

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

"Ildulini,			
APPLICATION FOR OSHPE	OFFICE USE ONLY		
MANUFACTURER'S CERTI	FICATION (OPM)	APPLICATION #: OPM-0589	
OSHPD Preapproval of Manufactu	rer's Certification (OPM)		
Type: X New Renewal/Upda	ate		
Manufacturer Information			
Manufacturer: Abbott Laboratories			
Manufacturer's Technical Representative	e: Bhavesh Mistry		
Mailing Address: 1350 Touhy Ave, Suite	e 300W, DesPlaines, IL 60018		
Telephone: (224) 361-7883	Email: bhavesh.mistry@abb	ott.com	
	FOR CODE COM.		
Product Information	OSHPD		
Product Name: Alinity m		Z	
Product Type: In Vitro Diagnostic Instru	ment OPM-0589	CE	
Product Model Number: 08N53-002	BY: Jeffrey Kikumoto		
General Description: Diagnostic Syst <mark>en</mark>	for Molecular Testing		
	DATE: 10/13/2020	070	
A malia ant Infancetion	The state of the s	N N N N N N N N N N N N N N N N N N N	
Applicant Information			
Applicant Company Name: CYS Structu	ıral Engineers, Inc.		
Contact Donor Distan Ciabald	BITTERING		

Contact Person: Dieter Siebald

Mailing Address: 2495 Natomas Park Drive, Suite 650, Sacramento, CA 95833

Telephone: (916) 920-2020 Email: dieters@cyseng.com

Title: Structural Project Manager

"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 Professonal Preparing Engineering Recommendations
Company Name: CYS STRUCTURAL ENGINEERS, INC.
Name: Dieter Siebald California License Number: S4346
Mailing Address: 2495 Natomas Park Drive, Suite 650, Sacramento, CA 95833
Telephone: (916) 920-2020 Email: dieters@cyseng.com
OSHPD Special Seismic Certification Preapproval (OSP)
Special Seismic Certification is preapproved under OSP OSP Number:
<u></u>
OR GODE
Certification Method
Testing in accordance with:
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.
X Analysis BY: Jeffrey Kikumoto
Experience Data DATE: 10/13/2020
Combination of Testing, Analysis, and/or Experience Data (Please Specify):
CODE CODE
OSHPD Approval BUILDING
Date: 10/13/2020
Name: Jeffrey Kikumoto Title: Senior Structural Engineer
Condition of Approval (if applicable):

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







	PAGE
GENERAL NOTES	. 2
ABBREVIATIONS & DESIGN CRITERIA	. 5
EQUIPMENT DIMENSIONS	. 6
ANCHORAGE BRACKET LOCATIONS	. 7
FLOOR BRACKETS DETAIL	8
ATTACHMENT DETAIL TO EQUIPMENT FRAME	. 10
ANCHORAGE DETAIL TO CONCRETE FILL OVER METAL DECK (CASE 1)	11
ANCHORAGE DETAIL TO CONCRETE SLAB (CASE 2)	. 14
NOTES: 1. THESE DRAWINGS ARE PREPARED FOR ABBOTT LABORATORIES, AN ILLINOIS	

CORPORATION, ABBOTT PARK, ILLINOIS.

- THE CONTRACTOR AND INSPECTOR OF RECORD SHALL OBTAIN A COPY OF THIS PRE-APPROVAL FROM THE OFFICE OF STATEWIDE HEALTH PLANNING & DEVELOPMENT (OSHPD) PRE-APPROVAL PROGRAMS WEBSITE.
- THIS PRE-APPROVAL COVERS THE SUPPORTS & ATTACHMENTS OF THE UNIT TO THE SUPPORTING STRUCTURE. THE UNIT, "SUPPORTS & ATTACHMENTS" BRACKETS & CONNECTION HARDWARE TO UNIT IS SUPPLIED & INSTALLED BY ABBOTT. THRU-BOLTS, STRUT HARDWARE & ATTACHMENTS AT SOFFIT UNDER METAL DECK & EXPANSION BOLTS SHOWN ON PAGES 11 TO 14 SHALL BE SUPPLIED & INSTALLED BY THE CONTRACTOR. BUILDING



SHEET TITLE: TABLE OF CONTENTS

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CYS STRUCTURAL ENGINEERS, INC.

