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

OFFICE USE ONLY

APPLICATION #: OPM-0158

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: ☐ New ☒ Renewal/Update

Manufacturer Information

Manufacturer: IPA, LLC.

Manufacturer's Technical Representative: Kyle Joiner

Mailing Address: 3059 Premiere Parkway, Suite 200, Duluth, GA 30097

Telephone: (888) 200-4797 Email: kjoiner@thinkipa.com

Product Information

Product Name: scrubEx LV RECEIVER

Product Type: Other mechanical components constructed of high-deformability materials

Product Model Number: N/A

General Description: Receives dirty scrub suits from authorized users

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: Office Manager

Registered Design Professonal 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

OSHPD 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 OSHPD prior to testing.

☒ Analysis

☐ Experience Data

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

OSHPD Approval

Date: 9/13/2021

Name: Kamalpreet Kalsi 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-0158

THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE

MANUFACTURER: **IPA, LLC**

EQUIPMENT NAME: **scrubEX LV RECEIVER**

Date: 9/7/21

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 2.30.
4. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3,
   WHERE S_{DS} = 2.30, a_p = 1.0, I_p = 1.5, R_p = 2.5, z/h = 0 AT CONCRETE SLAB, z/h $\leq$ 1 AT CONCRETE SLAB ON METAL DECK.
   SEE FOLLOWING SHEETS FOR Ω_o
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. SHEET METAL SCREWS SHALL BE TEKS SCREWS BY ITW BUILDEX (ICC ESR-1976).
8. CONCRETE SLAB ON METAL DECK DETAIL VALID FOR DEMANDS SHOWN AT ANY ELEVATION IN THE BUILDING. (i.e. z/h $\leq$ 1)
9. CONCRETE SLAB DETAIL VALID FOR DEMANDS SHOWN AT OR BELOW GRADE. (i.e. z/h = 0)

10. 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.

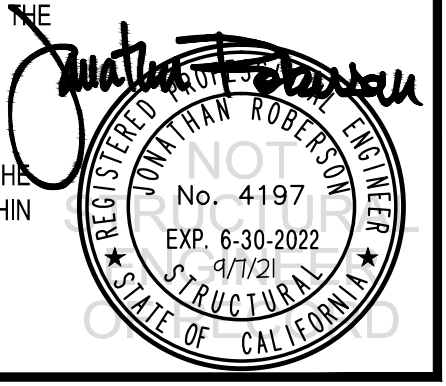
B. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2019 CBC AND WITH THE DETAILS, MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE AGREE WITH THE INFORMATION SHOWN ON THE PREAPPROVAL DOCUMENTS.

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 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 6hef FROM THIS UNIT'S ANCHORS.



11. **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
3/8"	Sand Light Weight	3000	Hilti Kwik Bolt TZ2	ESR-4266	2"	6.75"	12"	See Detail "A"	30 FT-LB	N/A
1/2"	Normal Weight	3000	Hilti Kwik Bolt TZ2	ESR-4266	3-1/4"	12"	26"	6"	50 FT-LB	3325 lb
5/8"	Normal Weight	3000	Hilti Kwik Bolt TZ2	ESR-4266	4"	11"	26"	6"	40 FT-LB	4350 lb

B. THIS PREAPPROVAL ALLOWS FOR UP TO A MAXIMUM OF 2 ADJACENT CONCRETE SLAB EDGES, 26" AWAY MINIMUM (i.e. - CORNER). SEE ADJACENT DETAIL FOR ADDITIONAL MINIMUM ALLOWABLE CONCRETE EDGE DISTANCES.

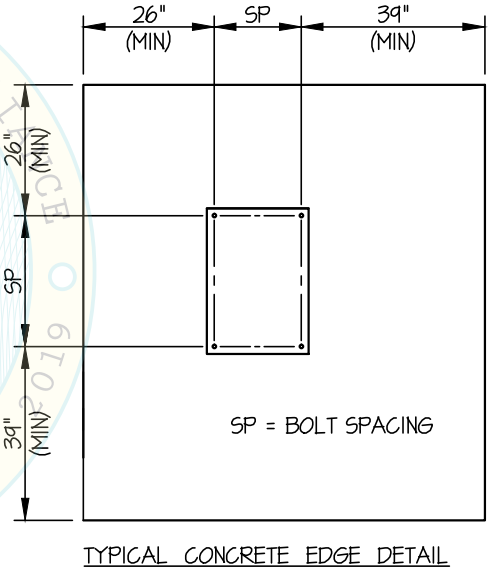
C. TESTING AND SPECIAL INSPECTION OF EXPANSION ANCHORS SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY EMPLOYED BY THE FACILITY OWNER PER CBC 1704A & 1910A.5 AND CAC 7-149. ALL REPORTS SHALL BE SENT TO THE INSPECTOR OF RECORD, OWNER AND THE ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE.

