



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

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

OFFICE USE ONLY	
APPLICATION #:	OPM-0264-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: New Renewal Update to Pre-CBC 2013 OPA Number: OPA-2898-10

Manufacturer Information

Manufacturer: Kardex Remstar

Manufacturer's Technical Representative: Ryan Peary

Mailing Address: 41 Eisenhower Drive, Westbrook ME, 04092

Telephone: 207-591-3125 Email: Ryan.peary@kardex.com

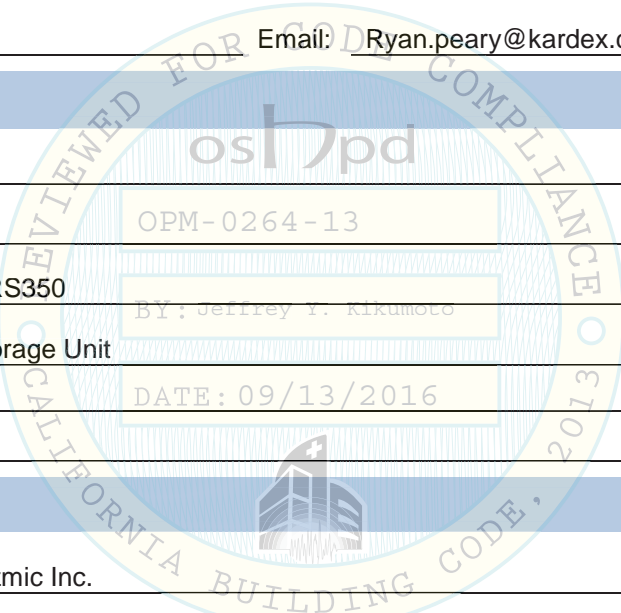
Product Information

Product Name: Shuttle

Product Type: OPM-0264-13

Product Model Number: Meg RS350

General Description: Vertical Storage Unit



Applicant Information

Applicant Company Name: Seizmic Inc.

Contact Person: Gloria Gil

Mailing Address: 1130 East Cypress , Covina CA 91724

Telephone: 909-869-0989 ext 104 Email: operations@seizmicinc.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant: Date: 8/17/15

Title: Asst Operations MGR Company Name: Seizmic Inc.

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





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

Registered Design Professional Preparing Engineering Recommendations

Company Name: Seizmic Inc.

Name: Sal E. Fateen California License Number: 25969

Mailing Address: 1130 East Cypress , Covina CA 91724

Telephone: 909-869-0989 Email: operations@seizmicinc.com

OSHPD Special Seismic Certification Preapproval (OSP)

- Special Seismic Certification is preapproved under OSP-
(Separate application for OSP is required)
- Special Seismic Certification is not preapproved

Certification Method(s)

- Testing in accordance with: ICC-ES AC156 FM 1950-10
- Other* (Please Specify): _____

*Use of criteria other than those adopted by the California Building Standards Code, 2013 (CBSC 2013) 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 2013 may be used when approved by OSHPD prior to testing.

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

List of Attachments Supporting the Manufacturer's Certification

- Test Report Drawings Calculations Manufacturer's Catalog
- Other(s) (Please Specify): _____