2495 NATOMAS PARK DRIVE, SUITE 650 SACRAMENTO, CA 95833

(916) 920-2020 Date: TEL

Job No: www.cyseng.com Page:

20043 10/13/2020 1 of 14

m OPM\ACAD\S1.dwg Time:Oct12,2020-02:12pm Login:shawnm Dimscale:1 LTScale:6 Abbott Alinity -:\Jobs20\20043

ABBOTT LABORATORIES **ALINITY M**



GENERAL NOTES:

- 1. THIS OSHPD PRE-APPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON THE CBC 2019. THE DEMAND (DESIGN FORCES) FOR USE W/ THIS OPM SHALL BE BASED ON THE CBC 2019.
- 2. IT IS THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OF RECORD FOR A SITE SPECIFIC PROJECT TO VERIFY:
 - THE ADEQUACY OF THE NEW OR (E) STRUCTURE TO RESIST THE FORCES & WT SPECIFIED FOR EACH EQUIP IN ADDITION TO ALL OTHER LOADS. PROVIDE & DESIGN SUPPLEMENTARY MEMBERS AS
 - THAT THE FLR ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS.
 - THAT THE FLR ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR (E) ANCHORS. THE SPACING SHOWN IN THE TEST LOADS TABLE ON PAGE 3 IS THE REQUIRED MIN SPACING OF THE GIVEN DIA ANCHORS. THE REQUIRED SPACING FROM ANCHORS OF OTHER DIA & EMBEDMENTS MAY VARY & SHALL BE EVALUATED BY THE SEOR.
 - THAT THE INSTALLATION IS IN CONFORMANCE W/ THE CBC 2019 & W/ THE DTLS SHOWN IN THIS PRE-APPROVAL.
 - THAT THE ACTUAL EQUIP'S WT, CENTER OF GRAVITY (CG) LOCATION, ANCHOR LOCATIONS, ANCHOR DTLS, & THE MATERIAL & GA OF THE EQUIP WHERE ATTACHMENTS ARE MADE, AGREE W/ THE INFORMATION SHOWN ON THE PRE-APPROVAL DOCUMENTS.
 - THAT THE CONC SLAB TO WHICH THE EQUIP IS ANCHORED SHALL MEET THE REQUIREMENTS OF THE APPLICABLE ICC REPORT & THIS OPM.
- 3. EXPANSION ANCHORS INSTALLED IN NWC OR SLWC SHALL BE CARBON STL HILTI KB-TZ EXPANSION ANCHORS COMPLYING W/ ESR-1917 REVISED JANUARY 2020.
 - A. INSTALLATION: INSTALL THE EXPANSION ANCHORS IN ACCORDANCE W/ THE REQUIREMENTS GIVEN IN THE ICC EVALUATION REPORT FOR THE SPECIFIC ANCHOR & THE PARAMETERS GIVEN IN THE TABLE ON PAGE 3. PROVIDE FULL THRD ENGAGEMENT FOR NUT & WASHER.
 - JOB TESTING: FOR VERIFYING SATISFACTORY INSTALLATION WORKMANSHIP, PERFORM JOB SITE TESTING IN ACCORDANCE W/ THE TEST LOAD TABLE PROVIDED IN THIS DOCUMENT. TORQUE 50% OF THE INSTALLED ANCHORS. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE SPECIAL INSPECTOR & REPORT OF TEST RESULTS SHALL BE SUBMITTED TO THE INSPECTOR OF RECORD, OWNER & ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE. IF ANY ANCHOR FAILS THE TEST, TEST ALL ANCHORS. THE TEST SHALL BE PERFORMED 24 HOURS OR MORE AFTER INSTALLATION. TESTING MAY BE DONE PRIOR TO EQUIP INSTALLATION, HOWEVER, THE NUT SHALL BE RETORQUED TO INSTALLATION TORQUE AFTER EQUIP INSTALL. ALSO, REFER TO 2019 CBC 1910.5 "TESTS FOR POST-INSTALLED ANCHORS IN CONCRETE".
 - C. FAILURE/ACCEPTANCE CRITERIA: THE FOLLOWING CRITERIA APPLIES FOR THE ACCEPTANCE OF **INSTALLED ANCHORS:**
 - TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED W/IN THE FOLLOWING LIMITS: WEDGE TYPE: ONE-HALF (1/2) TURN OF THE NUT.
 - D. AVOID DAMAGING (E) STL REINF IN CONC SLAB WHEN INSTALLING CONC EXPANSION ANCHORS.

