



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR OSHPD PREAPPROVAL OF
MANUFACTURER'S CERTIFICATION (OPM)**

OFFICE USE ONLY

APPLICATION #: OPM-0584

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: New Renewal/Update

Manufacturer Information

Manufacturer: BD

Manufacturer's Technical Representative: Thi Ho

Mailing Address: 10020 Pacific Mesa Blvd., San Diego, CA 92121

Telephone: (858) 617-4696

Email: thi.ho@carefusion.com

Product Information

Product Name: IMES Cabinet

Product Type: Other Electrical & Mechanical Components

Product Model Number: N/A

General Description: system provides easy access to needed supplies on nursing floors and throughout your healthcare facility.
This secure storage device provides your staff with the ability to document supply usage, in real-time

Applicant Information

Applicant Company Name: EASE LLC.

Contact Person: Tiffany Tonn

Mailing Address: 1515 FAIRVIEW AVE, STE 205, MISSOULA, MT 59801

Telephone: (406) 541-3273

Email: tiffany@easeco.com

Title: _____

Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY





OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Registered Design Professional Preparing Engineering Recommendations

Company Name: EASE

Name: Jonathan Roberson

California License Number: S4197

Mailing Address: 5877 Pine Ave., Suite 210, Chino Hills, CA 91709

Telephone: (951) 295-1892

Email: jon@EASECo.com

OSHDP Special Seismic Certification Preapproval (OSP)

Special Seismic Certification is preapproved under OSP

OSP Number: _____

Certification Method

Testing in accordance with: ICC-ES AC156 FM 1950-16

Other(s) (Please Specify): _____

*Use of criteria other than those adopted by the California Building Standards Code, 2019 (CBSC 2019) for component supports and attachments are not permitted. For distribution system, interior partition wall, and suspended ceiling seismic bracings, test criteria other than those adopted in the CBSC 2019 may be used when approved by OSHDP prior to testing.

Analysis

Experience Data

Combination of Testing, Analysis, and/or Experience Data (Please Specify): _____

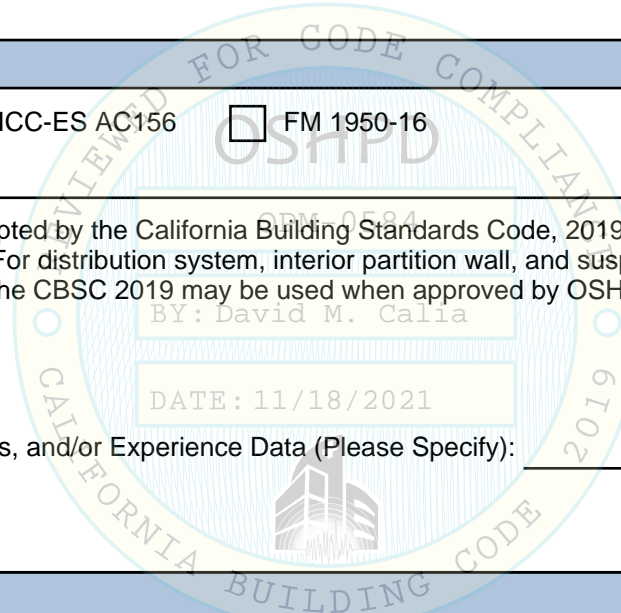
OSHDP Approval

Date: 11/18/2021

Name: David Calia

Title: Senior Structural Engineer

Condition of Approval (if applicable): _____





**EQUIPMENT ANCHORAGE
& SEISMIC ENGINEERING**

5877 Pine Ave, Ste. 210
Chino Hills, CA. 91709
Phn: (909) 606-7622

Office of Statewide Health Planning and Development
PREAPPROVAL OF MANUFACTURER'S CERTIFICATION
OPM-0584

THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE

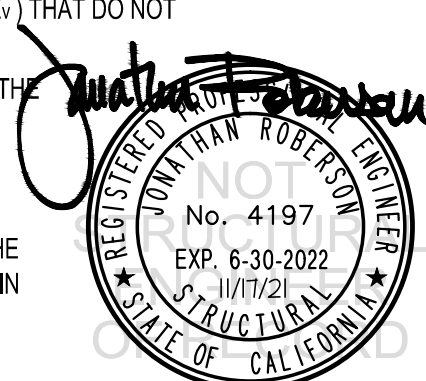
MANUFACTURER: **BD**
EQUIPMENT NAME: **IMES, CII SAFE ES & CII SAFE ES V9 CABINETS**

Sheet: 1 of 10
Date: 11/17/21

GENERAL NOTES

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2019 CBC. THE DEMANDS (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2019 CBC
2. THIS DOCUMENT MAY ONLY BE USED WITH THE EXPRESS WRITTEN CONSENT OF THE MANUFACTURER LISTED ABOVE FOR THE SPECIFIC PROJECT SITE AND INSTALLATION LOCATION. THIS DOCUMENT IS INVALID WITHOUT SUCH CONSENT.
3. THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE WHERE S_{ds} IS NOT GREATER THAN 1.30, 1.90 & 2.20.
4. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3,
WHERE $S_{ds} = 1.30$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h = 0$ AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR Ω .
WHERE $S_{ds} = 1.90$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h = 0$ AT CONCRETE SLAB. SEE FOLLOWING SHEETS FOR Ω .
WHERE $S_{ds} = 2.20$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h = 0$ AT CONCRETE SLAB & $z/h \leq 1$ AT CONCRETE SLAB ON METAL DECK. SEE FOLLOWING SHEETS FOR Ω .
5. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS AND ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE.
6. ALL DESIGN FORCES SHOWN ON THE DRAWINGS ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.
7. CONCRETE SLAB ON METAL DECK DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION IN THE BUILDING. (i.e. $z/h \leq 1$)
8. CONCRETE SLAB DETAIL VALID FOR DEMANDS SHOWN AT OR BELOW GRADE. (i.e. $z/h = 0$)
9. **RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD OF THE BUILDING**
 - A. PROVIDE SUPPORTING STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN IN ADDITION TO ALL OTHER LOADS.
 - B. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2019 CBC AND WITH THE DETAILS, MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PREAPPROVAL DOCUMENTS.
 - C. VERIFY THAT PROJECT SPECIFIC VALUES OF S_{ds} & z/h RESULT IN SEISMIC FORCES (E_h , E_v) THAT DO NOT EXCEED THE VALUES ON THE DETAILS.
 - D. VERIFY THAT THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS ANCHORED MEETS THE REQUIREMENTS OF THE APPLICABLE ICC ESR REPORT AND THIS OPM.
 - E. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS (SEE TYPICAL DETAIL ON SHEET 2).
 - F. VERIFY THAT ALL NEW OR EXISTING ANCHORS ARE AN ADEQUATE DISTANCE FROM THE UNIT ATTACHMENTS AND CHECK FOR INTERACTION WHERE OTHER ANCHORS ARE WITHIN 18" OR $6h_{ef}$ FROM THIS UNIT'S ANCHORS.