OFFICE USE ONLY – OSHPD APPROVAL VALID FOR CBC 2013 ONLY

Signature:  Date: 09-13-2016

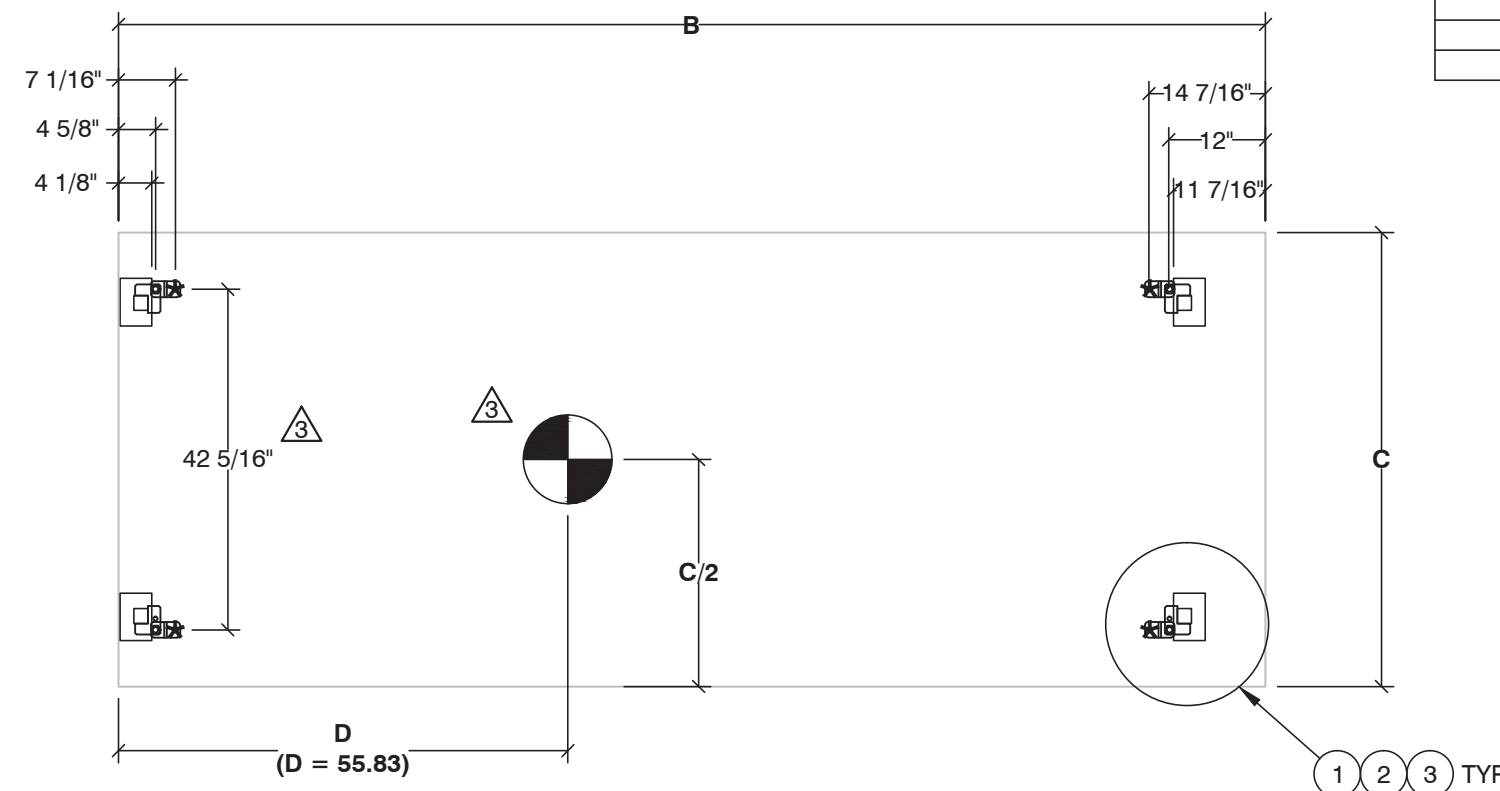
Print Name: Jeffrey Kikumoto

Title: SSE

Condition of Approval (if applicable): _____

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





* - DENOTES ANCHOR LOCATION

MEG RS350.1.2450.4.419.X (S _{os} = 0.32 w/ Ω)							
TYPE	DIM "A" (HEIGHT)	DIM "B" (WIDTH)	DIM "C" (DEPTH)	wDL	wLL	TENSILE PER BOLT	SHEAR PER BOLT
8	95.9 in	99.6 in	42.3 in	4,857 LB	6,721 LB	626 lb	874 lb
9	103.7 in	99.6 in	42.3 in	5,179 LB	7,267 LB	896 lb	217 lb
10	112.6 in	99.6 in	42.3 in	5,509 LB	7,891 LB	1,239 lb	1,008 lb
11	115.9 in	99.6 in	42.3 in	5,531 LB	8,122 LB	1,400 lb	1,053 lb
12	129.3 in	99.6 in	42.3 in	6,162 LB	9,061 LB	1,989 lb	1,142 lb
13	137.2 in	99.6 in	42.3 in	6,484 LB	9,615 LB	2,395 lb	1,207 lb
14	145.1 in	99.6 in	42.3 in	6,803 LB	10,169 LB	2,831 lb	1,271 lb
15	153.9 in	99.6 in	42.3 in	7,134 LB	10,785 LB	3,349 lb	1,341 lb
16	161.8 in	99.6 in	42.3 in	7,456 LB	11,339 LB	3,852 lb	1,406 lb

