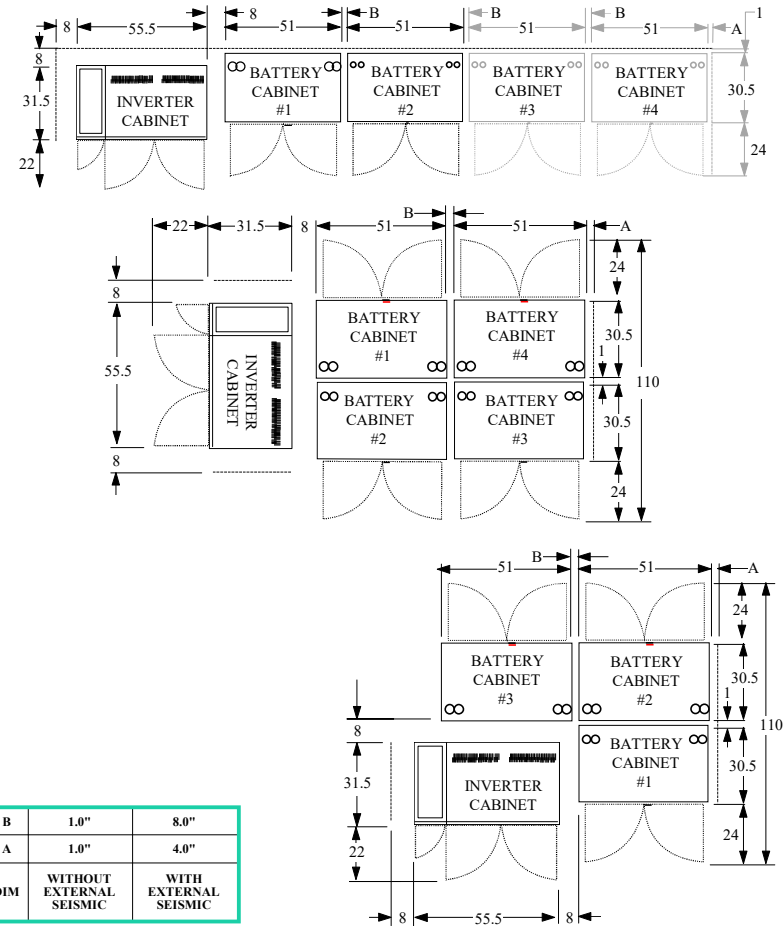
ISO VIEW SHOWN WITH SEISMIC BRACKETS



- NOTES:**
- CONSTRUCTION/NEMA1 INDOOR
 - OPTIONAL SEISMIC BRACKETS AVAILABLE:
ANCHORS FOR EXTERNAL SEISMIC BRACKET:
 1. USE 1/2" DIA x 2-3/8" MIN. EMBED. HILTI KB-TZ, ICC ESR-1917 OR APPROVED EQUAL (6) TOTAL PER CABINET.
 2. CONCRETE: 5" THICK x 2,500 PSI. (MIN. REQ'D).
 3. SOIL BEARING PRESSURE: 500 PSF. (MIN. REQ'D).
 FOR ALL DETAILS REFER TO SEISMIC DWG. FOR EACH CABINET MOUNTING
 - DIMENSIONS ARE IN INCHES

RECOMMENDED SYSTEM LAYOUT

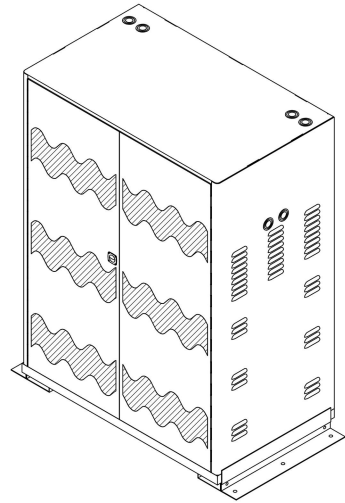
STANDARD VRLA BATTERY		
KVA/KW	BATTERY CABINET QTY 90 MIN.	BATTERY CABINET QTY 120 MIN.
80KVA/64KW	2	3
100KVA/80KW	3	4
120KVA/96KW	4	4
160KVA/128KW	LONG LIFE BATTERY ONLY	LONG LIFE BATTERY ONLY



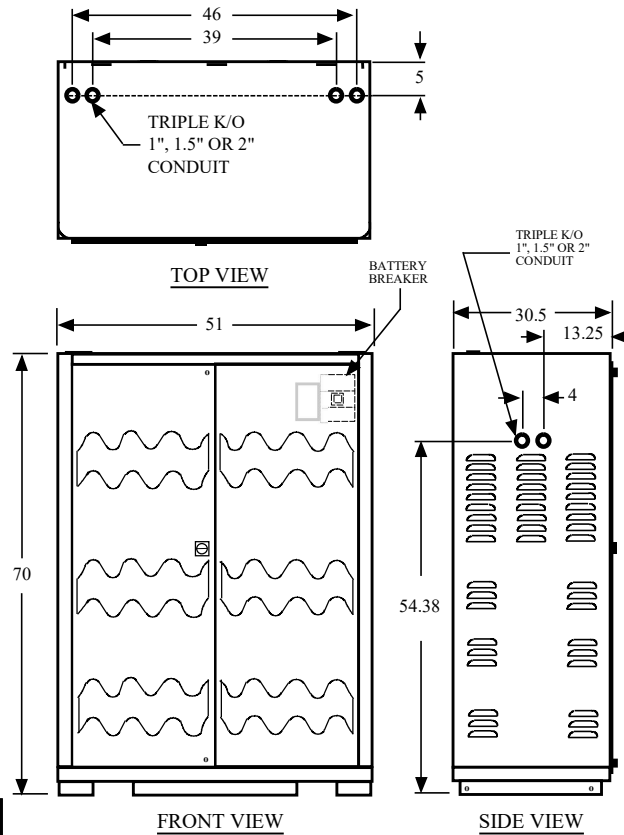
DIM	WITHOUT EXTERNAL SEISMIC	WITH EXTERNAL SEISMIC
B	1.0"	8.0"
A	1.0"	4.0"

WAVE RIDER 4 BATTERY CABINET (51" WIDE)		SHT 1 OF 1	
CRUCIAL POWER PRODUCTS			
SUBJECT TO CHANGE WITHOUT NOTICE			
DRAWN : SS	4/17/24	420-TD-015	REV A
APPVD : HN	4/17/24		