OF CALIFORNIA

SHEET TITLE: GENERAL NOTES



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(916) 920-2020 Date: TEL

20043 Job No: 10/13/2020 2 of 14 www.cyseng.com Page:

10/13/2020



GENERAL NOTES CONTINUED:

3E. TEST VALUES: APPLY TEST LOADS TO ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE, SEE TABLE

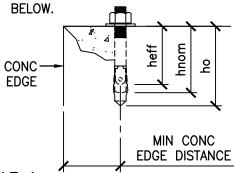


TABLE 1

CONDITION OF ANCHORAGE	ANCHOR DIA (INCH) da	INSTALLATION EMBED (INCH) hnom	EFFECTIVE EMBED (INCH) hef	HOLE DEPTH (INCH)	MIN CONC THICKNESS (INCH)	MIN CONC EDGE DISTANCE (INCH)	MIN AB SPACING (INCH)	TEST LOAD TORQUE (FT-LBS)
CASE 2	1/2	23/8	(i) 2	25/8	4 D ⁴ D	12	4	40

- 4. BOLTS THROUGH CONC ON MTL DECK:
 - A. BOLTS SHALL BE TORQUED BY 3/4 TURN OF THE NUT AFTER SNUG TIGHT CONDITION IS ACHIEVED, UNO. THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
 - B. THRU-BOLT HOLES SHALL BE $\frac{1}{16}$ LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + $\frac{1}{16}$)
 - C. THRU-BOLTS IN CONC SHALL RECEIVE SPECIAL INSPECTION & TESTING IN ACCORDANCE W/
 REQUIREMENTS FOR POST-INSTALLED ANCHORS. THRU-BOLTS W/ STL TO STL CONNECTION IN
 TENSION DO NOT REQUIRE TESTING.TE: 10/13/2020
- 5. SCREW ANCHORS TO BOTT OF CONC FILL OVER MTL DECK:
 - A. HILTI KH-EZ (ICC ESR-3027) TENSION TEST LOAD FOR CASE 1.

|--|

ANCHOR DIA (INCH) da	INSTALLATION EMBED (INCH) hnom	EFFECTIVE EMBED (INCH) hef	HOLE DEPTH (INCH) ho	MIN CONC THICKNESS (INCH) h _{min}		MIN AB SPACING (INCH)	MAX INSTALLATION TORQUE (FT-LBS)
1/4	1%	1.18	2	31/4	11/4*	10*	18

* SEE PG 12 IN THIS OPM & FOOTNOTE 2, TABLE 2 IN ESR-3027

SHEET TITLE: GENERAL NOTES (CONTINUED)



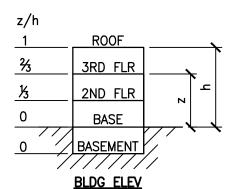
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Job No: 20043 Date: 10/13/2020 Page: 3 of 14

ATE OF CALIFO

TWO (2) CASES OF ATTACHMENT ARE SPECIFIED & PRESENTED IN THIS PRE-APPROVAL:



CASE 1: ATTACHMENT DETAILS LOCATED AT UPPER FLRS ABV THE BASE OF A BLDG (z/h≤0.8). THE FLRS ARE ASSUMED TO BE BUILT OF A MIN 31/4" SLWC TOPPING OVER 3" DEEP MIN 20 GA MTL DECK (f'c = 3000 PSI, MIN). ANCHORS SHALL BE A325 STL THRD ROD THRU CONC FILL & MTL DECK.