MEG RS350.1.2450.6.419.X (S _{os} = 0.29 w/ Ω)							
TYPE	DIM "A" (HEIGHT)	DIM "B" (WIDTH)	DIM "C" (DEPTH)	wDL	wLL	TENSILE PER BOLT	SHEAR PER BOLT
7	93.90"	99.6 in	42.3 in	5,053 LB	8,686 lb	371 lb	920 lb
8	102.8"	99.6 in	42.3 in	5,452 LB	9,510 lb	679 lb	1,000 lb
9	110.6"	99.6 in	42.3 in	5,840 LB	10,231 lb	986 lb	1,074 lb
10	119.5"	99.6 in	42.3 in	6,239 LB	11,055 lb	1,376 lb	1,155 lb
11	127.4"	99.6 in	42.3 in	6,627 LB	11,785 lb	1,763 lb	1,229 lb
12	135.2"	99.6 in	42.3 in	7,015 LB	12,507 lb	2,181 lb	1,302 lb
13	144.1"	99.6 in	42.3 in	7,412 LB	13,330 lb	2,693 lb	1,383 lb
14	152.0"	99.6 in	42.3 in	7,802 LB	14,061 lb	3,192 lb	1,457 lb
15	160.8"	99.6 in	42.3 in	8,199 LB	14,875 lb	3,782 lb	1,537 lb
16	168.7"	99.6 in	42.3 in	8,587 LB	15,606 lb	4,356 lb	1,611 lb

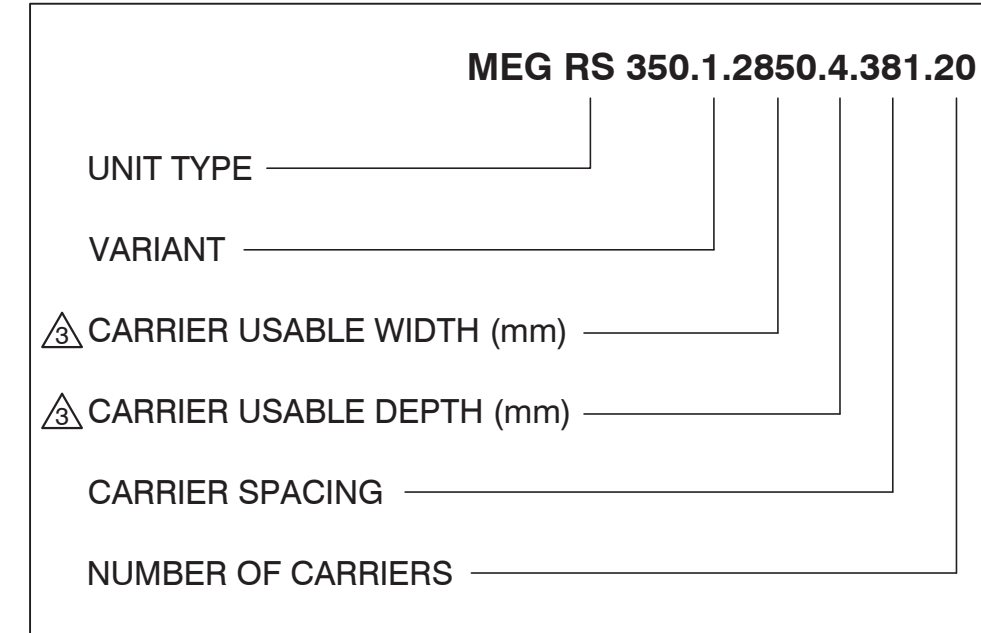
MEG RS350.1.3050.4.419.X (S _{os} = 0.30 w/ Ω)							
TYPE	DIM "A" (HEIGHT)	DIM "B" (WIDTH)	DIM "C" (DEPTH)	wDL	wLL	TENSILE PER BOLT	SHEAR PER BOLT
8	95.90"	123.2 in	42.3 in	5,364 LB	8,031 lb	462 lb	940 lb
9	103.7"	123.2 in	42.3 in	5,734 LB	8,684 lb	734 lb	1,011 lb
10	112.6"	123.2 in	42.3 in	6,116 LB	9,429 lb	1,080 lb	1,088 lb
11	115.9"	123.2 in	42.3 in	6,484 LB	9,705 lb	1,241 lb	1,137 lb
12	129.3"	123.2 in	42.3 in	6,863 LB	10,827 lb	1,848 lb	1,236 lb
13	137.2"	123.2 in	42.3 in	7,233 LB	11,489 lb	2,265 lb	1,307 lb
14	145.1"	123.2 in	42.3 in	7,604 LB	12,150 lb	2,716 lb	1,378 lb
15	153.9"	123.2 in	42.3 in	7,983 LB	12,867 lb	3,251 lb	1,455 lb
16	161.8"	123.2 in	42.3 in	8,356 LB	13,549 lb	3,773 lb	1,526 lb