BATTERY CABINET (80KVA THRU 160KVA), LONG LIFE BATTERY

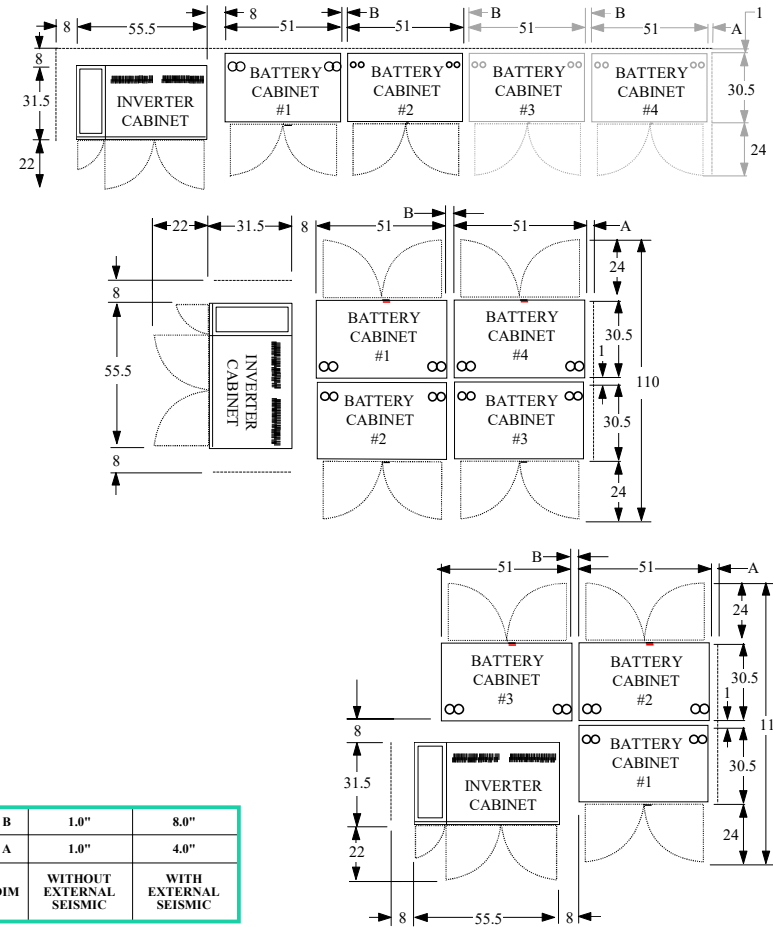


ISO VIEW SHOWN WITH SEISMIC BRACKETS



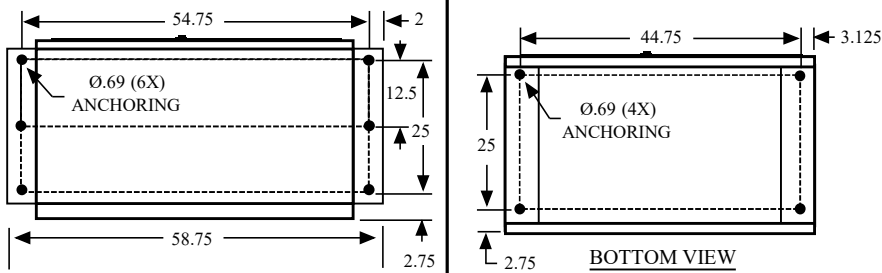
RECOMMENDED SYSTEM LAYOUT

LONG LIFE BATTERY		
BATTERY	BATTERY CABINET QTY 90 MIN.	BATTERY CABINET QTY 120 MIN.
80KVA/64KW	2	3
100KVA/80KW	3	3
120KVA/96KW	3	4
160KVA/128KW	4	5



DIM	WITHOUT EXTERNAL SEISMIC	WITH EXTERNAL SEISMIC
B	1.0"	8.0"
A	1.0"	4.0"

INSTALLATION WITH SEISMIC BRACKETS FOR ZONE 4 BOTTOM VIEW



NOTES:

- 1) CONSTRUCTION NEMA1 INDOOR
- 2) OPTIONAL SEISMIC BRACKETS AVAILABLE:
ANCHORS FOR EXTERNAL SEISMIC BRACKET:
1. USE 1/2" DIA x 2-3/8" MIN. EMBED. HILTI KB-TZ, ICC ESR-1917 OR APPROVED EQUAL (6) TOTAL PER CABINET.
2. CONCRETE: 5" THICK x 2500 PSI. (MIN. REQ'D).
3. SOIL BEARING PRESSURE: 500 PSF. (MIN. REQ'D).

FOR ALL DETAILS REFER TO SEISMIC DWG. FOR EACH CABINET MOUNTING

- 3) DIMENSIONS ARE IN INCHES

WAVE RIDER 4 BATTERY CABINET (51" WIDE)

SHT
1 OF 1



SUBJECT TO CHANGE WITHOUT NOTICE

DRAWN : SS

4/17/24

420-TD-016

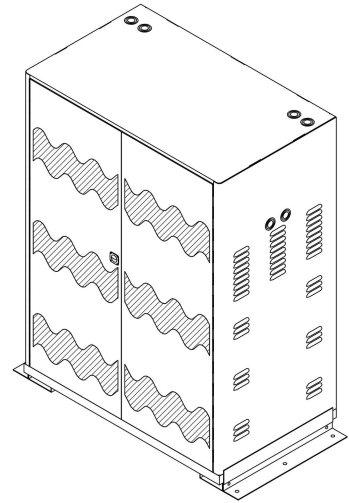
REV

APPVD : HN

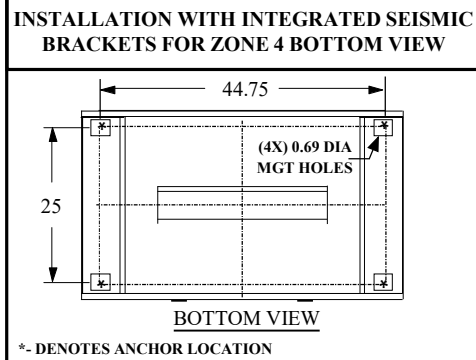
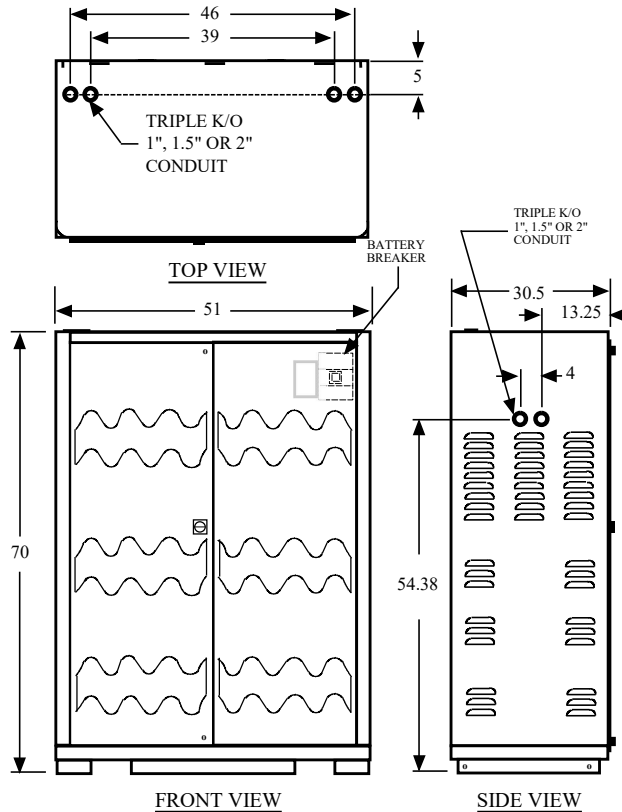
4/17/24

A

BATTERY CABINET (10KVA THRU 60KVA) (INTEGRATED BRACKETS)



ISO VIEW SHOWN WITH SEISMIC BRACKETS

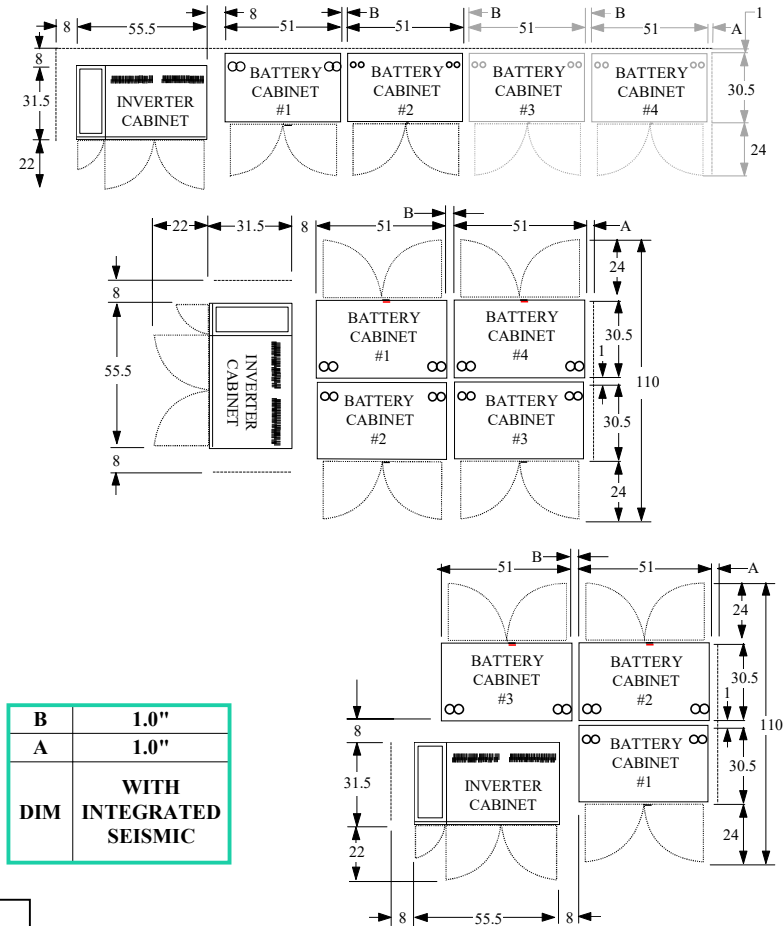


NOTES:

- CONSTRUCTION NEMA 1 INDOOR
- ANCHORS FOR INTEGRATED SEISMIC MOUNTING:**
 - USE 5/8" DIA x 3-3/4" MIN. EMBEDED HILTI KB-TZ ANCHORS, ICCESR-1917 (LARR# 25701) OR APPROVED EQUAL (4) TOTAL PER CABINET, (2) PER ANCHOR BRACKET
 - CONCRETE 5" THICK x 2,500 PSI (MIN REQ'D).
 - SOIL BEARING PRESSURE 500 PSF (MIN. REQ'D)
- FOR ALL DETAILS REFER TO SEISMIC DWG. FOR EACH CABINET MOUNTING
- DIMENSIONS ARE IN INCHES

RECOMMENDED SYSTEM LAYOUT

STANDARD VRLA BATTERY		
KVA/KW	BATTERY CABINET QTY 90 MIN.	BATTERY CABINET QTY 120 MIN.
10KVA/8KW	1	1
20KVA/16KW	1	1
30KVA/24KW	1	1
40KVA/32KW	2	2
50KVA/40KW	2	2
60KVA/48KW	2	2

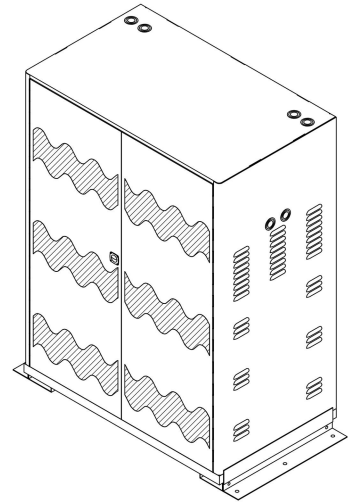


B	1.0"
A	1.0"
DIM	WITH INTEGRATED SEISMIC

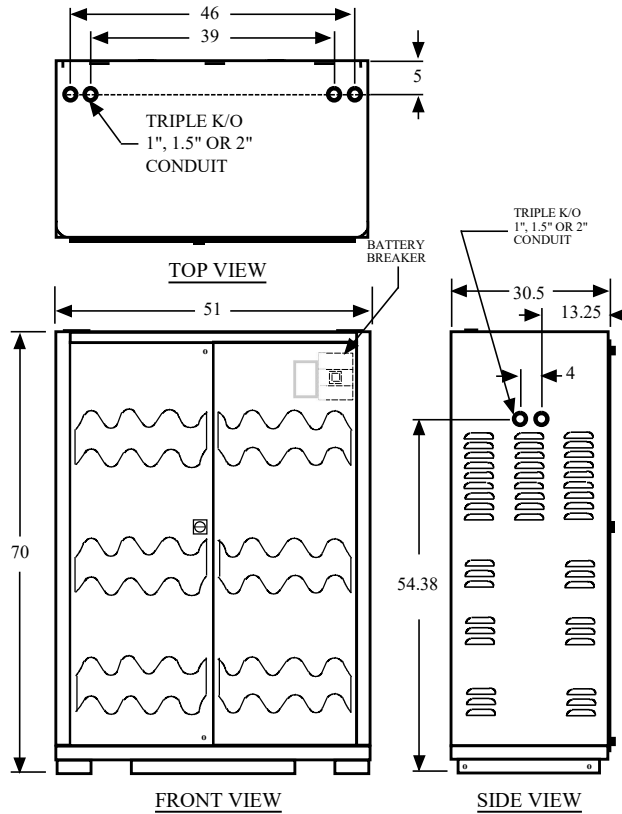
WAVE RIDER 4 BATTERY CABINET (51" WIDE)		SHT 1 OF 1	
SUBJECT TO CHANGE WITHOUT NOTICE			
DRAWN : SS	4/17/24	420-TD-017	REV A
APPVD : HN	4/17/24		

BATTERY CABINET (80KVA THRU 160KVA)

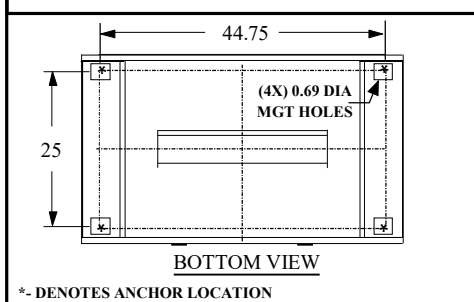
(INTEGRATED BRACKETS)



ISO VIEW SHOWN WITH SEISMIC BRACKETS



INSTALLATION WITH INTEGRATED SEISMIC BRACKETS FOR ZONE 4 BOTTOM VIEW



NOTES:

1) CONSTRUCTION NEMA 1 INDOOR

ANCHORS FOR INTEGRATED SEISMIC MOUNTING:

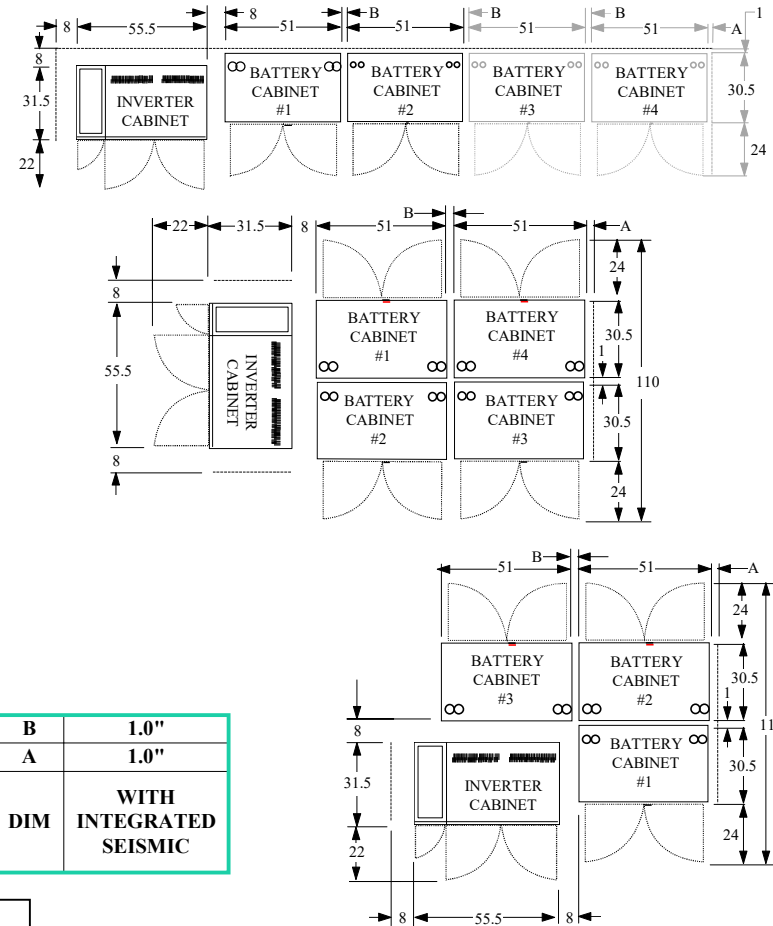
1. USE 5/8" DIA x 3-3/4" MIN. EMBEDED ILLI KB-TZ ANCHORS, ICCESR-1917 (LARR#25701) OR APPROVED EQUAL (4) TOTAL PER CABINET, (2) PER ANCHOR BRACKET
2. CONCRETE 5" THICK x 2,500 PSI (MIN REQ'D).
3. SOIL BEARING PRESSURE 500PSF (MIN. REQ'D)