DATE: 11/18/2021



BD

DES. **J. ROBERSON**

SHEET

2

JOB NO. **11-1922**

DATE **11/17/21**

OF **10** SHEETS

IMES, CII SAFE ES & CII SAFE ES V9 CABINETS

10. EXPANSION ANCHORS:

A. ATTACHMENT IS TO BE MADE WITH THE ANCHORS LISTED BELOW AND INSTALLED AS DESCRIBED IN THE CORRESPONDING ICC REPORT.

Anchor Diameter	Concrete Type	Min. f'c (psi)	Anchor Type	ICC Report No.	Min. Embed.	Min. Spacing	Min. Edge Dist.	Min. Conc. Thickness	Torque Test	Direct Tension Test
1/2"	Sand Light Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	3.25"	9.75"	12"	See Detail "A"	50 FT-LB	N/A
1/2"	Normal Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	2"	8"	14"	4"	50 FT-LB	1983 lb
1/2"	Normal Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	3.25"	8"	24"	6"	50 FT-LB	3026 lb

B. THIS PREAPPROVAL ALLOWS FOR UP TO A MAXIMUM OF 2 ADJACENT CONCRETE SLAB EDGES, 12" & 24" AWAY MINIMUM (i.e. - CORNER), SEE ADJACENT DETAIL FOR ADDITIONAL MINIMUM ALLOWABLE CONCRETE EDGE DISTANCES.

C. TESTING AND SPECIAL INSPECTION OF EXPANSION ANCHORS SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY EMPLOYED BY THE FACILITY OWNER PER CBC 1704A & 1910A.5 AND CAC 7-149. ALL REPORTS SHALL BE SENT TO THE INSPECTOR OF RECORD, OWNER AND THE ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE.

(i) AFTER AT LEAST 24 HOURS HAVE ELAPSED SINCE INSTALLATION, DIRECT PULL TENSION TEST OR TORQUE TEST AT LEAST 50% OF THE ANCHORS.

(ii) ACCEPTANCE CRITERIA:

- DIRECT TENSION TEST: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE TEST LOAD. A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER BECOMES LOOSE.
- TORQUE TEST: THE APPLICABLE TORQUE MUST BE ACHIEVED WITHIN THE FOLLOWING LIMITS: WEDGE TYPE : 1/2 TURN OF THE NUT

(iii) IF ANY ANCHOR FAILS, TEST ALL ANCHORS.

D. AVOID DAMAGING EXISTING STEEL REINFORCING IN CONCRETE SLAB WHEN INSTALLING CONCRETE EXPANSION ANCHORS.

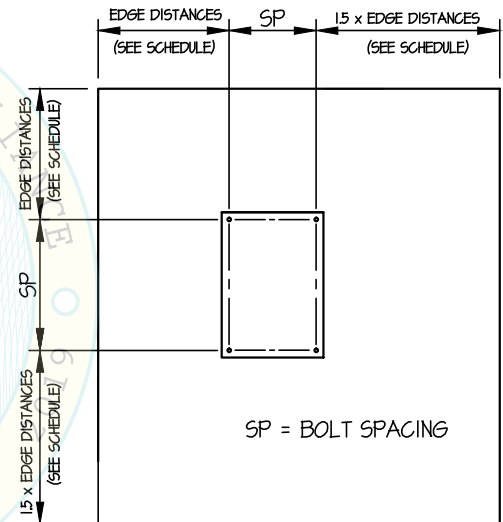
E. PROVIDE FOR FULL THREAD ENGAGEMENT OF NUT & WASHER.

11. BOLTS THROUGH CONCRETE ON METAL DECK

A. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER THE SNUG TIGHT (THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNLESS OTHERWISE NOTED.

B. THROUGH BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16) FOR CONCRETE.

C. THROUGH-BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION AND TESTING (THROUGH BOLTS WITH STEEL TO STEEL CONNECTION IN TENSION DO NOT REQUIRE TENSION TESTING) IN ACCORDANCE WITH REQUIREMENTS FOR POST-INSTALLED ANCHORS.



TYPICAL CONCRETE EDGE DETAIL



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DES. **J. ROBERSON**

SHEET

3

**IMES, CII SAFE ES &
CII SAFE ES V9 CABINETS**

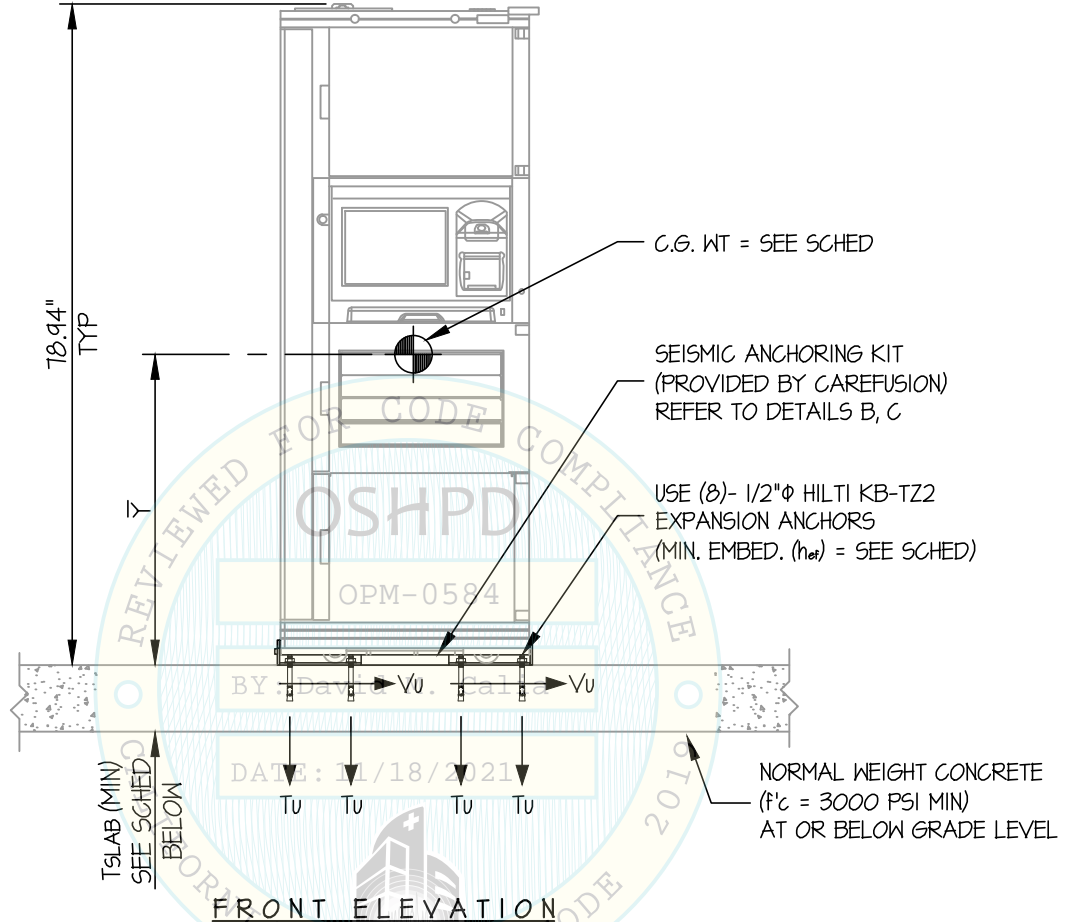
JOB NO. **11-1922**

DATE **11/17/21**

OF **10** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB



ANCHORS

MAX Sds	TYPE	DIAM	EFF EMBED	QTY	TSLAB
130	HILTI KB-TZ2	1/2"	2"	8	4"
190	HILTI KB-TZ2	1/2"	3.25"	8	6"

NOTES:

- FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16**
STRENGTH DESIGN IS USED. ($\alpha_p = 1.0$, $l_p = 1.5$, $R_p = 1.5$, $\Omega_o = 2.0$, $z/h = 0$)
- CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.
- STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.
- CALCULATION COVERS PYXIX STATION DOUBLE UNIT, SYSTEM 30 DOUBLE UNIT & SYSTEMS EC DOUBLE UNIT. ALL UNITS HAVE SAME WEIGHT AND DIMENSIONS.



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DES. **J. ROBERSON**

SHEET

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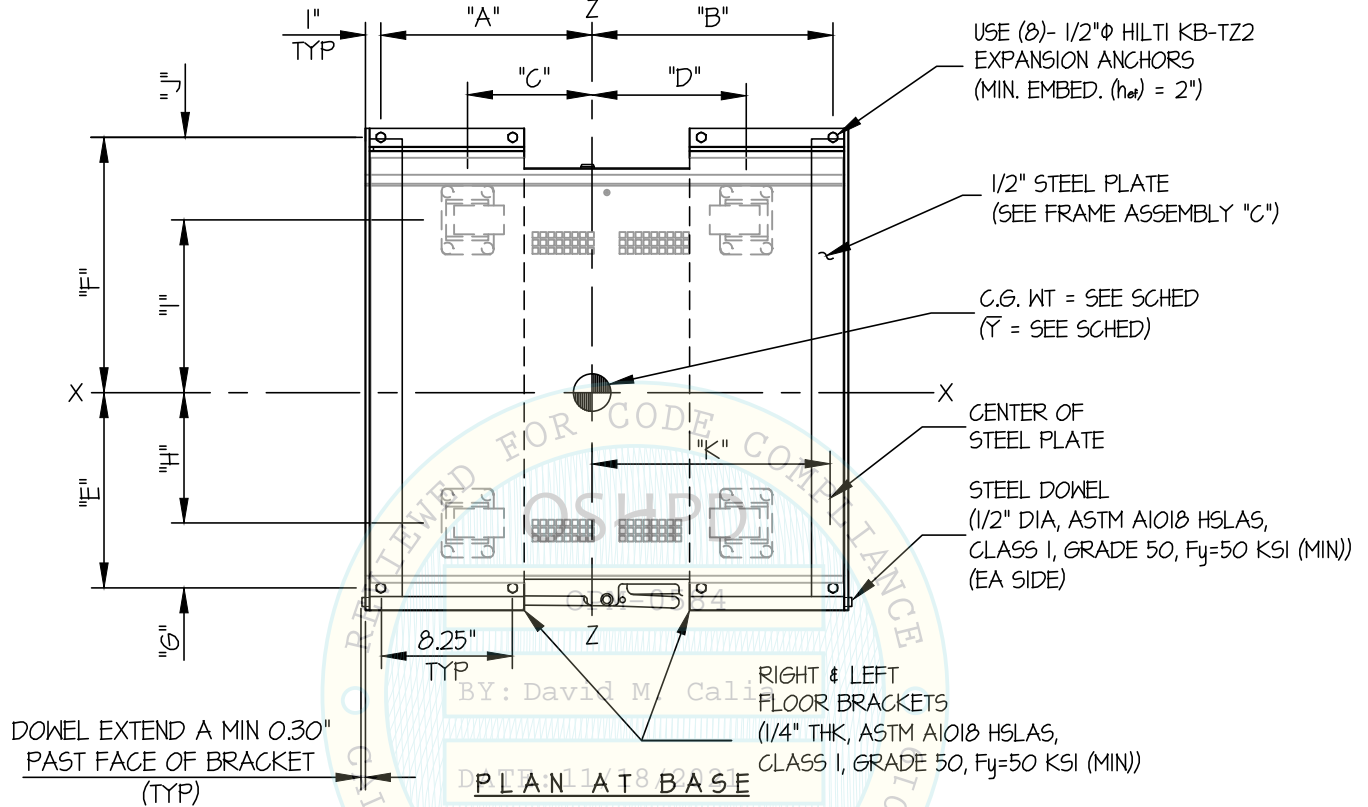
OF **10** SHEETS

IMES, CII SAFE ES & CII SAFE ES V9 CABINETS

SEISMIC SUPPORTS & ATTACHMENTS

MAX Spds \leq 1.30

CONCRETE SLAB



UNIT NUMBER	WEIGHT (lb)	\bar{Y} (in)	"A" (in)	"B" (in)	"C" (in)	"D" (in)	"E" (in)	"F" (in)	"G" (in)	"H" (in)	"I" (in)	"J" (in)	"K" (in)	+ Tu (lb)	+ Vu (lb)
IMES	1297	37.10	13.20	15.24	8.00	10.04	11.82	14.68	3.51	8.31	9.84	4.84	14.35	1409	595
CII SAFE ES	1141	34.00	13.34	15.08	8.16	9.88	9.76	16.74	3.51	6.24	11.90	4.84	14.19	1325	489
CII SAFE ES V9	877	37.68	13.63	14.79	8.45	9.59	10.38	16.12	3.51	6.86	11.29	4.84	14.78	1138	365

+ VALUES INCLUDE Ω_0



BD

DES. **J. ROBERSON**

SHEET

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IMES, CII SAFE ES & CII SAFE ES V9 CABINETS

JOB NO. **11-1922**

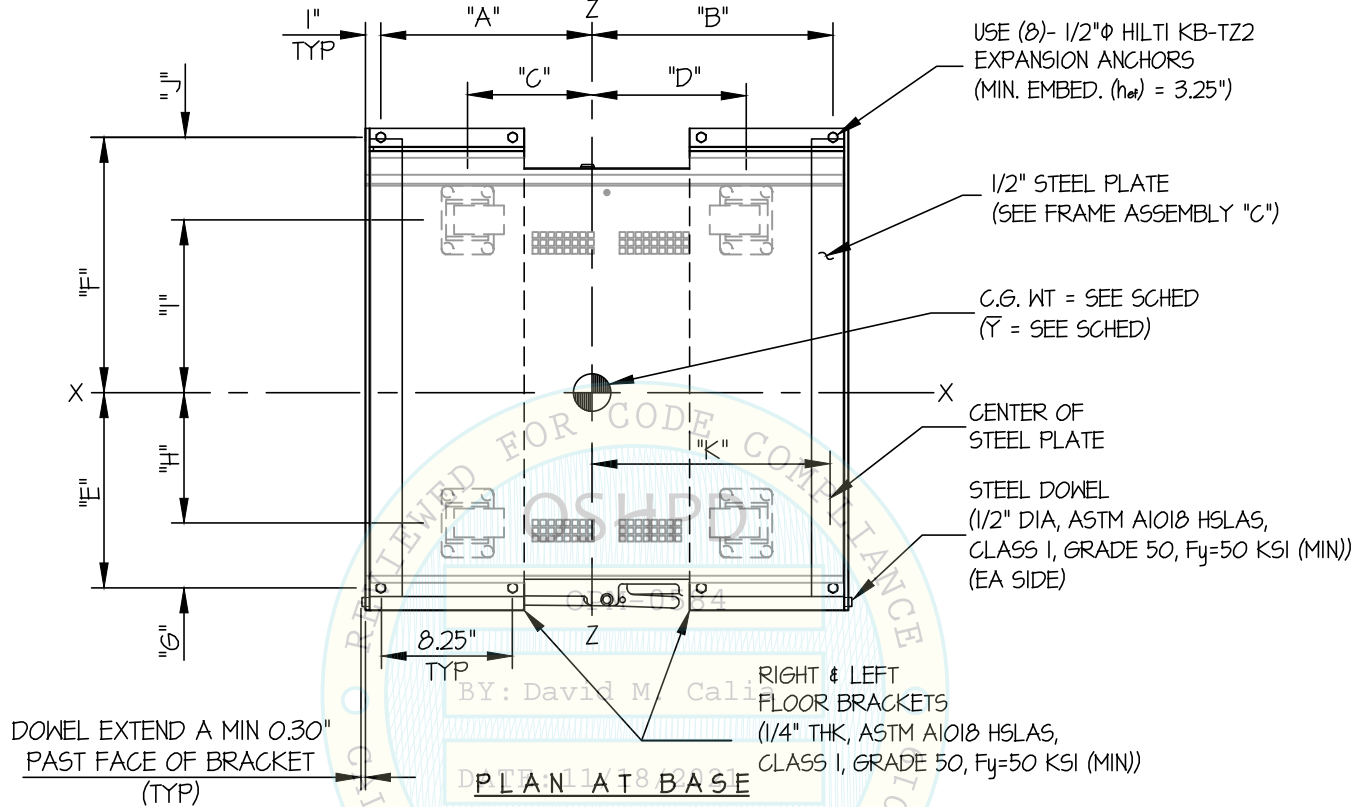
DATE **11/17/21**

OF **10** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

1.30 < MAX Sps ≤ 1.90

CONCRETE SLAB



UNIT NUMBER	WEIGHT (lb.)	ȳ (in.)	"A" (in.)	"B" (in.)	"C" (in.)	"D" (in.)	"E" (in.)	"F" (in.)	"G" (in.)	"H" (in.)	"I" (in.)	"J" (in.)	"K" (in.)	+ Tu (lb.)	+ Vu (lb.)
IMES	1297	37.10	13.20	15.24	8.00	10.04	11.82	14.68	3.51	8.31	9.84	4.84	14.35	2213	870
CII SAFE ES	1141	34.00	13.34	15.08	8.16	9.88	9.76	16.74	3.51	6.24	11.90	4.84	14.19	2155	715
CII SAFE ES V9	877	37.68	13.63	14.79	8.45	9.59	10.38	16.12	3.51	6.86	11.29	4.84	14.78	1821	533

+ VALUES INCLUDE Ω_o



BD

DES. **J. ROBERSON**

SHEET

6

**IMES, CII SAFE ES &
CII SAFE ES V9 CABINETS**

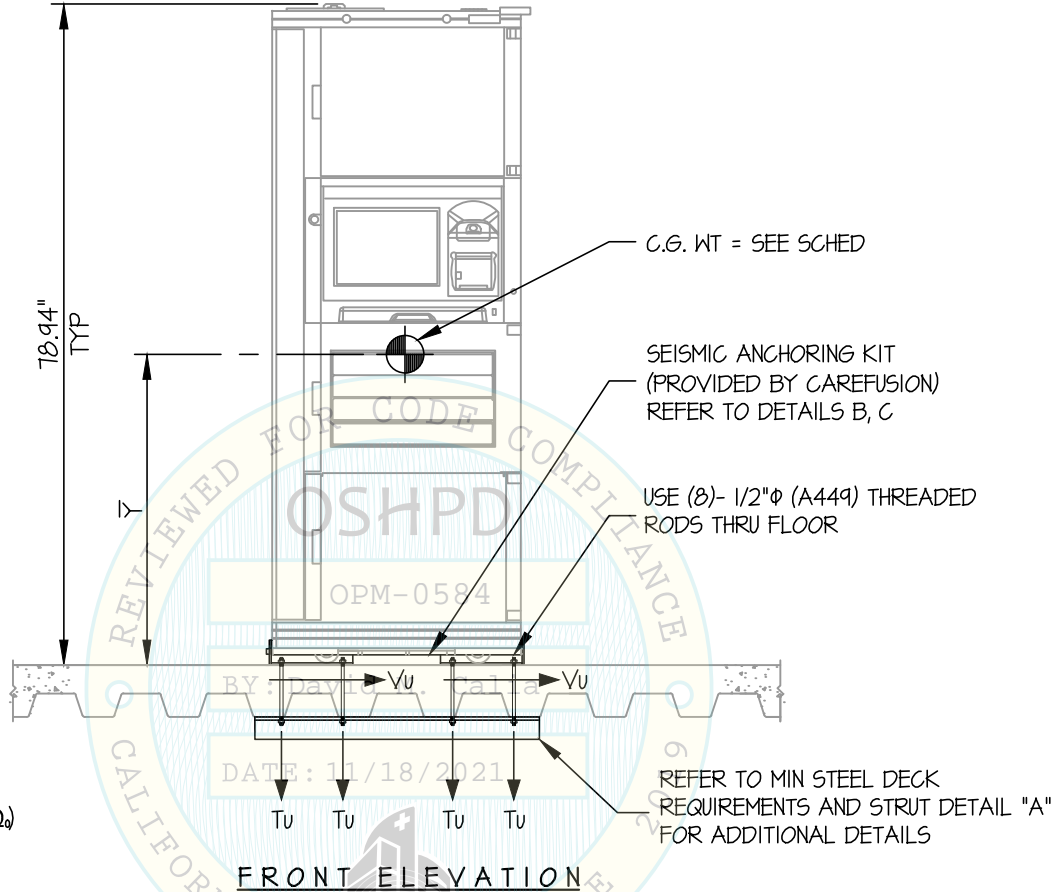
JOB NO. **11-1922**

DATE **11/17/21**

OF **10** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB ON METAL DECK



$T_u = 3543$ LB/BOLT (MAX)
 $V_u = 1344$ LB/BOLT (MAX)
(VALUES DO NOT INCLUDE Ω)

FRONT ELEVATION

NOTES:

1. **FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16.**

STRENGTH DESIGN IS USED. ($S_{ds} = 2.20$, $a_p = 10$, $l_p = 1.5$, $R_p = 1.5$, $\Omega_o = 2.0$, $z/h \leq 1$)

HORIZONTAL FORCE (E_h) = $2.64 W_p$

HORIZONTAL FORCE (E_{mh}) = $5.28 W_p$ (FOR CONCRETE ANCHORAGE)

VERTICAL FORCE (E_v) = $0.44 W_p$

2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.

3. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.

Jonathan Roberson
REGISTERED PROFESSIONAL ENGINEER
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2022
11/17/21
STRUCTURAL
STATE OF CALIFORNIA