MEG RS350.1.3050.6.419.X (S _{os} = 0.28 w/ Ω)							
TYPE	DIM "A" (HEIGHT)	DIM "B" (WIDTH)	DIM "C" (DEPTH)	wDL	wLL	TENSILE PER BOLT	SHEAR PER BOLT
7	93.90"	123.2 in	42.3 in	5,611 LB	10,379 lb	254 lb	1,026 lb
8	102.8"	123.2 in	42.3 in	6,072 LB	11,363 lb	576 lb	1,118 lb
9	110.6"	123.2 in	42.3 in	6,523 LB	12,225 lb	901 lb	1,202 lb
10	119.5"	123.2 in	42.3 in	6,982 LB	13,209 lb	1,316 lb	1,293 lb
11	127.4"	123.2 in	42.3 in	7,342 LB	14,082 lb	1,719 lb	1,370 lb
12	135.2"	123.2 in	42.3 in	7,882 LB	14,944 lb	2,177 lb	1,462 lb
13	144.1"	123.2 in	42.3 in	8,342 LB	15,828 lb	2,729 lb	1,553 lb
14	152.0"	123.2 in	42.3 in	8,794 LB	16,801 lb	3,267 lb	1,638 lb
15	160.8"	123.2 in	42.3 in	9,253 LB	17,774 lb	3,720 lb	1,647 lb
16	168.7"	123.2 in	42.3 in	9,703 LB	18,647 lb	4,527 lb	1,813 lb

NOTE: SYSTEM IS NOT TO BE USED FOR FILE (PAPER MEDIA) OR X-RAY (FILM MEDIA) STORAGE.

WLL PER TRAY = 20 PCF

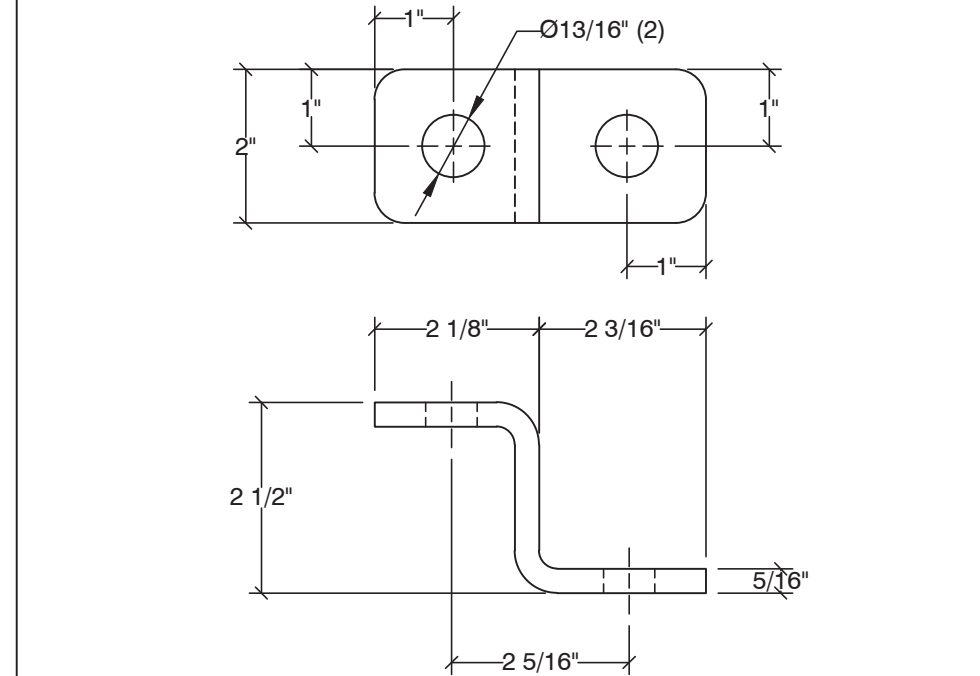
NOTE: PROVIDE A PERMANENT PLAQUE EACH NOT LESS THAN 50 SQUARE INCHES IN AREA SHOWING THE MAXIMUM PERMISSIBLE UNIT LOAD AND/OR MAXIMUM UNIFORMLY DISTRIBUTED LOAD PER TRAY, THE AVERAGE UNIT LOAD AND MAXIMUM TOTAL LOAD PER BAY IN ONE OR MORE CONSPICUOUS LOCATION FOR EACH SHUTTLE.