FOR ALL DETAILS REFER TO SEISMIC DWG. FOR EACH CABINET MOUNTING

2) DIMENSIONS ARE IN INCHES

RECOMMENDED SYSTEM LAYOUT

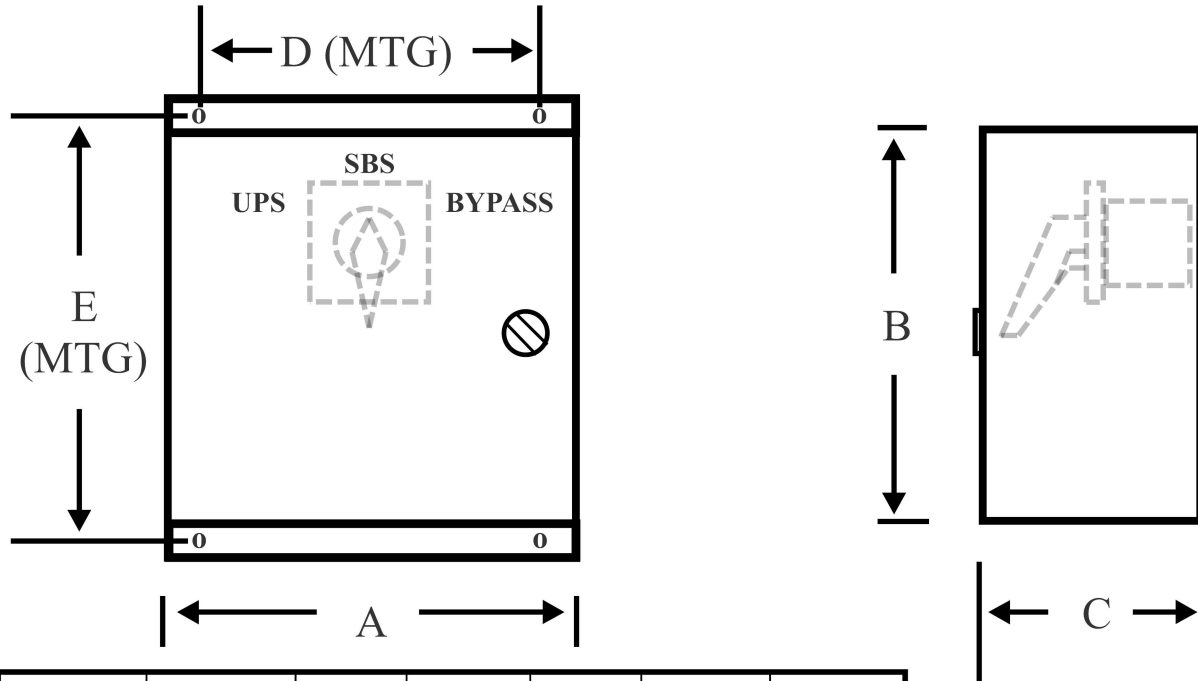
STANDARD VRLA BATTERY		
KVA/KW	BATTERY CABINET QTY 90 MIN.	BATTERY CABINET QTY 120 MIN.
80KVA/64KW	2	3
100KVA/80KW	3	4
120KVA/96KW	4	4
160KVA/128KW	LONG LIFE BATTERY ONLY	LONG LIFE BATTERY ONLY



B	1.0"
A	1.0"
DIM	WITH INTEGRATED SEISMIC

WAVE RIDER 4 BATTERY CABINET (51" WIDE)		SHT 1 OF 1
CRUCIAL POWER PRODUCTS		
SUBJECT TO CHANGE WITHOUT NOTICE		
DRAWN : SS	4/17/24	420-TD-018
APPVD : HN	4/17/24	


MAKE BEFORE BREAK EXTERNAL WRAP AROUND BY-PASS SWITCH



RATING	VOLTAGE	DIM A	DIM B	DIM C	DIM D (MTG)	DIM E (MTG)
350 AMPS	600V	30	36	16	28.5	34.5
240 AMPS	600V	30	30	12	28.5	28.5
175 AMPS	600V	20	20	12	18.5	18.5
110 AMPS	600V	14	16	10	12	16.75
55 AMPS	600V	14	16	8	12	16.75

NOTES:

- 1) SWITCH CONTACTS ARE THREE PHASE L-NEUTRAL "MAKE BEFORE-BREAK"
- 2) CONTACTS MARKED "UPS" ARE CLOSED IN THE "UPS" POSITION
- 3) CONTACTS MARKED "BYPASS" ARE CLOSED IN THE "BYPASS" POSITION
- 4) CONTACTS MARKED "SBS" ARE CLOSED IN THE "SBS" POSITION
- 5) WRAP AROUND BY-PASS SWITCH IS FOR SAME INPUT/OUTPUT VOLTAGES ONLY
- 6) WRAP AROUND BY-PASS SWITCH CAN ONLY BE USED WITHOUT ANY BUILT-IN SECONDARY DISTRIBUTION CIRCUIT BREAKERS IN UPS

WAVE RIDER 3 / 4		SHT	
EXTERNAL WRAP AROUND BY-PASS SWITCH		1 OF 1	
 CRUCIAL POWER PRODUCTS			
SUBJECT TO CHANGE WITHOUT NOTICE			
DRAWN : SS	4/17/24	415-TD-016	REV
APPVD: HN	4/17/24		A

ADDRESS

DESCRIPTION

DATE BY

REV



ESTD 1993
SEIZMIC
ENGINEERING, INC.
1130 E. Cypress St.
Covina, California
91724
Tel. (909)869-0989

DRAWN BY: M.V. / T.C.

DATE: 01/25/24

DESIGN BY:

REV. DATE:

TYPE:

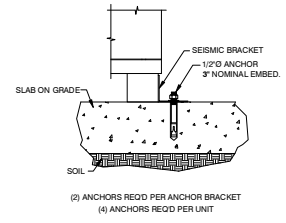
SCALE: N.T.S.

APPROVED BY: DALE PATTON



DESCRIPTION:
CABINET DETAILS

DRAWING NUMBER:
24-0186-C



(2) ANCHORS REQ'D PER ANCHOR BRACKET
(4) ANCHORS REQ'D PER UNIT

- NOTES:
- DESIGNED PER THE 2021 IBC / 2022 CBC / 2023 LABC.
 - $F_a = 1.2$ & $S_s = 1.82$
 - STORAGE CAPACITY: 2,500# MAX. WEIGHT.
 - ANCHORS: HILTI KWIK-SET T 22.
 - ICC #ESR-4266 W/LABC SUPPLEMENT
 - CONCRETE: 6" THICK x 2,500 PSI.
 - SOIL BEARING PRESSURE: 600 PSF. (MIN. REQ'D).
 - EVALUATION BASED ON NORTHridge LOCATION (ONE OF THE HIGHEST LA FAULT AREAS) WITH THE FOLLOWING CALCULATION AS A TYPICAL EXAMPLE. (ASSUMED GROUND FLOOR INSTALLATION)

1 ANCHOR DETAIL

LOADS & DISTRIBUTION: INVERTER CABINET

ANALYSIS BASED ON SECTION 3.3.3 OF THE AISC 7-16 SPECIFICATION
REFERENCED IN CHAPTER 16 OF THE 2021 IBC/2022 CBC/2023 LABC

F_p (13-3-1) $0.4 \times 69 \times 30_2 \times W_p$ (Wp / 6)	$0.236 \times W_p$	SHALL NOT BE GREATER THAN
F_p (13-3-2) $1.4 \times 5_2 \times 15_2 \times W_p$	$0.286 \times W_p$	
F_p (13-3-3) $0.2 \times 5_2 \times 15_2 \times W_p$	$0.438 \times W_p$	SHALL NOT BE LESS THAN