BD

DES. **J. ROBERSON**

SHEET

7

IMES, CII SAFE ES & CII SAFE ES V9 CABINETS

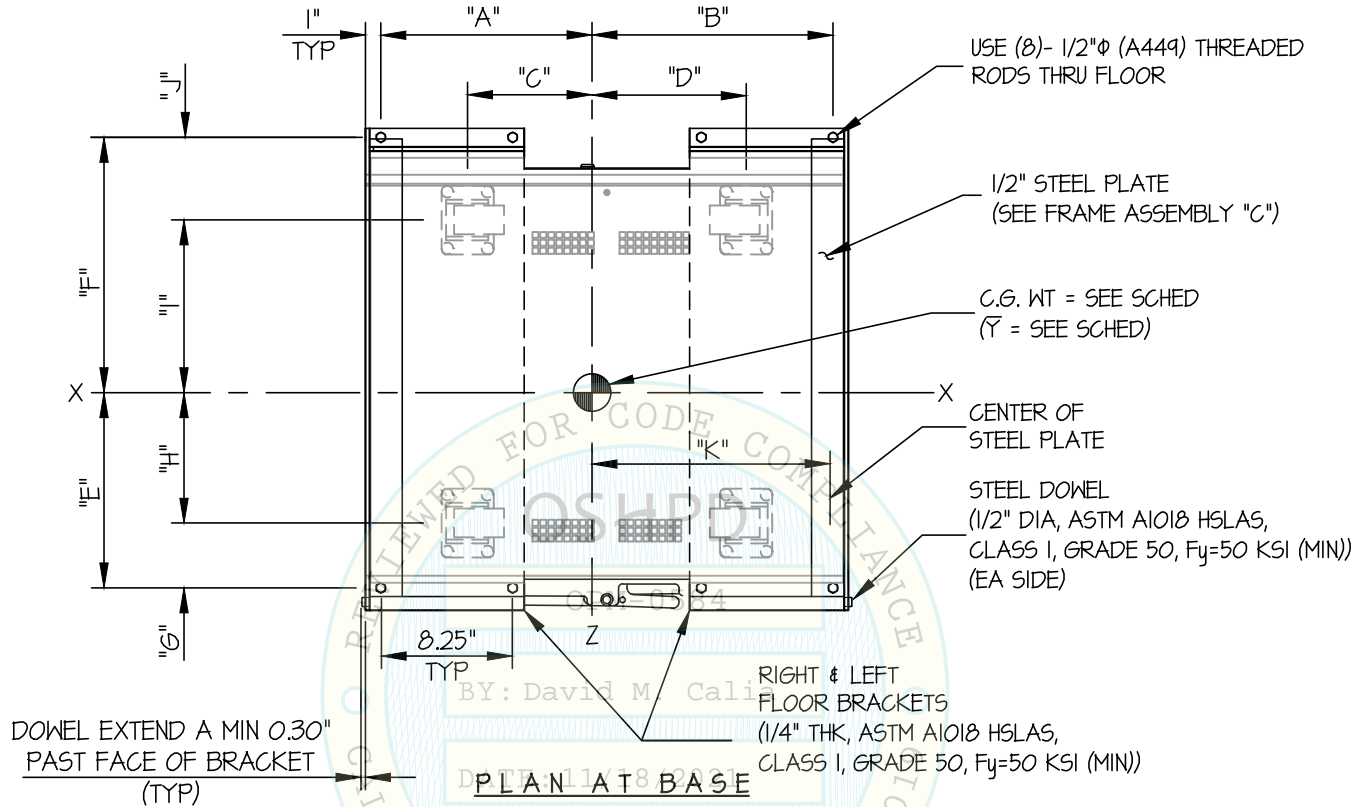
JOB NO. **11-1922**

DATE **11/17/21**

OF **10** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB ON METAL DECK



UNIT NUMBER	WEIGHT (lb)	ȳ (in)	"A" (in)	"B" (in)	"C" (in)	"D" (in)	"E" (in)	"F" (in)	"G" (in)	"H" (in)	"I" (in)	"J" (in)	"K" (in)	+ Tu (lb)	+ Vu (lb)
IMES	1297	37.10	13.20	15.24	8.00	10.04	11.82	14.68	3.51	8.31	9.84	4.84	14.35	3543	1344
CII SAFE ES	1141	34.00	13.34	15.08	8.16	9.88	9.76	16.74	3.51	6.24	11.90	4.84	14.19	3507	1104
CII SAFE ES V9	877	37.68	13.63	14.79	8.45	9.59	10.38	16.12	3.51	6.86	11.29	4.84	14.78	2942	823

+ VALUES DO NOT INCLUDE Ω.



BD

DES. **J. ROBERSON**

SHEET

8

**IMES, CII SAFE ES &
CII SAFE ES V9 CABINETS**

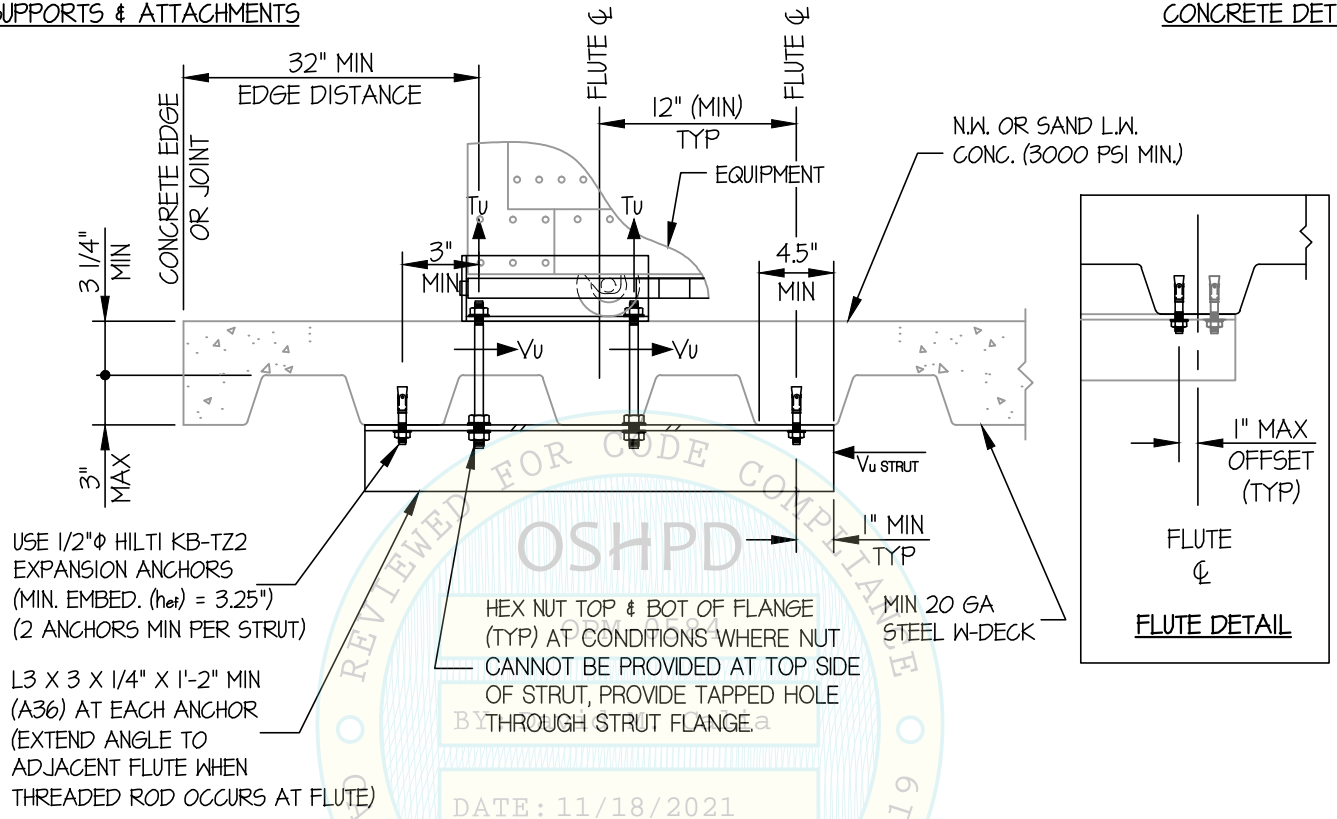
JOB NO. **11-1922**

DATE **11/17/21**

OF **10** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE DETAIL



MIN STEEL DECK REQUIREMENTS AND STRUT DETAIL (A)

Jonathan Roberson

REGISTERED PROFESSIONAL ENGINEER
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2022
11/17/21
STRUCTURAL
STATE OF CALIFORNIA

BD

DES. **J. ROBERSON**

SHEET

9

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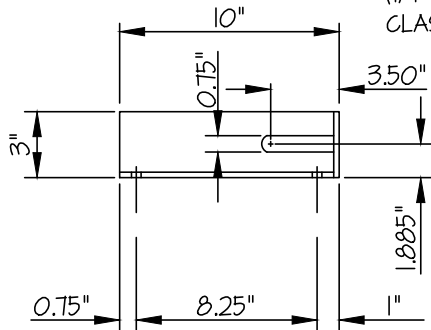
OF **10** SHEETS

IMES, CII SAFE ES & CII SAFE ES V9 CABINETS

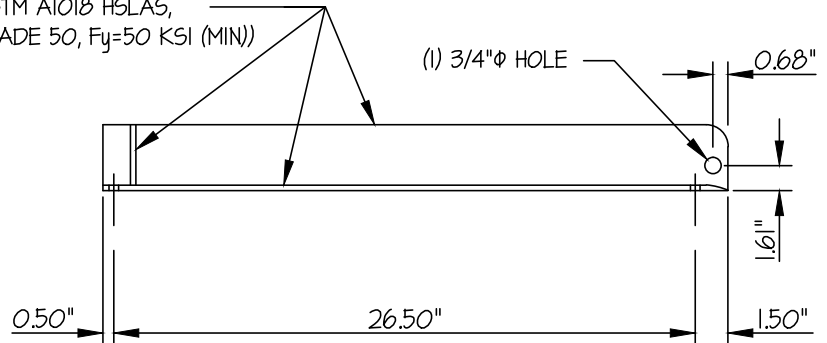
SEISMIC SUPPORTS & ATTACHMENTS

FLOOR BRACKETS
(1/4" THK, ASTM A1018 HSLAS,
CLASS I, GRADE 50, Fy=50 KSI (MIN))

