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

OFFICE USE ONLY
APPLICATION #: OPM-0064-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

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

Manufacturer Information

Manufacturer: The Baker Company

Manufacturer's Technical Representative: Larry McCarthy

Mailing Address: P.O. Drawer E, Sanford, Maine 04073

Telephone: (207) 324-8773 ext.374 Email: lmccarthy@bakerco.com

Product Information

Product Name: SterilGARD

Product Type: Class II, Type A2, Biosafety Cabinet

Product Model Number: SG404, SG504, & SG604

General Description: Biological Safety Cabinets, SterilGARD Models, SG404, SG504, & SG604, floor mounted and wall mounted anchorage.

Applicant Information

Applicant Company Name: The Baker Company

Contact Person: Larry McCarthy

Mailing Address: P.O. Drawer E, Sanford, Maine 04073

Telephone: (207) 324-8773 ext.374 Email: lmccarthy@bakerco.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: Larry McCarthy Date: 10/3/2013

Title: Product Engineer Company Name: The Baker Company

REVIEWED FOR CODE COMPLIANCE CALIFORNIA BUILDING CODE, 2013
oshpd
OPM-0064-13
BY: Jeffrey Y. Kikumoto
DATE: 04/23/2014

Registered Design Professional Preparing Engineering Recommendations

Company Name: Brandow and Johnston, Inc.

Name: Peter Maranian California License Number: SE 2720

Mailing Address: 700 South Flower Street, Suite 1800, Los Angeles, CA 90017

Telephone: (213) 596-4575 Email: pmaranian@bjsce.com

OSHPD Special Seismic Certification Preapproval (OSP)

☐ Special Seismic Certification is preapproved under OSP-
(Separate application for OSP is required)

☒ Special Seismic Certification is no preapproved

Certification Method(s)

☒ Testing in accordance with: ☒ ICC-ES AC156 ☐ FM 1950-10

☐ Other* (Please Specify):

Testing was performed in accordance with ICC-ES AC156 (dated 12/17 & 18/2007)

*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: April 23, 2014

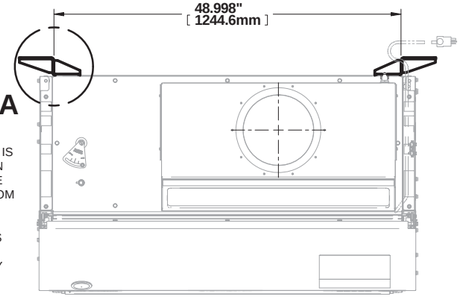
Print Name: Jeffrey Y. Kikumoto

Title: Senior Structural Engineer

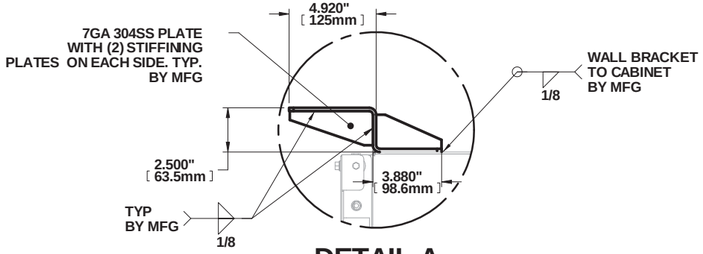
Condition of Approval (if applicable):

REVIEWED FOR CODE COMPLIANCE
OSHPD
CALIFORNIA BUILDING CODE, 2013
BY: Jeffrey Y. Kikumoto
DATE: 04/23/2014

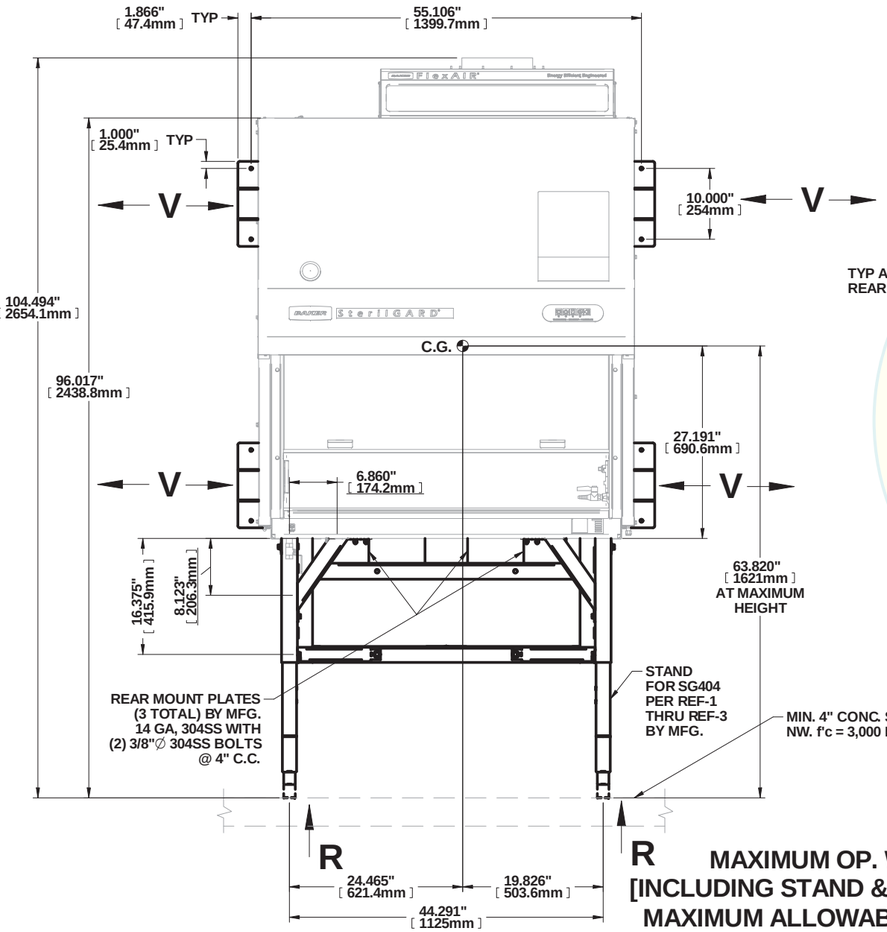
REV	DESCRIPTION	DATE	DRN	APP-BY	APP-DATE
-	SEE REV. F FOR ALL PAST REVISIONS LISTED	-	-	-	-
G	UPDATED DRAWING PER PE COMMENTS	4/22/2014	LAM	-	-



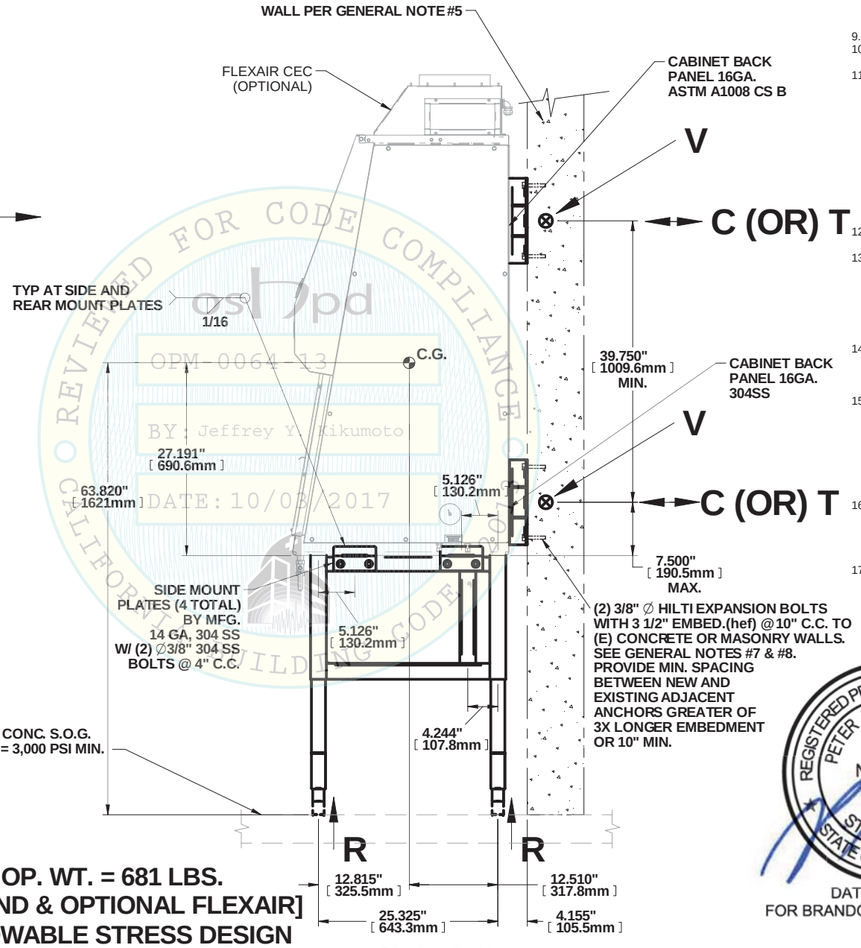
VERIFY WITH OWNER THAT THERE IS SUFFICIENT CLEARANCE BETWEEN EQUIPMENT AND WALL TO ENSURE THAT STERILE COMPOUNDING ROOM CLEANING PROCEDURES CAN BE ADEQUATELY MAINTAINED, IN ACCORDANCE WITH REGULATIONS ESTABLISHED BY THE STATE OF CALIFORNIA BOARD OF PHARMACY AND USP REGULATIONS.



DETAIL A



FRONT VIEW



SIDE VIEW

REVIEWED FOR CODE COMPLIANCE
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BY: Jeffrey Y. Kikumoto
DATE: 10/03/2017
CALIFORNIA BUILDING CODES

MAXIMUM OP. WT. = 681 LBS.
[INCLUDING STAND & OPTIONAL FLEXAIR]
MAXIMUM ALLOWABLE STRESS DESIGN REACTIONS TO THE STRUCTURE [LBS./POST]

SLAB LOC'N	Fp/Wp/1.4	V	C	T	R
ELEV. SLAB	1.03	180	190	190	250
ON GRADE	0.64	110	120	120	250

TABULATED REACTIONS DO NOT REFLECT THE APPLICATION OF THE OVERSTRENGTH FACTOR (Ωo) TO ACCOUNT FOR ANCHORAGE TO CONCRETE.

NOTE:
THE WALL SEISMIC RESTRAINTS HAVE PASSED TESTING USING AC156 ACCEPTANCE CRITERIA FOR SEISMIC QUALIFICATION BY SHAKE TABLE TESTING OF NON-STRUCTURAL COMPONENTS AND SYSTEMS.

GENERAL NOTES:

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
2. DESIGN SEISMIC ANCHORAGE FORCES PER ASCE 7-10 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2, AND 13.3-3 WHERE S_{DS} <= 2.0, z/h <= 1.0, ap = 1.0, Ip = 1.5, AND Rp = 2.5. Fp/Wp/1.4 <=1.03 AND Ω_0 = 2.5.
3. THIS PRE-APPROVAL IS APPLICABLE TO ANY LOCATION IN THE STATE OF CALIFORNIA, AT ANY HEIGHT WITHIN THE BUILDING WHERE S_{DS} <= 2.0.
4. THIS PRE-APPROVAL COVERS ONLY THE SUPPORT & ATTACHMENTS OF THE UNIT TO THE HOSPITAL BUILDING'S STRUCTURE.
5. MAXIMUM REACTIONS TO THE STRUCTURE SHOWN ON THE DRAWINGS ARE ALLOWABLE STRESS DESIGN LOADS. SEE NOTES BELOW FOR SEOR'S RESPONSIBILITIES.
6. THE CONCRETE WALL SHALL BE MIN. 8" THICK f'c = 3,000 PSI MIN. CONC. N.W. OR SAND L.W.. THE MASONRY WALL SHALL BE MIN. 8" THICK f'm = 1,500 PSI MIN. FULLY GROUTED.
7. ANCHOR BOLTS INTO (E) CONCRETE WALL TO BE HILTI KB-TZ (ICC ESR-1917). PERIODIC INSPECTION REQUIRED PER CBC 2013 SECTION 1705A.3. REFER TO ICC ESR REPORT FOR INSTALLATION REQUIREMENTS. TESTING OF EXPANSION ANCHORS PER 2013 CBC, 1913A.7 AND NOTE# 11 BELOW.
8. ANCHOR BOLTS INTO (E) GROUT FILLED MASONRY WALL TO BE HILTI KB3 (ICC ESR-1385). CONTINUOUS INSPECTION REQUIRED PER CBC 2013 SECTION 1705A.4. REFER TO ICC ESR REPORT FOR INSTALLATION REQUIREMENTS. TESTING OF EXPANSION ANCHORS PER 2013 CBC, 1913A.7. SEE NOTE# 16 FOR SEOR RESPONSIBILITIES.
9. MAINTAIN 12" CLEARANCE FROM ANY EDGES OF (E) CONCRETE OR MASONRY WALL.
10. LOCATE (E) REINFORCEMENTS BEFORE DRILLING INTO (E) CONCRETE OR MASONRY WALL. DO NOT CUT ANY (E) REINFORCEMENTS.
11. TORQUE TEST:
    A. TEST INSTALLED ANCHORS AT A RATE OF 50% IN THE PRESENCE OF INSPECTOR OF RECORD. (I.O.R). A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO OSHPD.
    B. ALL WEDGE ANCHORS (LOADED IN EITHER PULLOUT OR SHEAR) SHALL BE TORQUE-TESTED WITH CALIBRATED TORQUE WRENCH TO 25 FT-LBS FOR HILTI KB-TZ IN CONCRETE & 15 FT-LBS FOR HILTI KB3 IN MASONRY. THE SPECIFIED TORQUE SHALL BE ATTAINED WITHIN ½ TURN OF THE NUT. THE SPECIFIED TORQUE IS THE INSTALLATION VERIFICATION TEST LOAD. TORQUED BOLTS SHALL BE TESTED A MINIMUM OF 24 HOURS AFTER INSTALLATION AND SHALL NOT HAVE MORE THAN ½ TURN OF THE NUT.
    C. WHERE ANCHORS FAIL TESTING, REPLACE DEFICIENT ANCHORS AND RETEST. TEST ALL ANCHORS OF THE SAME TYPE INSTALLED BY THE SAME TRADE AND NOT PREVIOUSLY TESTED.
12. WEDGE ANCHOR EMBEDMENT IS EQUAL TO EFFECTIVE MIN. EMBEDMENT (hef) AS DEFINED IN ICC-ESR REPORTS.
13. SEOR TO VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2013 CBC AND WITH THE NOTES AND DETAILS SHOWN IN THIS PRE-APPROVAL. VERIFY THAT THE EQUIPMENT'S ACTUAL WEIGHT, CG LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE CONFORM TO THE INFORMATION SHOWN IN THIS PRE-APPROVAL. BLDG. SEOR TO 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.
14. THE BUILDING SEOR TO VERIFY THAT THE (N) OR (E) STRUCTURE IS ADEQUATE FOR THE DESIGN LOADS IMPOSED ON IT BY THIS EQUIPMENT IN ADDITION TO ALL OTHER LOADS. PROVIDE & DESIGN SUPPLEMENTARY FRAMING MEMBERS AS REQ'D. REFER TO MAXIMUM REACTIONS TO THE STRUCTURE.
15. SEOR SHALL VERIFY THAT:
    A. MASONRY IS NOT CRACKED AS DEFINED IN ICC-ES AC01 SECTION 2.3. SEOR SHALL PROVIDE CALCULATIONS TO SHOW THAT THE MASONRY WALL WOULD NOT CRACK UNDER THE DESIGN EARTHQUAKE LOADS UNDER ALL SERVICE LOAD CONDITIONS; THE WALL HAS TO REMAIN ELASTIC.;
    B. MASONRY IS FULLY GROUTED IN ACCORDANCE W/ ESR-1385 SECTION 3.2;
    C. CONDITION OF USE REQUIREMENTS IN ACCORDANCE W/ ESR-1385 SECTION 5.0 IS SATISFIED.
16. RESPONSIBILITIES OF THE SEOR OF THE BLDG.:
    THE NEW ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPACING SHOWN IN DETAILS ARE A MINIMUM FOR THE BOLT SIZE SHOWN. THE REQ'D SPACINGS FROM OTHER ANCHORS OF OTHER DIAMETERS & EMBEDMENTS MAY VARY & SHALL BE EVALUATED BY THE SEOR.
17. BLDG. SEOR TO VERIFY THE CONCRETE MEETS THE REQUIREMENTS OF THE APPLICABLE ICC-ES ESR.

