

OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

OFFICE USE ONLY APPLICATION FOR OSHPD PREAPPROVAL OF MANUFACTURER'S CERTIFICATION (OPM) **APPLICATION #:** OPM-0365-13 **OSHPD Preapproval of Manufacturer's Certification (OPM)** Type: ⊠ New ☐ Renewal ☐ Update to Pre-CBC 2013 OPA Number: 0534-07, 0589-07, 0921-07, 0922-07 **Manufacturer Information** Manufacturer: Stanley InnerSpace Manufacturer's Technical Representative: Joe Gerber Mailing Address: 4600 Vine St, Lincoln NE 68503 Telephone: (760) 420-2257 Email: joe@ycology.com **Product Information** Product Name: InnerSpace (IS) Product Type: Fixed anchorage wall-mounted cabinet units Product Model Number: 3000/4000/5000 Series Cabinets General Description: Various manufactured cabinets - Full-height cabinet, wall mounted upper cabinet, lower cabinet, scope storage cabinet, passthrough cabinet **Applicant Information** Applicant Company Name: Ycology, LLC Contact Person: Joe Gerber Mailing Address: 1165 Aloha Drive, Suite C, Encinitas, CA 92024-3909 Telephone: (760) 420-2257 Email: joe@ycology.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: 04/01/2016 Date:

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



Ycology, LLC



Title: Principal

Company Name:



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

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Registered Design Professional Preparing Engineering Recommendations
Company Name: KPFF Consulting Engineers, Inc.
Name: Farid Mohseni California License Number: S4775
Mailing Address: 3131 Camino del Rio North, Suite 1080, San Diego, CA 92108
Telephone: (619) 521-8500 Email: farid.mohseni@kpff.com
OSHPD Special Seismic Certification Preapproval (OSP)
Special Seismic Certification is preapproved under OSP- (Separate application for OSP is required)
Special Seismic Certification is not preapproved
Certification Method(s)
Testing in accordance with: ICC-ES AC156 FM 1950-10 Other* (Please Specify): OPM-0365-13
*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 DATE: 03/20/2017 ✓ Participation
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: 03-20-2017 Print Name: Jeffrey Kikumoto
Title: SSE
Condition of Approval (if applicable):

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









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General Structural Notes

DESIGN CRITERIA

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

REFERENCED STANDARDS (i.e. ACI, AISC, ASTM, ETC.) SHOWN IN THESE DOCUMENTS SHALL BE PER THE LATEST ADOPTED EDITION LISTED IN CHAPTER 35 OF THE CODE.

GOVERNING JURISDICTION: OSHPD

SCOPE OF APPLICATION: OSHPD 1 OR 4

SEISMIC ANALYSIS: NONSTRUCTURAL COMPONENTS - CABINETS PER ASCE 7-10 TABLE 13.5-1 (SUPPLEMENT #1)

PER ASCE 7-10, CHAPTER 13 AND AS AMENDED BY THE 2013 CBC, SECTIONS 1616A.1.17 THRU 1616A.1.28

Sne	≤ 2.5 gR CODE
D3	= 1.5
a _n	= 1.0
R_{n}^{ν}	= 2.5
Ω_0^{\prime}	= 2.5 (FOR ANCHORAGE INTO CONCRETE)
z/h	≤ 1.0 (AT ANY LOCATION IN THE STRUCTURE)
	OPM - 0365 - 13

EQUIPMENT SUPPORTS AND ATTACHMENTS

THIS PRE-APPROVAL DOCUMENT IS INTENDED TO COVER THE SUPPORT/ATTACHMENT OF SPECIFIED NON-STRUCTURAL COMPONENTS TO THE STRUCTURE. THE STRUCTURAL ENGINEER OF RECORD (SEOR) IS RESPONSIBLE FOR DESIGNING THE SUPPORTING STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS, AND VERIEVING EQUIPMENT DIMENSIONS, EQUIPMENT WEIGHTS INCLUDING CONTENTS, CENTER OF GRAVITY LOCATIONS, AND RESULTANT ATTACHMENT FORCES ON A PROJECT SPECIFIC BASIS. SUPPORTS AND ATTACHMENTS SHALL BE INSTALLED BY THE CONTRACTOR AND/OR OWNER'S REPRESENTATIVE.