(i) AFTER AT LEAST 24 HOURS HAVE ELAPSED SINCE INSTALLATION, DIRECT PULL TENSION TEST 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.



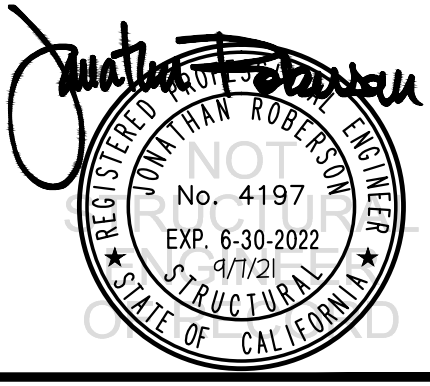
TYPICAL CONCRETE EDGE DETAIL

12. 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.

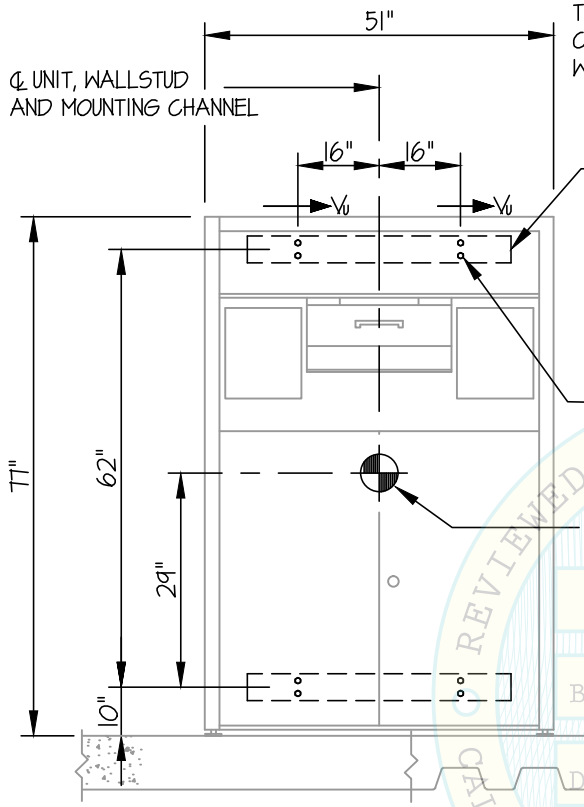


IPA, LLC

scrubEX LV RECEIVER

DES. J. ROBERSON
JOB NO. 11-2114
DATE 9/7/21
SHEET 3 OF 9 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS



FRONT ELEVATION

SEE SHEET 4 OF 9 FOR UNIT TO CHANNEL, CHANNEL TO CHANNEL & CHANNEL TO WALL CONNECTIONS

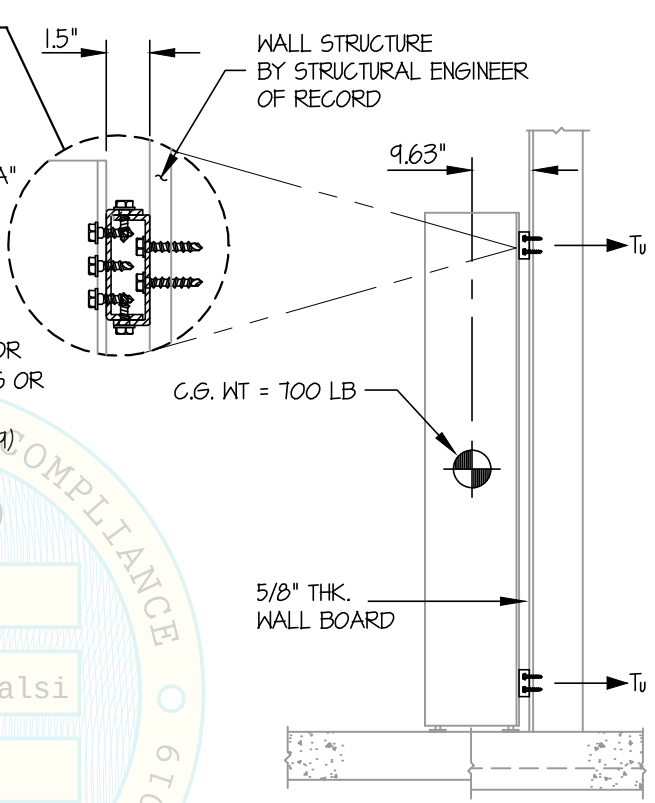
MOUNTING CHANNELS (A653 14 GA., 33 ksi) SEE BRACKET DETAIL "A" (PROVIDED BY IPA.)

(2)- 1/4"Φ TEK SCREWS OR
(2)- 1/4"Φ WOOD SCREWS OR
(1)- 1/2"Φ HILTI KB-TZ2
(REFER TO SHEET 4 OF 9)

C.G. WT = 700 LB

Tu = 183 LB/SCREW (MAX)
Vu = 155 LB/SCREW (MAX)
(VALUES DO NOT INCLUDE Ωo)

WALL MOUNTED



SIDE ELEVATION

NOTES:

1. FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16. STRENGTH DESIGN IS USED. (S_{DS} = 2.30, a_p = 1.0, I_p = 1.5, R_p = 2.5, Ω_o = 2.0, z/h ≤ 1)

   HORIZONTAL FORCE (E_h) = 1.66 W_p
   HORIZONTAL FORCE (E_{mh}) = 3.32 W_p (FOR CONCRETE ANCHORAGE)
   VERTICAL FORCE (E_v) = 0.46 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.
4. SEE GENERAL NOTES: SHEET 1 AND 2.

REGISTERED PROFESSIONAL ENGINEER
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2022
9/7/21
STRUCTURAL
STATE OF CALIFORNIA

IPA, LLC

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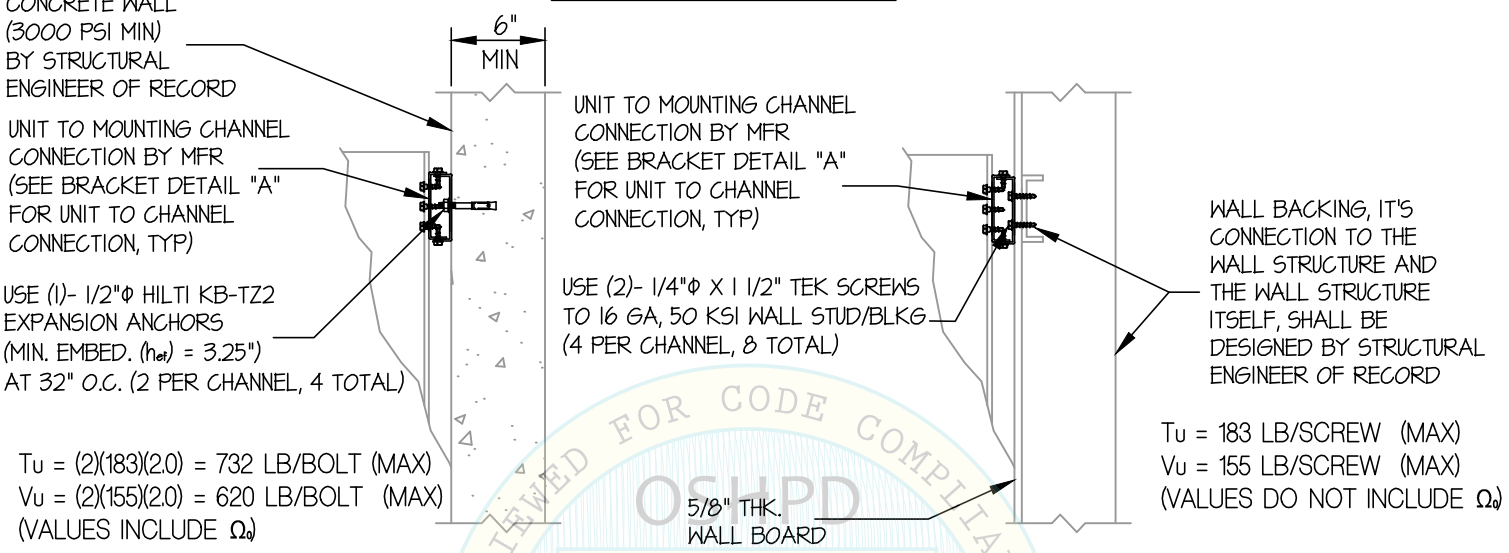
SHEET 4 OF 9 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