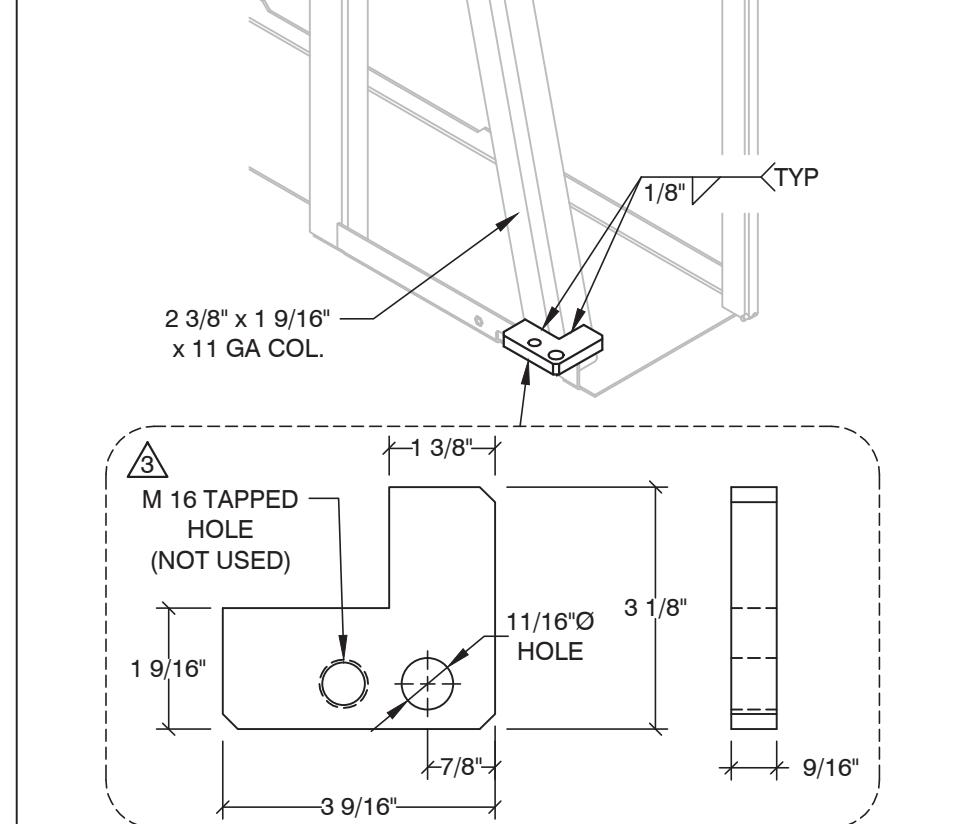
kardexremstar
 CERTIFIES THIS DOCUMENT AS AN OUTLINE DWG.
 SIGNATURE: Ryan Peary
 PRINT NAME: RYAN PEARY
 TITLE: SYSTEMS ENGINEER
 DATE: MAY 02, 2016