SITE CLASS = D
 $P_e = 1.2$
 $S_s = 1.82$
 $S_{ps} = 1.45$
 $I_p = 1.00$
 $R_p = 2.5$ ASCE 7-16 Table 13.5-1
 $ap = 1$ ASCE 7-16 Table 13.5-1

$W_p = 2500$ LB
 $0.77F_p = 0.77 \times 0.438 \times W_p$
 $= 0.31 \times 2500$ LB
 $= 767$ LB

OVERTURNING ANALYSIS:

CABINET HEIGHT, $H_C = 68.0$ IN
 ANCHORS SPACING, $D = 25.0$ IN

$M_{ot} = W_{ps} H_C / 2$
 $= 767 \text{ LB} \times 68 \text{ IN} \times 1/2$
 $= 24,146$ IN-LB

$M_{res} = W_p D / 2$
 $= 2500 \text{ LB} \times 25 \text{ IN} / 2$
 $= 31,250$ IN-LB

$P_{ulldn} = (M_{ot} - 0.6 M_{res}) / D$
 $= (24,146 \text{ IN-LB} - 0.6 \times 31,250 \text{ IN-LB}) / 25 \text{ IN}$
 $= 216$ LB \ll UPLIFT

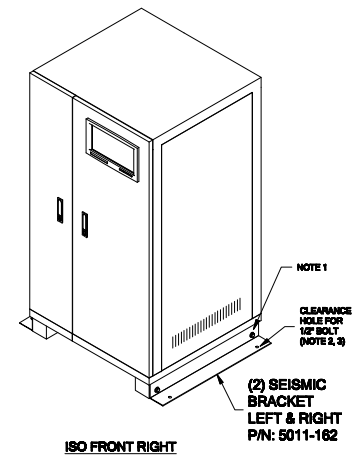
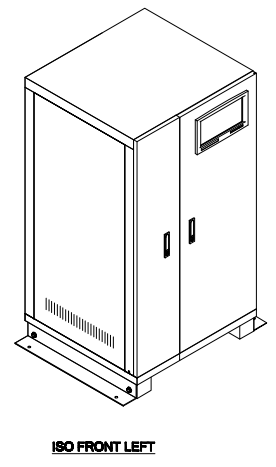
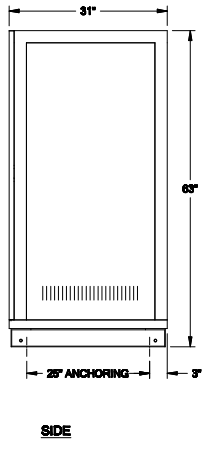
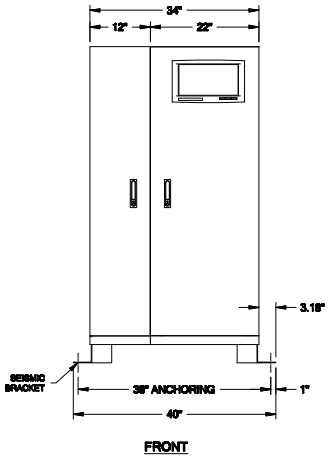
ANCHORS
 ALLOWABLE CAPACITY PER ICC REPORT AND AISC 318-14 CHAPTER 17

PULLOUT: 1170 LB $T_{allowable, ulc}$
 SHEAR: 2340 LB $V_{allowable, ulc}$

COMBINED STRESS $= (216 \text{ LB} / 2340 \text{ LB}) + (767 \text{ LB} / 9560 \text{ LB})$
 $= 0.17 < 1.7$ OK

USE 1/2" x 3" MIN. EMBED. HILTI KB-T2 (ICC ESR-4266) OR APPROVED EQUAL
 (4) PER CABINET

REVISION				
REV	ISSUED	DESCRIPTION	DATE	APPROVED
00		PRELIMINARY	1/25/24	HAL
A	10000	NEW RELEASE	3/6/19	HAL
B	11000	UPDATED FOR THE REVISED SHAE	11/21/17	HAL

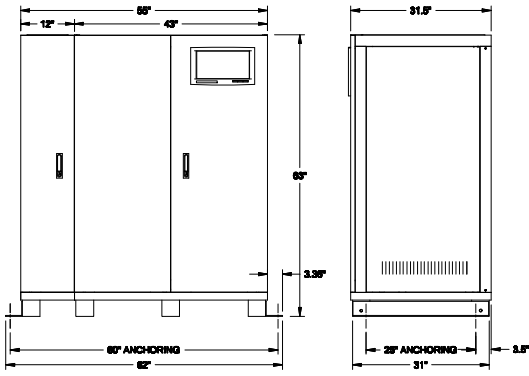


**INVERTER CABINET
(10KVA THRU 60 KVA)**

- NOTES:
- ASSEMBLE SEISMIC BRACKETS TO CABINET USING SUPPLIED 1/2-19 HEX BOLT, PRIOR TO SECURING CABINET TO FINAL LOCATION.
 - INDICATED MOUNTING HARDWARE TO BE SUPPLIED BY CUSTOMER. REFER TO LOCAL CODES FOR BOLT TYPE AND LENGTH.

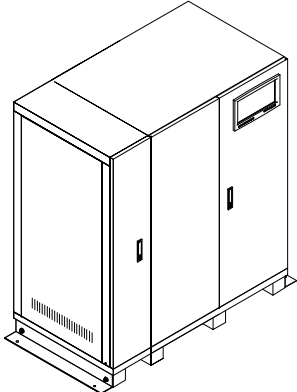
ANCHORING BRACKET INSTALLATION						
CHDR	S.S.	01/17/2	REV	DATE	REV	DATE
CHDR	01/25/24	01/17/2	B	6001-277	B	
APPROV:	KL VERA	01/17/2	SCALE	SCALE	REV	REV

CALCULATIONS

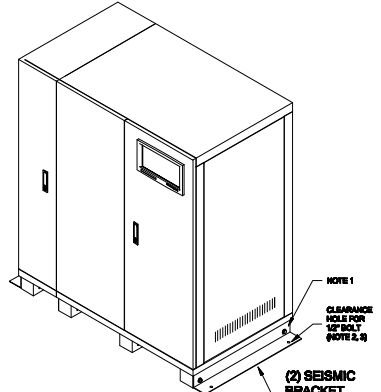


FRONT

SIDE



ISO FRONT LEFT

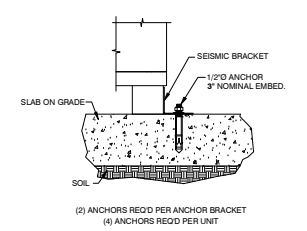


ISO FRONT RIGHT

(80KVA THRU 160 KVA)

- NOTES:**
- 1) ASSEMBLE SEISMIC BRACKETS TO CABINET USING SUPPLIED 1/2-13 HEX BOLT, PRIOR TO RELOCATING CABINET TO FINAL LOCATION.
 - 2) INDICATED MOUNTING HARDWARE TO BE SUPPLIED BY CUSTOMER. REFER TO LOCAL CODES FOR BOLT TYPE AND LENGTH.