CASE 2: ATTACHMENT DETAILS LOCATED AT OR BLW THE BASE OF A BLDG (z/h=0). THE FLRS ARE ASSUMED TO BE BUILT OF A MIN 4" NWC SLAB (f'c = 3000 PSI, MIN).

THIS PRE-APPROVAL MAY BE USED AT ANY GEOGRAPHICAL LOCATION IN THE STATE OF CALIFORNIA WHERE S_{DS} IS LESS THAN OR EQUAL TO 1.90.





SHEET TITLE: GENERAL NOTES (CONTINUED)



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(916) 920-2020 Date: TEL

20043 Job No: 10/13/2020 4 of 14 www.cyseng.com | Page:

<u> VRRKFAIN</u>	ATIONS:		
@	AT	LBS	POUNDS
ABV	ABOVE	LLH	LONG LEG HORIZONTAL
ASTM	AMERICAN SOCIETY FOR TESTING &	LLV	LONG LEG VERTICAL
	MATERIALS	LRFD	LOAD AND RESISTANCE FACTOR DESIGN
BLDG	BUILDING	MAX	MAXIMUM
BLW	BELOW	MFR	MANUFACTURER
CBC	CALIFORNIA BUILDING CODE	MIN	MINIMUM
CG	CENTER OF GRAVITY	MTL	METAL
Ę	CENTERLINE	NO. (#)	NUMBER OR POUNDS
CONC	CONCRETE	NWC	NORMAL WEIGHT CONCRETE
COORD	COORDINATE	OSHPD	OFFICE OF STATEWIDE HEALTH
DBL	DOUBLE		PLANNING & DEVELOPMENT
DIA (ø)	DIAMETER	PSI	POUNDS PER SQUARE INCH
(E)	EXISTING CONDITION	SEOR	STRUCTURAL ENGINEER OF RECORD
ÈLÉV	ELEVATION	SLWC	SAND-LIGHTWEIGHT CONCRETE
EQUIP	EQUIPMENT	SS	STAINLESS STEEL
f'c	MINIMUM ULTIMATE COMPRESSIVE	STD	STANDARD
	OTDENOTIL OF CONCRETE	STL	STEEL
FLR	FLOOR	STL Tu	ANCHORAGE TENSION REACTION DUE TO
	FOOT /FFFT		SEISMIC FORCE AT LRFD
FT (')	FOOT/FEET	THRD	THREAD OR THREADED
Fy	SPECIFIED MINIMUM YIELD	TYP	TYPICAL
	STRESS OF STEEL	Vu	ANCHORAGE SHEAR REACTION DUE TO
GA	GAUGE		SEIGNIC FORCE AT LIPED

DESIGN CRITERIA

INCH

IN (")

KSI

SUPPORT & ATTACHMENT DESIGN S PER 2019 CBC AT LRFD LEVEL FORCES.

OTHER MECHANICAL OR ELECTRICAL COMPONENTS PER TABLE 13.6-1 OF ASCE 7-16 INCLUDING SUPPLEMENT #1 & ERRATA:

BY: Jeffrey Wikumoto

 $a_{p} = 1.0$

 $R_{\rm p} = 1.5$ $I_{\rm p} = 1.5$

 $\Omega_0 = 1.5$ (CONC ANCHORS)

SEISMIC FORCE AT LRFD

OPERATING WEIGHT

WP AS NOTED ON EQUIP DRAWING SHOWN ON PG 6

FOR CASE 1 - UPPER FLRS ABV THE BASE, $z/h \le 0.8$

 $S_{DS} = 1.90$ $F_{D} = 1.97$ W_{D}

KIPS PER SQUARE INCH

FOR CASE 2 - SLAB AT OR BLW BASE, z/h = 0 $S_{DS} = 1.90$ $F_{D} = 0.85 W_{D}$

LOAD COMBINATIONS

(0.9 - 0.2 $S_{DS})$ D - Ω_{0} F_{p} (FOR MAX TENSION) $(1.2 + 0.2 S_{DS}) D + \Omega_0 F_D$ (FOR MAX COMPRESSION)

SHEET TITLE: ABBREVIATIONS & DESIGN CRITERIA



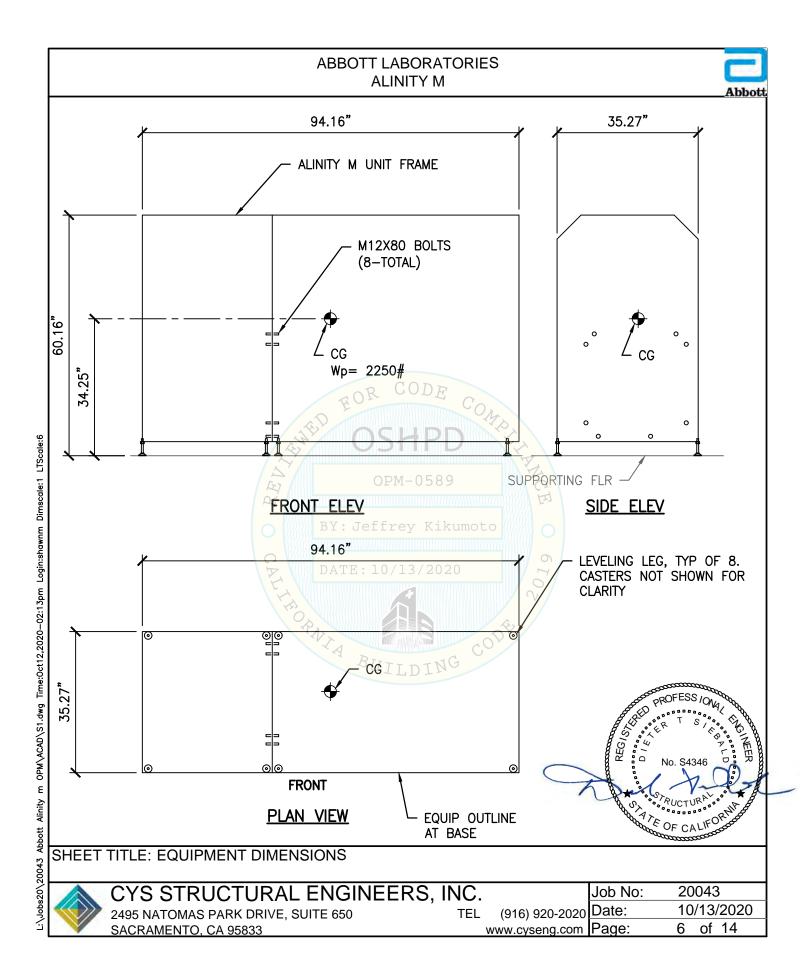
CYS STRUCTURAL ENGINEERS, INC.

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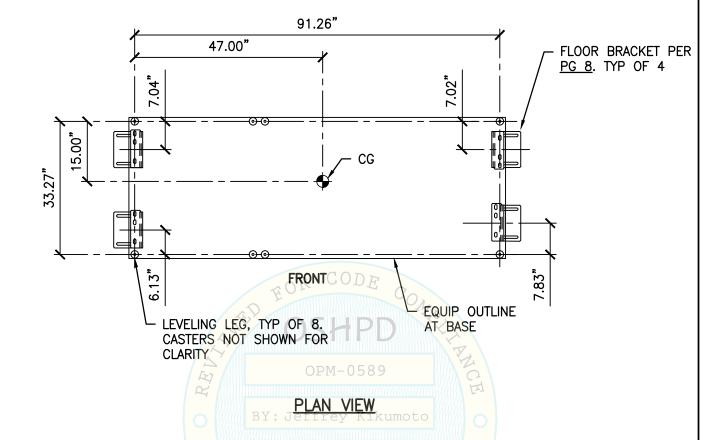
TEL (916) 920-2020 Date:

Job No: 20043 10/13/2020 5 of 14 www.cyseng.com | Page:

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NOTE:

SEE PG 10 FOR ATTACHMENT DETAILS TO EQUIP FRAME. SEE PGS 11-14 FOR ANCHORAGE DETAILS TO SUPPORTING FLR.



SHEET TITLE: ANCHORAGE BRACKET LOCATIONS



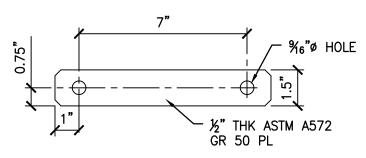
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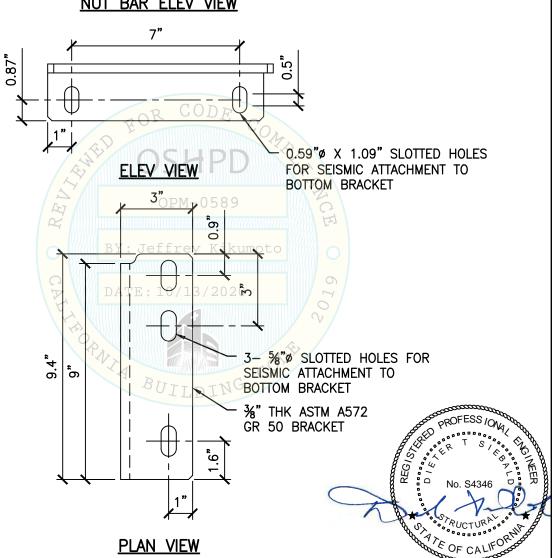
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Job No: 20043 10/13/2020 www.cyseng.com Page: 7 of 14



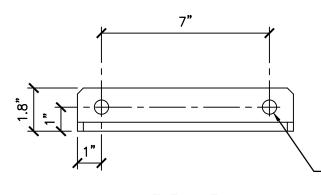


NUT BAR ELEV VIEW



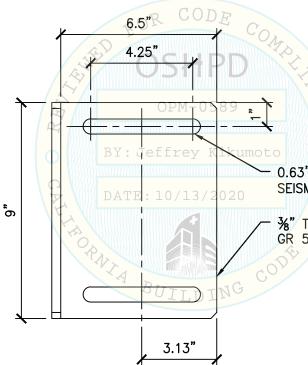
SHEET TITLE: TOP FLOOR BRACKET AND NUT BAR DETAIL





0.59" Ø HOLES FOR SEISMIC ATTACHMENT TO TOP BRACKET

ELEV VIEW



0.63" X 4.25" SLOTTED HOLES FOR SEISMIC ATTACHMENT TO STRUCTURE

%" THK ASTM A572 GR 50 BRACKET

PLAN VIEW



SHEET TITLE: BOTTOM FLOOR BRACKET DETAIL

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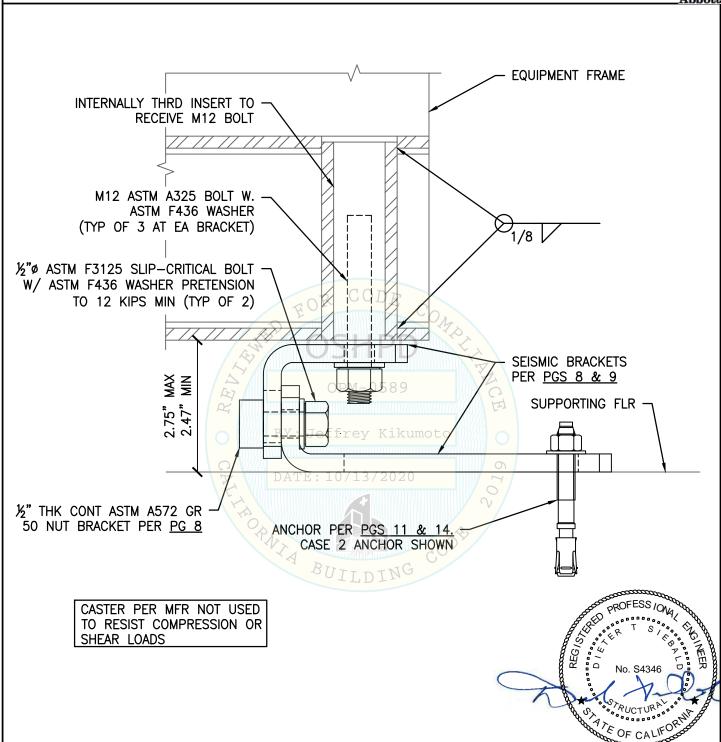
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20043 Job No: 10/13/2020 9 of 14