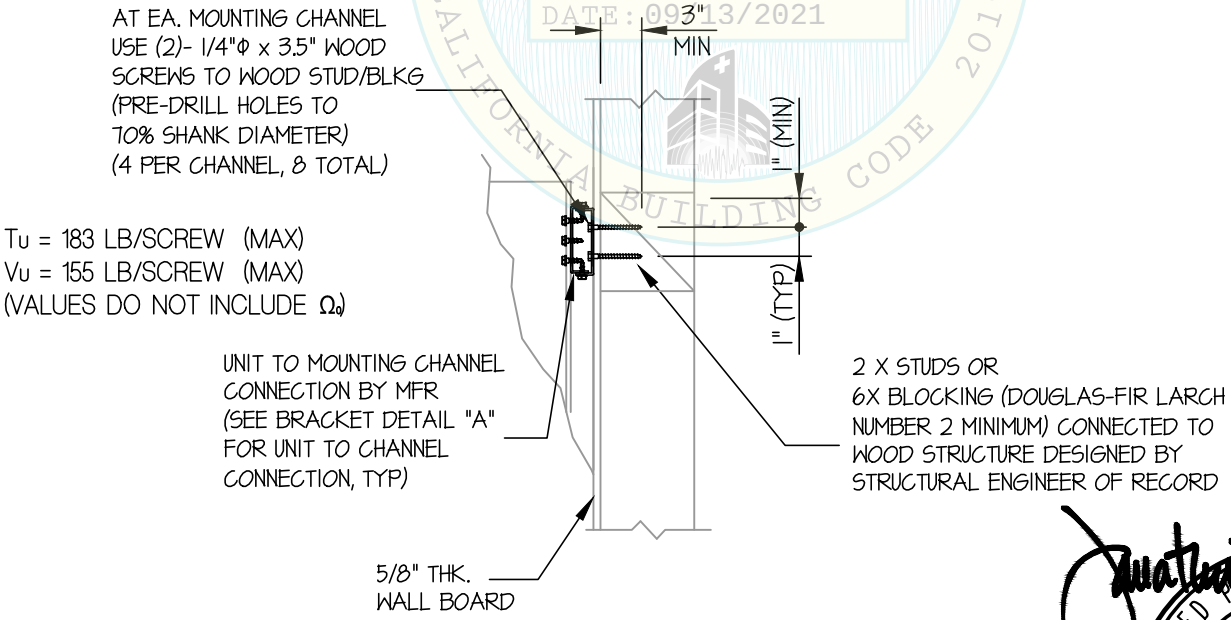
WALL MOUNTED

MOUNTING WALL TYPE:

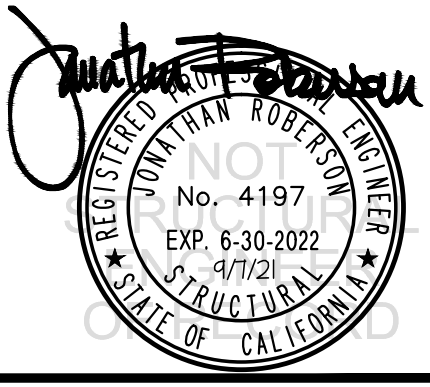


SECTION AT CONCRETE WALL

SECTION AT STEEL STUD WALL



SECTION AT WOOD STUD WALL



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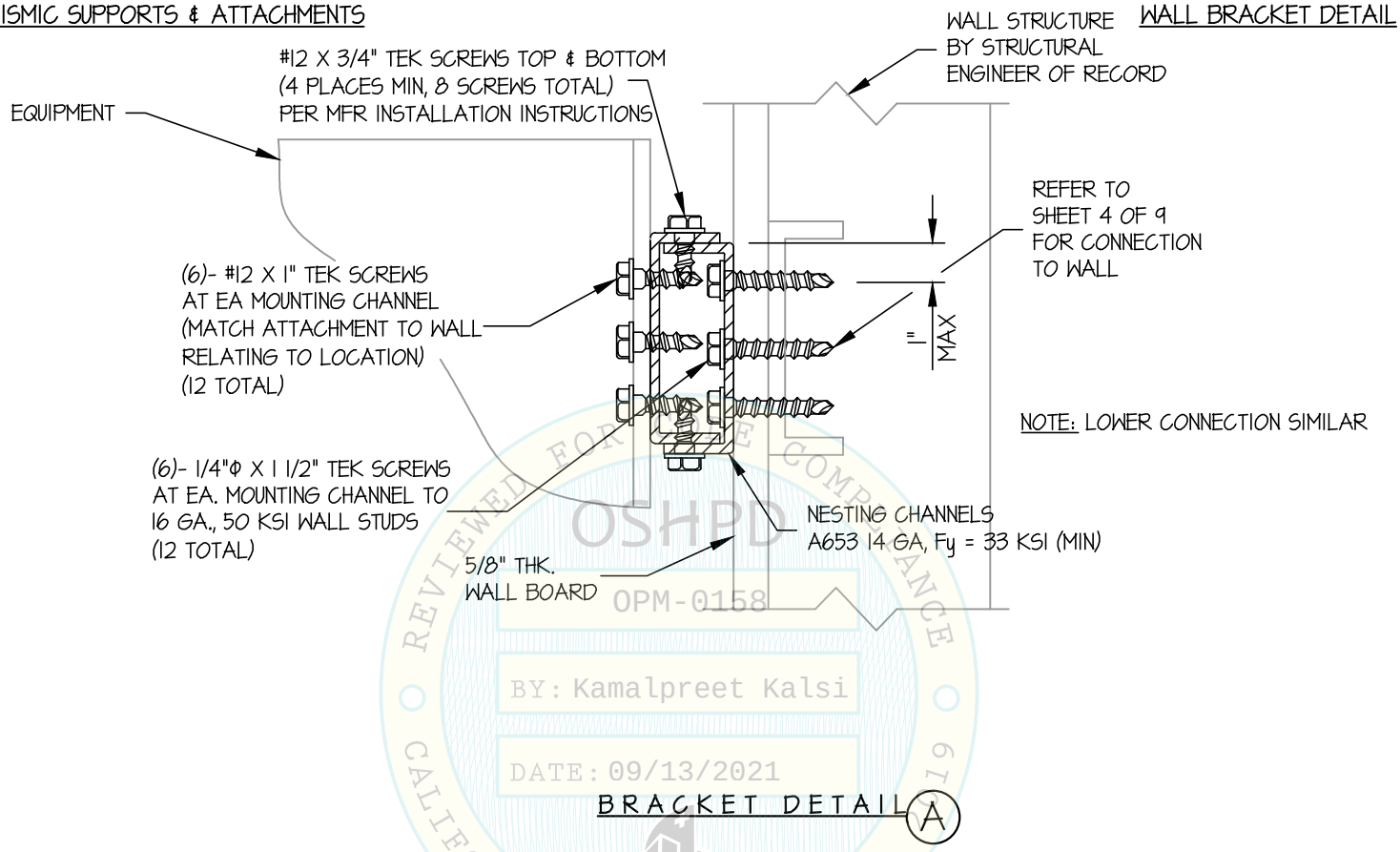
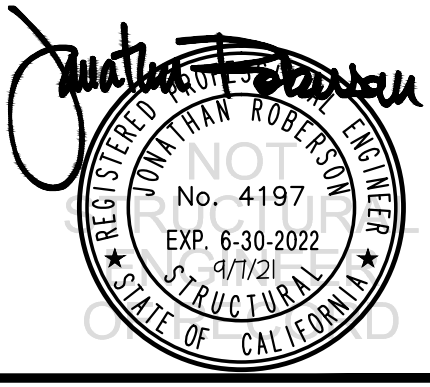
SHEET 5 OF 9 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS





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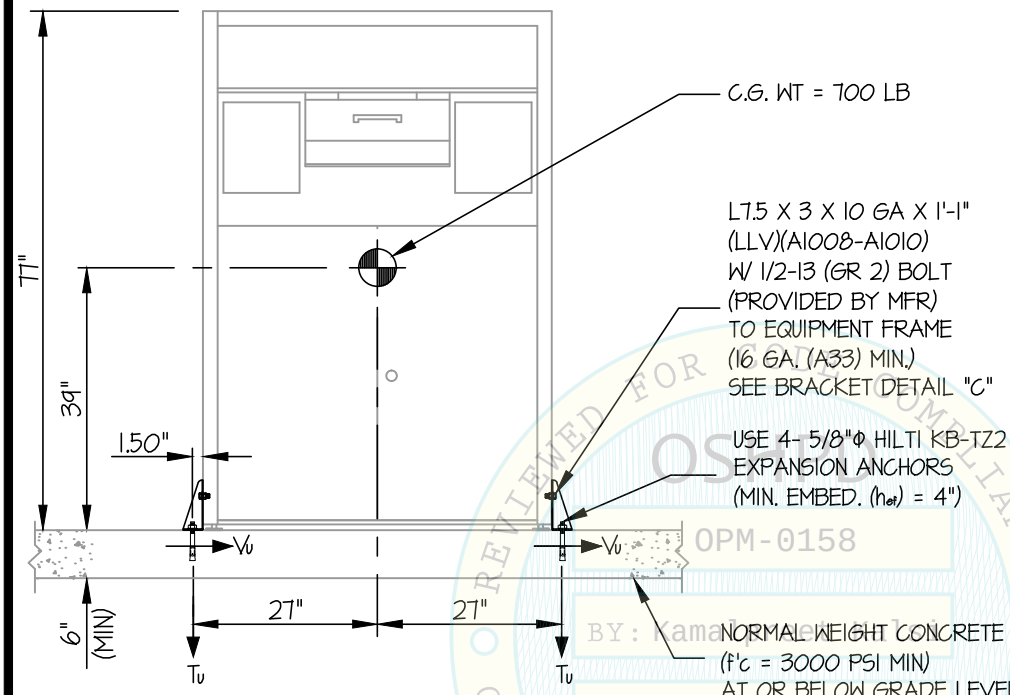
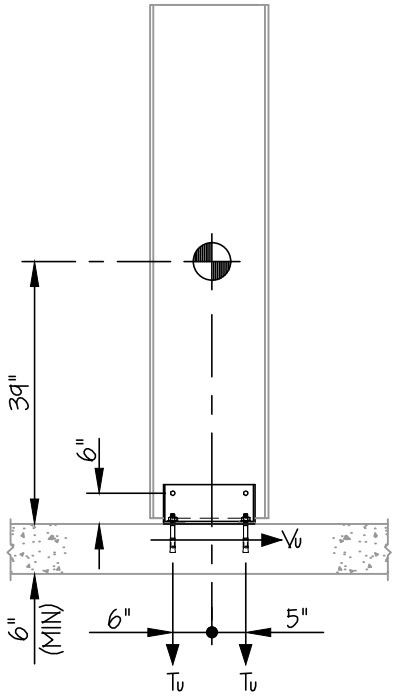
SHEET 6 OF 9 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS | FLOOR MOUNTED | CONCRETE SLAB



FRONT ELEVATION



SIDE ELEVATION

NOTES:

1. FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16. STRENGTH DESIGN IS USED. (S_{DS} = 2.30, a_p = 1.0, I_p = 1.5, R_p = 2.5, Ω_o = 2.0, z/h = 0)

   HORIZONTAL FORCE (E_h) = 1.035 W_p
   HORIZONTAL FORCE (E_{mh}) = 2.07 W_p (FOR CONCRETE ANCHORAGE)
   VERTICAL FORCE (E_v) = 0.46 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.

