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

OFFICE USE ONLY
APPLICATION #: OPM-0219-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: ☒ New ☐ Renewal ☐ Update to Pre-CBC 2013 OPA Number: _____

Manufacturer Information

Manufacturer: Belimed, Inc.

Manufacturer's Technical Representative: Nelson Garrido

Mailing Address: _____

Telephone: 843-216-7424 Email: nelson.garrido@belimed.com

Product Information

Product Name: Ultrasonic Washer

Product Type: Laboratory Equipment

Product Model Number: 200c, 400, & UW565

General Description: Floor mounted ultrasonic washers with seismic mounting brackets.

Applicant Information

Applicant Company Name: Belimed, Inc.

Contact Person: Nelson Garrido

Mailing Address: 2325 Charleston Regional Pkwy., Charleston, SC. 29492

Telephone: 843-216-7424 Email: nelson.garrido@belimed.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: 4/1/2015

Title: *Manager of Engineering, Quality and Regulatory Affairs* Company Name: Belimed, Inc.

Registered Design Professional Preparing Engineering Recommendations

Company Name: Makeitright Inc.

Name: Joseph La Brie California License Number: S3566

Mailing Address: 55 E. Huntington Drive Ste 277, Arcadia, CA 91006

Telephone: (626) 445-0366 Email: labrie@makeitright.net

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): Ultrasonic washer does not require special seismic certification.

*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: 06/25/2015

Print Name: William Staehlin

Title: SSE

Condition of Approval (if applicable):

Belimed

Infection Control

ULTRASONIC WASHER

MODELS: 200c, 400, & UW565

OPM-0219-13

TABLE OF CONTENTS

BELIMED, INC. – ULTRASONIC WASHER
MODEL NOS. 200c, 400, & UW565

REGISTERED PROFESSIONAL ENGINEER
JOSEPH L. LA BRIE
No.3566
EXP. 3-31-2016
OPM-0219-13
06/08/15
STRUCTURAL
STATE OF CALIFORNIA

DESIGN PROFESSIONAL PREPARING ENGINEERING RECOMMENDATIONS:
JOSEPH L. LA BRIE
Structural Engineer
No. SE 3566
makeitright™
hospital building design professionals
55 E. Huntington Dr., Suite 277
Arcadia, CA 91006
PHN: (626) 445-0366
FAX: (626) 445-2947

MANUFACTURER: Belimed Infection Control

PRODUCT: ULTRASONIC WASHER
Models.: 200c, 400, & UW565

PAGE TITLE: TABLE OF CONTENTS

DATE: 04/01/15

PAGE: TC-1

GENERAL NOTES

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE 2013 CALIFORNIA BUILDING CODE (CBC). THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE 2013 CALIFORNIA BUILDING CODE (CBC).

2. SITE VERIFICATION IS REQUIRED. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE AREA(S) OF WORK PRIOR TO THE BEGINNING OF THE PROJECT. DO NOT SCALE THE DRAWINGS; ALL DIMENSIONS MUST BE VERIFIED IN THE FIELD. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED, IMMEDIATELY, IF ANY DISCREPANCIES ARE FOUND.

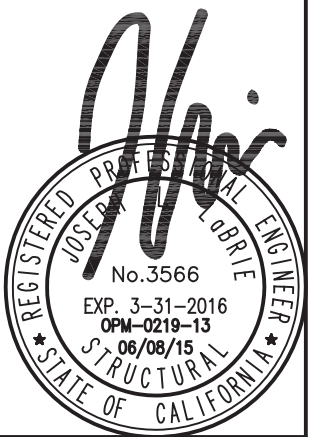
3. DESIGN CRITERIA:

   a.) SLAB ON GRADE
   S_{DS} = 2.5 MAX.; I = 1.5 ; z/h = 0 (GROUND OR SLAB ON GRADE)
   UPPER FLOOR
   S_{DS} = 2.5 MAX. ; I = 1.5 ; z/h <= 1 (UPPER FLOOR)

   b.) PER ASCE 7-10 INCLUDING SUPPLEMENT NO. 1 & TABLE 13.6-1 :
   a_P = 1.0 ; R_P = 1.5 ; Ω_o = 1.5 (APPLY Ω_o FACTOR FOR ANCHORAGE TO CONCRETE)

4. CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM.

5. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL :
   a. CHECK THAT THE EXISTING/NEW STRUCTURE WILL BE ABLE TO SUPPORT THE MAXIMUM WEIGHTS/FORCES SHOWN IN ADDITION TO ANY OTHER LOADS TO THE STRUCTURE. PROVIDE STRENGTENING OF STRUCTURE AS REQUIRED.
   b. CHECK THAT THE FLOOR OR DECK ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. ALL MINIMUM EDGE DISTANCE AND SPACING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS GIVEN IN THE ICC REPORT FOR THE SPECIFIC ANCHORS USED ON THIS OPM. (SEE TABLE ON NEXT PAGE FOR ANCHOR MINIMUM SPACING & EDGE DISTANCE REQUIREMENTS)
   c. CHECK THAT THE INSTALLATION, SUPPORT AND ATTACHMENTS OF THE UNIT COMPLIES WITH THE 2013 CALIFORNIA BUILDING CODE AND WITH THE DETAILS SHOWN IN THIS PREAPPROVAL.
   d. VERIFY THAT THE ACTUAL EQUIPMENT'S MODEL NUMBER, OPERATING WEIGHT, CENTER OF GRAVITY (C.G.) LOCATION, ANCHOR LAYOUT, MATERIAL & ASTM GRADE OF THE EQUIPMENT IS THE SAME SHOWN ON THIS OPM PREAPPROVAL.
   e. VERIFY THAT THE PROJECT SPECIFIC S_{DS} AND z/h VALUES RESULT IN SEISMIC FORCES DOES NOT EXCEED THE VALUES SHOWN ON THIS OPM.



DESIGN PROFESSIONAL PREPARING ENGINEERING RECOMMENDATIONS:	MANUFACTURER:	PRODUCT:	DATE:
JOSEPH L. LA BRIE Structural Engineer No. SE 3566 makeitright™ hospital building design professionals 55 E. Huntington Dr., Suite 277 Arcadia, CA 91006 PHN: (626) 445-0366 FAX: (626) 445-2947	Belimed Infection Control	ULTRASONIC WASHER Models.: 200c, 400, & UW565	04/01/15
		PAGE TITLE: GENERAL NOTES	PAGE: GN-1

GENERAL NOTES (CONTINUED)

6. EXPANSION ANCHORS SHALL BE HILTI KB–TZ ANCHORS (PER ICC–ESR–1917 DATED AUGUST 2014) AND INSTALLED IN NORMAL WEIGHT CONCRETE & SAND LIGHT WEIGHT CONCRETE (AT UNDERSIDE OF DECK) WHERE OCCURS. CARBON STEEL FOR INDOOR APPLICATIONS. MINIMUM EMBEDMENT OF ALL BOLTS AND TEST LOADS (UNLESS NOTED OTHERWISE ON DETAIL):

TEST LOADS FOR HILTI KB–TZ EXPANSION ANCHORS
(f'c = 3000 PSI MIN.) INSTALLED TO N.W. CONCRETE SLAB & SAND L.W. CONCRETE AS OCCURS

BOLT SIZE	APPLICATION	MIN. EFFECTIVE EMBEDMENT	MIN. ANCHOR SPACING	MIN. EDGE DISTANCE	INSTALLATION TORQUE (LBS.–FT.)
3/8"ø	UNDERSIDE OF DECK	2"	6"	6"	25
1/2"ø	TOP OF SLAB ON GRADE	2"	6"	6"	40

a. WHEN INSTALLING DRILLED–IN ANCHORS IN EXISTING NON–PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE THE EXISTING REINFORCING BARS. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED–IN ANCHOR.

b. AFTER A MIN. OF (24) HRS. HAVE ELAPSED, ALL POST INSTALLED ANCHORS (LOADED IN EITHER PULL OUT OR SHEAR) SHALL BE TORQUED OR TENSION TESTED. WHEN POST–INSTALLED ANCHORS ARE USED FOR NON STRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE, 50% OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE–HALF THE ANCHORS IN EACH GROUP SHALL BE TESTED. IF THERE ARE ANY FAILURES, THE IMMEDIATELY ADJACENT BOLTS MUST THEN ALSO BE TESTED.

c. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:

HYDRAULIC RAM METHOD: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. FOR WEDGE AND SLEEVE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE. FOR ADHESIVE ANCHORS, WHERE OTHER THAN BOND IS BEING TESTED, THE DEVICE SHALL NOT RESTRICT THE CONCRETE SHEAR CONE TYPE FAILURE MECHANISM FROM OCCURING.

TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS:
WEDGE OR SLEEVE TYPE: ONE–HALF (1/2) TURN OF THE NUT

d. OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR ALL ANCHOR TESTING.

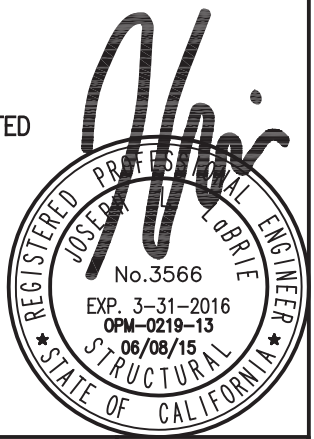
e. ALL TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE INSPECTOR OF RECORD AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY.

7. BOLTS THROUGH CONCRETE ON METAL DECK:

a. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUTS AFTER THE SNUG TIGHT (THE NUG–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.



DESIGN PROFESSIONAL PREPARING ENGINEERING RECOMMENDATIONS:
JOSEPH L. LA BRIE
Structural Engineer
No. SE 3566

makeitright™
hospital building design professionals
55 E. Huntington Dr., Suite 277
Arcadia, CA 91006
PHN: (626) 445-0366
FAX: (626) 445-2947

MANUFACTURER: Belimed Infection Control

PRODUCT: ULTRASONIC WASHER
Models.: 200c, 400, & UW565

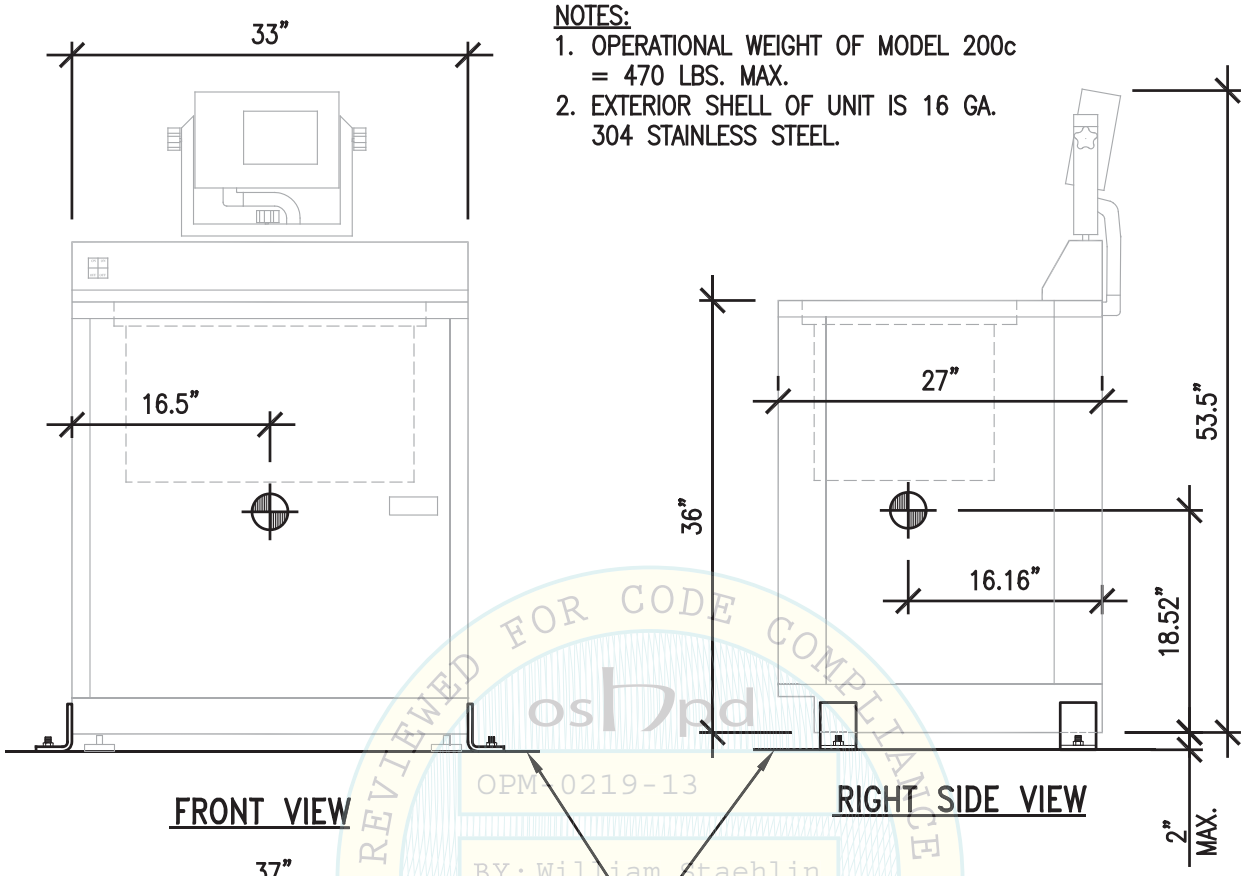
PAGE TITLE: GENERAL NOTES

DATE: 04/01/15

PAGE: GN-2

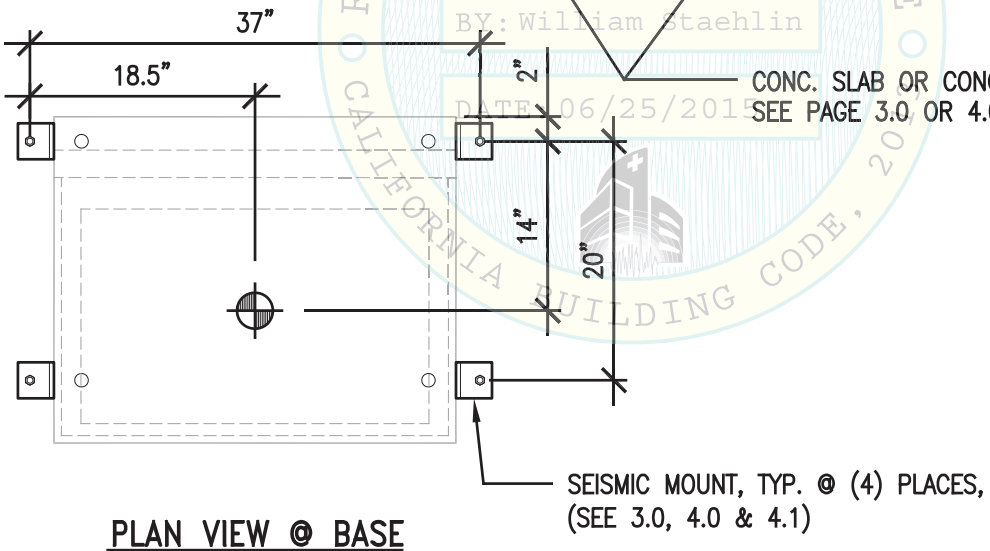
MODEL 200c:

NOTES:
1. OPERATIONAL WEIGHT OF MODEL 200c = 470 LBS. MAX.
2. EXTERIOR SHELL OF UNIT IS 16 GA. 304 STAINLESS STEEL.



FRONT VIEW

RIGHT SIDE VIEW

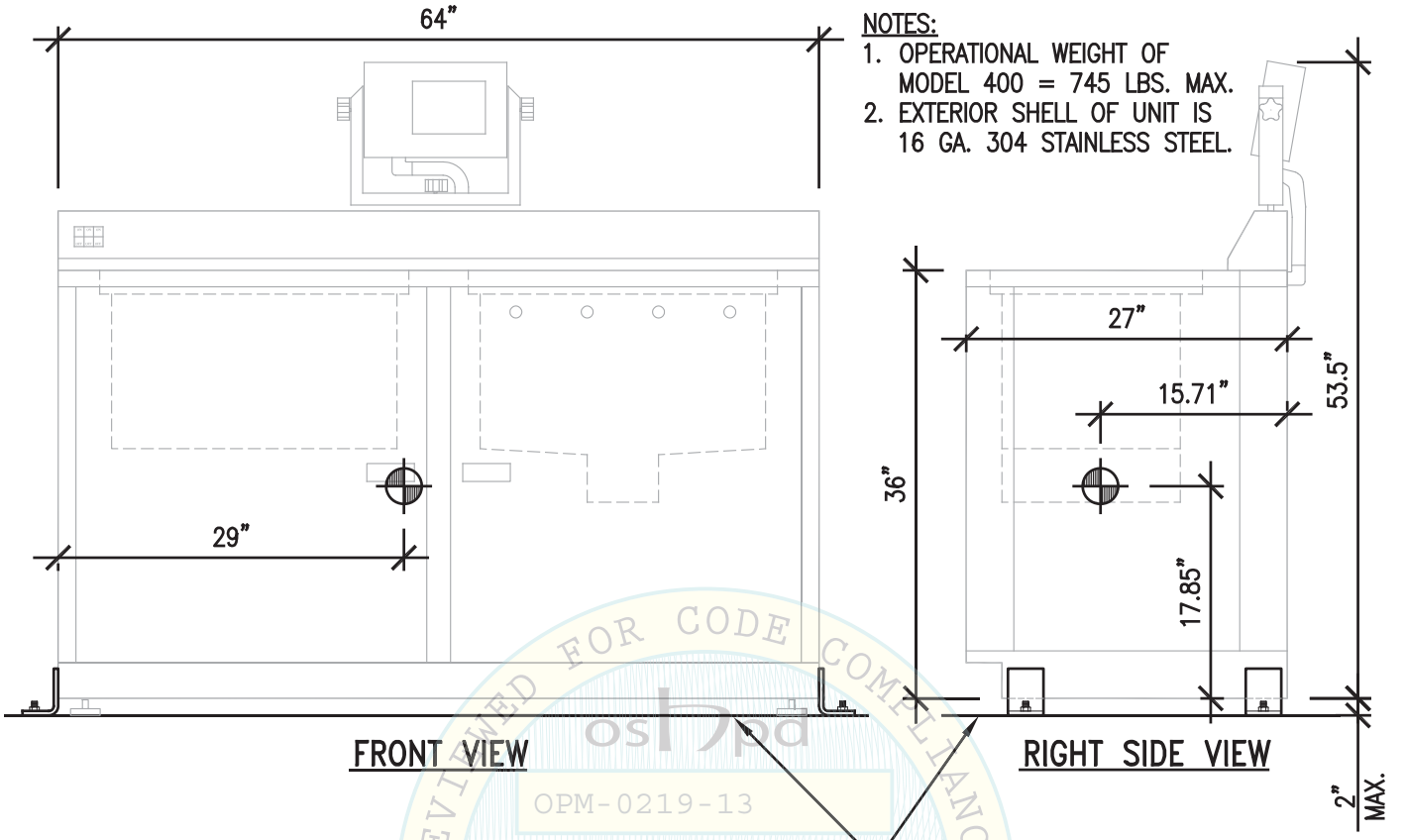


PLAN VIEW @ BASE

REGISTERED PROFESSIONAL ENGINEER
JOSEPH L. LA BRIE
No.3566
EXP. 3-31-2016
OPM-0219-13
06/08/15
STRUCTURAL
STATE OF CALIFORNIA

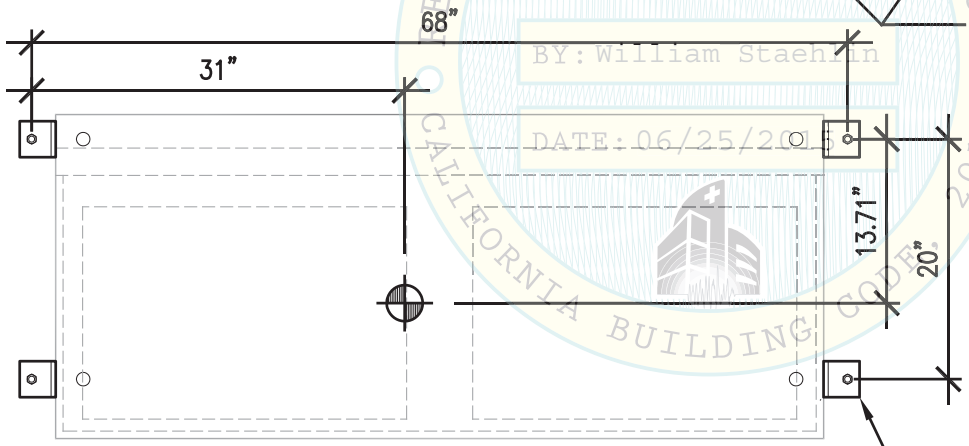
DESIGN PROFESSIONAL PREPARING ENGINEERING RECOMMENDATIONS:	MANUFACTURER:	PRODUCT:	DATE:
JOSEPH L. LA BRIE Structural Engineer No. SE 3566 makeitright™ hospital building design professionals 55 E. Huntington Dr., Suite 277 Arcadia, CA 91006 PHN: (626) 445-0366 FAX: (626) 445-2947	Belimed Infection Control	ULTRASONIC WASHER Models.: 200c, 400, & UW565	04/01/15
		PAGE TITLE: MODEL 200c DETAIL	PAGE: 1.0

MODEL 400:

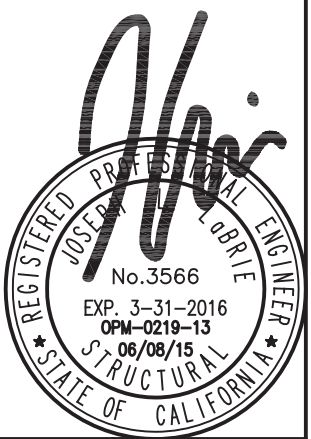


NOTES:
1. OPERATIONAL WEIGHT OF MODEL 400 = 745 LBS. MAX.
2. EXTERIOR SHELL OF UNIT IS 16 GA. 304 STAINLESS STEEL.

CONC. SLAB OR CONC./METAL DECK; SEE PAGE 3.0 OR 4.0 AS APPLICABLE

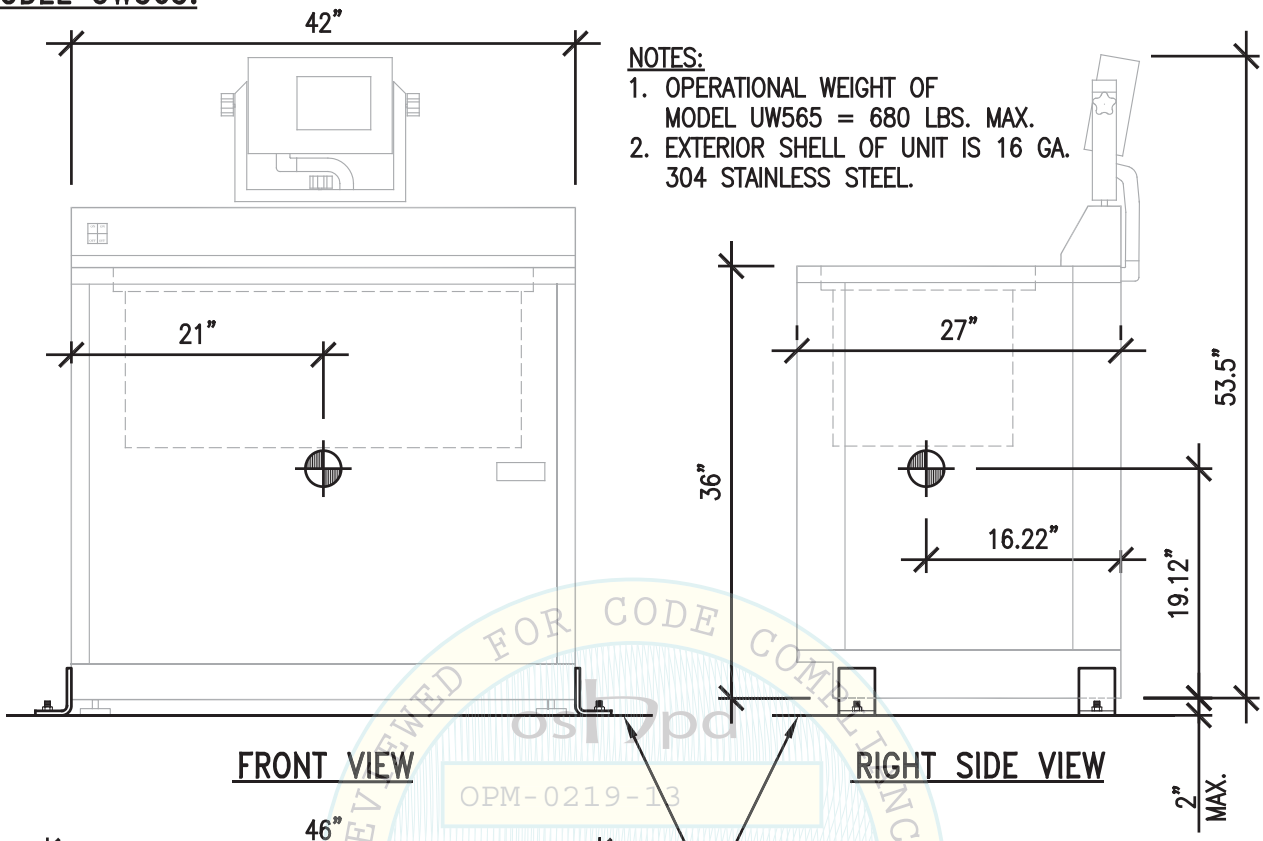


SEISMIC MOUNT, TYP. @ (4) PLACES, (SEE 3.0, 4.0 & 4.1)



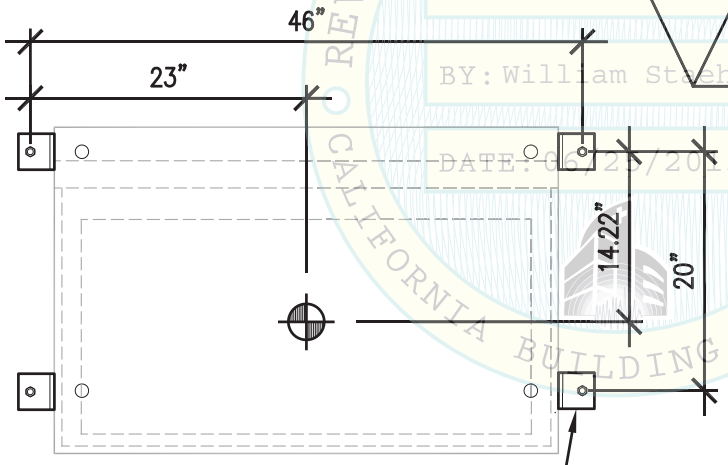
DESIGN PROFESSIONAL PREPARING ENGINEERING RECOMMENDATIONS:	MANUFACTURER:	PRODUCT:	DATE:
JOSEPH L. LA BRIE Structural Engineer No. SE 3566 makeitright™ hospital building design professionals 55 E. Huntington Dr., Suite 277 Arcadia, CA 91006 PHN: (626) 445-0366 FAX: (626) 445-2947	Belimed Infection Control	ULTRASONIC WASHER Models.: 200c, 400, & UW565	04/01/15
		PAGE TITLE: MODEL 400 DETAIL	PAGE: 1.1

MODEL UW565:



NOTES:
1. OPERATIONAL WEIGHT OF MODEL UW565 = 680 LBS. MAX.
2. EXTERIOR SHELL OF UNIT IS 16 GA. 304 STAINLESS STEEL.

CONC. SLAB OR CONC./METAL DECK; SEE PAGE 3.0 OR 4.0 AS APPLICABLE

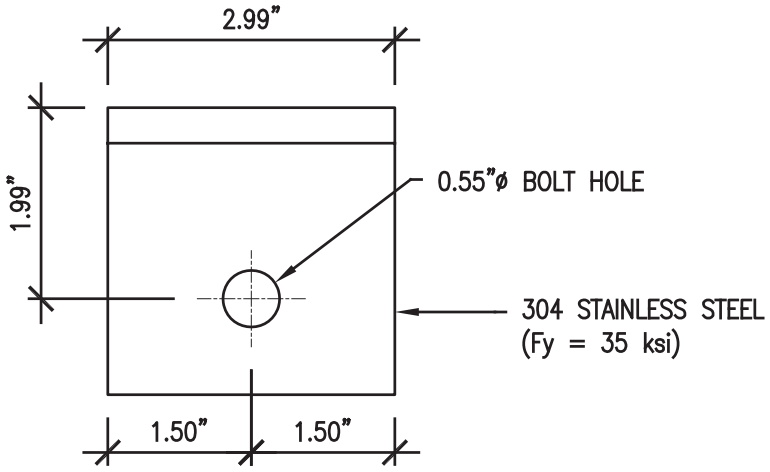


SEISMIC MOUNT, TYP. @ (4) PLACES, (SEE 3.0, 4.0 & 4.1)

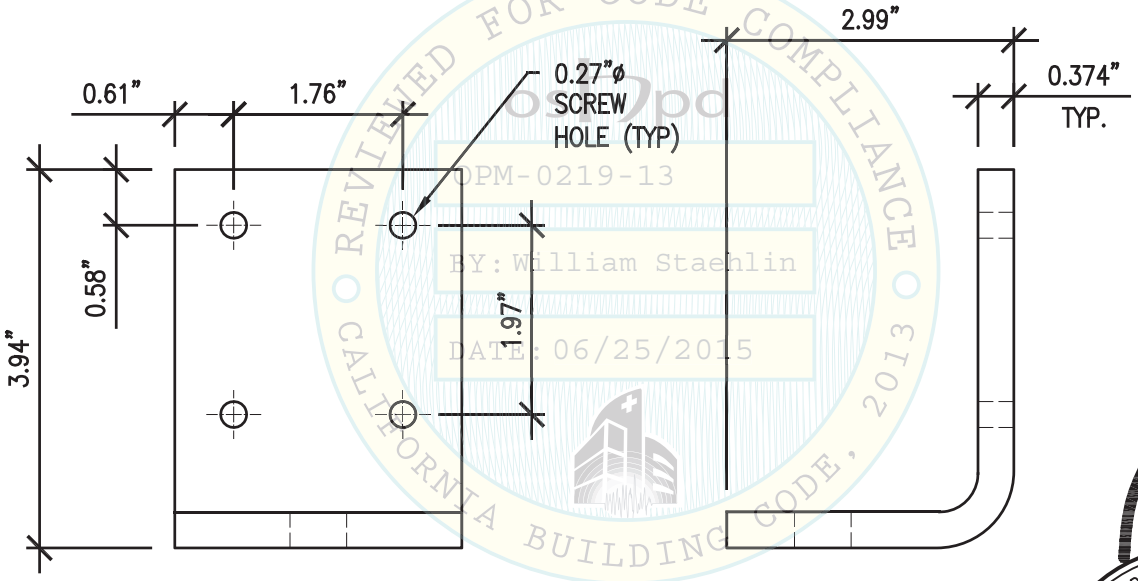
PLAN VIEW @ BASE

REGISTERED PROFESSIONAL ENGINEER
JOSEPH L. LA BRIE
No.3566
EXP. 3-31-2016
OPM-0219-13
06/08/15
STRUCTURAL
STATE OF CALIFORNIA

DESIGN PROFESSIONAL PREPARING ENGINEERING RECOMMENDATIONS: JOSEPH L. LA BRIE Structural Engineer No. SE 3566 makeitright™ hospital building design professionals 55 E. Huntington Dr., Suite 277 Arcadia, CA 91006 PHN: (626) 445-0366 FAX: (626) 445-2947	MANUFACTURER: Belimed Infection Control	PRODUCT: ULTRASONIC WASHER Models.: 200c, 400, & UW565 PAGE TITLE: MODEL UW565 DETAIL	DATE: 04/01/15 PAGE: 1.2

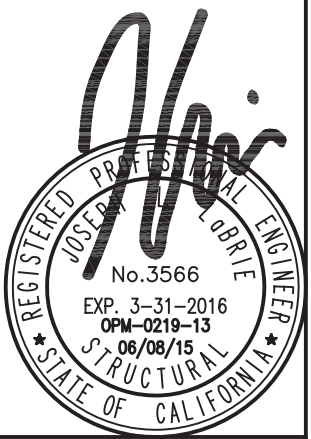


PLAN VIEW



FRONT VIEW

SIDE VIEW



DESIGN PROFESSIONAL PREPARING ENGINEERING RECOMMENDATIONS:

JOSEPH L. LA BRIE
Structural Engineer
No. SE 3566

makeitright™
hospital building design professionals
55 E. Huntington Dr., Suite 277
Arcadia, CA 91006
PHN: (626) 445-0366
FAX: (626) 445-2947

MANUFACTURER: Belimed Infection Control

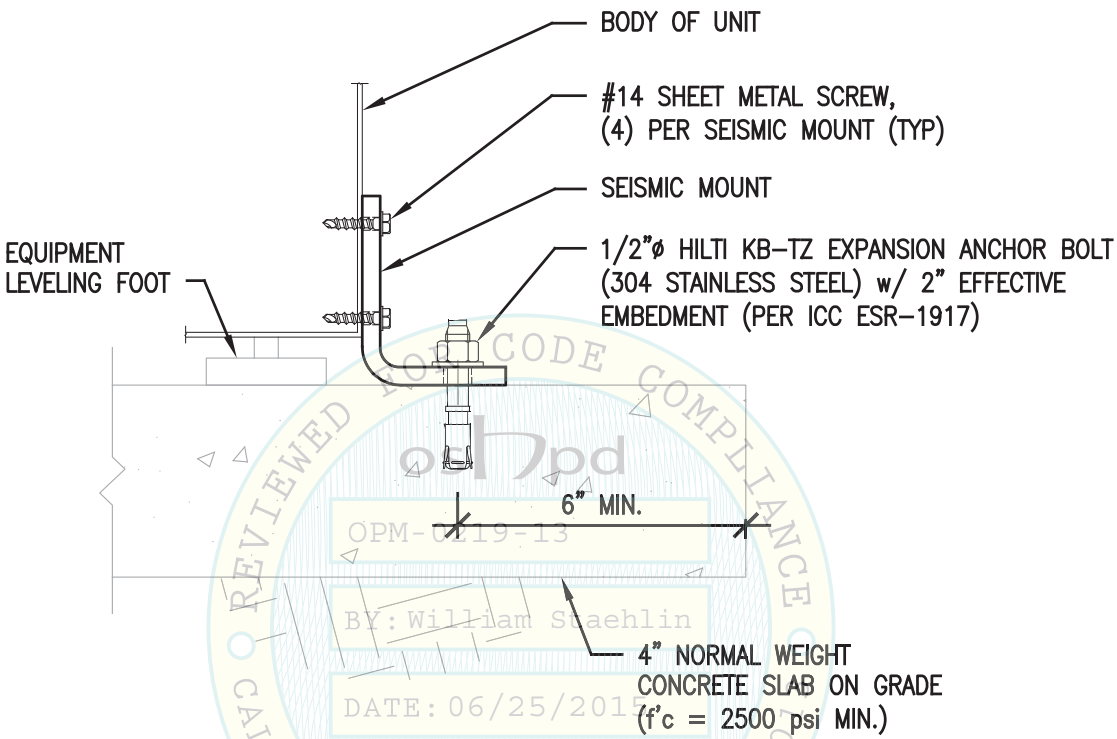
PRODUCT: ULTRASONIC WASHER
Models.: 200c, 400, & UW565

PAGE TITLE: SEISMIC MOUNT DETAIL

DATE: 04/01/15

PAGE: 2.0

SLAB ON GRADE ANCHORAGE (z/h = 0):



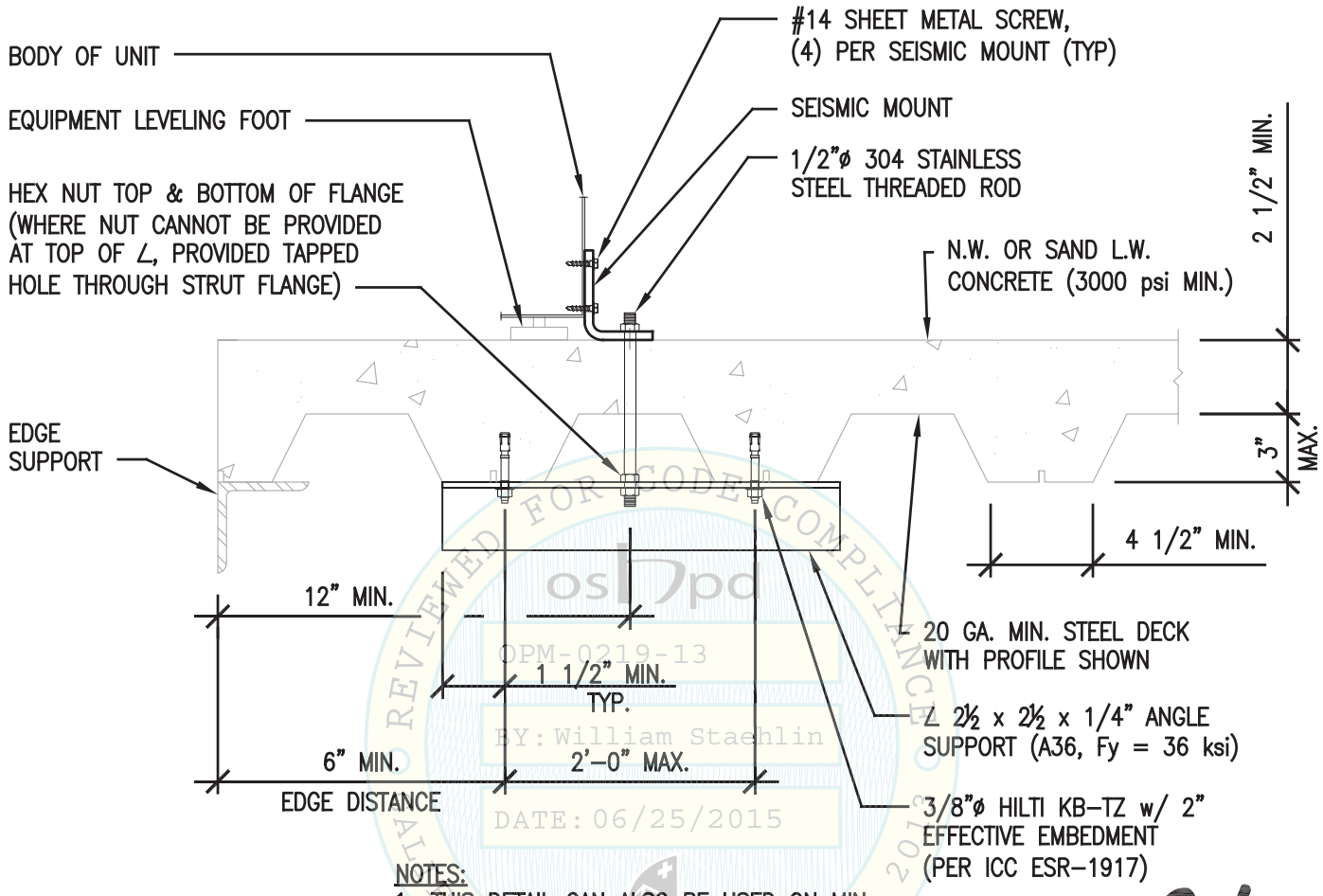
MAX. LOADS ON ATTACHMENT:

$\Omega_o T_u$ = 681 LBS.
$\Omega_o V_u$ = 469 LBS

REGISTERED PROFESSIONAL ENGINEER
JOSEPH L. LA BRIE
No.3566
EXP. 3-31-2016
OPM-0219-13
06/08/15
STRUCTURAL
STATE OF CALIFORNIA

DESIGN PROFESSIONAL PREPARING ENGINEERING RECOMMENDATIONS:	MANUFACTURER:	PRODUCT:	DATE:
JOSEPH L. LA BRIE Structural Engineer No. SE 3566 makeitright™ hospital building design professionals 55 E. Huntington Dr., Suite 277 Arcadia, CA 91006 PHN: (626) 445-0366 FAX: (626) 445-2947	Belimed Infection Control	ULTRASONIC WASHER Models.: 200c, 400, & UW565	04/01/15
		PAGE TITLE: ANCHORAGE TO CONCRETE SLAB ON GRADE DETAIL	PAGE: 3.0

UPPER FLOOR ANCHORAGE ON TYP. "W" DECK (z/h <= 1.0):



NOTES:

1. THIS DETAIL CAN ALSO BE USED ON MIN. 4" THICK N.W. CONCRETE FLAT SLAB FLOORS (f'c = 3000 psi MIN.).

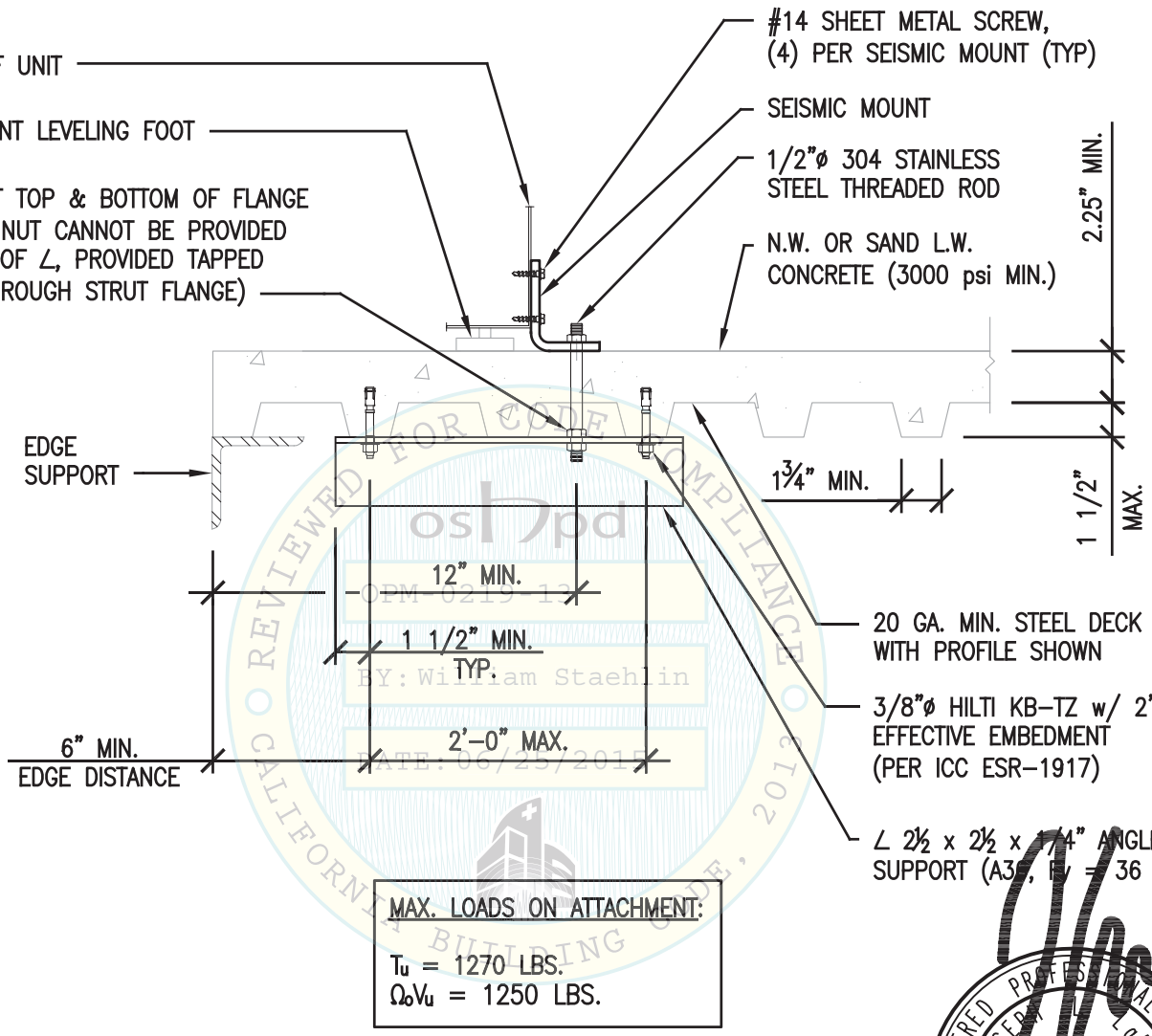
MAX. LOADS ON ATTACHMENT:

T_u = 1270 LBS.
$\Omega_o V_u$ = 1250 LBS.

REGISTERED PROFESSIONAL ENGINEER
JOSEPH L. LA BRIE
No.3566
EXP. 3-31-2016
OPM-0219-13
06/08/15
STRUCTURAL
STATE OF CALIFORNIA

DESIGN PROFESSIONAL PREPARING ENGINEERING RECOMMENDATIONS:	MANUFACTURER:	PRODUCT:	DATE:
JOSEPH L. LA BRIE Structural Engineer No. SE 3566 makeitright™ hospital building design professionals 55 E. Huntington Dr., Suite 277 Arcadia, CA 91006 PHN: (626) 445-0366 FAX: (626) 445-2947	Belimed Infection Control	ULTRASONIC WASHER Models.: 200c, 400, & UW565	04/01/15
		PAGE TITLE: ANCHORAGE TO TYP. "W" DECK DETAIL	PAGE: 4.0

UPPER FLOOR ANCHORAGE ON TYP. "B" DECK (z/h <= 1.0):



MAX. LOADS ON ATTACHMENT:

T_u = 1270 LBS.
$\Omega_o V_u$ = 1250 LBS.

REGISTERED PROFESSIONAL ENGINEER
JOSEPH L. LA BRIE
No.3566
EXP. 3-31-2016
OPM-0219-13
06/08/15
STRUCTURAL
STATE OF CALIFORNIA

DESIGN PROFESSIONAL PREPARING ENGINEERING RECOMMENDATIONS:	MANUFACTURER:	PRODUCT:	DATE:
JOSEPH L. LA BRIE Structural Engineer No. SE 3566 makeitright™ hospital building design professionals 55 E. Huntington Dr., Suite 277 Arcadia, CA 91006 PHN: (626) 445-0366 FAX: (626) 445-2947	Belimed Infection Control	ULTRASONIC WASHER Models.: 200c, 400, & UW565	04/01/15
		PAGE TITLE: ANCHORAGE TO TYP. "B" DECK DETAIL	PAGE: 4.1