REGISTERED PROFESSIONAL ENGINEER
PETER JOHN MARANIAN
No. 2720
STRUCTURAL
STATE OF CALIFORNIA

DATE: 04/23/14
FOR BRANDOW & JOHNSTON, INC

OPM-0064-13

UNLESS OTHER SPECIFIED DO NOT SCALE DRAWING
U.S. CUSTOMARY TOLERANCES (INCHES)
REMOVE ALL BURRS AND SHARP EDGES

DECIMALS	MACHINED	SHEET METAL	ANGULAR
X	±.02	±.06	±0°-30' (.5°)
.XX	±.01	±.03	
.XXX	±.005	±.010	THIRD ANGLE
FRACTIONS	±1/32		PROJECTION
FINISH	125	NO 4	

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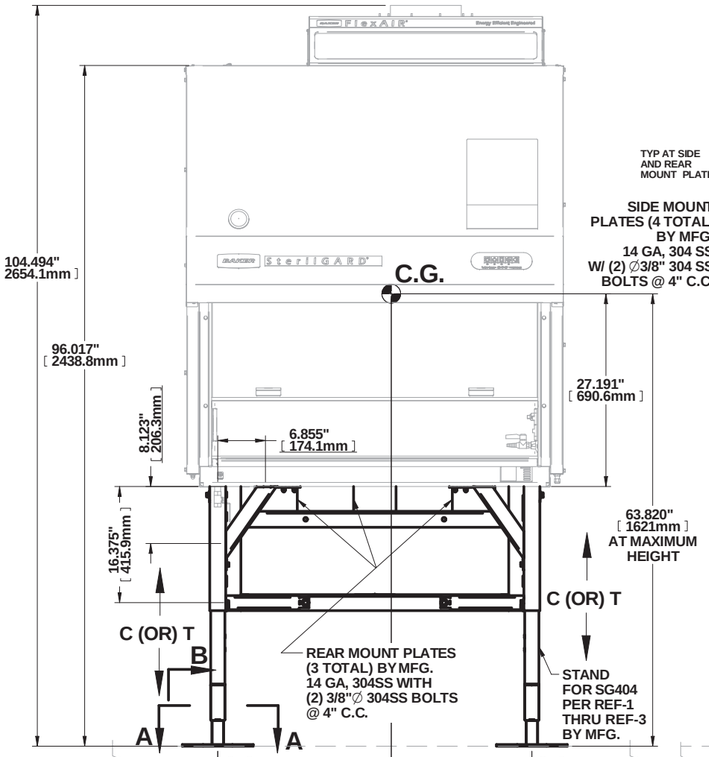
BAKER

TITLE: STERILGARD, SG404 CLASS II TYPE A2 WALL MOUNTED

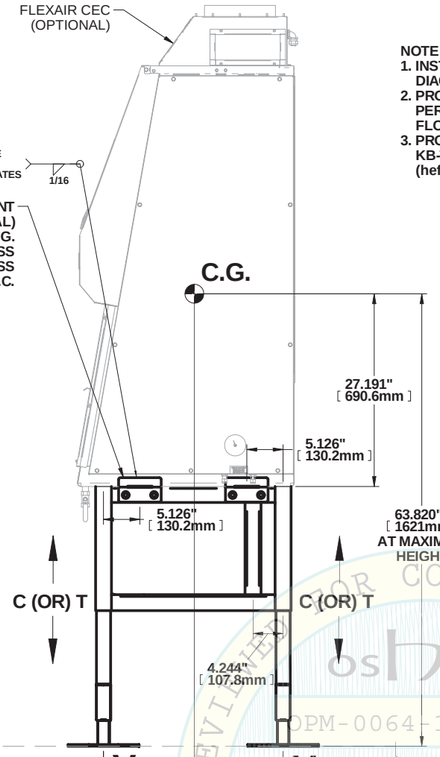
OPM SHEET NUMBER: 1 OF 6

Drawn	DATE	SIZE	DWG NO	REV
LMcCarthy	10/2/2013	D	BGA-SG404-A2-1-4-111R	G
CHECKED -	DATE -	SCALE -	SQUARE FOOTAGE	SHEET 2 OF 2

REV	DESCRIPTION	DATE	DRN	APP-BY	APP-DATE
-	SEE REV. F FOR ALL PAST REVISIONS LISTED	-	-	-	-
G	UPDATED DRAWING PER PE COMMENTS	4/22/2014	LAM	-	-

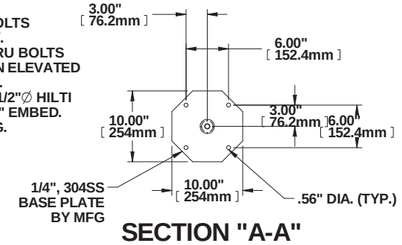


FRONT VIEW

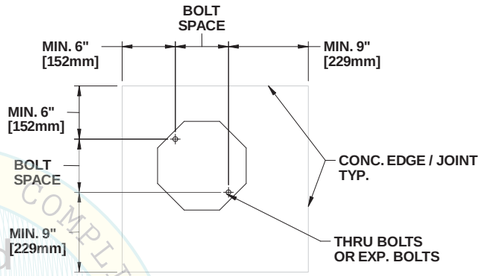


SIDE VIEW

NOTE:
1. INSTALL 2 BOLTS DIAGONALLY.
2. PROVIDE THRU BOLTS PER "B-B" ON ELEVATED FLOOR SLAB.
3. PROVIDE (2) 1/2"∅ HILTI KB-TZ X 3 1/4" EMBED. (hef) AT S.O.G.



SECTION "A-A"
BASE PLATE DETAIL



MIN. CONC. EDGE DISTANCE

NOTE:
THE FLOOR SEISMIC RESTRAINTS HAVE PASSED TESTING USING AC156 ACCEPTANCE CRITERIA FOR SEISMIC QUALIFICATION BY SHAKE TABLE TESTING OF NON-STRUCTURAL COMPONENTS AND SYSTEMS.

GENERAL NOTES:

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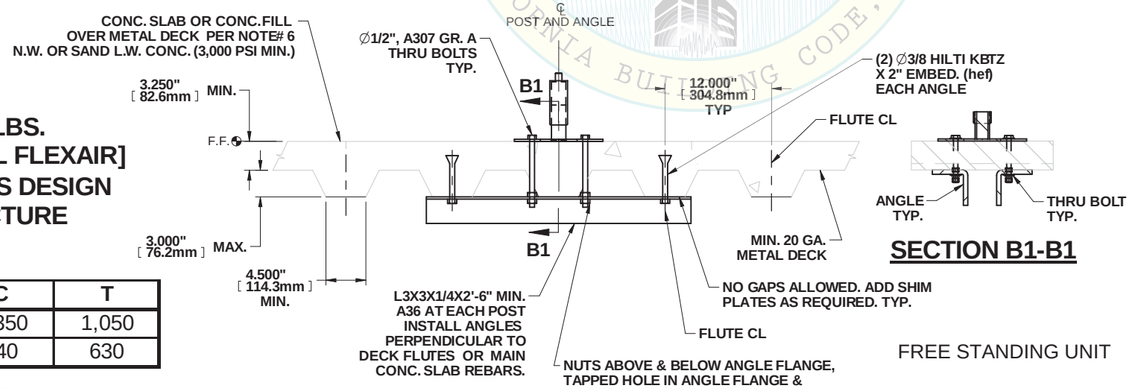
2. DESIGN SEISMIC FORCES PER ASCE 7-10 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2, AND 13.3-3 WHERE S_{DS}<= 2.0, z/h <= 1.0, ap = 1.0, Ip = 1.5, AND Rp = 2.5. Fp/Wp/1.4 <=1.03 AND Ω_0 = 2.5.
3. THIS PRE-APPROVAL IS APPLICABLE TO ANY LOCATION IN THE STATE OF CALIFORNIA AT ANY HEIGHT WITHIN THE BUILDING.
4. THIS PRE-APPROVAL COVERS ONLY THE SUPPORT & ATTACHMENTS OF THE UNIT TO THE HOSPITAL BUILDING'S STRUCTURE.
5. MAX. REACTIONS TO THE STRUCTURE SHOWN ON THE DRAWINGS ARE ALLOWABLE STRESS DESIGN LOADS. SEE NOTES BELOW FOR SEOR'S RESPONSIBILITIES.
6. THE ELEVATED FLOOR SLAB SHALL BE MIN. 5" THICK, 3000 PSI MIN. CONCRETE SOLID SLAB N.W. OR SAND L.W. CONCRETE FILL ABOVE METAL DECK SHALL BE MIN. 3 ¼" THICK, 3,000 PSI MIN. CONCRETE N.W. OR SAND L.W. THE SLAB-ON-GRADE SHALL BE MIN. 6" THICK, NW. 3,000 PSI MIN.
7. ANCHOR BOLTS INTO (E) CONCRETE TO BE HILTI KB-TZ (ICC ESR-1917). PERIODIC INSPECTION REQUIRED PER CBC 2013 SECTION 1705A.3. REFER TO ICC ESR REPORT FOR INSTALLATION REQUIREMENTS. TESTING OF EXPANSION ANCHORS PER 2013 CBC, 1913A.7 AND NOTE# 11 BELOW.
8. BOLTS THROUGH CONCRETE ON METAL DECK OR ELEVATED SLAB SECTION:
   A) BOLTS SHALL BE TORQUED BY ¾ TURN OF THE NUT AFTER SNUG TIGHT (THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNLESS NOTED OTHERWISE.
   B) HOLES FOR THROUGH BOLTS SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16").
   C) THROUGH BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION & TESTING (THROUGH BOLTS WITH STEEL-TO-STEEL CONNECTION IN TENSION DO NOT REQUIRE TESTING) IN ACCORDANCE WITH REQUIREMENTS FOR POST-INSTALLED ANCHORS.
9. MAINTAIN CLEARANCE FROM ANY EDGES OF (E) CONCRETE AS SHOWN
10. LOCATE (E) REINFORCEMENTS BEFORE DRILLING INTO (E) CONCRETE SLAB. DO NOT CUT ANY (E) REINFORCEMENTS.
11. TORQUE TEST:
    A. TEST INSTALLED ANCHORS AT A RATE OF 50% IN THE PRESENCE OF INSPECTOR OF RECORD. (I.O.R). A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO OSHPD.
    B. ALL WEDGE ANCHORS (LOADED IN EITHER PULLOUT OR SHEAR) SHALL BE TORQUE-TESTED WITH CALIBRATED TORQUE WRENCH TO 25 FT-LBS FOR 3/8"Ø & 40 FT-LBS FOR 1/2"Ø HILTI KB-TZ IN CONCRETE. THE SPECIFIED TORQUE SHALL BE ATTAINED WITHIN ½ TURN OF THE NUT. THE SPECIFIED TORQUE IS THE INSTALLATION VERIFICATION TEST LOAD. TORQUED BOLTS SHALL BE TESTED A MINIMUM OF 24 HOURS AFTER INSTALLATION AND SHALL NOT HAVE MORE THAN ½ TURN OF THE NUT.
    C. WHERE ANCHORS FAIL TESTING, REPLACE DEFICIENT ANCHORS AND RETEST. TEST ALL ANCHORS OF THE SAME TYPE INSTALLED BY THE SAME TRADE AND NOT PREVIOUSLY TESTED.
12. WEDGE ANCHOR EMBEDMENT IS EQUAL TO EFFECTIVE MIN. EMBEDMENT (hef) AS DEFINED IN ICC-ESR REPORTS.
13. SEOR TO VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2013 CBC AND WITH THE NOTES AND DETAILS SHOWN IN THIS PRE-APPROVAL. VERIFY THAT THE EQUIPMENT'S ACTUAL WEIGHT, CG LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE CONFORM TO THE INFORMATION SHOWN IN THIS PRE-APPROVAL.
14. THE BUILDING SEOR TO VERIFY THAT THE (N) OR (E) STRUCTURE IS ADEQUATE FOR THE DESIGN LOADS IMPOSED ON IT BY THIS EQUIPMENT IN ADDITION TO ALL OTHER LOADS. PROVIDE AND DESIGN SUPPLEMENTARY FRAMING MEMBERS AS REQ'D. REFER TO MAX. REACTIONS TO THE STRUCTURE.
15. RESPONSIBILITIES OF THE SEOR OR THE BLDG.:
    THE NEW ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPACING SHOWN IN DETAILS ARE A MINIMUM FOR THE BOLT SIZE SHOWN. THE REQUIRED SPACINGS FROM OTHER ANCHORS OF OTHER DIAMETERS & EMBEDMENTS MAY VARY & SHALL BE EVALUATED BY THE SEOR. BLDG. SEOR TO 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.
16. BLDG. SEOR TO VERIFY THE CONCRETE MEETS THE REQUIREMENTS OF THE APPLICABLE ICC-ES ESR.