4. SEE GENERAL NOTES: SHEET 1 AND 2.

REGISTERED PROFESSIONAL ENGINEER
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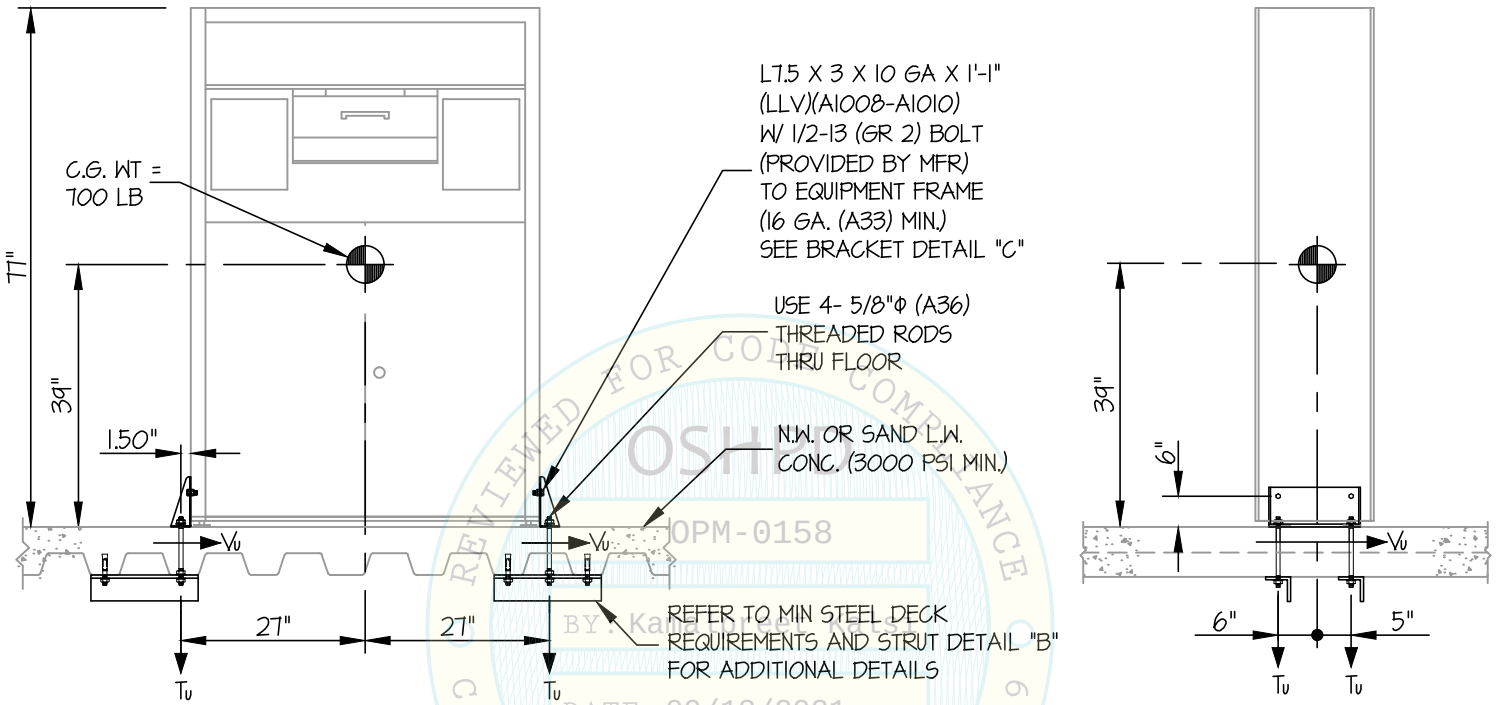
SHEET 7 OF 9 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS | FLOOR MOUNTED | CONCRETE SLAB ON METAL DECK



FRONT ELEVATION

Tu = 2113 LB/BOLT (MAX)
Vu = 404 LB/BOLT (MAX)
(VALUES DO NOT INCLUDE Ω_0)

SIDE ELEVATION

NOTES:

1. FORCES ARE DETERMINED PER 2019 CALIFORNIA BUILDING CODE AND ASCE 7-16. STRENGTH DESIGN IS USED. (S_{DS} = 2.30, a_p = 1.0, I_p = 1.5, R_p = 2.5, Ω_0 = 2.0, $z/h \leq 1$)