GENERAL NOTES:
 1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
 2. DESIGNED PER THE 2013 CBC, & CHAPTER 13 OF ASCE 7-10 §15.5.3, INCLUDING SUPPLIMENTS 1 & 2
 $F_p = 0.4 \times a_p \times S_{os} \times I_p \times W_p \times (1 + 2z/h) / R_p$
 BUT NOT LESS THAN
 $= 0.3 \times S_{os} \times I_p \times W_p$
 $a_p = 2.5$
 $R_p = 4.0$
 $I_p = 1.5$
 $S_{os} =$ SEE LOADING TABLE
 $\Omega_o = 2.0$ (AS REQ'D FOR ANCHORAGE TO CONCRETE)
UNITS ARE ONLY FOR SLAB ON GRADE INSTALLATIONS $(1 + 2z/h) = 1.0$
STRENGTH DESIGN REQ'D PER 2013 CBC §1909A
VALUES PROVIDED PER POST ARE TO BE USED FOR SLAB DESIGN

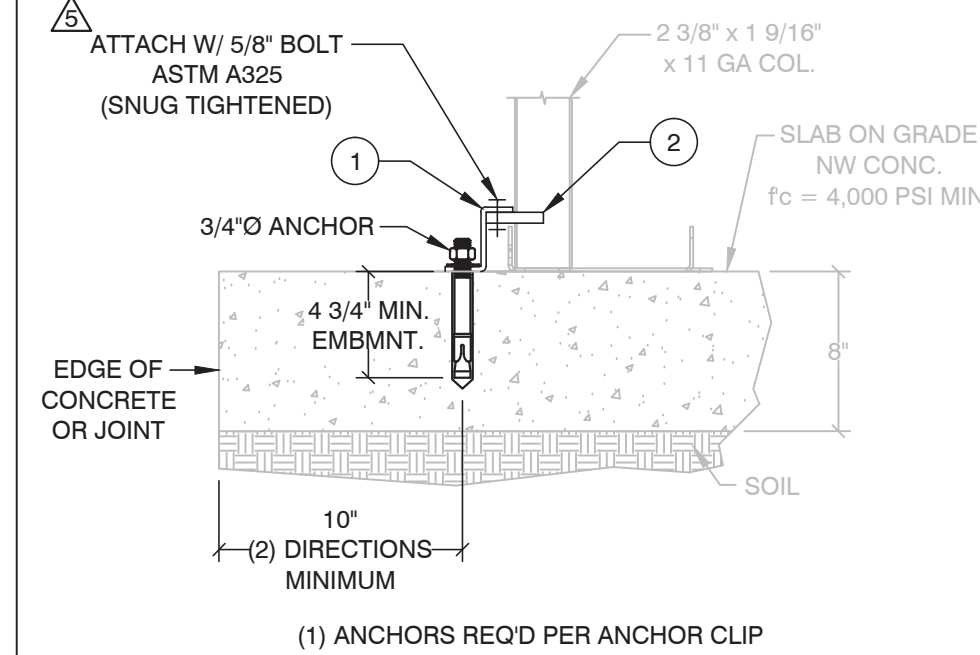
3. ANCHORS: HILTI KWIK BOLT TZ, ICC #ESR-1917.
 4. CONCRETE 8" THICK x 4,000 PSI. MINIMUM REQUIRED.
 5. THIS PREAPPROVAL ALLOWS FOR UP TO A MAXIMUM OF 2 ADJACENT CONCRETE SLAB EDGES 10" AWAY FROM MINIMUM FROM CORNER (2 DIRECTIONS)
 6. TESTING OF EXPANSION ANCHORS PER 2013 CBC 1913A.7; TESTING, TENSION OR TORQUE SHALL BE DONE IN THE PRESENCE OF THE SPECIAL INSPECTOR AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO OSHPD.
 a. AFTER 24 HOURS MINIMUM HAVE ELAPSED SINCE INSTALLATION, DIRECT PULL TENSION TEST OR TORQUE TEST AT LEAST 50% OF THE ANCHORS.
 b. ACCEPTANCE CRITERIA:
 1. DIRECT TENSION TEST: ANCHOR SHALL HAVE NO OBSERVABLE MOVEMENT AT THE TEST LOAD. A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER BECOMES LOOSE.
 2. TORQUE TEST: THE APPLICABLE TORQUE FOR TORQUE CONTROLLED EXPANSION ANCHOR SHALL BE ACHIEVED WITHIN THE 1/2 TURN OF THE NUT.
 c. IF ANY ANCHOR FAILS, TEST ALL ANCHORS.



1 ANCHOR CLIP DETAIL

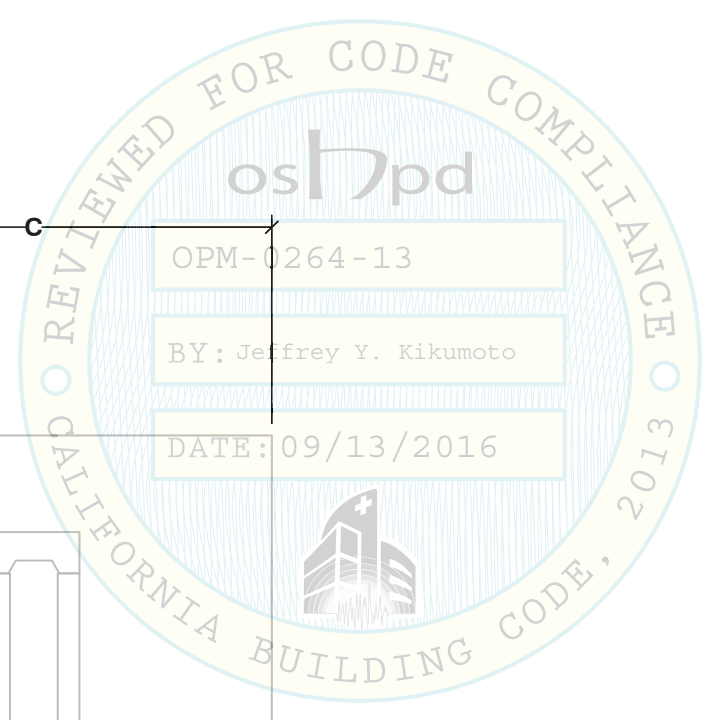
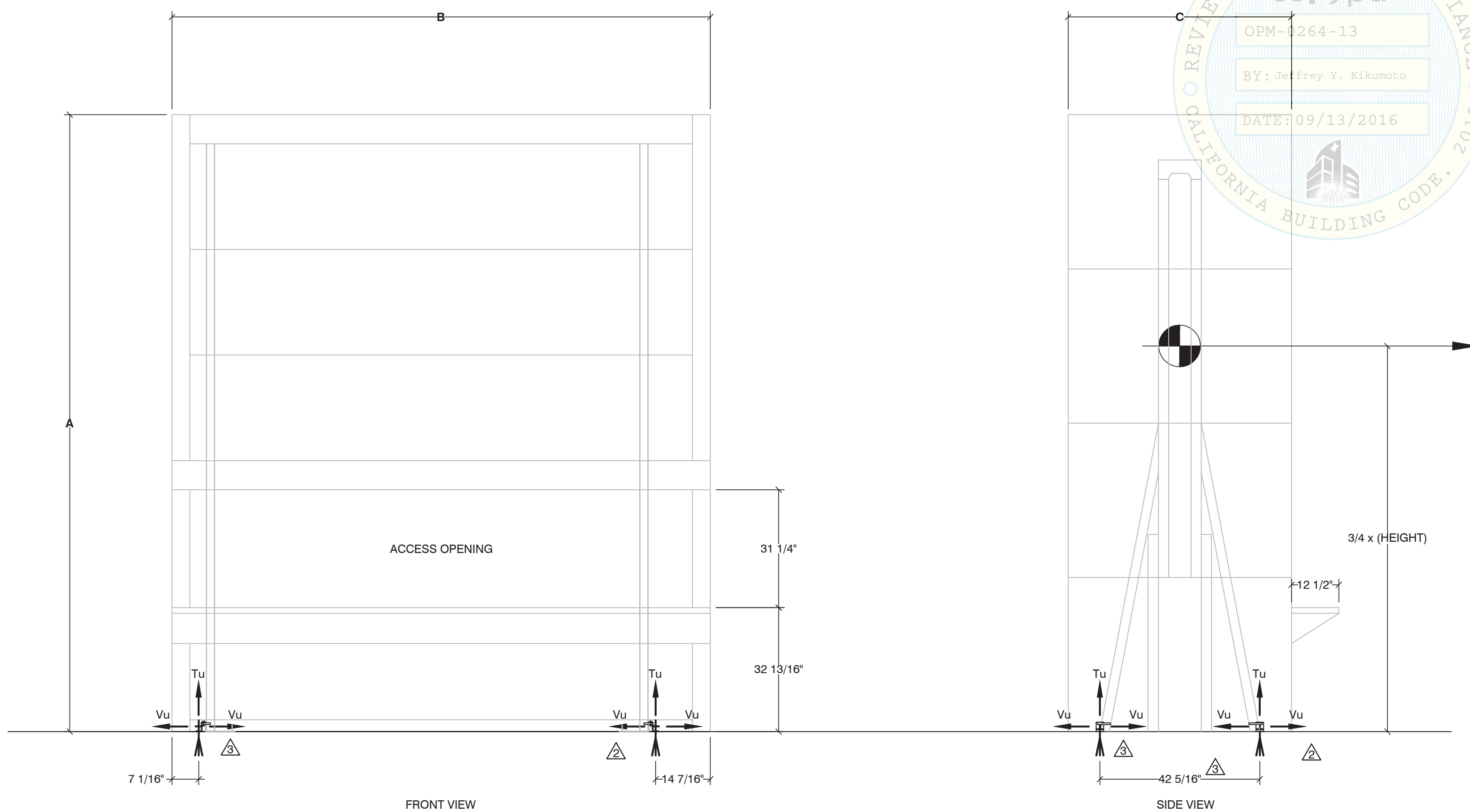