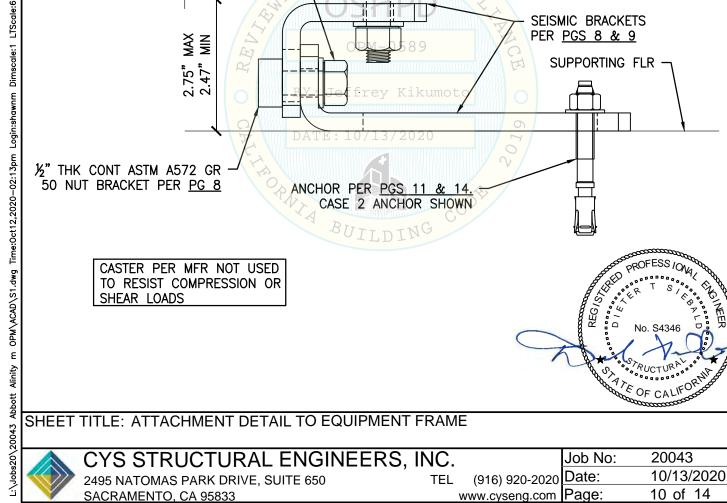
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10/13/2020





SHEET TITLE: ATTACHMENT DETAIL TO EQUIPMENT FRAME



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20043

10/13/2020

11 of 14

Job No:

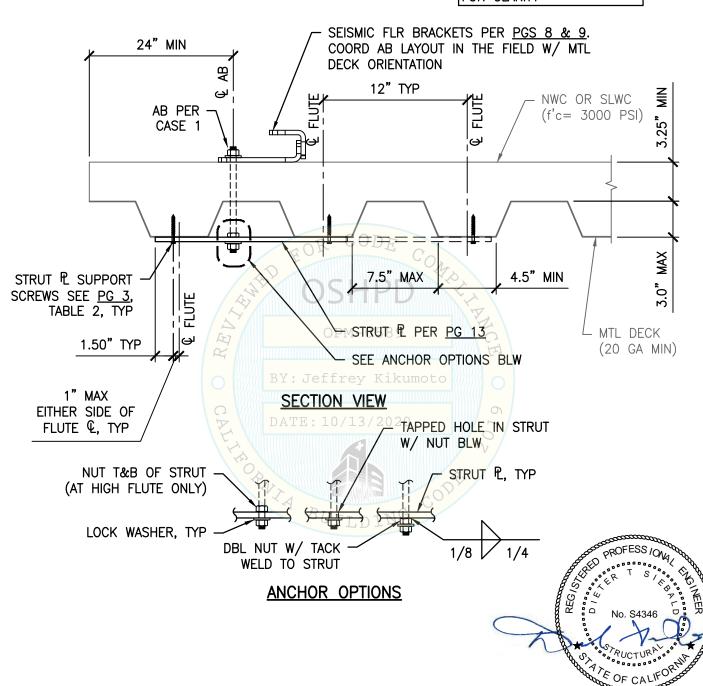
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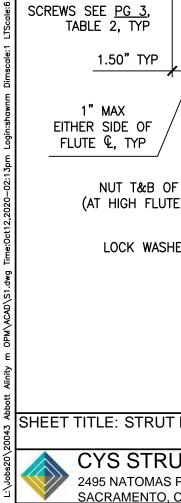
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NOTE: EQUIP OUTLINE NOT SHOWN FOR CLARITY