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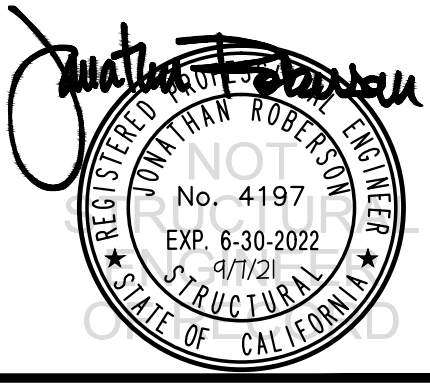

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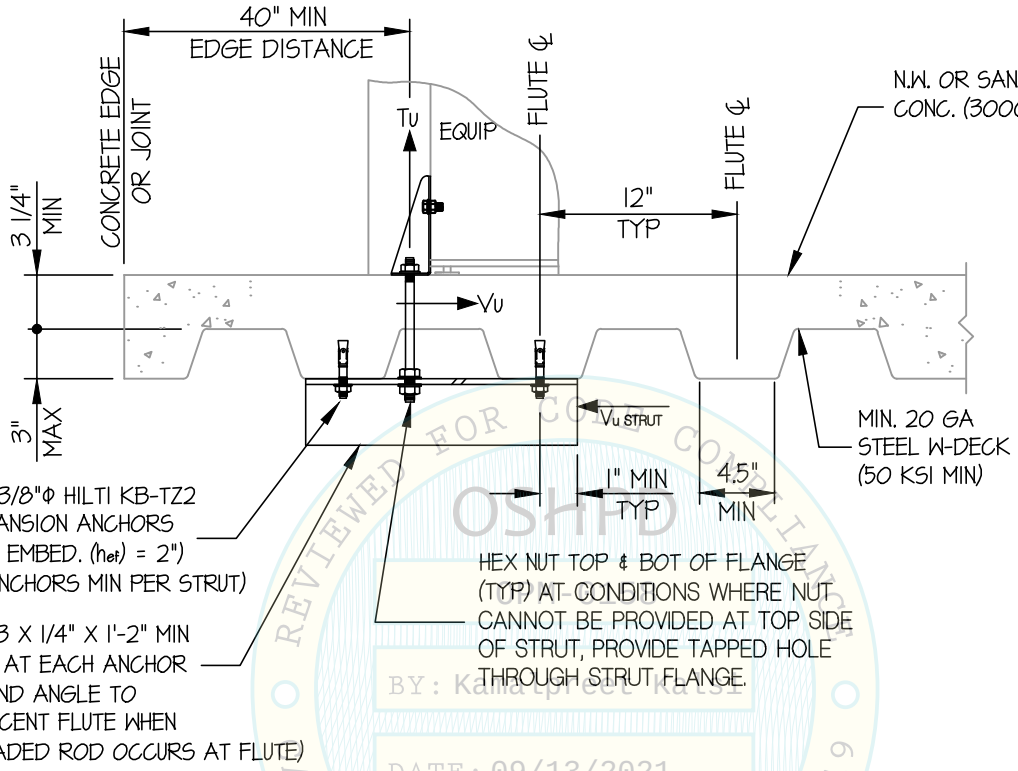
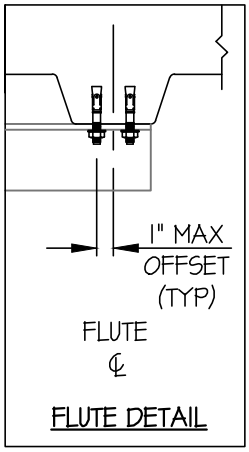
SHEET 8 OF 9 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

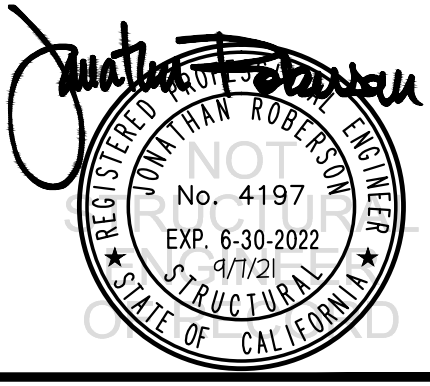


MIN STEEL DECK REQUIREMENTS AND STRUT DETAIL (B)

CONCRETE DETAIL



FLUTE DETAIL



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SHEET 9 OF 9 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAIL