



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OPM-0528

HCAI Preapproval of Manufacturer's Certification (OPM)

Type: New Renewal/Update

Manufacturer Information

Manufacturer: AGFA HealthCare Corp

Manufacturer's Technical Representative: Betsy Raines

Mailing Address: 10 South Academy Street, Greenville, SC 29601

Telephone: (585) 272-5243

Email: betsy.raines@agfa.com

Product Information

Product Name: DR 600 Motorized Bucky on Tilting Wall Stand

Product Type: Other Mechanical and Electrical Components

Product Model Number: N/A

General Description: Wall Stand for the DR 600 Digital X-Ray System

Applicant Information

Applicant Company Name: EASE LLC.

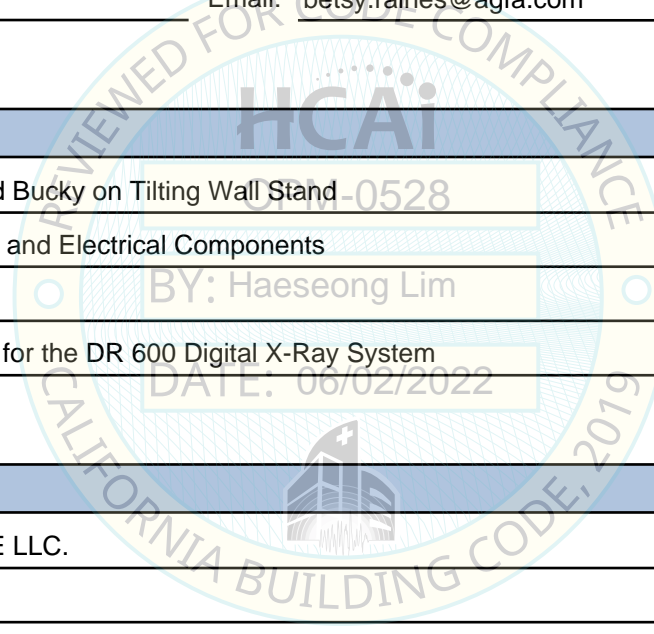
Contact Person: Tiffany Tonn

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





**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
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: (909) 606-7622 Email: jon@EASECo.com

HCAI Special Seismic Certification Preapproval (OSP)

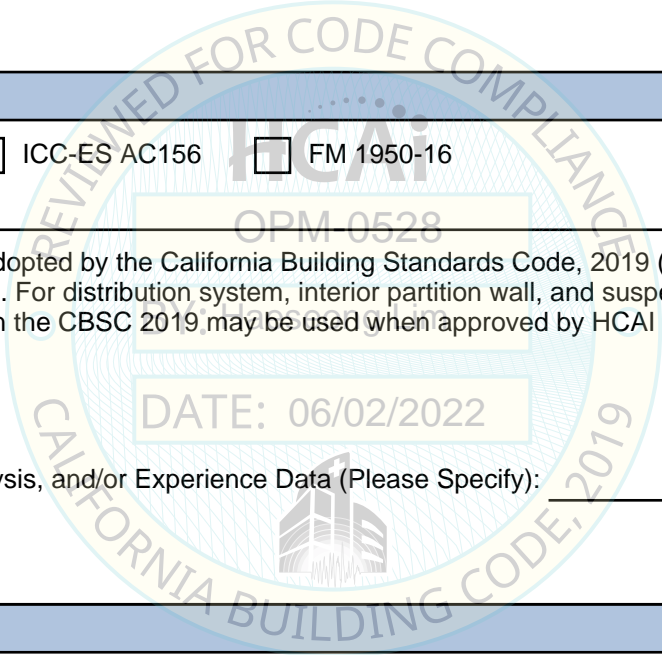
Special Seismic Certification is preapproved under OSP OSP Number: OSP-0527-10

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 HCAI prior to testing.

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



HCAI Approval

Date: 06/02/2022
Name: Haeseong Lim Title: Senior Structural Engineer
Condition of Approval (if applicable): _____

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STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY





**EQUIPMENT ANCHORAGE
& SEISMIC ENGINEERING**

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

The Department of Health Care Access and Information
PREAPPROVAL OF MANUFACTURER'S CERTIFICATION
OPM-0528

THIS PREAPPROVAL CONFORMS TO THE 2019 CALIFORNIA BUILDING CODE

MANUFACTURER: **AGFA HEALTHCARE CORP**

Sheet: 1 of 11

EQUIPMENT NAME: **DR 600 MOTORIZED TILTING BUCKY WITH AND WITHOUT SPACER**

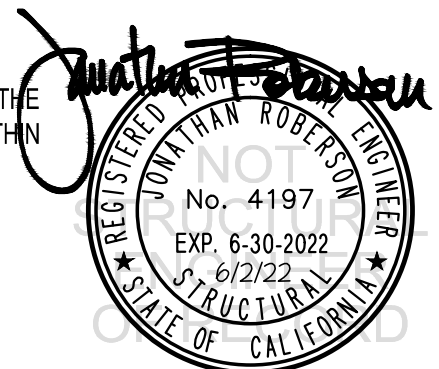
Date: 6/2/22

GENERAL NOTES

1. THIS HCAI 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 2.00.
4. FORCES PER ASCE 7-16 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2 & 13.3-3, WHERE $S_{Ds} = 2.00$, $a_p = 1.0$, $I_p = 1.5$, $R_p = 1.5$, $z/h = 0$ AT CONCRETE SLAB & $z/h \leq 1$ AT CONCRETE SLAB ON METAL DECK. SEE FOLLOWING SHEETS FOR Ω_c .
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.



AGFA HEALTHCARE CORP

DES. **J. ROBERSON**

SHEET

JOB NO. **11-1730**

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DATE **6/2/22**

OF **11** SHEETS

DR 600 MOTORIZED TILTING BUCKY WITH AND WITHOUT SPACER

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
3/8"	Sand Light Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	2"	6.75"	12"	3.25" Above Flutes	30 FT-LB	N/A
5/8"	Normal Weight	3000	Hilti Kwik Bolt TZ2 (CARBON STEEL)	ESR-4266	3.25"	6"	32"	5"	40 FT-LB	2570 lb

- B. THIS PREAPPROVAL ALLOWS FOR UP TO A MAXIMUM OF 2 ADJACENT CONCRETE SLAB EDGES, 32" 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

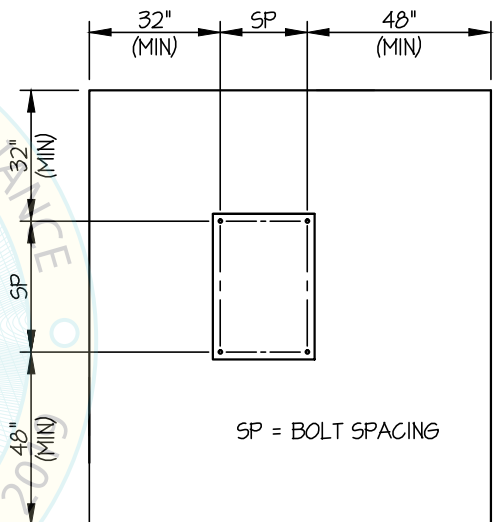
- (iii) IF ANY ANCHOR FAILS, TEST ALL ANCHORS.

- 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 (SLAB ON GRADE ONLY)



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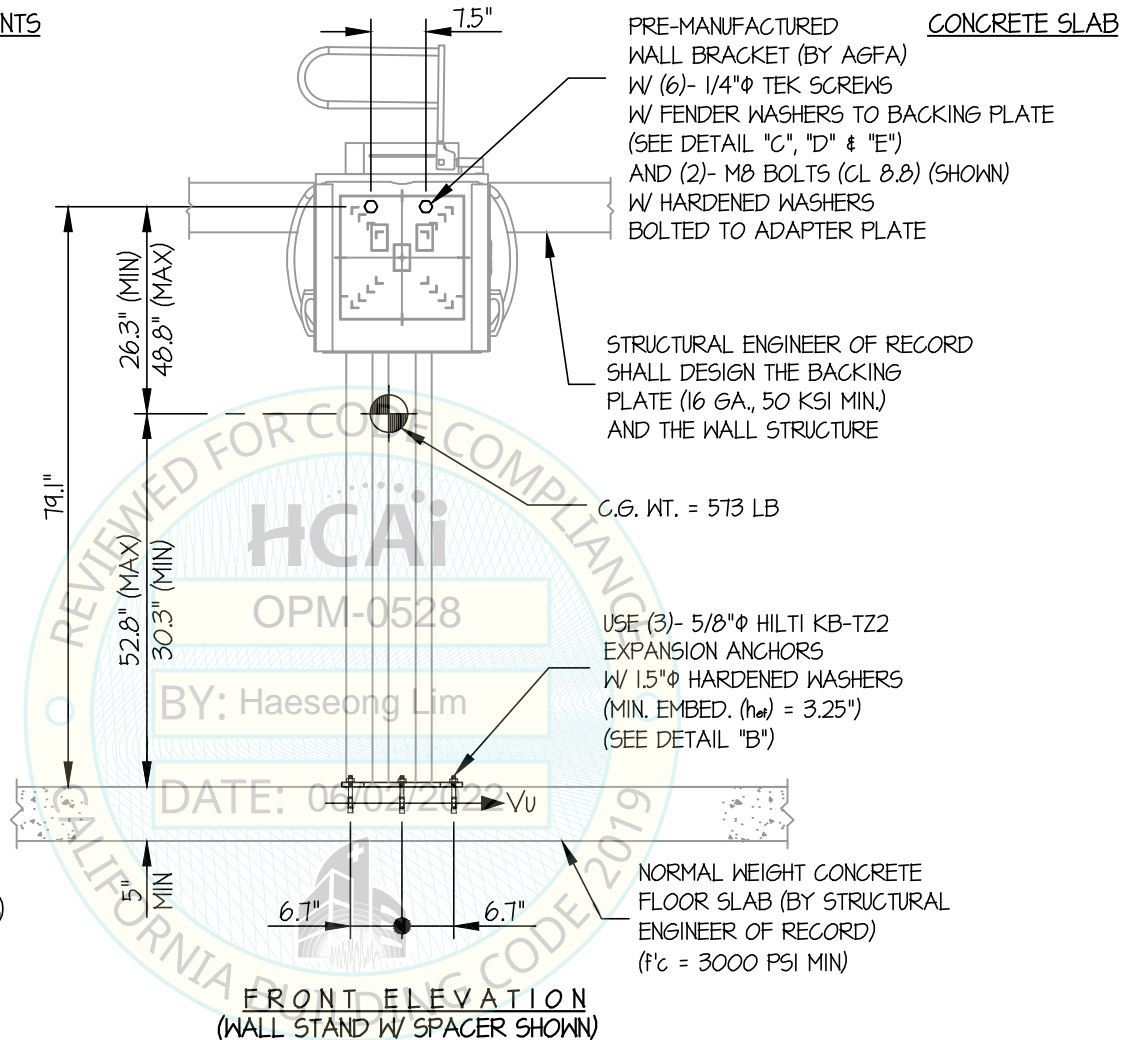
3

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OF 11 SHEETS

DR 600 MOTORIZED TILTING BUCKY WITH AND WITHOUT SPACER

SEISMIC SUPPORTS & ATTACHMENTS



T_{U WALL} = 545 LB/BOLT (MAX)
 V_{U WALL} = 57 LB/BOLT (MAX)
 (VALUES DO NOT INCLUDE Ω₂)

V_{U FLOOR} = 159 LB/BOLT (MAX)
 (VALUE INCLUDES Ω₂)

NOTES:

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

STRENGTH DESIGN IS USED. (S_{Ds} = 2.00, α_p = 1.0, I_p = 1.5, R_p = 1.5, Ω₀ = 1.5, z/h = 0)

HORIZONTAL FORCE (E_h) = 0.90 W_p

HORIZONTAL FORCE (E_{mh}) = 1.35 W_p (FOR CONCRETE ANCHORAGE)

VERTICAL FORCE (E_v) = 0.40 W_p

- 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.
- DR 600 MOTORIZED TILTING BUCKY (UUT 1801-4 AND 1801-5) HAS OBTAINED SPECIAL SEISMIC CERTIFICATION REFER TO OSP-0527-10.
- SEE GENERAL NOTES: SHEETS 1 AND 2.



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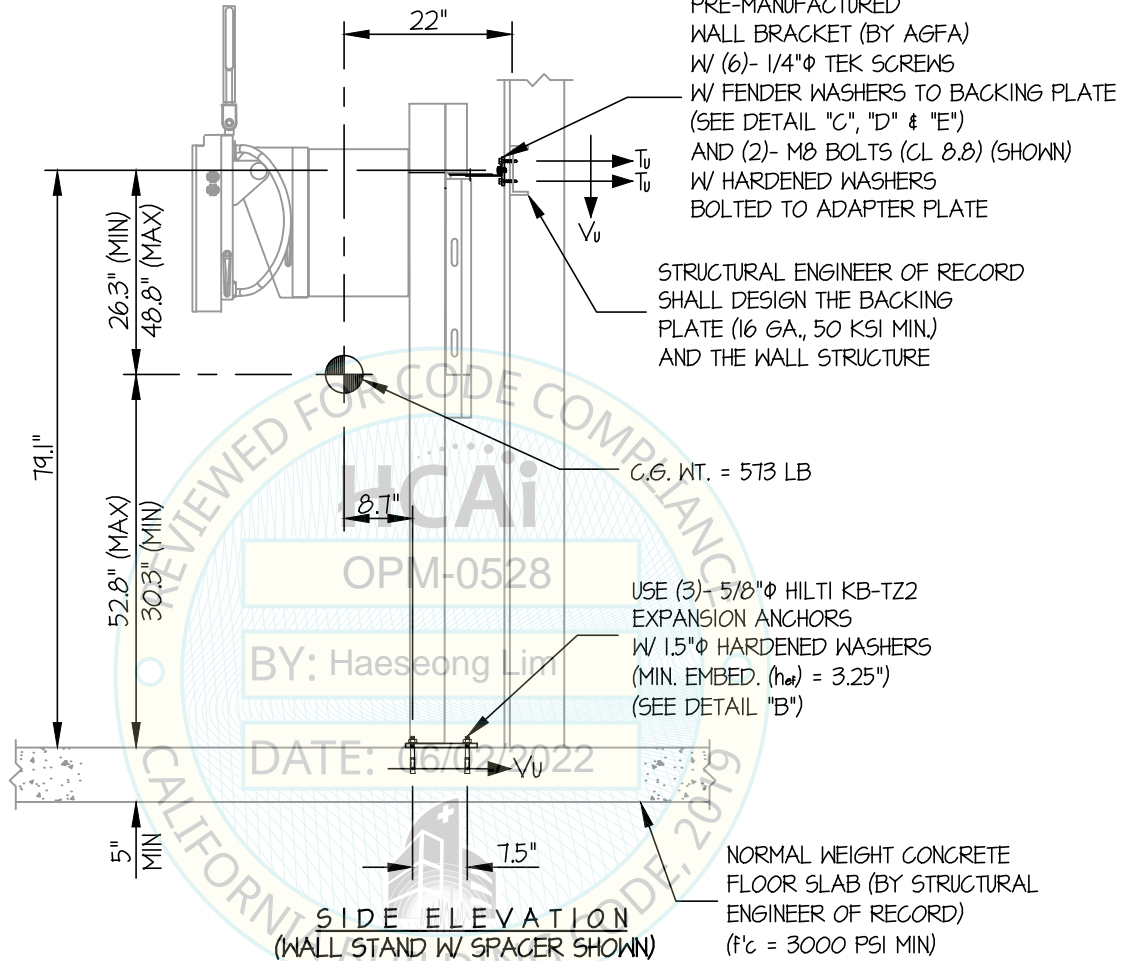
DATE **6/2/22**

OF **11** SHEETS

DR 600 MOTORIZED TILTING BUCKY WITH AND WITHOUT SPACER

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB



Jonathan Roberson
 REGISTERED PROFESSIONAL ENGINEER
 JONATHAN ROBERSON
 No. 4197
 EXP. 6-30-2022
 6/2/22
 STRUCTURAL
 STATE OF CALIFORNIA

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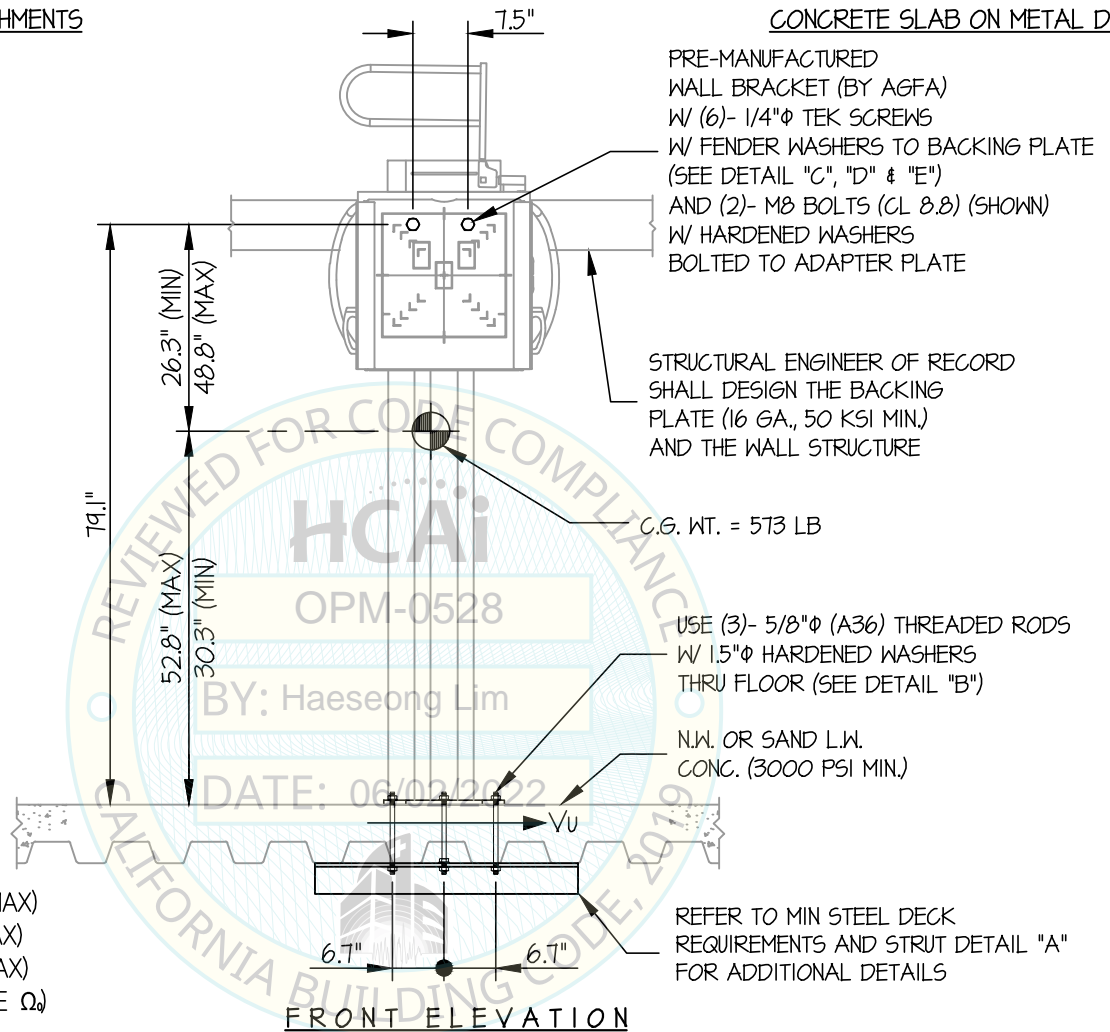
DATE 6/2/22

OF 11 SHEETS

DR 600 MOTORIZED TILTING BUCKY WITH AND WITHOUT SPACER

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB ON METAL DECK



FRONT ELEVATION

(WALL STAND W/ SPACER SHOWN)

NOTES:

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

STRENGTH DESIGN IS USED. ($S_{ds} = 2.00$, $a_p = 1.0$, $I_p = 15$, $R_p = 15$, $\Omega_o = 1.5$, $z/h \leq 1$)

HORIZONTAL FORCE (E_h) = $2.40 W_p$

HORIZONTAL FORCE (E_{mh}) = $3.60 W_p$ (FOR CONCRETE ANCHORAGE)

VERTICAL FORCE (E_v) = $0.40 W_p$

- 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.
- DR 600 MOTORIZED TILTING BUCKY (UUT 1801-4 AND 1801-5) HAS OBTAINED SPECIAL SEISMIC CERTIFICATION REFER TO OSP-0527-10



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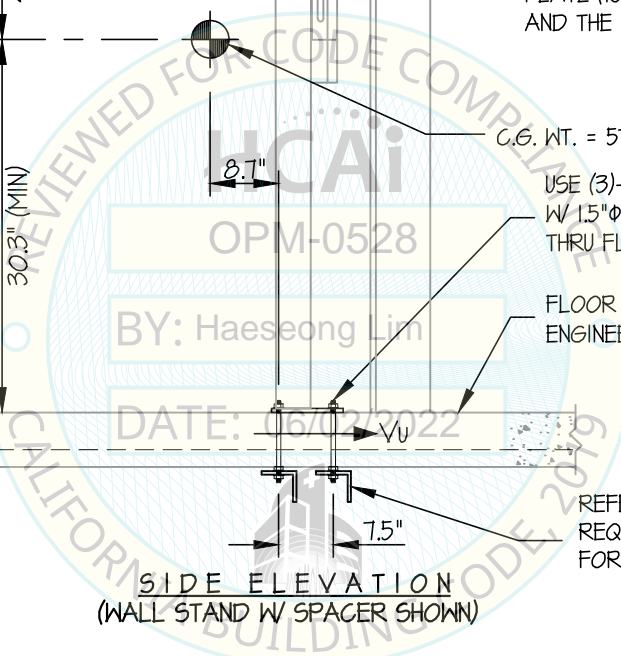
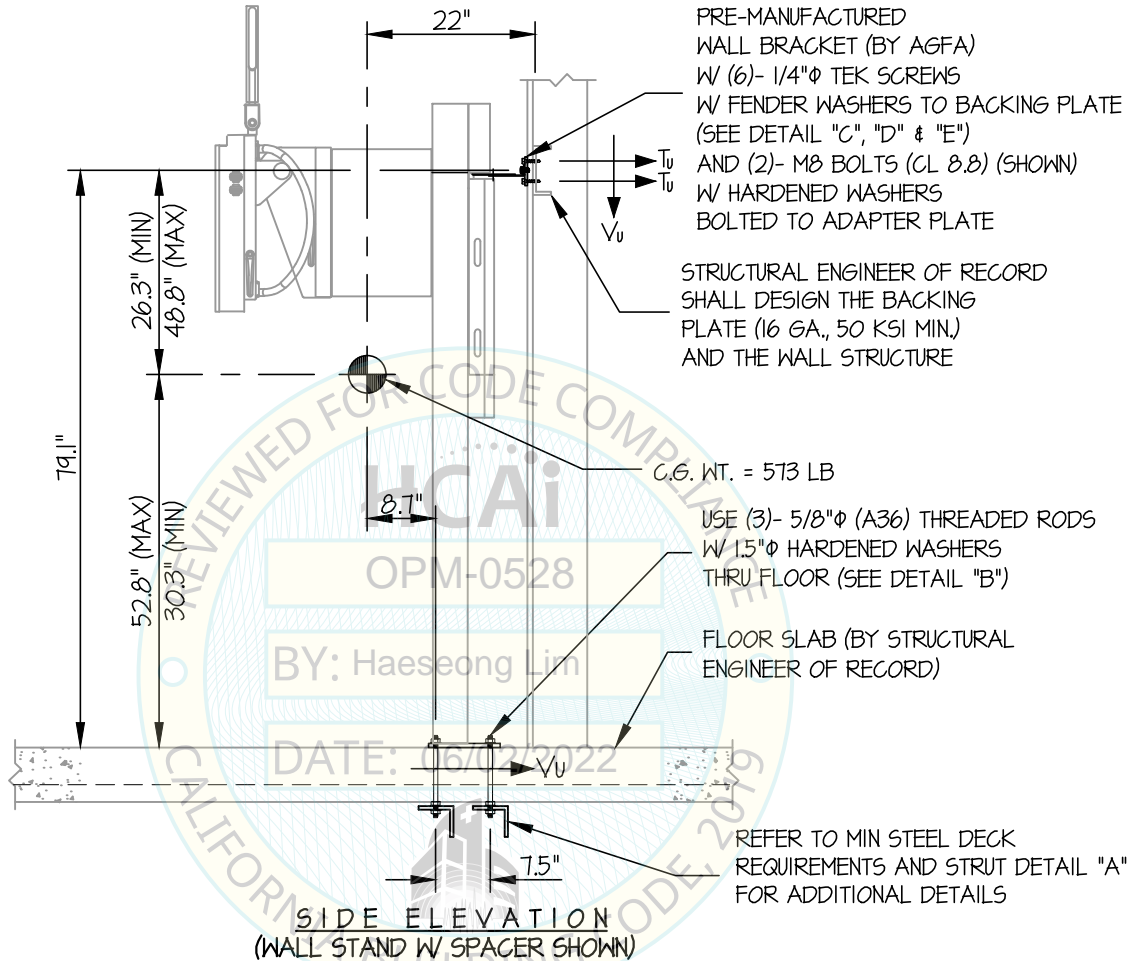
DATE **6/2/22**

OF **11** SHEETS

DR 600 MOTORIZED TILTING BUCKY WITH AND WITHOUT SPACER

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE SLAB ON METAL DECK



Jonathan Roberson

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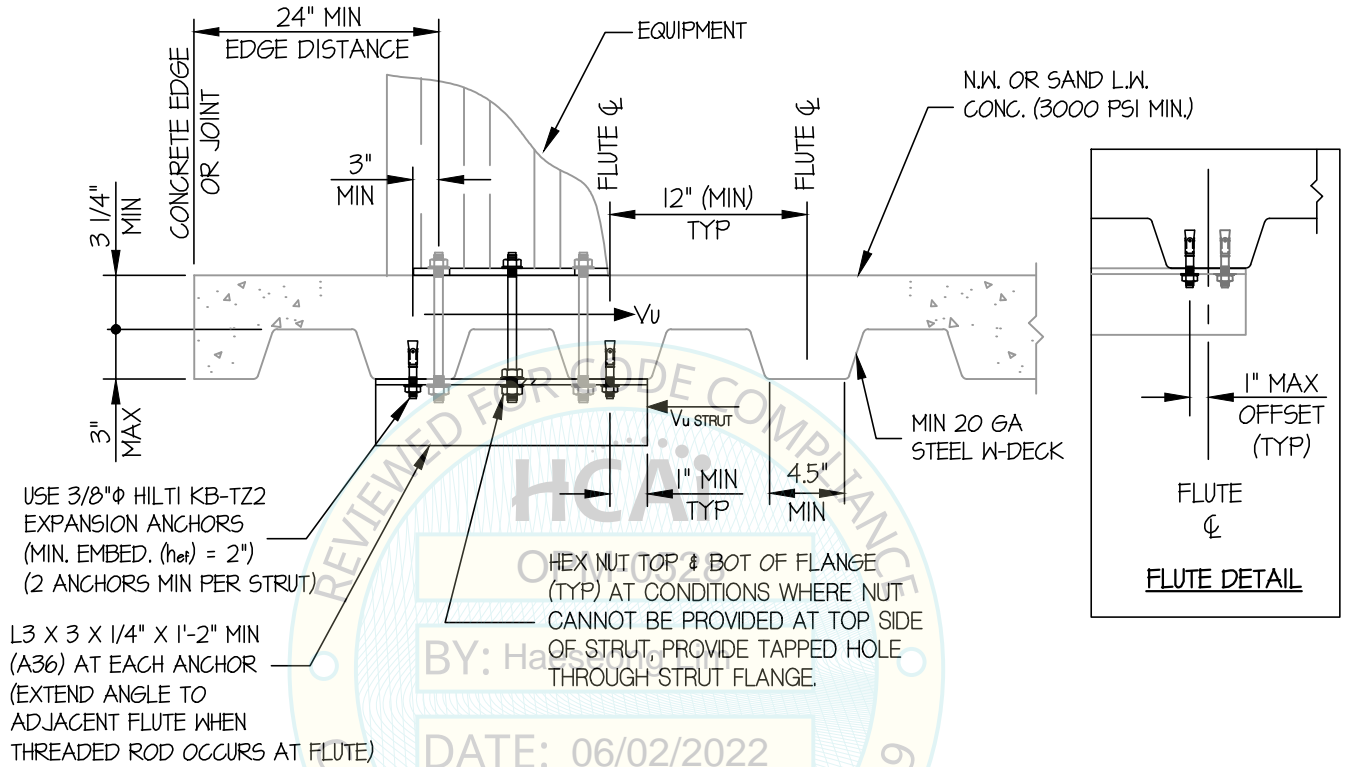
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OF 11 SHEETS

DR 600 MOTORIZED TILTING BUCKY WITH AND WITHOUT SPACER

SEISMIC SUPPORTS & ATTACHMENTS

CONCRETE DETAIL



MIN STEEL DECK REQUIREMENTS AND STRUT DETAIL (A)



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DR 600 MOTORIZED TILTING BUCKY WITH AND WITHOUT SPACER

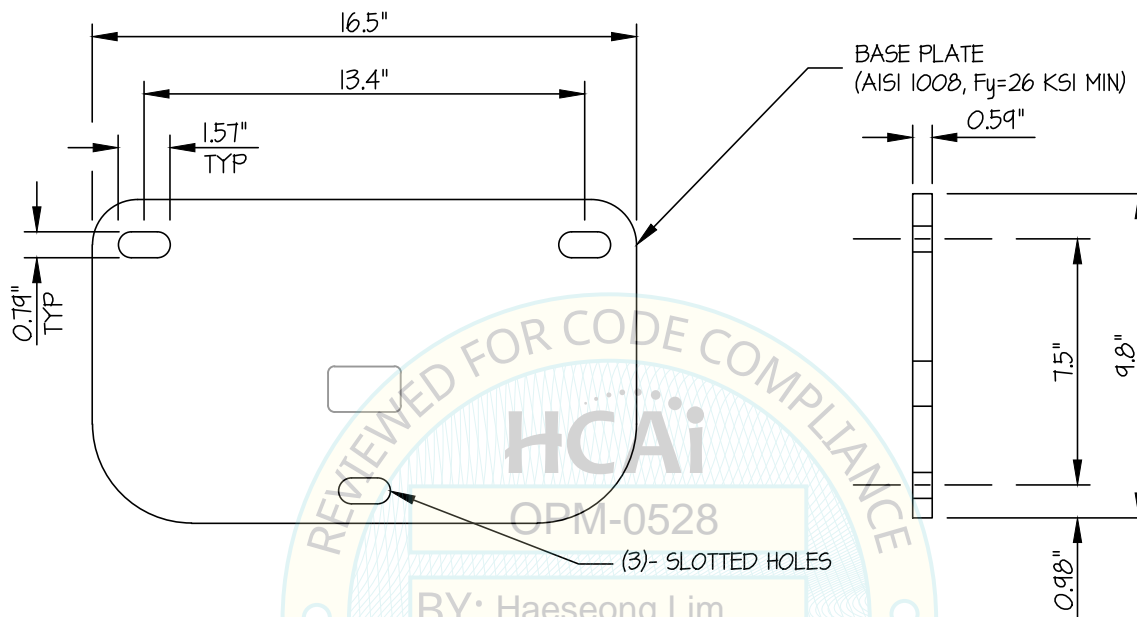
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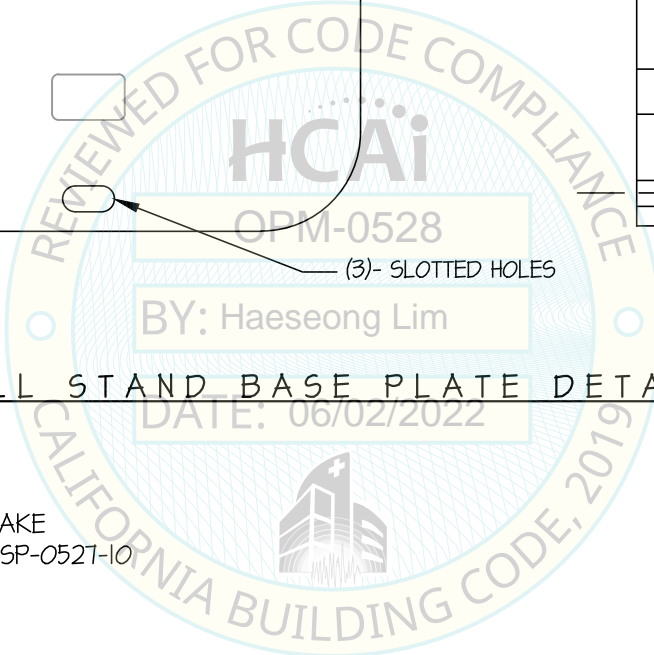
SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAIL



WALL STAND BASE PLATE DETAIL (B)

NOTE: VERIFIED THROUGH SHAKE
TABLE TESTING PER OSP-0521-10



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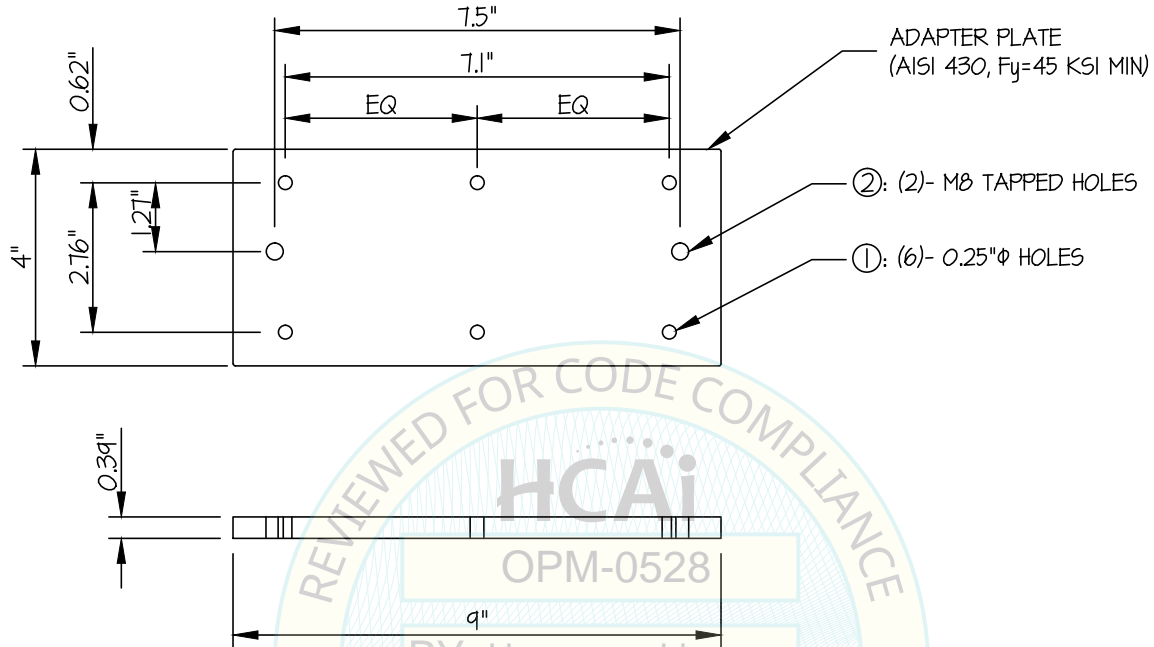
DATE 6/2/22

OF 11 SHEETS

DR 600 MOTORIZED TILTING BUCKY WITH AND WITHOUT SPACER

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAIL

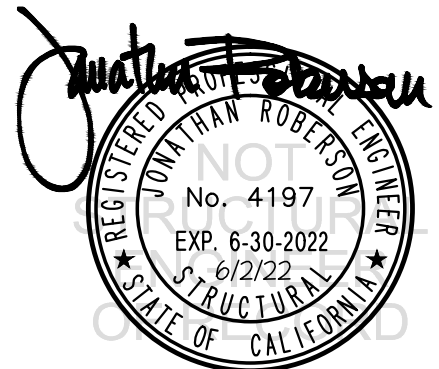


ASSEMBLY:

- ①: HOLES FOR (6)- 1/4"Φ TEK SCREWS W/ FENDER WASHERS TO BACKING PLATE
- ②: HOLES FOR (2)- M8 BOLTS (CL 8.8) W/ HARDENED WASHERS BOLTED TO ADAPTER PLATE

ADAPTER WALL PLATE DETAIL (C)

NOTE: VERIFIED THROUGH SHAKE TABLE TESTING PER OSP-0527-10



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DR 600 MOTORIZED TILTING BUCKY WITH AND WITHOUT SPACER

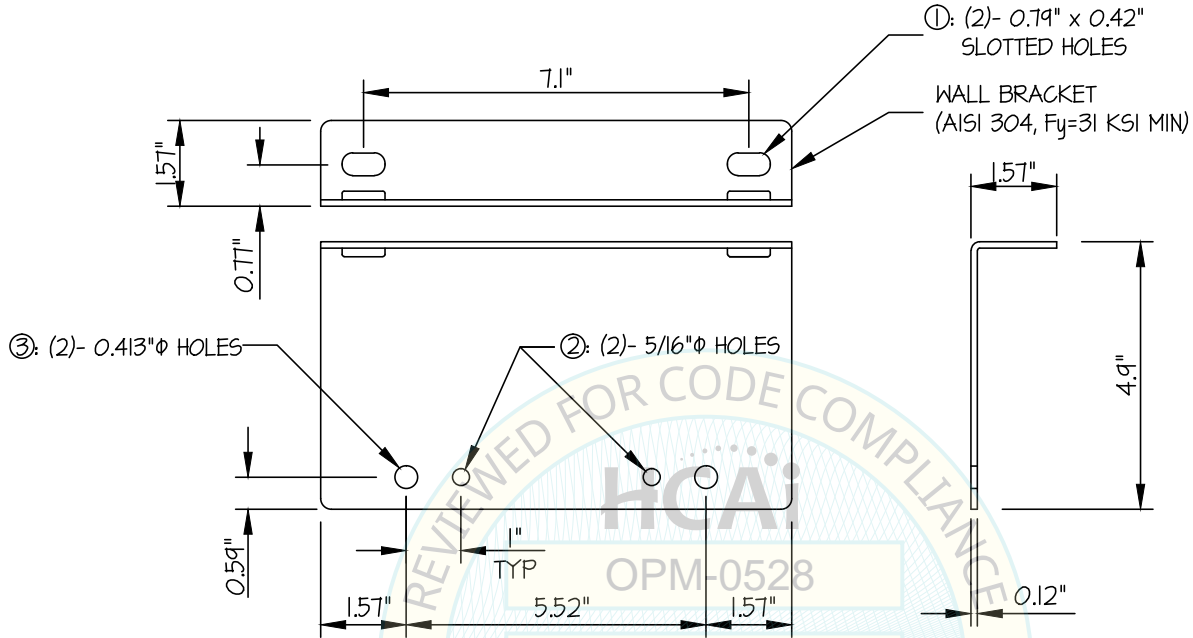
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OF **11** SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAIL



ASSEMBLY:

- ①: HOLES FOR (2)- M8 (CL 8.8) BOLTS W HARDENED WASHERS TO TAPPED HOLES IN ADAPTER PLATE
- ②: HOLES FOR (2)- 1/4"φ (GRADE 5) BOLTS, WASHERS & NUTS TO FIXED HOLES IN EXTENSION PLATE
- ③: HOLES FOR (2)- M8 (CL 8.8) BOLTS, W HARDENED WASHERS & NUTS TO SLOTTED HOLES IN EXTENSION PLATE

WALL BRACKET DETAIL (D)

NOTE: VERIFIED THROUGH SHAKE
TABLE TESTING PER O5P-0521-10



AGFA HEALTHCARE CORP

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DR 600 MOTORIZED TILTING BUCKY WITH AND WITHOUT SPACER

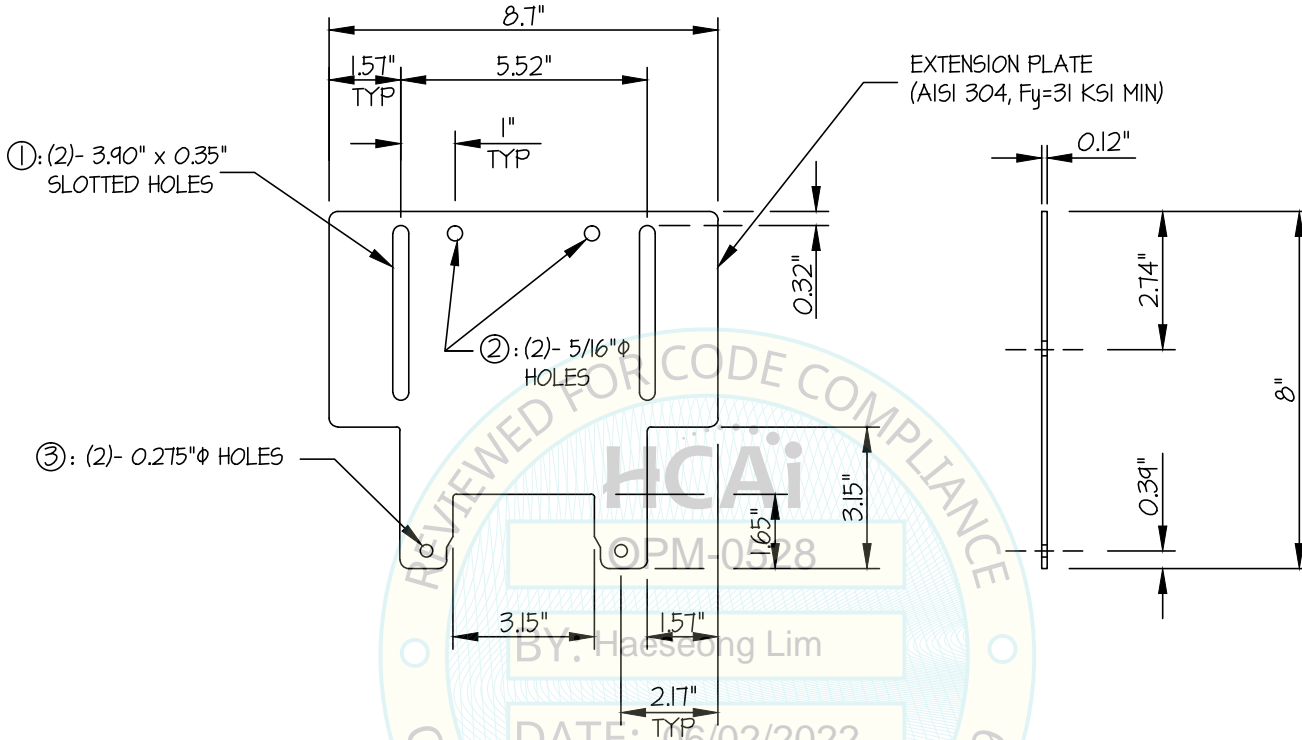
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OF 11 SHEETS

SEISMIC SUPPORTS & ATTACHMENTS

BRACKET DETAIL



ASSEMBLY:

- ①: SLOTTED HOLES FOR (2) M8 (CL 8.8) BOLTS W/ HARDENED WASHERS TO WALL BRACKET
- ②: HOLES FOR (2)- 1/4" Φ (GRADE 5) BOLTS, WASHERS TO FIXED HOLES AT WALL BRACKET
- ③: HOLES FOR (2)- M6 (CL 8.8) BOLTS TO TAPPED HOLES AT UNIT

EXTENSION PLATE DETAIL (E)

NOTE: VERIFIED THROUGH SHAKE
TABLE TESTING PER OSP-0527-10