MAXIMUM OP. WT. = 681 LBS.
[INCLUDING STAND & OPTIONAL FLEXAIR]
MAXIMUM ALLOWABLE STRESS DESIGN REACTIONS TO THE STRUCTURE [LBS./POST]

SLAB LOC'N	Fp/Wp/1.4	V	C	T
ELEV. SLAB	1.03	200	1,350	1,050
ON GRADE	0.64	130	940	630

TABULATED REACTIONS DO NOT REFLECT THE APPLICATION OF THE OVERSTRENGTH FACTOR (Ωo) TO ACCOUNT FOR ANCHORAGE TO CONCRETE.



NOTE: PROVIDE MIN. SPACING BETWEEN NEW AND EXISTING ADJACENT ANCHOR S GREATER OF 3X LONGER EMBEDMENT OR 10" MIN.

NUTS ABOVE & BELOW ANGLE FLANGE, TAPPED HOLE IN ANGLE FLANGE & BOTTOM NUT, OR DOUBLENUTS BELOW ANGLE FLANGE W/TOP NUT TACK WELDED TO UNDERSIDE OF ANGLE FLANGE.

SECTION "B-B"
THRU-BOLT ANCHORAGE DETAIL

FREE STANDING UNIT

VERIFY WITH OWNER THAT THERE IS SUFFICIENT CLEARANCE BETWEEN EQUIPMENT AND WALL TO ENSURE THAT STERILE COMPOUNDING ROOM CLEANING PROCEDURES CAN BE ADEQUATELY MAINTAINED, IN ACCORDANCE WITH REGULATIONS ESTABLISHED BY THE STATE OF CALIFORNIA BOARD OF PHARMACY AND USP REGULATIONS.

OSHPD PREVIEWED FOR CODE COMPLIANCE
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BY: Jeffrey Y. Kikumoto
DATE: 10/03/2017
CALIFORNIA BUILDING CODE

REGISTERED PROFESSIONAL ENGINEER
PETER JOHN MARANIAN
No. 2720
STRUCTURAL
STATE OF CALIFORNIA

DATE: 04/23/14
FOR BRANDOW & JOHNSTON, INC

OPM-0064-13

UNLESS OTHER SPECIFIED DO NOT SCALE DRAWING
U.S. CUSTOMARY TOLERANCES(INCHES)
REMOVE ALL BURRS AND SHARPEDGES

DECIMALS	MACHINED	SHEET METAL	ANGULAR
X	±.02	±.06	±0.30° (.5°)
XX	±.01	±.03	
XXX	±.005	±.010	THIRD ANGLE
FRACTIONS	±1/32		PROJECTION
FINISH	63	NO 4	

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BAKER

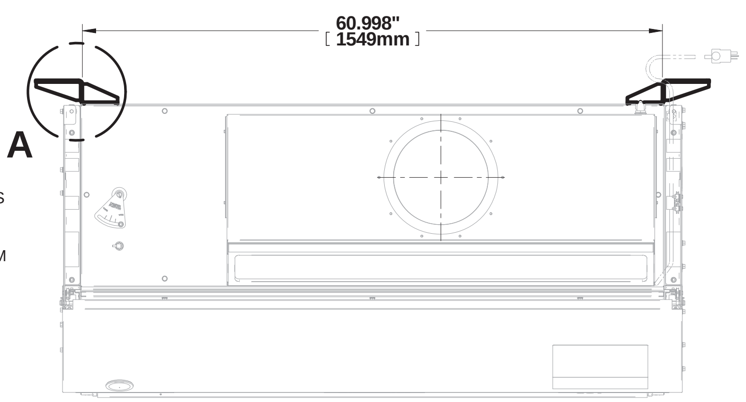
TITLE: STERILGARD, SG404 CLASS II TYPE A2 FLOOR MOUNTED

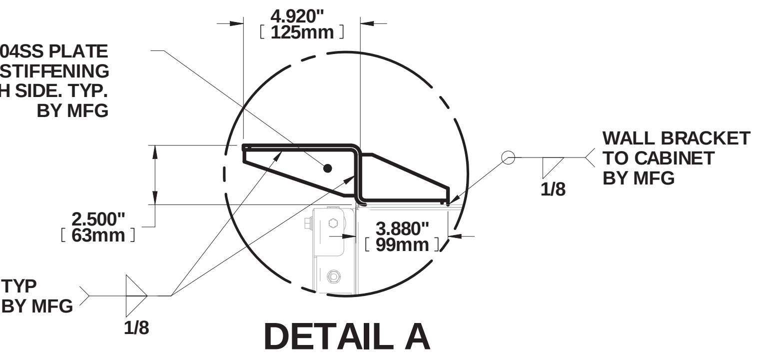
OPM SHEET NUMBER: 2 OF 6

DRAWN	DATE	SIZE	DWG NO	REV
LMcCarthy	10/3/2013	D	BGA-SG404-A2-1-5-111R	G
CHECKED: -	DATE: -	SCALE: -	SQUARE FOOTAGE	SHEET: 2 OF 2

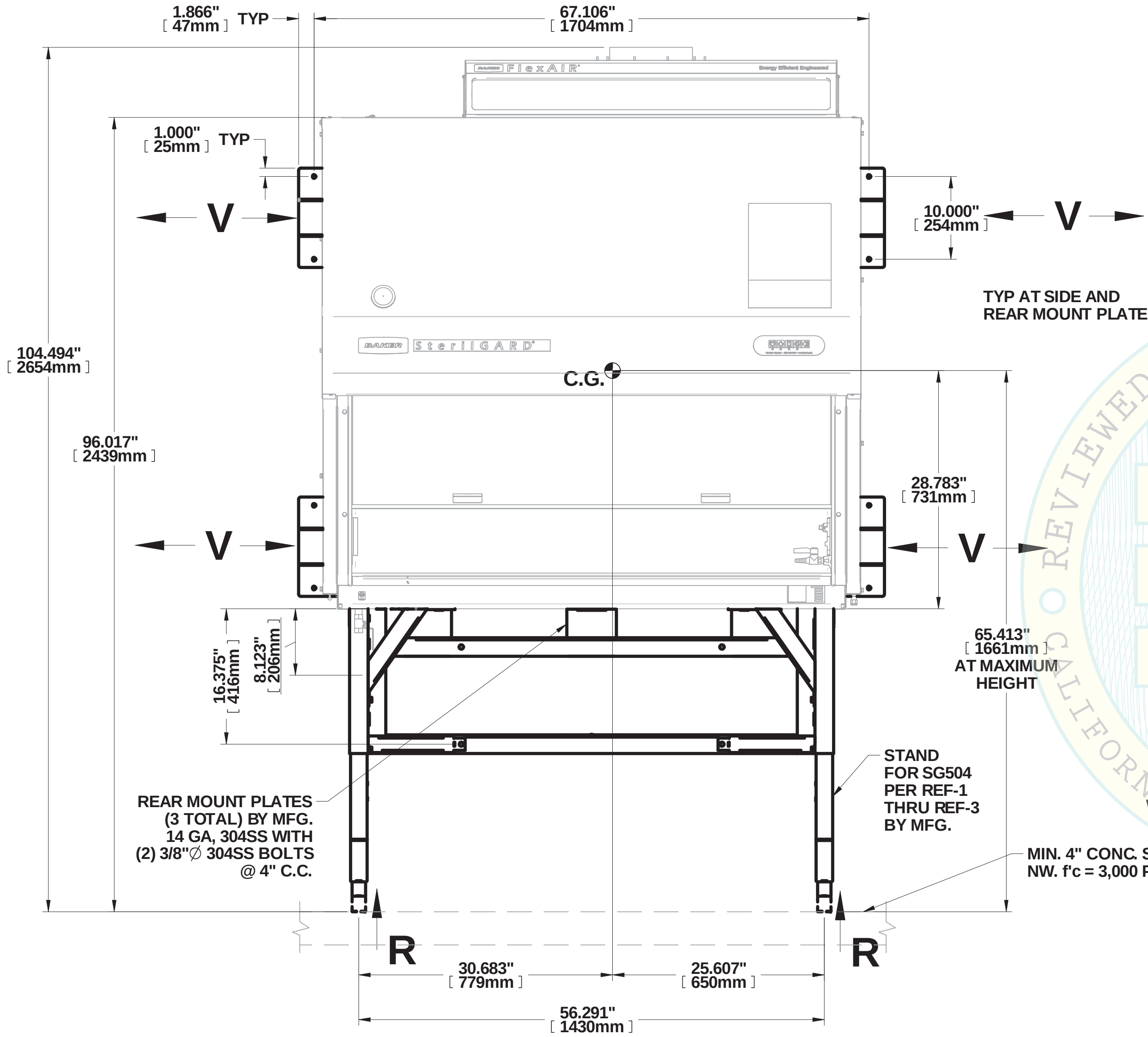
REV	DESCRIPTION	DATE	DRN	APP-BY	APP-DATE
-	SEE REV. F FOR ALL PAST REVISIONS LISTED	-	-	-	-
G	UPDATED DRAWING PER PE COMMENTS	4/22/2014	LAM	-	-

VERIFY WITH OWNER THAT THERE IS SUFFICIENT CLEARANCE BETWEEN EQUIPMENT AND WALL TO ENSURE THAT STERILE COMPOUNDING ROOM CLEANING PROCEDURES CAN BE ADEQUATELY MAINTAINED, IN ACCORDANCE WITH REGULATIONS ESTABLISHED BY THE STATE OF CALIFORNIA BOARD OF PHARMACY AND USP REGULATIONS.

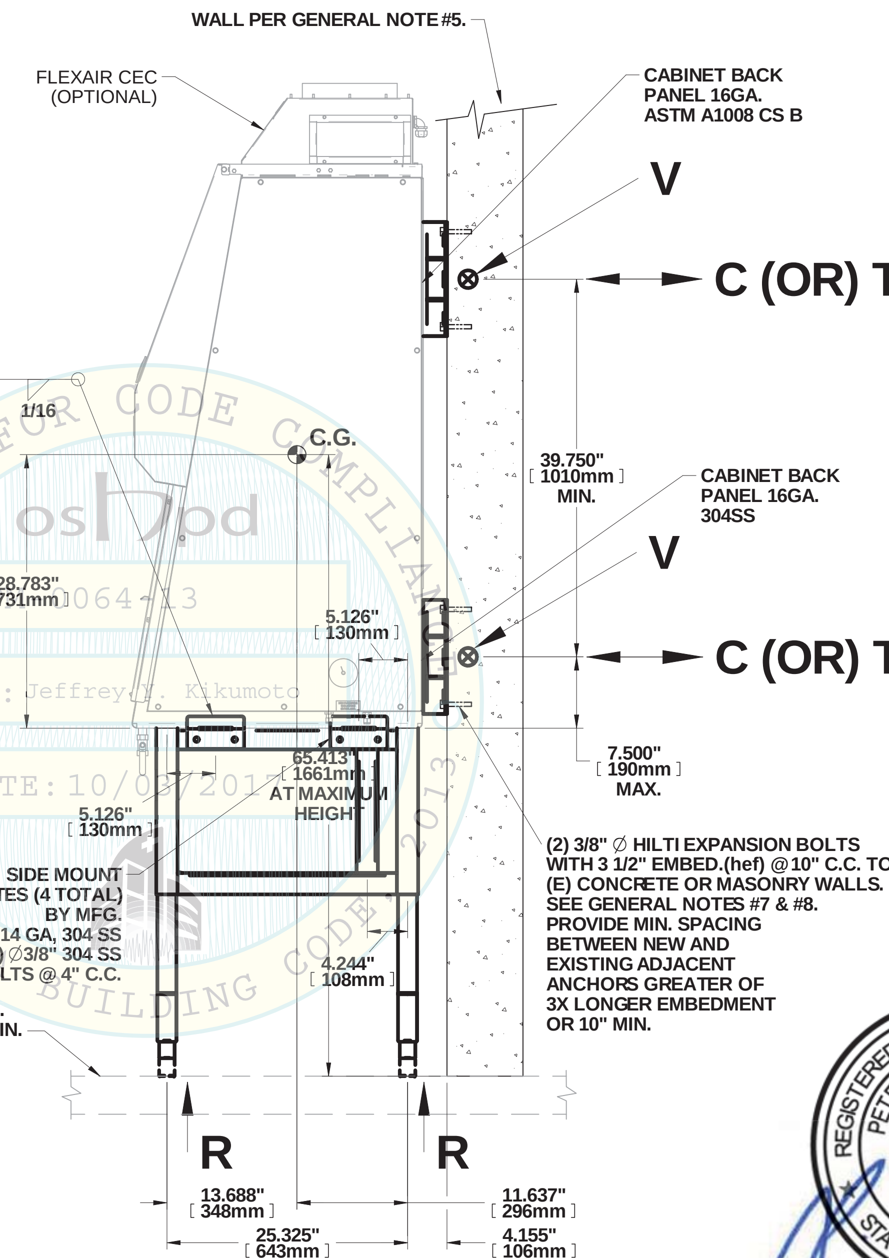




DETAIL A



FRONT VIEW



REVIEWED FOR CODE COMPLIANCE
OSHPD
OPM-0064-13
BY: Jeffrey Y. Kikumoto
DATE: 10/03/2017
CALIFORNIA BUILDING CODE 2013

SIDE VIEW

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4. THIS PRE-APPROVAL COVERS ONLY THE SUPPORT & ATTACHMENTS OF THE UNIT TO THE HOSPITAL BUILDING'S STRUCTURE.
5. MAXIMUM REACTIONS TO THE STRUCTURE SHOWN ON THE DRAWINGS ARE ALLOWABLE STRESS DESIGN LOADS. SEE NOTES BELOW FOR SEOR'S RESPONSIBILITIES.
6. THE CONCRETE WALL SHALL BE MIN. 8" THICK f'c = 3,000 PSI MIN. CONC. N.W. OR SAND L.W.. THE MASONRY WALL SHALL BE MIN. 8" THICK f'm = 1,500 PSI MIN. FULLY GROUTED.
7. ANCHOR BOLTS INTO (E) CONCRETE WALL TO BE HILTI KB-TZ (ICC ESR-1917). PERIODIC INSPECTION REQUIRED PER CBC 2013 SECTION 1705A.3. REFER TO ICC ESR REPORT FOR INSTALLATION REQUIREMENTS. TESTING OF EXPANSION ANCHORS PER 2013 CBC, 1913A.7 AND NOTE# 11 BELOW.
8. ANCHOR BOLTS INTO (E) GROUT FILLED MASONRY WALL TO BE HILTI KB3 (ICC ESR-1385). CONTINUOUS INSPECTION REQUIRED PER CBC 2013 SECTION 1705A.4. REFER TO ICC ESR REPORT FOR INSTALLATION REQUIREMENTS. TESTING OF EXPANSION ANCHORS PER 2013 CBC, 1913A.7. SEE NOTE# 16 FOR SEOR RESPONSIBILITIES.
9. MAINTAIN 12" CLEARANCE FROM ANY EDGES OF (E) CONCRETE OR MASONRY WALL.
10. LOCATE (E) REINFORCEMENTS BEFORE DRILLING INTO (E) CONCRETE OR MASONRY WALL. DO NOT CUT ANY (E) REINFORCEMENTS.
11. TORQUE TEST:
    - A. TEST INSTALLED ANCHORS AT A RATE OF 50% IN THE PRESENCE OF INSPECTOR OF RECORD. (I.O.R). A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO OSHPD.
    - B. ALL WEDGE ANCHORS (LOADED IN EITHER PULLOUT OR SHEAR) SHALL BE TORQUE-TESTED WITH CALIBRATED TORQUE WRENCH TO 25 FT-LBS FOR HILTI KB-TZ IN CONCRETE & 15 FT-LBS FOR HILTI KB3 IN MASONRY. THE SPECIFIED TORQUE SHALL BE ATTAINED WITHIN ½ TURN OF THE NUT. THE SPECIFIED TORQUE IS THE INSTALLATION VERIFICATION TEST LOAD. TORQUED BOLTS SHALL BE TESTED A MINIMUM OF 24 HOURS AFTER INSTALLATION AND SHALL NOT HAVE MORE THAN ½ TURN OF THE NUT.
    - C. WHERE ANCHORS FAIL TESTING, REPLACE DEFICIENT ANCHORS AND RETEST. TEST ALL ANCHORS OF THE SAME TYPE INSTALLED BY THE SAME TRADE AND NOT PREVIOUSLY TESTED.
12. WEDGE ANCHOR EMBEDMENT IS EQUAL TO EFFECTIVE MIN. EMBEDMENT (hef) AS DEFINED IN ICC-ESR REPORTS.
13. SEOR TO VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2013 CBC AND WITH THE NOTES AND DETAILS SHOWN IN THIS PRE-APPROVAL. VERIFY THAT THE EQUIPMENT'S ACTUAL WEIGHT, CG LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE CONFORM TO THE INFORMATION SHOWN IN THIS PRE-APPROVAL. BLDG. SEOR TO 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.
14. THE BUILDING SEOR TO VERIFY THAT THE (N) OR (E) STRUCTURE IS ADEQUATE FOR THE DESIGN LOADS IMPOSED ON IT BY THIS EQUIPMENT IN ADDITION TO ALL OTHER LOADS. PROVIDE & DESIGN SUPPLEMENTARY FRAMING MEMBERS AS REQ'D. REFER TO MAXIMUM REACTIONS TO THE STRUCTURE.
15. SEOR SHALL VERIFY THAT:
    - A. MASONRY IS NOT CRACKED AS DEFINED IN ICC-ES AC01 SECTION 2.3. SEOR SHALL PROVIDE CALCULATIONS TO SHOW THAT THE MASONRY WALL WOULD NOT CRACK UNDER THE DESIGN EARTHQUAKE LOADS UNDER ALL SERVICE LOAD CONDITIONS; THE WALL HAS TO REMAIN ELASTIC.;
    - B. MASONRY IS FULLY GROUTED IN ACCORDANCE W/ ESR-1385 SECTION 3.2;
    - C. CONDITION OF USE REQUIREMENTS IN ACCORDANCE W/ ESR-1385 SECTION 5.0 IS SATISFIED.
16. RESPONSIBILITIES OF THE SEOR OF THE BLDG.:
    THE NEW ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPACING SHOWN IN DETAILS ARE A MINIMUM FOR THE BOLT SIZE SHOWN. THE REQ'D SPACINGS FROM OTHER ANCHORS OF OTHER DIAMETERS & EMBEDMENTS MAY VARY & SHALL BE EVALUATED BY THE SEOR.
17. BLDG. SEOR TO VERIFY THE CONCRETE MEETS THE REQUIREMENTS OF THE APPLICABLE ICC-ES ESR.

DATE: 04/23/14
FOR BRANDOW & JOHNSTON, INC

OPM-0064-13

MAXIMUM OP. WT. =815 LBS.
[INCLUDING STAND & OPTIONAL FLEXAIR]
MAXIMUM ALLOWABLE STRESS DESIGN REACTIONS TO THE STRUCTURE
[LBS./POST]

SLAB LOC'N	Fp/Wp/1.4	V	C	T	R
ELEV. SLAB	1.03	230	240	240	310
ON GRADE	0.64	140	150	150	310

TABULATED REACTIONS DO NOT REFLECT THE APPLICATION OF THE OVERSTRENGTH FACTOR (Ωo) TO ACCOUNT FOR ANCHORAGE TO CONCRETE.

NOTE:
THE WALL SEISMIC RESTRAINTS HAVE PASSED TESTING USING AC156 ACCEPTANCE CRITERIA FOR SEISMIC QUALIFICATION BY SHAKE TABLE TESTING OF NON-STRUCTURAL COMPONENTS AND SYSTEMS.

UNLESS OTHERWISE SPECIFIED
DO NOT SCALE DRAWING
REMOVE ALL BURRS AND SHARP EDGES
U.S. CUSTOMARY TOLERANCES: (INCHES)

DECIMALS	MACHINED	SHEET METAL	ANGULAR
.X	±.02	±.06	±0'-30° (.5°)
.XX	±.01	±.03	
.XXX	±.005	±.010	THIRD ANGLE PROJECTION
FRACTIONS	±1/32		
FINISH:	125	NO 4	

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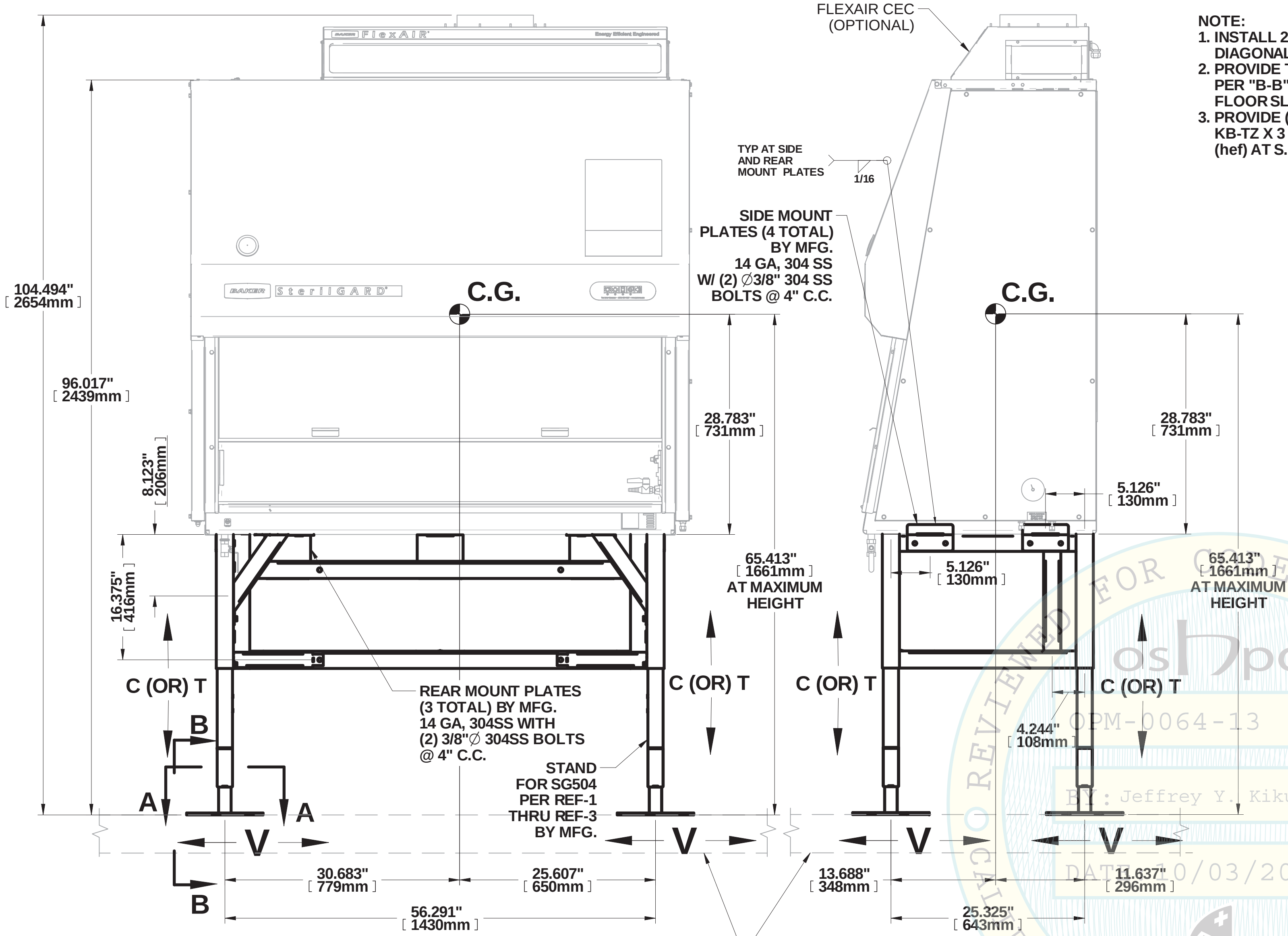
BAKER

TITLE	STERILGARD, MODEL SG504 CLASS II TYPE A2 WALL MOUNTED
OPM SHEET NUMBER	3 OF 6
DRAWN	LMcCarthy
DATE	10/3/2013
CHECKED	-
DATE	-
SIZE	D
DWG NO	BGA-SG504-A2-1-4-111R
REV	G
SCALE	-
SQUARE FOOTAGE	
SHEET	2 OF 2

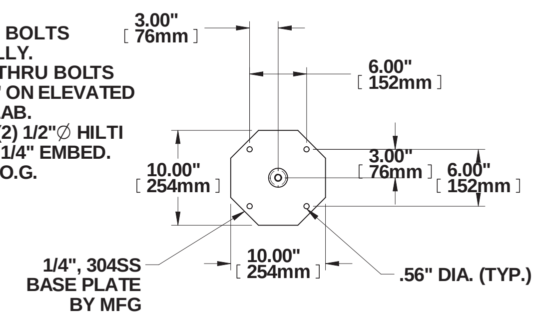
REV	DESCRIPTION	DATE	DRN	APP-BY	APP-DATE
-	SEE REV. F FOR ALL PAST REVISIONS LISTED	-	-	-	-
G	UPDATED DRAWING PER PE COMMENTS	4/22/2014	LAM	-	-



FRONT VIEW

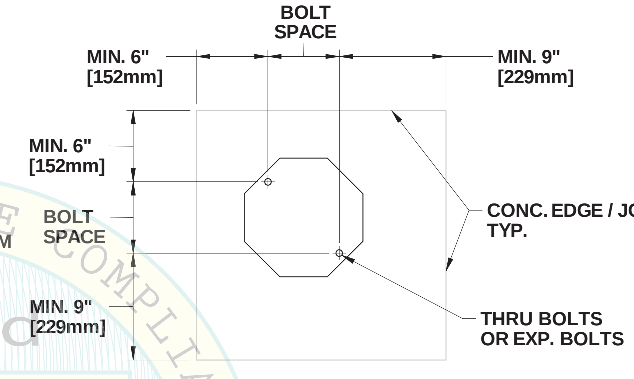
SIDE VIEW

NOTE:
1. INSTALL 2 BOLTS DIAGONALLY.
2. PROVIDE THRU BOLTS PER "B-B" ON ELEVATED FLOOR SLAB.
3. PROVIDE (2) 1/2"∅ HILTI KB-TZ X 3 1/4" EMBED. (hef) AT S.O.G.



SECTION "A-A"

BASE PLATE DETAIL



MIN. CONC. EDGE DISTANCE

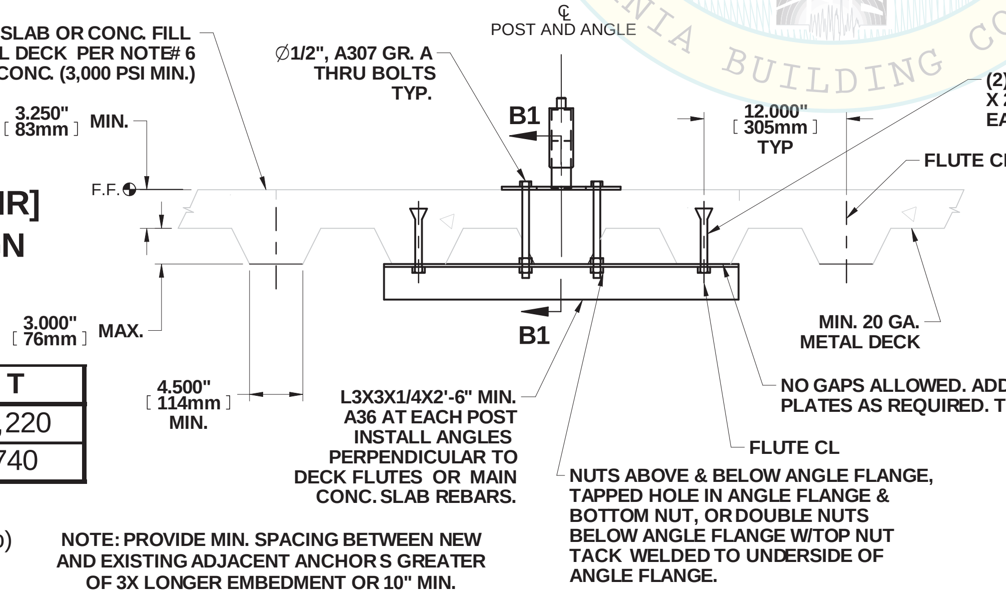
NOTE:
THE FLOOR SEISMIC RESTRAINTS HAVE PASSED TESTING USING AC156 ACCEPTANCE CRITERIA FOR SEISMIC QUALIFICATION BY SHAKE TABLE TESTING OF NON-STRUCTURAL COMPONENTS AND SYSTEMS.

GENERAL NOTES:
1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
2. DESIGN SEISMIC FORCES PER ASCE 7-10 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2, AND 13.3-3 WHERE S_{DS}<= 2.0, z/h <= 1.0, ap = 1.0, Ip = 1.5, AND Rp = 2.5. Fp/Wp/1.4 <=1.03 AND Ω_0 = 2.5.
3. THIS PRE-APPROVAL IS APPLICABLE TO ANY LOCATION IN THE STATE OF CALIFORNIA AT ANY HEIGHT WITHIN THE BUILDING.
4. THIS PRE-APPROVAL COVERS ONLY THE SUPPORT & ATTACHMENTS OF THE UNIT TO THE HOSPITAL BUILDING'S STRUCTURE.
5. MAX. REACTIONS TO THE STRUCTURE SHOWN ON THE DRAWINGS ARE ALLOWABLE STRESS DESIGN LOADS. SEE NOTES BELOW FOR SEOR'S RESPONSIBILITIES.
6. THE ELEVATED FLOOR SLAB SHALL BE MIN. 5" THICK, 3000 PSI MIN. CONCRETE SOLID SLAB N.W. OR SAND L.W. CONCRETE FILL ABOVE METAL DECK SHALL BE MIN. 3 ¼" THICK, 3,000 PSI MIN. CONCRETE N.W. OR SAND L.W. THE SLAB-ON-GRADE SHALL BE MIN. 6" THICK, NW. 3,000 PSI MIN.
7. ANCHOR BOLTS INTO (E) CONCRETE TO BE HILTI KB-TZ (ICC ESR-1917). PERIODIC INSPECTION REQUIRED PER CBC 2013 SECTION 1705A.3. REFER TO ICC ESR REPORT FOR INSTALLATION REQUIREMENTS. TESTING OF EXPANSION ANCHORS PER 2013 CBC, 1913A.7 AND NOTE# 11 BELOW.
8. BOLTS THROUGH CONCRETE ON METAL DECK OR ELEVATED SLAB SECTION:
   A) BOLTS SHALL BE TORQUED BY ¾ TURN OF THE NUT AFTER SNUG TIGHT (THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNLESS NOTED OTHERWISE.
   B) HOLES FOR THROUGH BOLTS SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16").
   C) THROUGH BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION & TESTING (THROUGH BOLTS WITH STEEL-TO-STEEL CONNECTION IN TENSION DO NOT REQUIRE TESTING) IN ACCORDANCE WITH REQUIREMENTS FOR POST-INSTALLED ANCHORS.
9. MAINTAIN CLEARANCE FROM ANY EDGES OF (E) CONCRETE AS SHOWN.
10. LOCATE (E) REINFORCEMENTS BEFORE DRILLING INTO (E) CONCRETE SLAB. DO NOT CUT ANY (E) REINFORCEMENTS.
11. TORQUE TEST:
    A. TEST INSTALLED ANCHORS AT A RATE OF 50% IN THE PRESENCE OF INSPECTOR OF RECORD. (I.O.R). A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO OSHPD.
    B. ALL WEDGE ANCHORS (LOADED IN EITHER PULLOUT OR SHEAR) SHALL BE TORQUE-TESTED WITH CALIBRATED TORQUE WRENCH TO 25 FT-LBS FOR 3/8"Ø & 40 FT-LBS FOR 1/2"Ø HILTI KB-TZ IN CONCRETE. THE SPECIFIED TORQUE SHALL BE ATTAINED WITHIN ½ TURN OF THE NUT. THE SPECIFIED TORQUE IS THE INSTALLATION VERIFICATION TEST LOAD. TORQUED BOLTS SHALL BE TESTED A MINIMUM OF 24 HOURS AFTER INSTALLATION AND SHALL NOT HAVE MORE THAN ½ TURN OF THE NUT.
    C. WHERE ANCHORS FAIL TESTING, REPLACE DEFICIENT ANCHORS AND RETEST. TEST ALL ANCHORS OF THE SAME TYPE INSTALLED BY THE SAME TRADE AND NOT PREVIOUSLY TESTED.
12. WEDGE ANCHOR EMBEDMENT IS EQUAL TO EFFECTIVE MIN. EMBEDMENT (hef) AS DEFINED IN ICC-ESR REPORTS.
13. SEOR TO VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2013 CBC AND WITH THE NOTES AND DETAILS SHOWN IN THIS PRE-APPROVAL. VERIFY THAT THE EQUIPMENT'S ACTUAL WEIGHT, CG LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE CONFORM TO THE INFORMATION SHOWN IN THIS PRE-APPROVAL.
14. THE BUILDING SEOR TO VERIFY THAT THE (N) OR (E) STRUCTURE IS ADEQUATE FOR THE DESIGN LOADS IMPOSED ON IT BY THIS EQUIPMENT IN ADDITION TO ALL OTHER LOADS. PROVIDE AND DESIGN SUPPLEMENTARY FRAMING MEMBERS AS REQ'D. REFER TO MAX. REACTIONS TO THE STRUCTURE.
15. RESPONSIBILITIES OF THE SEOR OR THE BLDG.:
    THE NEW ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPACING SHOWN IN DETAILS ARE A MINIMUM FOR THE BOLT SIZE SHOWN. THE REQUIRED SPACINGS FROM OTHER ANCHORS OF OTHER DIAMETERS & EMBEDMENTS MAY VARY & SHALL BE EVALUATED BY THE SEOR. BLDG. SEOR TO 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.
16. BLDG. SEOR TO VERIFY THE CONCRETE MEETS THE REQUIREMENTS OF THE APPLICABLE ICC-ES ESR.

MAXIMUM OP. WT. = 815 LBS.
[INCLUDING STAND & OPTIONAL FLEXAIR]
MAXIMUM ALLOWABLE STRESS DESIGN REACTIONS TO THE STRUCTURE [LBS./POST]

SLAB LOC'N	Fp/Wp/1.4	V	C	T
ELEV. SLAB	1.03	230	1,610	1,220
ON GRADE	0.64	150	1,120	740

TABULATED REACTIONS DO NOT REFLECT THE APPLICATION OF THE OVERSTRENGTH FACTOR (Ωo) TO ACCOUNT FOR ANCHORAGE TO CONCRETE.

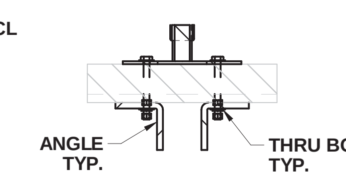


NOTE: PROVIDE MIN. SPACING BETWEEN NEW AND EXISTING ADJACENT ANCHORS GREATER OF 3X LONGER EMBEDMENT OR 10" MIN.

DETAIL "B"

THRU-BOLT ANCHORAGE DETAIL

(2) ∅3/8 HILTI KBTZ X 2" EMBED. (hef) EACH ANGLE



SECTION B1-B1

REGISTERED PROFESSIONAL ENGINEER
PETER JOHN MARANIAN
No. 2720
STRUCTURAL
STATE OF CALIFORNIA

DATE: 04/23/14
FOR BRANDOW & JOHNSTON, INC

FREE STANDING UNIT

VERIFY WITH OWNER THAT THERE IS SUFFICIENT CLEARANCE BETWEEN EQUIPMENT AND WALL TO ENSURE THAT STERILE COMPOUNDING ROOM CLEANING PROCEDURES CAN BE ADEQUATELY MAINTAINED, IN ACCORDANCE WITH REGULATIONS ESTABLISHED BY THE STATE OF CALIFORNIA BOARD OF PHARMACY AND USP REGULATIONS.

OPM-0064-13

BAKER

TITLE: STERILGARD, MODEL SG504
CLASS II TYPE A2
FLOOR MOUNTED

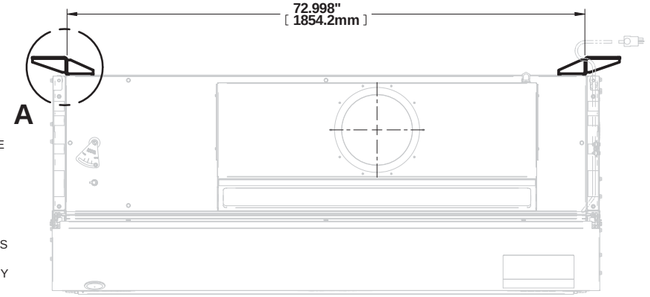
OPM SHEET NUMBER 4 OF 6

SIZE: D | DWG NO: BGA-SG504-A2-1-5-111R | REV: G

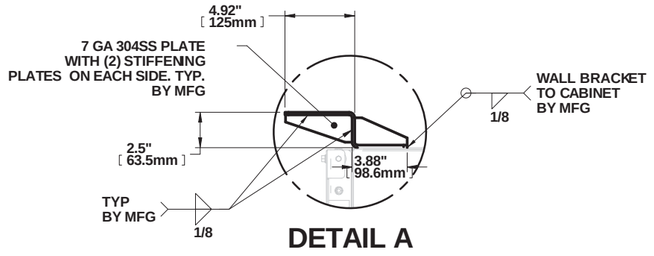
LMcCarthy | 10/4/2013

2 OF 2

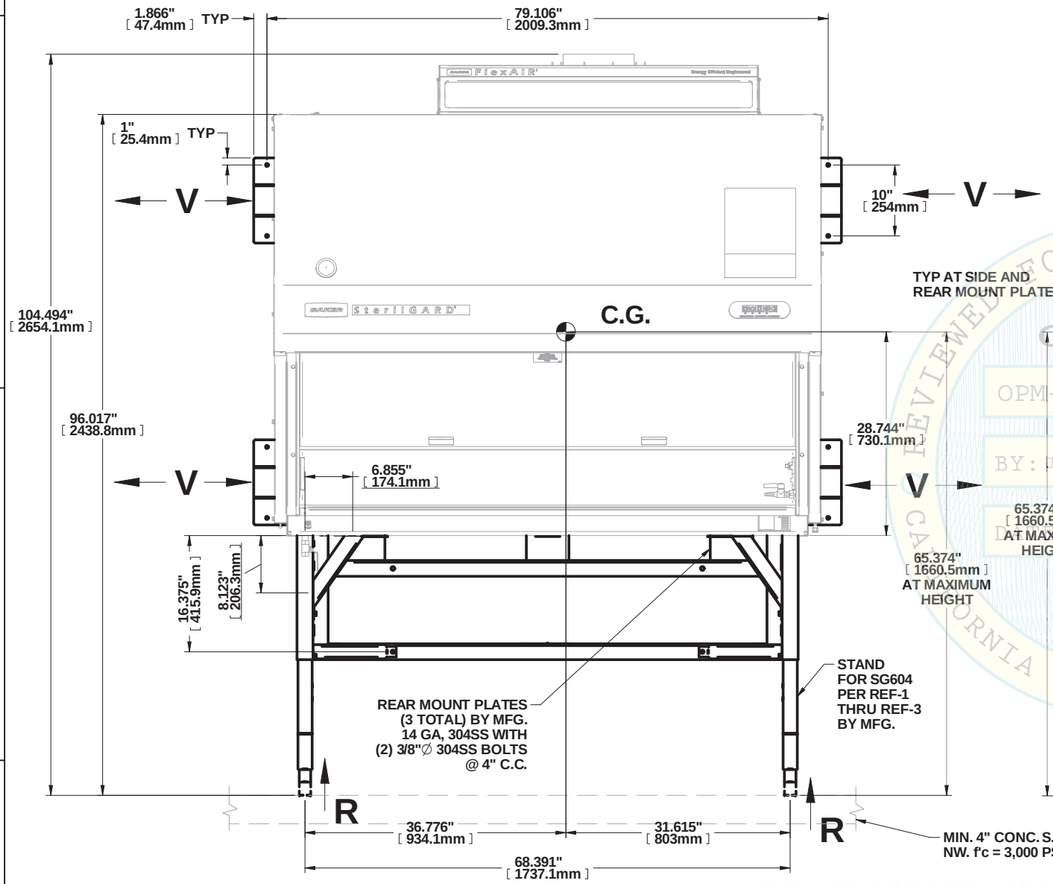
REV	DESCRIPTION	DATE	DRN	APP-BY	APP-DATE
-	SEE REV. F FOR ALL PAST REVISIONS LISTED	-	-	-	-
G	UPDATED DRAWING PER PE COMMENTS	4/22/2014	LAM	-	-



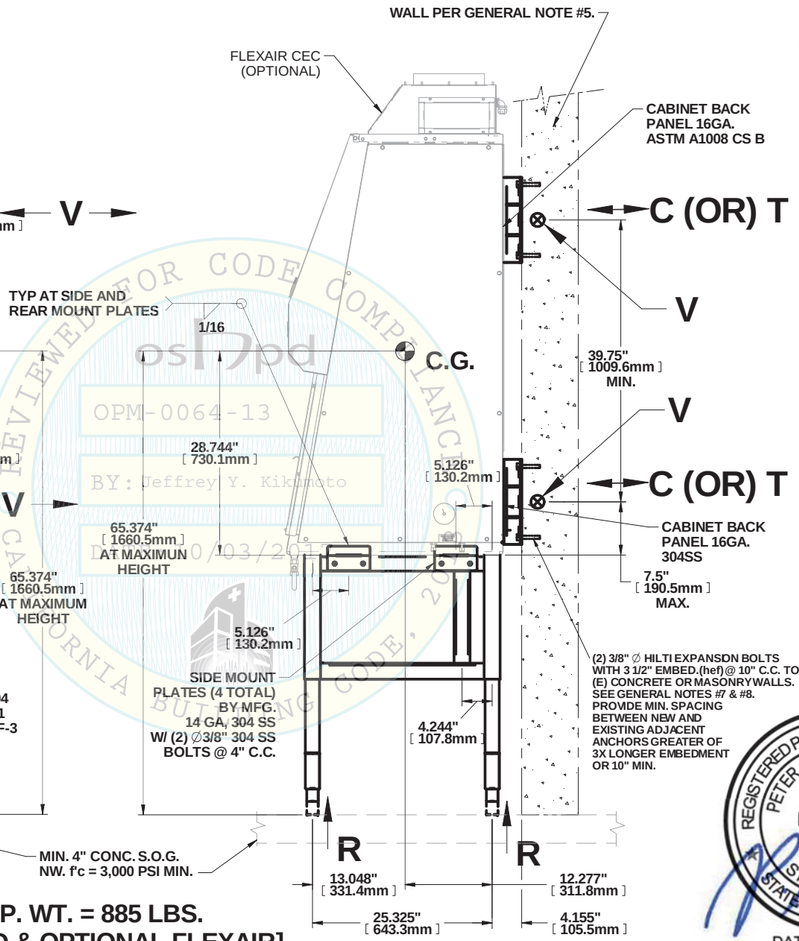
VERIFY WITH OWNER THAT THERE IS SUFFICIENT CLEARANCE BETWEEN EQUIPMENT AND WALL TO ENSURE THAT STERILE COMPOUNDING ROOM CLEANING PROCEDURES CAN BE ADEQUATELY MAINTAINED, IN ACCORDANCE WITH REGULATIONS ESTABLISHED BY THE STATE OF CALIFORNIA BOARD OF PHARMACY AND USP REGULATIONS.



DETAIL A



FRONT VIEW



SIDE VIEW

MAXIMUM OP. WT. = 885 LBS.
[INCLUDING STAND & OPTIONAL FLEXAIR]
MAXIMUM ALLOWABLE STRESS DESIGN REACTIONS TO THE STRUCTURE [LBS./POST]

SLAB LOC'N	Fp/Wp/1.4	V	C	T	R
ELEV. SLAB	1.03	250	250	250	320
ON GRADE	0.64	160	160	160	320

TABULATED REACTIONS DO NOT REFLECT THE APPLICATION OF THE OVERSTRENGTH FACTOR (Ωo) TO ACCOUNT FOR ANCHORAGE TO CONCRETE.

NOTE:
THE WALL SEISMIC RESTRAINTS HAVE PASSED TESTING USING AC156 ACCEPTANCE CRITERIA FOR SEISMIC QUALIFICATION BY SHAKE TABLE TESTING OF NON-STRUCTURAL COMPONENTS AND SYSTEMS.

GENERAL NOTES:

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
2. DESIGN SEISMIC ANCHORAGE FORCES PER ASCE 7-10 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2, AND 13.3-3 WHERE S_{DS} <= 2.0, z/h <= 1.0, ap = 1.0, Ip = 1.5, AND Rp = 2.5. Fp/Wp/1.4 <=1.03 AND Ω_o = 2.5.
3. THIS PRE-APPROVAL IS APPLICABLE TO ANY LOCATION IN THE STATE OF CALIFORNIA, AT ANY HEIGHT WITHIN THE BUILDING WHERE S_{DS} <= 2.0.
4. THIS PRE-APPROVAL COVERS ONLY THE SUPPORT & ATTACHMENTS OF THE UNIT TO THE HOSPITAL BUILDING'S STRUCTURE.
5. MAXIMUM REACTIONS TO THE STRUCTURE SHOWN ON THE DRAWINGS ARE ALLOWABLE STRESS DESIGN LOADS. SEE NOTES BELOW FOR SEOR'S RESPONSIBILITIES.
6. THE CONCRETE WALL SHALL BE MIN. 8" THICK f'c = 3,000 PSI MIN. CONC. N.W. OR SAND L.W.. THE MASONRY WALL SHALL BE MIN. 8" THICK f'm = 1,500 PSI MIN. FULLY GROUTED.
7. ANCHOR BOLTS INTO (E) CONCRETE WALL TO BE HILTI KB-TZ (ICC ESR-1917). PERIODIC INSPECTION REQUIRED PER CBC 2013 SECTION 1705A.3. REFER TO ICC ESR REPORT FOR INSTALLATION REQUIREMENTS. TESTING OF EXPANSION ANCHORS PER 2013 CBC, 1913A.7 AND NOTE# 11 BELOW.
8. ANCHOR BOLTS INTO (E) GROUT FILLED MASONRY WALL TO BE HILTI KB3 (ICC ESR-1385). CONTINUOUS INSPECTION REQUIRED PER CBC 2013 SECTION 1705A.4. REFER TO ICC ESR REPORT FOR INSTALLATION REQUIREMENTS. TESTING OF EXPANSION ANCHORS PER 2013 CBC, 1913A.7. SEE NOTE# 16 FOR SEOR RESPONSIBILITIES.
9. MAINTAIN 12" CLEARANCE FROM ANY EDGES OF (E) CONCRETE OR MASONRY WALL.
10. LOCATE (E) REINFORCEMENTS BEFORE DRILLING INTO (E) CONCRETE OR MASONRY WALL. DO NOT CUT ANY (E) REINFORCEMENTS.
11. TORQUE TEST:
    A. TEST INSTALLED ANCHORS AT A RATE OF 50% IN THE PRESENCE OF INSPECTOR OF RECORD. (I.O.R). A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO OSHPD.
    B. ALL WEDGE ANCHORS (LOADED IN EITHER PULLOUT OR SHEAR) SHALL BE TORQUE-TESTED WITH CALIBRATED TORQUE WRENCH TO 25 FT-LBS FOR HILTI KB-TZ IN CONCRETE & 15 FT-LBS FOR HILTI KB3 IN MASONRY. THE SPECIFIED TORQUE SHALL BE ATTAINED WITHIN ½ TURN OF THE NUT. THE SPECIFIED TORQUE IS THE INSTALLATION VERIFICATION TEST LOAD. TORQUED BOLTS SHALL BE TESTED A MINIMUM OF 24 HOURS AFTER INSTALLATION AND SHALL NOT HAVE MORE THAN ½ TURN OF THE NUT.
    C. WHERE ANCHORS FAIL TESTING, REPLACE DEFICIENT ANCHORS AND RETEST. TEST ALL ANCHORS OF THE SAME TYPE INSTALLED BY THE SAME TRADE AND NOT PREVIOUSLY TESTED.
12. WEDGE ANCHOR EMBEDMENT IS EQUAL TO EFFECTIVE MIN. EMBEDMENT (hef) AS DEFINED IN ICC-ESR REPORTS.
13. SEOR TO VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2013 CBC AND WITH THE NOTES AND DETAILS SHOWN IN THIS PRE-APPROVAL. VERIFY THAT THE EQUIPMENT'S ACTUAL WEIGHT, CG LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE CONFORM TO THE INFORMATION SHOWN IN THIS PRE-APPROVAL. BLDG. SEOR TO 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.
14. THE BUILDING SEOR TO VERIFY THAT THE (N) OR (E) STRUCTURE IS ADEQUATE FOR THE DESIGN LOADS IMPOSED ON IT BY THIS EQUIPMENT IN ADDITION TO ALL OTHER LOADS. PROVIDE & DESIGN SUPPLEMENTARY FRAMING MEMBERS AS REQ'D. REFER TO MAXIMUM REACTIONS TO THE STRUCTURE.
15. SEOR SHALL VERIFY THAT:
    A. MASONRY IS NOT CRACKED AS DEFINED IN ICC-ES AC01 SECTION 2.3. SEOR SHALL PROVIDE CALCULATIONS TO SHOW THAT THE MASONRY WALL WOULD NOT CRACK UNDER THE DESIGN EARTHQUAKE LOADS UNDER ALL SERVICE LOAD CONDITIONS; THE WALL HAS TO REMAIN ELASTIC.;
    B. MASONRY IS FULLY GROUTED IN ACCORDANCE W/ ESR-1385 SECTION 3.2;
    C. CONDITION OF USE REQUIREMENTS IN ACCORDANCE W/ ESR-1385 SECTION 5.0 IS SATISFIED.
16. RESPONSIBILITIES OF THE SEOR OF THE BLDG.:
    THE NEW ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPACING SHOWN IN DETAILS ARE A MINIMUM FOR THE BOLT SIZE SHOWN. THE REQ'D SPACINGS FROM OTHER ANCHORS OF OTHER DIAMETERS & EMBEDMENTS MAY VARY & SHALL BE EVALUATED BY THE SEOR.
17. BLDG. SEOR TO VERIFY THE CONCRETE MEETS THE REQUIREMENTS OF THE APPLICABLE ICC-ES ESR.

REVIEWED FOR CODE COMPLIANCE
OSHPD
OPM-0064-13
BY: Jeffrey Y. Kikumoto
DATE: 10/03/2017
CALIFORNIA BUILDING CODE, 2013

REGISTERED PROFESSIONAL ENGINEER
PETER JOHN MARANIAN
No. 2720
STRUCTURAL
STATE OF CALIFORNIA

DATE: 04/23/14
FOR BRANDOW & JOHNSTON, INC

OPM-0064-13

UNLESS OTHERWISE SPECIFIED:
DO NOT SCALE DRAWING
REMOVE ALL BURRS AND SHARP EDGES
U.S. CUSTOMARY TOLERANCES (INCHES)
DECIMALS MACHINED SHEET METAL ANGULAR
X ±.02 ±.06 ±0.30° (1°)
.XX ±.01 ±.03 THREAD ANGLE
.XXX ±.005 ±.010
FRACTIONS ±1/32
FINISH: NO 4 PROJECTION
THIS DRAWING AND ITS CONTENTS ARE THE PROPERTY OF THE BAKER COMPANY. THE INFORMATION CONTAINED HERE ON MAY NOT BE USED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE BAKER COMPANY.

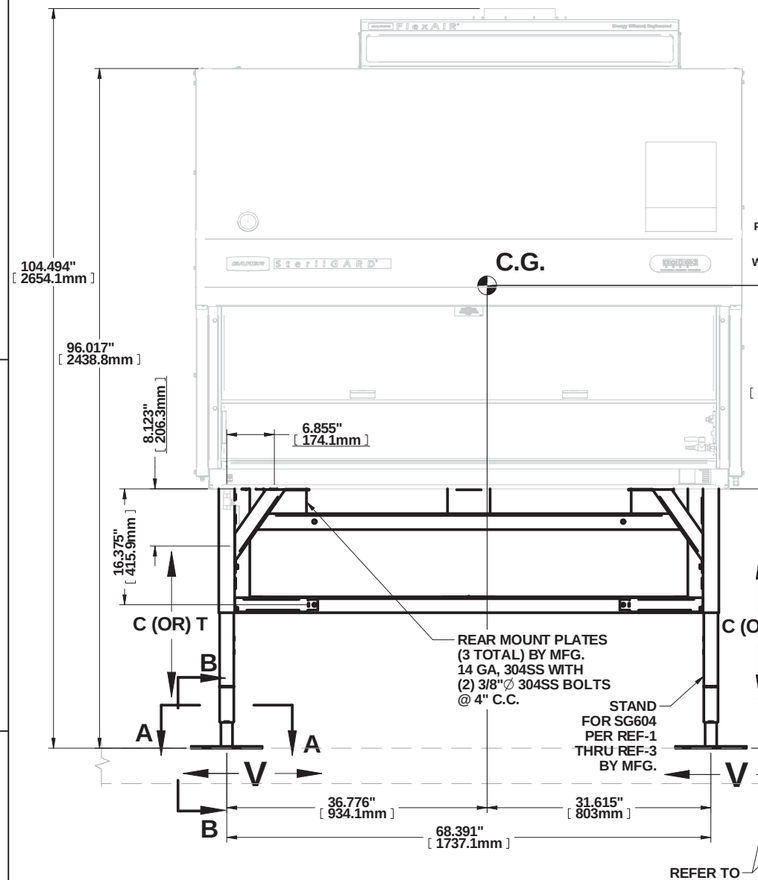
BAKER

TITLE: STERILGARD, MODEL SG604
CLASS II TYPE A2
WALL MOUNTED

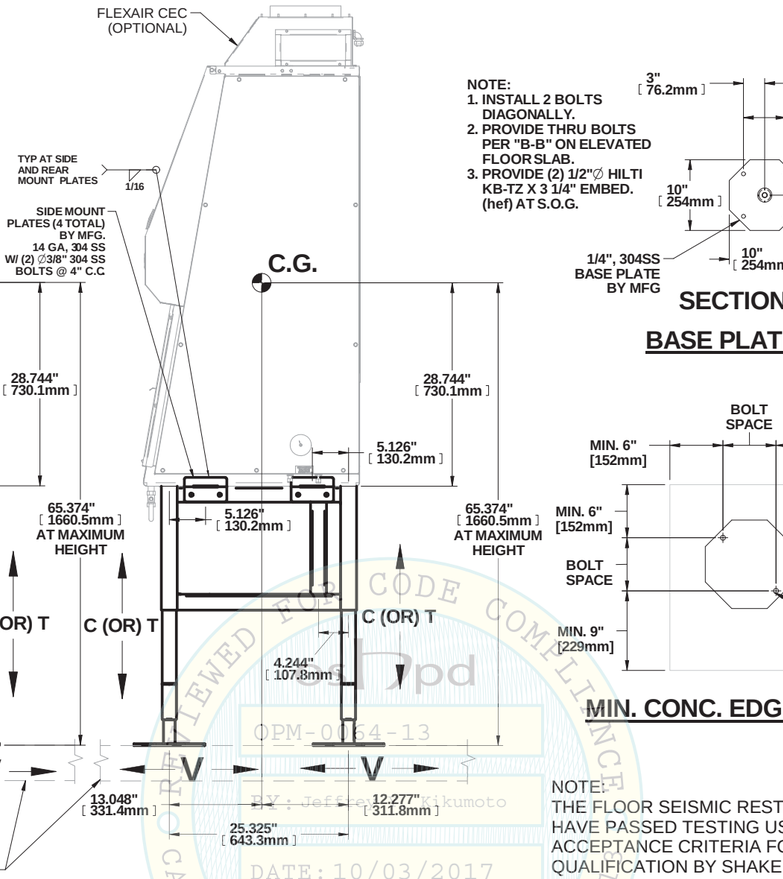
OPM SHEET NUMBER: 5 OF 6

DRAWN	DATE	SIZE	DWG NO	REV
LMcCarthy	9/25/2013	D	BGA-SG604-A2-1-4-111R	G
CHECKED	DATE	SCALE	SQUARE FOOTAGE	SHEET
-	-	-		2 OF 2

REV	DESCRIPTION	DATE	DRN	APP-BY	APP-DATE
G	UPDATED DRAWING PER PE COMMENTS	4/22/2014	LAM	-	-
-	SEE REV. F FOR ALL PAST REVISIONS LISTED	-	-	-	-

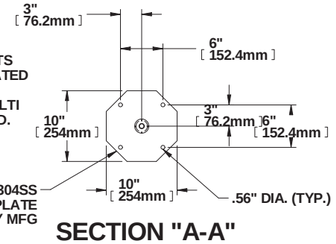


FRONT VIEW

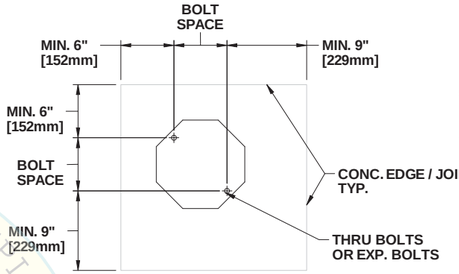


SIDE VIEW

NOTE:
1. INSTALL 2 BOLTS DIAGONALLY.
2. PROVIDE THRU BOLTS PER "B-B" ON ELEVATED FLOOR SLAB.
3. PROVIDE (2) 1/2"∅ HILTI KB-TZ X 3 1/4" EMBED. (hef) AT S.O.G.