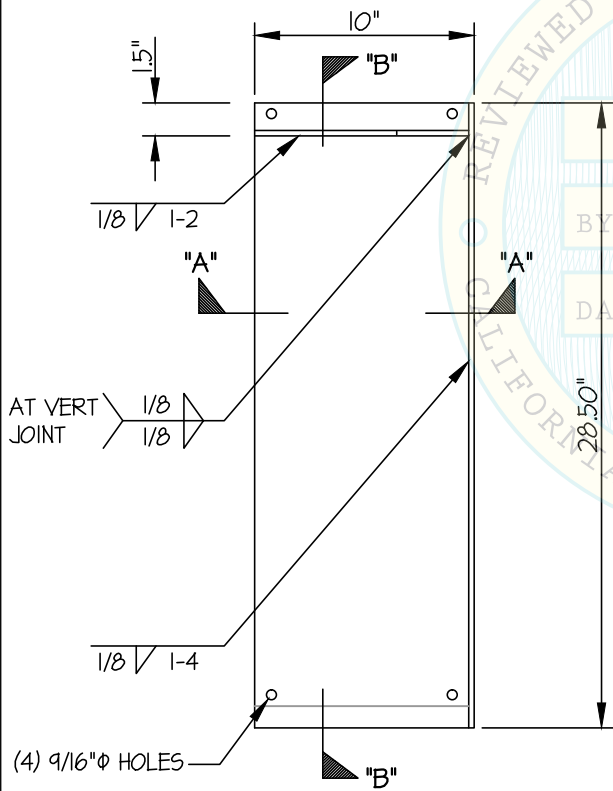
BRACKET DETAIL



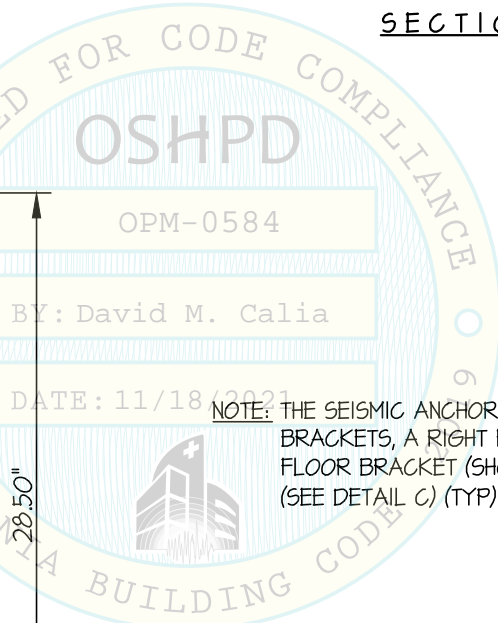
SECTION A-A



SECTION B-B

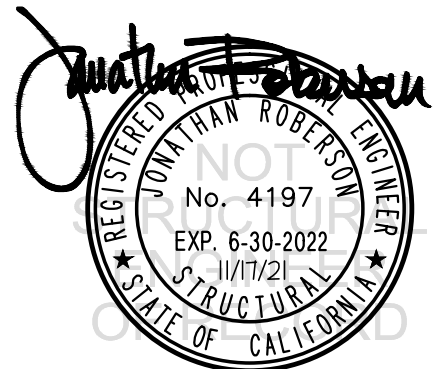


PLAN
(RIGHT FLOOR BRACKET SHOWN)



NOTE: THE SEISMIC ANCHORING KIT CONSISTS OF TWO FLOOR BRACKETS, A RIGHT FLOOR BRACKET AND A LEFT FLOOR BRACKET (SHOWN HERE) AND FRAME ASSEMBLY (SEE DETAIL C) (TYP)

BRACKET DETAIL (B)



BD

DES. **J. ROBERSON**

SHEET

10

**IMES, CII SAFE ES &
CII SAFE ES V9 CABINETS**

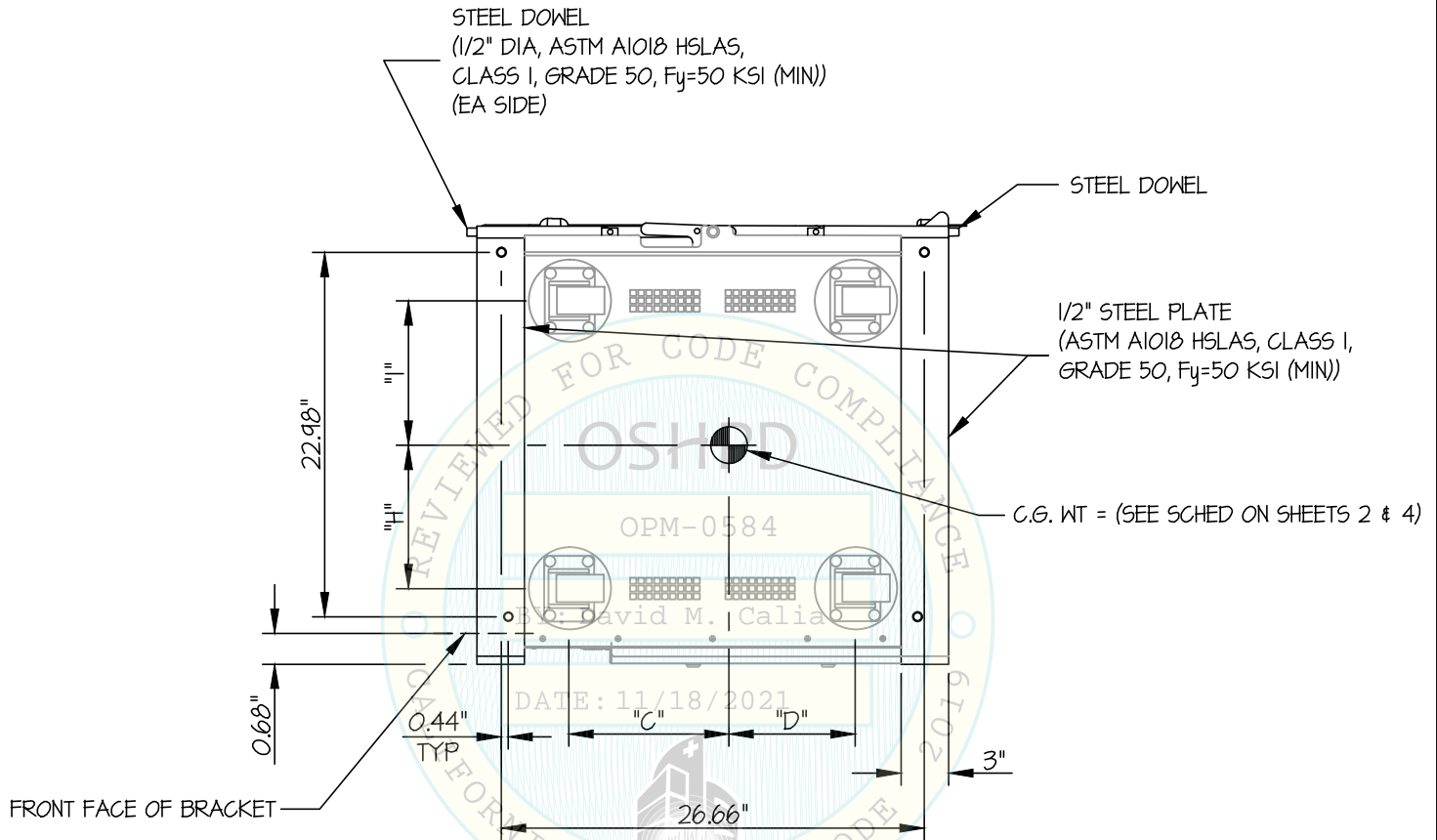
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OF **10** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BASE DETAIL



NOTE: THE SEISMIC ANCHORING KIT CONSISTS OF TWO FLOOR BRACKETS, A RIGHT FLOOR BRACKET AND A LEFT FLOOR BRACKET (SEE DETAIL B) AND FRAME ASSEMBLY (SHOWN ABOVE) (TYP)

REFLECTED PLAN AT FRAME ASSEMBLY
(FRAME ASSEMBLY SHOP ATTACHED TO UNDERSIDE OF UNIT BY MFG)

BASE DETAIL (C)