REV	DATE	DESCRIPTION
B	0601-277	B
SCALE	DR. WTS.	SH. 1 OF 2



1 ANCHOR DETAIL

- NOTES:**
1. DESIGNED PER THE 9021 IBC / 2022 CBC / 2023 IABC. $F_a = 1.2$ & $S_s = 1.82$.
 2. STORAGE CAPACITY: 4,000# MAX. WEIGHT.
 3. ANCHORS: MULTI-ROW BOLT T22, ICC #ESR-4266 W/ LABC SUPPLEMENT
 4. CONCRETE: 6" THICK x 2,800 PSI.
 5. SOIL BEARING PRESSURE: 100 PSF. (MIN. REQ'D)
 6. EVALUATION BASED ON NORTHRIDGE LOCATION (ONE OF THE HIGHEST LA FAULT AREAS) WITH THE FOLLOWING CALCULATION AS A TYPICAL EXAMPLE. (ASSUMED GROUND FLOOR INSTALLATION)

LOADS & DISTRIBUTION: INVERTER CABINET

ANALYSIS BASED ON SECTION 13.3 OF THE ASCE 7-16 SPECIFICATION REFERENCED IN CHAPTER 16 OF THE 2021 IBC/2022 CBC/2023 IABC

F_p (13.3-1) = $0.4 \times a_p \times S_{ps} \times W_p / R_p$ (p)	$0.234 \times W_p$	
F_p (13.3-2) = $1.6 \times S_{ps} \times I_p \times W_p$	$2.336 \times W_p$	SHALL NOT BE GREATER THAN
F_p (13.3-3) = $0.3 \times S_{ps} \times I_p \times W_p$	$0.438 \times W_p$	SHALL NOT BE LESS THAN

SITE CLASS = D
 $F_a = 1.2$
 $S_s = 1.83$
 $S_{ps} = 1.46$
 $I_p = 1.00$
 $R_p = 2.5$ ASCE 7-16 Table 13.5-1
 $a_p = 1$ ASCE 7-16 Table 13.5-1

$W_p = 4000$ LB
 $0.7F_p = 0.7 \times 0.438 \times W_p = 0.317 \times 4000$ LB = 1,228 LB

OVERTURNING ANALYSIS:

CABINET HEIGHT, H = 63.0 IN
 ANCHORS SPACING, D = 25.0 IN

$M_{ot} = V_{ot} \times (H/2)$
 $= 1228$ LB * 63 IN * $1/2$
 $= 38,632$ IN-LB

$M_{st} = W_p \times D/2$
 $= 4000$ LB * 25 IN / 2
 $= 50,000$ IN-LB

$P_{uplift} = (M_{ot} - 0.6 \times M_{st}) / D$
 $= (38632$ IN-LB - 0.6×50000 IN-LB) / 25 IN
 $= 345$ LB ≤ 0 UP/LIFT

ANCHORS
 ALLOWABLE CAPACITY PER ICC REPORT AND ACI 318-14 CHAPTER 17
 PULLOUT: 1170 LB $V_{allowable, pull}$
 SHEAR: 2390 LB $V_{allowable, shear}$

COMBINED STRESS = $(345$ LB / 2340 LB) + $(1226$ LB / 9560 LB) = $0.28 < 1.2$ OK

USE 1/2" x 3" MIN. EMBED. MULTI-KB-T22 (ICC ESR-4266) OR APPROVED EQUIV. (4) PER CABINET

POWER COMPANY
 NORTHBRIDGE, CA 91324

NO.	DESCRIPTION

REV.	DATE	BY	DESCRIPTION

SEIZMIC
 EST. 1990
 SEIZMIC
 ENGINEERING, INC.
 1100 S. Cypress St.
 Covina, California
 91724
 Tel. (909) 869-0999

DRAWN BY: M.V. J.T.C.
 DATE: 01/25/24
 JOB REV. BY:
 REV. DATE:
 TYPE:
 SCALE: N.T.S.
 APPROV BY: SALE PATREY

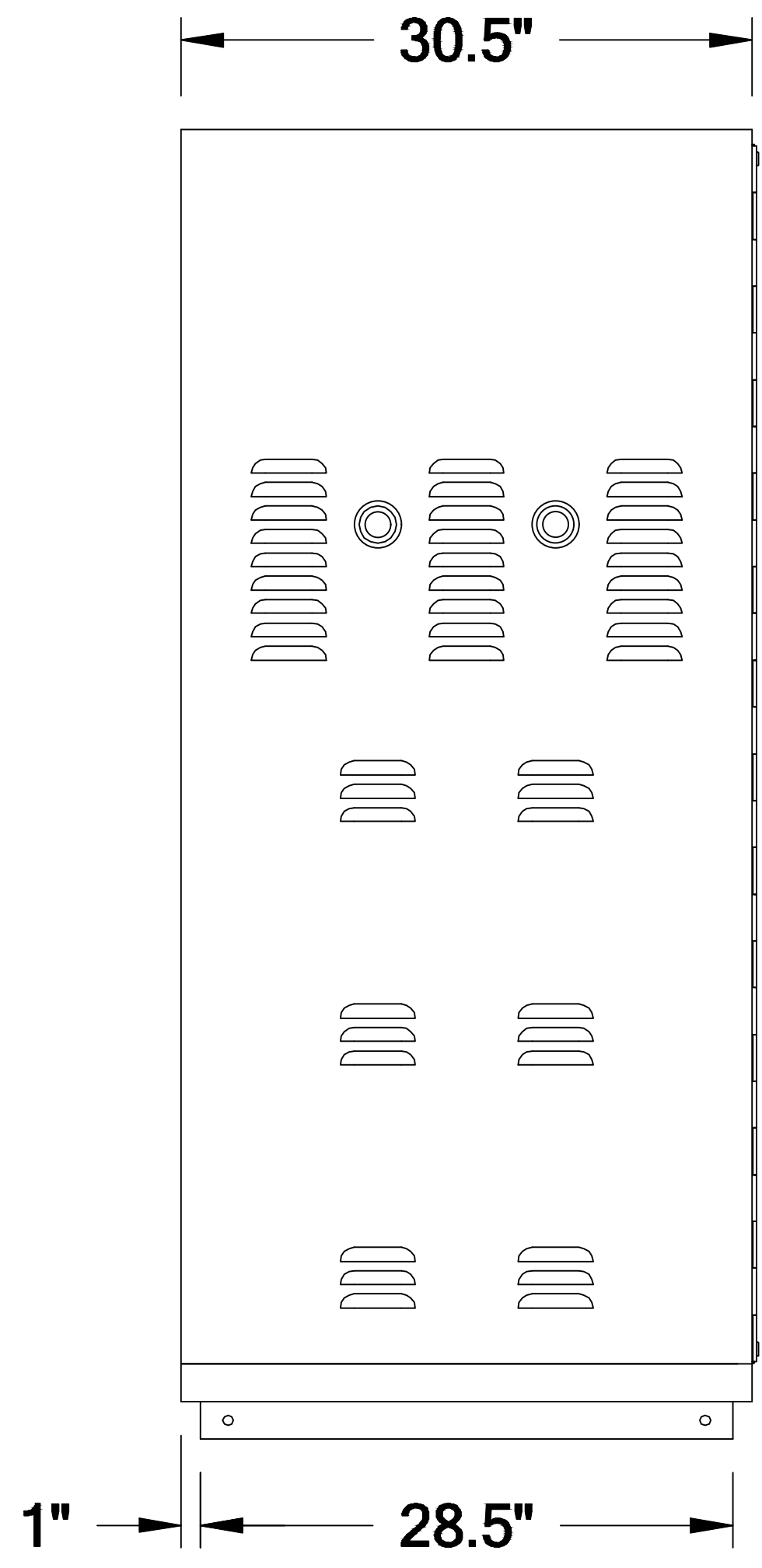


12-31-2025

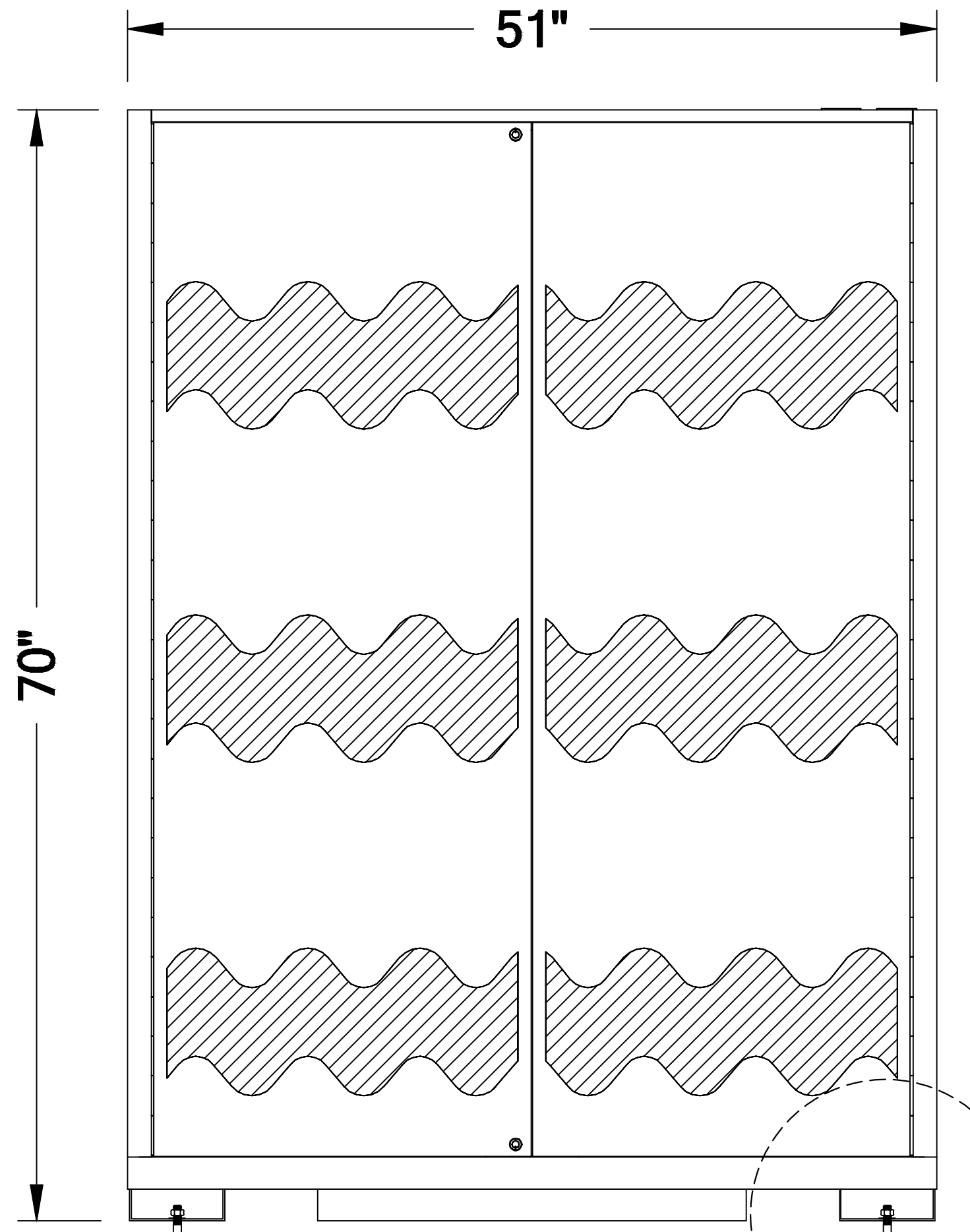
DESCRIPTION:
CABINET DETAILS

DRAWING NUMBER:
24-0186-D

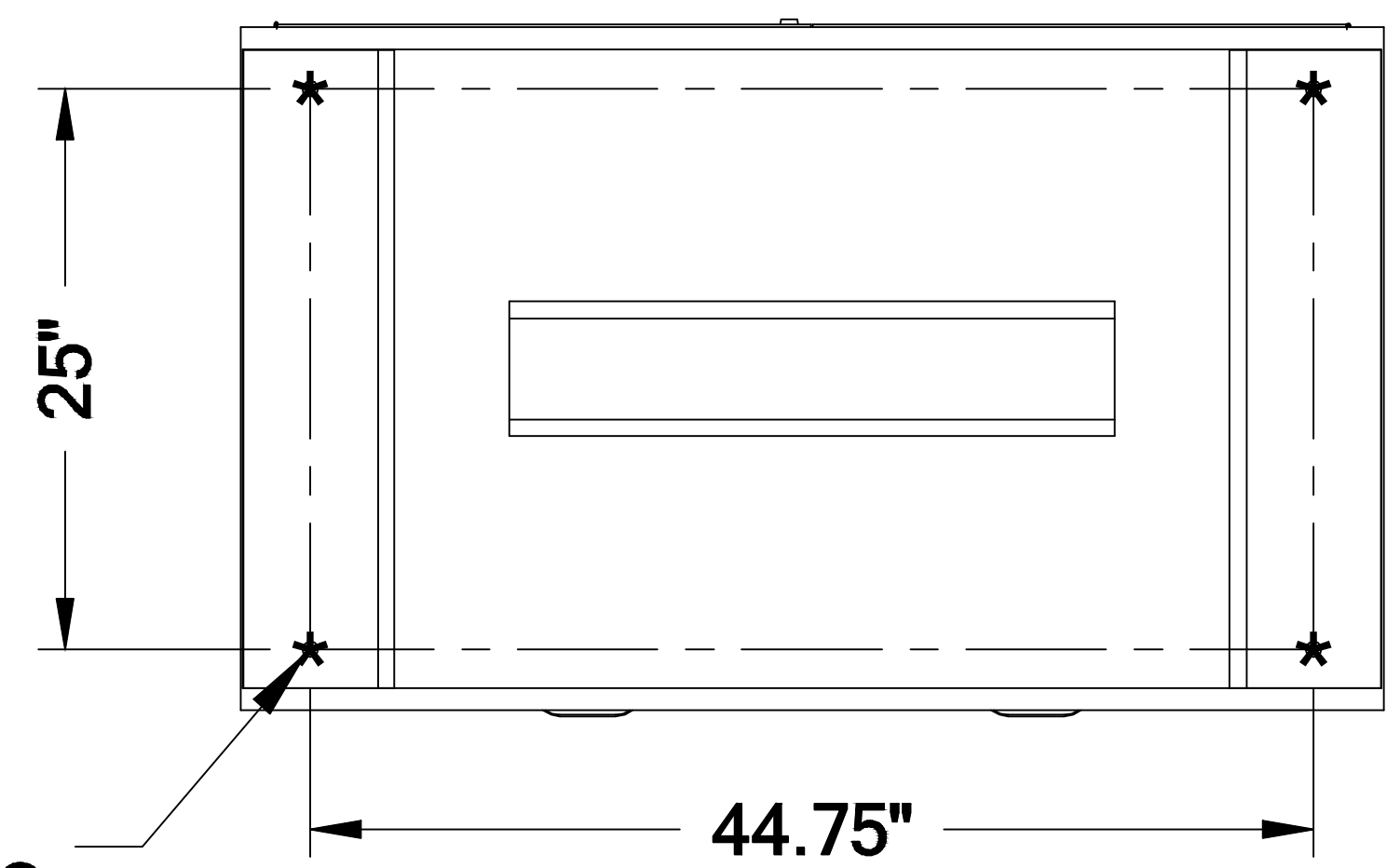
CALCULATIONS



SIDE



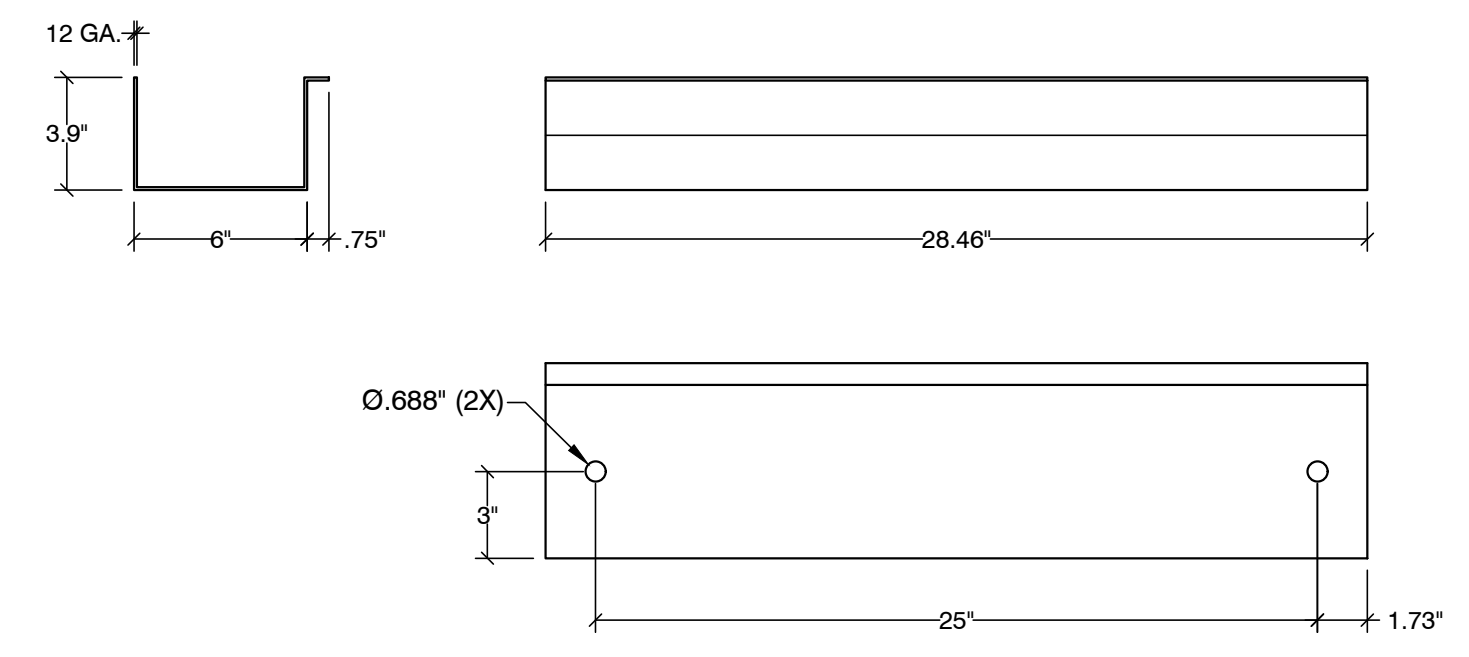
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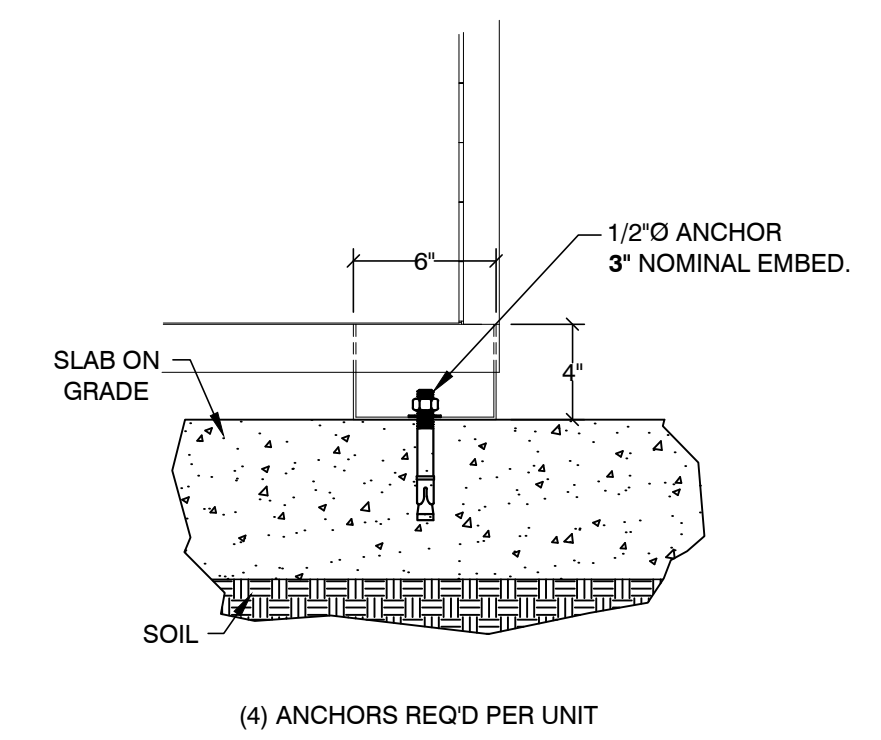
BOTTOM

Ø.69 (4X)
MGT HOLES

* -DENOTES ANCHOR LOCATION



1 ANCHOR BRACKET DETAIL



2 ANCHOR DETAIL

- NOTES:**
- DESIGNED PER THE 2021 IBC / 2022 CBC / 2023 LABC, Fa = 1.2 & Ss = 1.82
 - STORAGE CAPACITY: 4,640# MAX. WEIGHT.
 - ANCHORS: HILTI KWIK BOLT TZ 2, ICC #ESR-4266 W/ LABC SUPPLEMENT
 - CONCRETE: 5" THICK x 2,500 PSI.
 - SOIL BEARING PRESSURE: 500 PSF. (MIN. REQ'D).
 - EVALUATION BASED ON NORTHRIDGE LOCATION (ONE OF THE HIGHEST LA FAULT AREAS) WITH THE FOLLOWING CALCULATION AS A TYPICAL EXAMPLE. (ASSUMED GROUND FLOOR INSTALLATION)

LOADS & DISTRIBUTION:

ANALYSIS BASED ON SECTION 13.3 OF THE ASCE 7-16 SPECIFICATION REFERENCED IN CHAPTER 16 OF THE 2021 IBC/2022 CBC/2023 LABC

Fp (13.3-1) = 0.4 x ap x Sps x Wp / [Rp / Ip]	0.234 x Wp	
Fp (13.3-2) = 1.6 x Sps x Ip x Wp	2.336 x Wp	SHALL NOT BE GREATER THAN
Fp (13.3-3) = 0.3 x Sps x Ip x Wp	0.438 x Wp	SHALL NOT BE LESS THAN

SITE CLASS = D

Fa = 1.2	
Ss = 1.82	
Sps = 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 = 4640 LB

0.7Fp = 0.7 * 0.438 * Wp
= 0.31 * 4640 LB
= 1,423 LB

OVERTURNING ANALYSIS:

CABINET HEIGHT, Ht = 70.0 IN
ANCHORS SPACING, D = 25.0 IN

Mot = Vtotal * (1/2 Ht)
= 1423 LB * 70 IN * 1/2
= 49,792 IN-LB

Mst = Wp * D / 2
= 4640 LB * 25 IN / 2
= 58,000 IN-LB

Puplift = (Mot - 0.6 * Mst) / D
= (49,792 IN-LB - 0.6 * 58,000 IN-LB) / 25 IN
= 600 LB <= UPLIFT

ANCHORS

ALLOWABLE CAPACITY PER ICC REPORT AND ACI 318-19 CHAPTER 17
PULLOUT : 1170 LB Tallowable, ASD
SHEAR : 2390 LB Vallowable, ASD

COMBINED STRESS = (600 LB / 2340 LB) + (1423 LB / 9560 LB)
= 0.41 < 1.2 OK

USE 1/2"Ø x 3"MIN. EMBED. HILTI KB-TZ2 (ICC ESR-4266) OR APPROVED EQUAL (4) PER CABINET

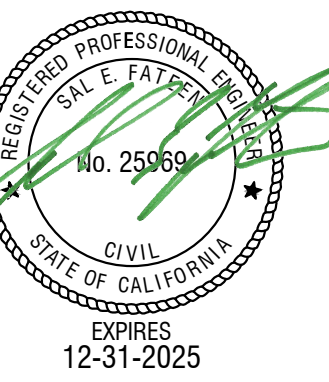
POWER COMPANY
9301 TAMPA AVE.
NORTHRIDGE, CA 91324

REV.	DATE	BY	DESCRIPTION



EST. 1985
SEIZMIC ENGINEERING, INC.
1130 E. Cypress St.
Covina, California 91724
Tel. (909) 969-0989

DRAWN BY: M.V. / T.C.
DATE: 01/11/23
LAST REV. BY:
REV. DATE:
TYPE:
SCALE: N.T.S.
APRVD BY: SAL E. FATEEN



DESCRIPTION:
CABINET DETAILS

DRAWING NUMBER:
23-0067-B