SECTION "A-A"
BASE PLATE DETAIL



MIN. CONC. EDGE DISTANCE

NOTE:
THE FLOOR SEISMIC RESTRAINTS HAVE PASSED TESTING USING AC156 ACCEPTANCE CRITERIA FOR SEISMIC QUALIFICATION BY SHAKE TABLE TESTING OF NON-STRUCTURAL COMPONENTS AND SYSTEMS.

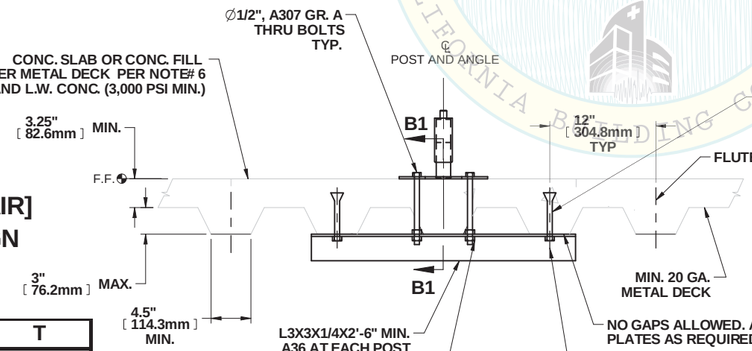
GENERAL NOTES:

1. THIS OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) IS BASED ON CBC 2013. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2013.
2. DESIGN SEISMIC FORCES PER ASCE 7-10 SECTION 13.3.1, EQUATIONS 13.3-1, 13.3-2, AND 13.3-3 WHERE S_{DS}<= 2.0, z/h <= 1.0, ap = 1.0, Ip = 1.5, AND Rp = 2.5. Fp/Wp/1.4 <=1.03 AND Ω_0 = 2.5.
3. THIS PRE-APPROVAL IS APPLICABLE TO ANY LOCATION IN THE STATE OF CALIFORNIA AT ANY HEIGHT WITHIN THE BUILDING.
4. THIS PRE-APPROVAL COVERS ONLY THE SUPPORT & ATTACHMENTS OF THE UNIT TO THE HOSPITAL BUILDING'S STRUCTURE.
5. MAX. REACTIONS TO THE STRUCTURE SHOWN ON THE DRAWINGS ARE ALLOWABLE STRESS DESIGN LOADS. SEE NOTES BELOW FOR SEOR'S RESPONSIBILITIES.
6. THE ELEVATED FLOOR SLAB SHALL BE MIN. 5" THICK, 3000 PSI MIN. CONCRETE SOLID SLAB N.W. OR SAND L.W. CONCRETE FILL ABOVE METAL DECK SHALL BE MIN. 3 ¼" THICK, 3,000 PSI MIN. CONCRETE N.W. OR SAND L.W. THE SLAB-ON-GRADE SHALL BE MIN. 6" THICK, NW. 3,000 PSI MIN.
7. ANCHOR BOLTS INTO (E) CONCRETE TO BE HILTI KB-TZ (ICC ESR-1917). PERIODIC INSPECTION REQUIRED PER CBC 2013 SECTION 1705A.3. REFER TO ICC ESR REPORT FOR INSTALLATION REQUIREMENTS. TESTING OF EXPANSION ANCHORS PER 2013 CBC, 1913A.7 AND NOTE# 11 BELOW.
8. BOLTS THROUGH CONCRETE ON METAL DECK OR ELEVATED SLAB SECTION:
   A) BOLTS SHALL BE TORQUED BY ¾ TURN OF THE NUT AFTER SNUG TIGHT (THE SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS REQUIRED TO BRING THE CONNECTED PLIES INTO FIRM CONTACT) CONDITION IS ACHIEVED, UNLESS NOTED OTHERWISE.
   B) HOLES FOR THROUGH BOLTS SHALL BE 1/16" LARGER THAN BOLT SIZE (HOLE SIZE = BOLT SIZE + 1/16").
   C) THROUGH BOLTS IN CONCRETE SHALL RECEIVE SPECIAL INSPECTION & TESTING (THROUGH BOLTS WITH STEEL-TO-STEEL CONNECTION IN TENSION DO NOT REQUIRE TESTING) IN ACCORDANCE WITH REQUIREMENTS FOR POST-INSTALLED ANCHORS.
9. MAINTAIN CLEARANCE FROM ANY EDGES OF (E) CONCRETE AS SHOWN.
10. LOCATE (E) REINFORCEMENTS BEFORE DRILLING INTO (E) CONCRETE SLAB. DO NOT CUT ANY (E) REINFORCEMENTS.
11. TORQUE TEST:
    A. TEST INSTALLED ANCHORS AT A RATE OF 50% IN THE PRESENCE OF INSPECTOR OF RECORD. (I.O.R). A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO OSHPD.
    B. ALL WEDGE ANCHORS (LOADED IN EITHER PULLOUT OR SHEAR) SHALL BE TORQUE-TESTED WITH CALIBRATED TORQUE WRENCH TO 25 FT-LBS FOR 3/8"Ø & 40 FT-LBS FOR 1/2"Ø HILTI KB-TZ IN CONCRETE . THE SPECIFIED TORQUE SHALL BE ATTAINED WITHIN ½ TURN OF THE NUT. THE SPECIFIED TORQUE IS THE INSTALLATION VERIFICATION TEST LOAD. TORQUED BOLTS SHALL BE TESTED A MINIMUM OF 24 HOURS AFTER INSTALLATION AND SHALL NOT HAVE MORE THAN ½ TURN OF THE NUT.
    C. WHERE ANCHORS FAIL TESTING, REPLACE DEFICIENT ANCHORS AND RETEST. TEST ALL ANCHORS OF THE SAME TYPE INSTALLED BY THE SAME TRADE AND NOT PREVIOUSLY TESTED.
12. WEDGE ANCHOR EMBEDMENT IS EQUAL TO EFFECTIVE MIN. EMBEDMENT (hef) AS DEFINED IN ICC-ESR REPORTS.
13. SEOR TO VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2013 CBC AND WITH THE NOTES AND DETAILS SHOWN IN THIS PRE-APPROVAL. VERIFY THAT THE EQUIPMENT'S ACTUAL WEIGHT, CG LOCATION, ANCHOR LOCATIONS, ANCHOR DETAILS AND THE MATERIAL AND GAGE OF THE UNIT WHERE ATTACHMENTS ARE MADE CONFORM TO THE INFORMATION SHOWN IN THIS PRE-APPROVAL.
14. THE BUILDING SEOR TO VERIFY THAT THE (N) OR (E) STRUCTURE IS ADEQUATE FOR THE DESIGN LOADS IMPOSED ON IT BY THIS EQUIPMENT IN ADDITION TO ALL OTHER LOADS. PROVIDE AND DESIGN SUPPLEMENTARY FRAMING MEMBERS AS REQ'D. REFER TO MAX. REACTIONS TO THE STRUCTURE.
15. RESPONSIBILITIES OF THE SEOR OR THE BLDG.:
    THE NEW ANCHORS ARE LOCATED AT AN ADEQUATE DISTANCE FROM ANY NEW OR EXISTING ANCHORS. THE SPACING SHOWN IN DETAILS ARE A MINIMUM FOR THE BOLT SIZE SHOWN. THE REQUIRED SPACINGS FROM OTHER ANCHORS OF OTHER DIAMETERS & EMBEDMENTS MAY VARY & SHALL BE EVALUATED BY THE SEOR. BLDG. SEOR TO 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.
16. BLDG. SEOR TO VERIFY THE CONCRETE MEETS THE REQUIREMENTS OF THE APPLICABLE ICC-ES ESR.

MAXIMUM OP. WT. = 885 LBS.
[INCLUDING STAND & OPTIONAL FLEXAIR]
MAXIMUM ALLOWABLE STRESS DESIGN REACTIONS TO THE STRUCTURE [LBS./POST]

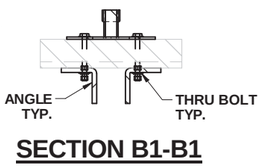
SLAB LOC'N	Fp/Wp/1.4	V	C	T
ELEV. SLAB	1.03	250	1,660	1,270
ON GRADE	0.64	160	1,160	770

TABULATED REACTIONS DO NOT REFLECT THE APPLICATION OF THE OVERSTRENGTH FACTOR (Ωo) TO ACCOUNT FOR ANCHORAGE TO CONCRETE.



NOTE: PROVIDE MIN. SPACING BETWEEN NEW AND EXISTING ADJACENT ANCHORS GREATER OF 3X LONGER EMBEDMENT OR 10" MIN.

DETAIL "B"
THRU-BOLT ANCHORAGE DETAIL



SECTION B1-B1

FREE STANDING UNIT

VERIFY WITH OWNER THAT THERE IS SUFFICIENT CLEARANCE BETWEEN EQUIPMENT AND WALL TO ENSURE THAT STERILE COMPOUNDING ROOM CLEANING PROCEDURES CAN BE ADEQUATELY MAINTAINED, IN ACCORDANCE WITH REGULATIONS ESTABLISHED BY THE STATE OF CALIFORNIA BOARD OF PHARMACY AND USP REGULATIONS.

REVIEWED FOR CODE COMPLIANCE
OPM-0064-13
BY : Jeffrey Y. Kikumoto
DATE: 10/03/2017
CALIFORNIA BUILDING CODE, 2013

REGISTERED PROFESSIONAL ENGINEER
PETER JOHN MARANIAN
No. 2720
STRUCTURAL
STATE OF CALIFORNIA

DATE: 04/23/14
FOR BRANDOW & JOHNSTON, INC

OPM-0064-13

UNLESS OTHERWISE SPECIFIED
DO NOT SCALE DRAWING
REMOVE ALL BURRS AND SHARP EDGES
U.S. CUSTOMARY TOLERANCES (INCHES)

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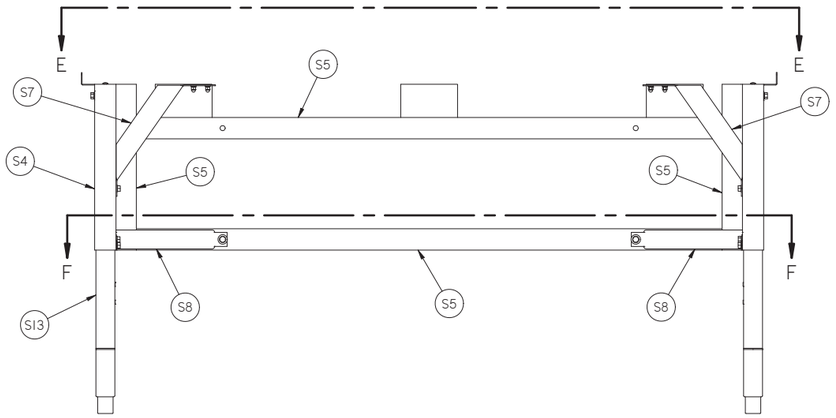
BAKER

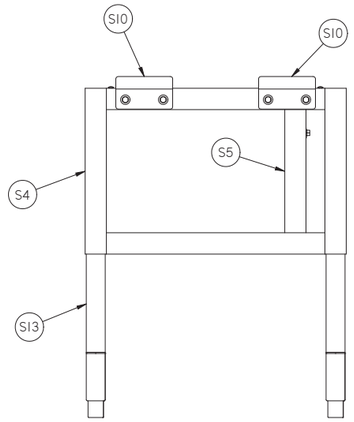
TITLE	STERILGARD, MODEL SG604 CLASS II TYPE A2 FLOOR MOUNTED
OPM SHEET NUMBER	6 OF 6
SIZE	D
DWG NO	BGA-SG604-A2-1-5-111R
REV	G
DRAWN	LMcCarthy
DATE	10/4/2013
CHECKED	-
DATE	-
SCALE	-
SQUARE FOOTAGE	
SHEET	2 OF 2

REFERENCE ONLY

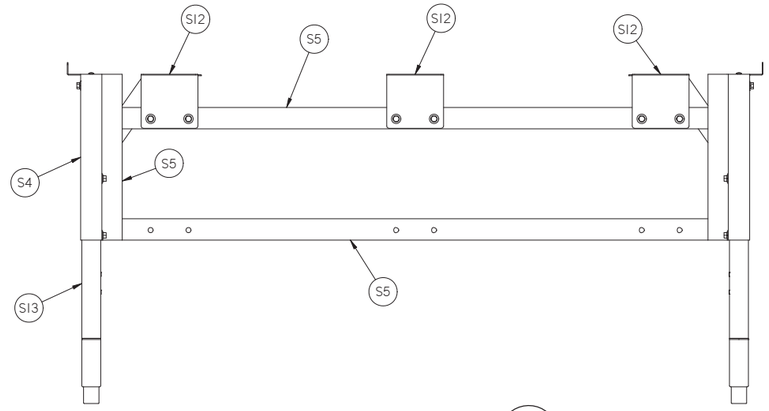
REV	DESCRIPTION	DATE	DRN	APP-BY	APP-DATE
A	ORIGINAL RELEASE	-	-	-	-
B	ADDED SHEET THREE WITH VIEWS AND GENERAL NOTE	2/18/2014	LAM	-	-
C	UPDATED DRAWING PER PE COMMENTS	3/25/2014	LAM	-	-