SHEET TITLE: STRUT PLATE DETAIL



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Job No: 20043 10/13/2020 www.cyseng.com Page: 12 of 14

ABBOTT LABORATORIES **ALINITY M** EXTEND STRUT LENGTH TO NEXT ADJ LOW FLUTE IF AB'S LENGTH SHALL ARE LESS THAN 2" FROM **ENGAGE** STRUT & SUPPORT SCREWS 2 LOW FLUTES MIN 1.50" BOTT OF (E) MTL DECK 2.00" MIN TYP (LOW FLUTES SHADED FOR CLARITY) BRACKET ABV 6.00 STRUT & SUPPORT SCREWS: AB PER %6" STRUT ₹ A36, TYP. FIELD HILTI KH-EZ 4"øx1%" NOMINAL EMBED CASE 1 VERIFY DECK ORIENTATION FOR CONC SCREWS (ICC ESR-3027) 1 EA END COORD W/ AB LAYOUT التي OF PL. USE 18 FT-LBS MAX INSTALLATION 1.00" MAX EITHER SIDE TORQUE USING A CALIBRATED TORQUE OF FLUTE &. TYP OPM\ACAD\S1.dwg Time:Oct12,2020-02:13pm Login:shawnm Dimscale:1 LTScale:6 WRENCH, TYP PLAN VIEW EXTEND STRUT LENGTH TO ANCHORS PERPENDICULAR TO FLUTES NEXT ADJ LOW FLUTE IF AB'S ARE LESS THAN 2" FROM LENGTH SHALL ENGAGE STRUT PL SUPPORT SCREWS 2 LOW FLUTES MIN 1.50" TYP 2" MIN 5/6" STRUT ₱ A36. FIELD VERIFY DECK ORIENTATION FOR COORD W/ AB LAYOUT . 0 BOTT OF MTL DECK (LOW FLUTES SHADED 8 FOR CLARITY) .. 8 STRUT & SUPPORT SCREWS: BRACKET ABV HILTI KH-EZ ¼"øx1%" NOMINAL EMBED Ε AB PER CASE 1 CONC SCREWS (ICC ESR-3027) 1 EA PLAN VIEW ATE OF CALIFO END OF PL ANCHORS PARALLEL TO FLUTES

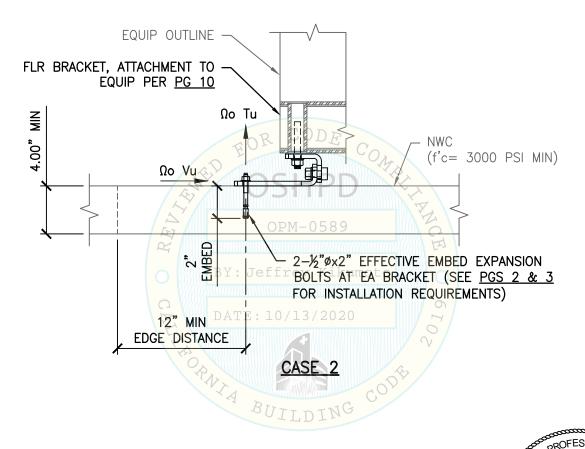
SHEET TITLE: STRUT PLATE DETAIL

CYS STRUCTURAL ENGINEERS,	INC.		Job No:	20043
2495 NATOMAS PARK DRIVE, SUITE 650	TEL	(916) 920-2020	Date:	10/13/2020
SACRAMENTO, CA 95833		www.cyseng.com		13 of 14

:\Jobs20\20043



OVERSTRENGTH FACTOR (Ω o) INCLUDED WHERE NOTED.



SHEET TITLE: ANCHORAGE DETAIL

TO CONCRETE SLAB (CASE 2)

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Job No: 20043 20 Date: 10/13/2020

www.cyseng.com Page: 14 of 14