2 ANCHOR TAB DETAIL



3 ANCHOR DETAIL

7. TWICE THE MAXIMUM ALLOWABLE TENSION LOAD OR ONE AND A QUARTER (1-1/4) TIMES THE MAXIMUM DESIGN STRENGTH OF ANCHORS AS PROVIDED IN ICC-ESR. T_{cap} X 1.25 = 6,782 LB.
 8. THE MANUFACTURER'S REQUIRED INSTALLATION TORQUE IN ICC-ESR T_{inst} = 110 FT-LB
 9. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, IF THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S)
 10. MATERIAL SPECIFICATIONS:
 ALL STEEL INCLUDING ANCHOR CLIP & TAB: ASTM A1011
 $F_y = 36,000$ PSI. SS GRADE 36 TYPE 2
 $F_u = 58,000$ PSI. MIN.
 BOLTS: MINIMUM ASTM A325 FOR 1/2" Ø BOLTS AND GREATER
 ALL WELDS: E70XX ELECTRODES
 11. ANCHOR CLIP & TAB ARE PROVIDED BY: MANUFACTURER KARDEX REMSTAR



SHUTTLE GENERAL CONFIGURATION

ADDRESS: KARDEX REMSTAR

REV.	DATE	BY	M.V.	DESCRIPTION
1	09/07/16	M.V.		

REV.	DATE	BY	M.V.	DESCRIPTION
1	01/18/16	M.V.		REVISED TABLES, NOTES & DETAILS
2	05/02/16	M.V.		REVISIONS
3	05/01/16	M.V.		REVISIONS
4	07/26/16	M.V.		REVISIONS

SEIZMIC
 EST. 1985
SEIZMIC ENGINEERING, INC.
 1130 E. Cypress St.
 Covina, California 91724
 Tel. (909)869-0989
 DRAWN BY: M.V. / J.Y.S.
 DATE: 07/20/15
 LAST REV BY:
 REV. DATE: REM
 SCALE: N.T.S.
 APRVD BY: SALE FATEEN



DESCRIPTION:
 VERTICAL STORAGE UNIT
 PRODUCT NAME: SHUTTLE
 MODEL#: MEG RS350

DRAWING NUMBER:
15-1086-A