STAND FRONT VIEW S1

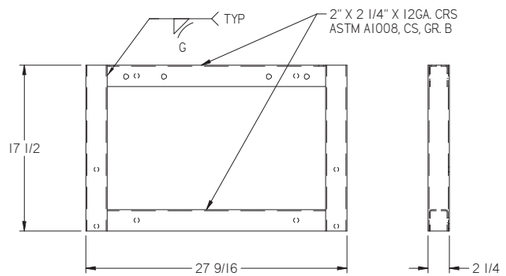


STAND SIDE VIEW S2



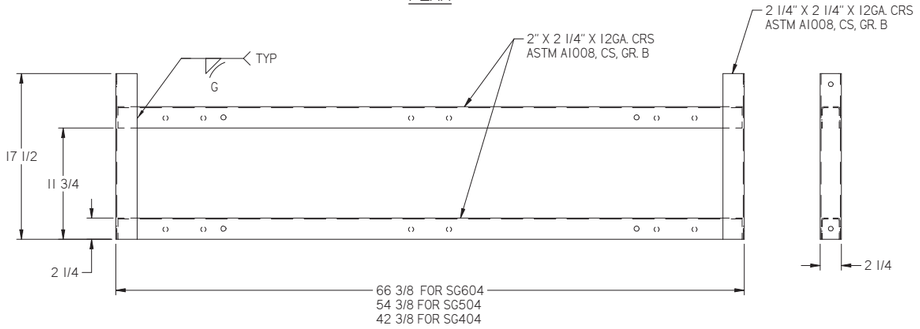
STAND REAR VIEW S3

PLAN

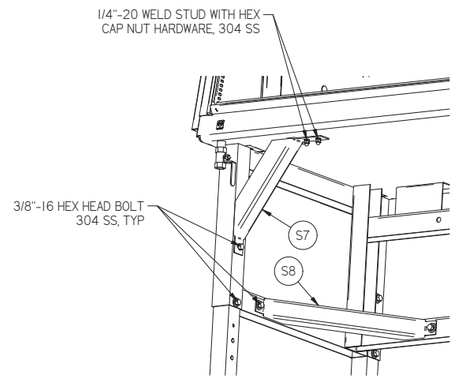


SIDE STAND S4

PLAN



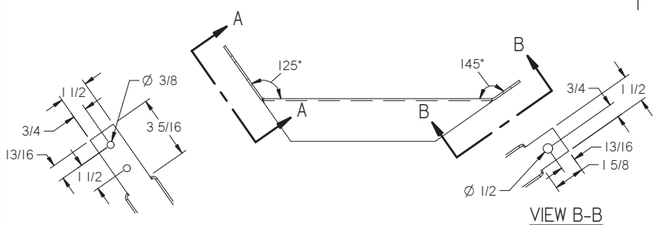
CROSS STAND S5



STAND FRAME - BRACING ATTACHMENT S6

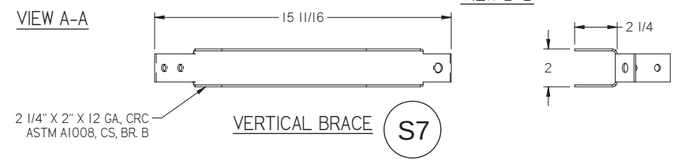
GENERAL NOTES:

1. THESE DRAWINGS FOR STERILGARD SEISMIC STAND FOR SG404, SG504, & SG604 ARE NOT FOR CONSTRUCTION BUT FOR INFORMATION ONLY. ALL STAND COMPONENTS, CONNECTION HARDWARE AND WELDS ARE PROVIDED BY THE MANUFACTURER.

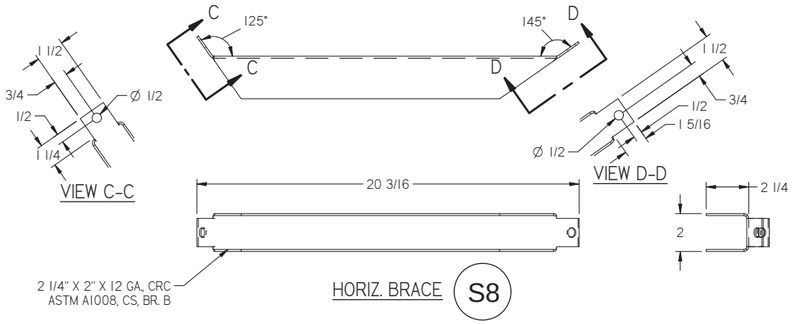


VIEW A-A

VIEW B-B



VERTICAL BRACE S7



VIEW C-C

VIEW D-D

HORIZ. BRACE S8

04/23/2014

UNLESS OTHERWISE SPECIFIED
DO NOT SCALE DRAWING
REMOVE ALL BURRS AND SHARP EDGES
U.S. CUSTOMARY TOLERANCES: (INCHES)

DECIMALS	MACHINED	SHEET METAL	ANGULAR
X	±.01	±.05	±0.30° (.5°)
.XX	±.01	±.03	
.XXX	±.005	±.010	THIRD ANGLE PROJECTION
FRACTIONS	±1/32		
FINISH		NO 4	

ALL ITEMS MUST BE RoHS COMPLIANT

DESIGNED BY: LMcCarthy — DATE: 2/12/2014
DETAILED BY: - — DATE: -

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THE BAKER COMPANY
161 Gatehouse Rd., Sanford, Maine 04073 USA
"Creating Immaculate Atmospheres"

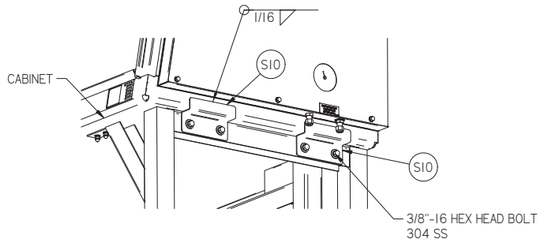
TITLE: **SterilGARD Seismic Stand, Typ Details Stands for SG404, SG504, & SG604**

SIZE	MATERIAL	DWG NO	REV
D		365D002	C

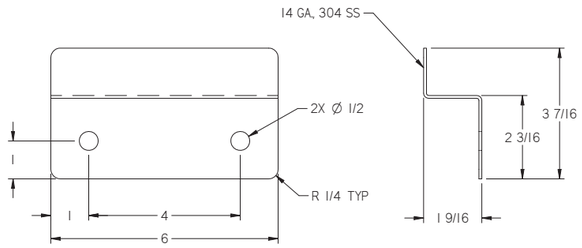
SCALE: - SQUARE FOOTAGE:

REFERENCE ONLY

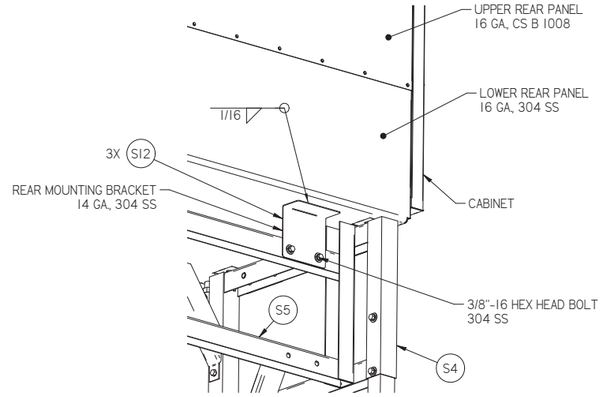
REV	DESCRIPTION	DATE	DRN	APP-BY	APP-DATE
A	ORIGINAL RELEASE	-	-	-	-
B	ADDED SHEET THREE WITH VIEWS AND GENERAL NOTE	2/18/2014	LAM	-	-
C	UPDATED DRAWING PER PE COMMENTS	3/25/2014	LAM	-	-



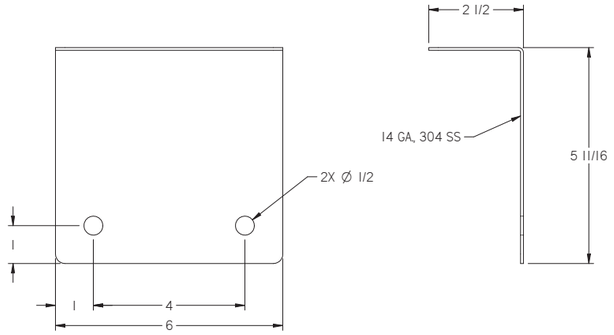
SIDE MOUNTING BRACKET S9



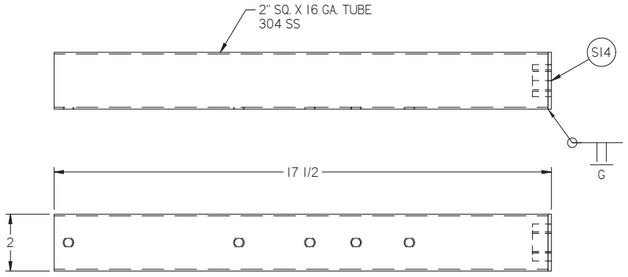
SIDE MOUNTING BRACKET S10



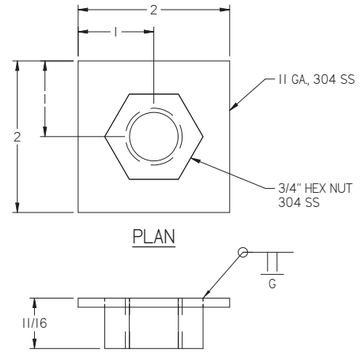
REAR MOUNTING BRACKET ATTACHMENT S11



REAR MOUNTING BRACKET S12

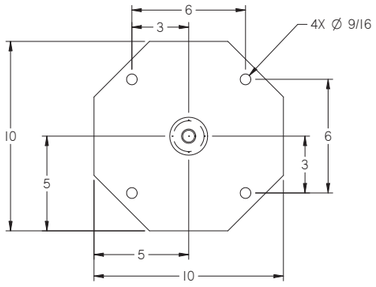


ADJUSTABLE LEG S13

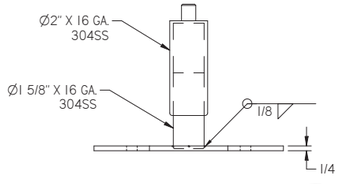


PLAN

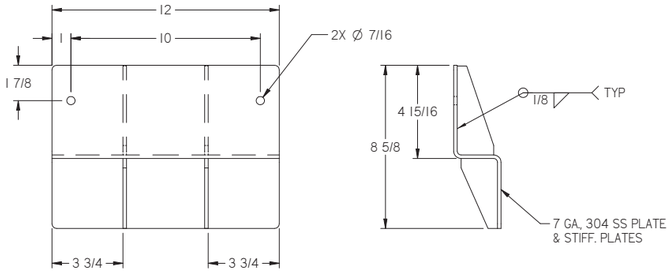
ADJUSTABLE LEG END PLATE S14



PLAN



SEISMIC BASE PLATE S15



SEISMIC WALL BRACKET S16

04/23/2014

UNLESS OTHERWISE SPECIFIED
DO NOT SCALE DRAWING
REMOVE ALL BURRS AND SHARP EDGES
U.S. CUSTOMARY TOLERANCES: (INCHES)

DECIMALS	MACHINED	SHEET METAL	ANGULAR
X	±.02	±.06	+0° 30'	0°
.XX	±.01	±.03	
.XXX	±.005	±.010	THIRD ANGLE
FRACTIONS	±1/32		PROJECTION
FINISH		NO 4	

ALL ITEMS MUST BE RoHS COMPLIANT

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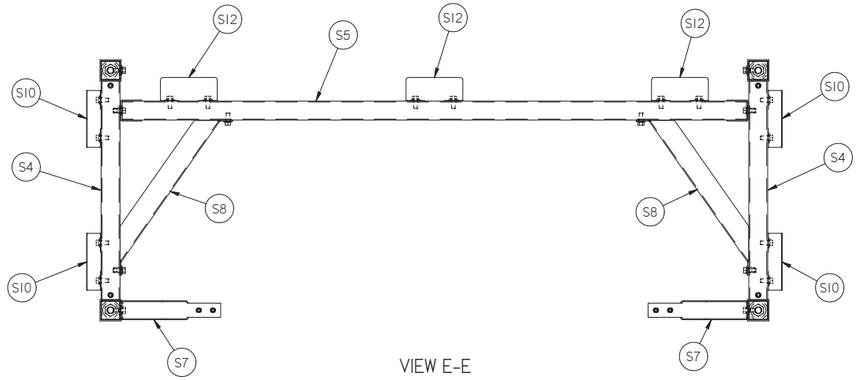
THE BAKER COMPANY
161 Gatehouse Rd., Sanford, Maine 04073 USA
"Creating Immaculate Atmospheres"

TITLE
SterilGARD Seismic Stand, Typ Details Stands for SG404, SG504, & SG604

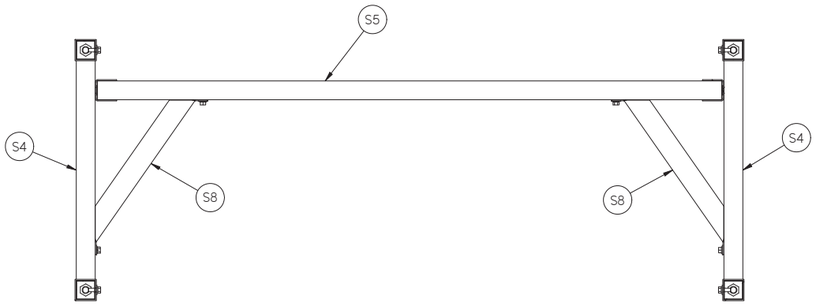
DESIGNED BY	DATE	SIZE	MATERIAL	DWG NO	REV
LMcCarthy	2/12/2014	D		365D002	C
DETAILED BY	DATE	SCALE	SQUARE FOOTAGE	SHEET	
-	-	-		REF-2	

REFERENCE ONLY

REV	DESCRIPTION	DATE	DRN	APP-BY	APP-DATE
A	ORIGINAL RELEASE	-	-	-	-
B	ADDED SHEET THREE WITH VIEWS AND GENERAL NOTE	2/18/2014	LAM	-	-
C	UPDATED DRAWING PER PE COMMENTS	3/25/2014	LAM	-	-



VIEW E-E
TOP PLAN



SECTION F-F
MIDDLE PLAN

04/23/2014

UNLESS OTHERWISE SPECIFIED
DO NOT SCALE DRAWING
REMOVE ALL BURRS AND SHARP EDGES
U.S. CUSTOMARY TOLERANCES: (INCHES)

DECIMALS	MACHINED	SHEET METAL	ANGULAR
.X	±.02	±.06	±0°-30' (.5°)
.XX	±.01	±.03	
.XXX	±.005	±.010	THIRD ANGLE
FRACTIONS	±1/32		PROJECTION
FINISH		NO 4	

ALL ITEMS MUST BE
RoHS COMPLIANT

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THE BAKER COMPANY
161 Gatehouse Rd., Sanford, Maine 04073 USA
"Creating Immaculate Atmospheres"

TITLE
SteriIGARD Seismic Stand, Typ Details Stands for SG404, SG504, & SG604

DESIGNED BY	DATE
LMcCarthy	2/12/2014
DETAILED BY	DATE
-	-

SIZE	MATERIAL	DWG NO	REV
D		365D002	C
SCALE	SQUARE FOOTAGE	SHEET	
-		REF-3	