SUPPORTS AND ATTACHMENTS OF ALL EQUIPMENT TO BE INSTALLED SHALL BE DETAILED ON CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH 2013 CBC SECTION 1613A.1. ANY ITEMS MEETING THESE CRITERIA WHICH ARE NOT SHOWN ON THE APPROVED CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO/THE ATTENTION OF THE APPROPRIATE DESIGN PROFESSIONAL OF RECORD (ADP) AND SEOR.

EQUIPMENT SUPPORTS AND ATTACHMENTS SHALL BE APPROVED BY THE APPROPRIATE DESIGN PROFESSIONAL OF RECORD (ADP) AND OSHPD AS A PART OF FIELD REVIEWS/OBSERVATIONS. THE INSPECTOR OF RECORD (IOR) SHALL ASSURE THAT THE ABOVE REQUIREMENTS ARE ENFORCED.

THE SUPPORT AND ATTACHMENT DETAILS HEREIN MAY BE USED AT ANY LOCATION IN THE STATE OF CALIFORNIA WHERE $S_{DS} \leq 2.5$, and at any location in a structure where z/h ≤ 1.0 . THE SEOR SHALL VERIFY THAT PROJECT SPECIFIC DESIGN PARAMETERS DO NOT EXCEED THOSE IN THIS PREAPPROVAL DOCUMENT.

PARTICLE BOARD CABINETS INSTALLED PER THE PARAMETERS IN THIS PREAPPROVAL DOCUMENT SHALL UTILIZE 14GA (0.068") THICK STEEL REINFORCEMENT PLATES (ASTM A1008 SS. GRADE 33 MIN, YIELD STRENGTH (Fy) = 33 KSI MIN) AT FASTENER ATTACHMENT LOCATIONS. SITE SPECIFIC DESIGNS AND/OR CONFIGURATIONS NOT USING INSERT PLATES MUST USE THE PARTICLE BOARD FASTENER PULL-THROUGH VALUES SHOWN ON PAGE 3.

THE SEOR SHALL VERIFY THAT CONCRETE ANCHORS ARE AN ADEQUATE DISTANCE FROM ANY SLAB EDGES OR OPENINGS AND ANY EXISTING ANCHORS.







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General Structural Notes (Continued)

DESIGN PARAMETERS

EQUIPMENT MATERIALS OF CONSTRUCTION:

CABINETS ARE CONSTRUCTED FROM EITHER SHEET STEEL OR FIBERBOARD AS FOLLOWS:

SHEET STEEL:

CARBON STEEL IS 20 GA (0.036") MINIMUM THICKNESS, CONFORMING TO ASTM A1008 SS (GRADE 33 MIN, YIELD STRENGTH (Fy) = 33 KSI MINIMUM).

STAINLESS STEEL IS 18 GA (0.0478") MINIMUM THICKNESS, CONFORMING TO ASTM A240 (UNS DESIGNATION 30400, YIELD STRENGTH (Fy) = 30 KSI MIN).

ALL SHEET METAL CABINETS ARE ATTACHED WITH #10 SHEET METAL SCREWS EVERY 12" ON CENTER ALONG BOTH SIDES OF THE BACK PANEL.

STAINLESS STEEL BACK AND SIDE PANELS ARE JOINED BY 1/2" DIAMETER SPOT WELDS EVERY 16" ALONG EACH SIDE. OR CODE

FIBERBOARD (PARTICLE BOARD):

19 mm (0.75 INCH) THICK MINIMUM, CONFORMING TO ANSI A208.1-2009 (GRADE M-2 MIN, MODULUS OF RUPTURE (Fr) = 1885 PSI MINIMUM). ACCEPTABLE MANUFACTURERS ARE AS FOLLOWS:

- *FLAKEBOARD COMPANY LIMITED
- *TAFISA
- *UNIBOARD

ALL WOOD PRODUCTS HAVE THE BACK AND SIDES JOINED BY DUAL 8mm GLUED DOWELS AT 15" ON CENTER BETWEEN PANELS.

EQUIPMENT ATTACHMENT:

SHEET METAL SCREWS:

1. ALLOWABLE SHEET METAL SCREW VALUES ARE AS TABULATED IN OSHPD OPD-0001-13 WITH (1) LAYER OF % GYP BOARD BETWEEN STEEL SURFACES IN THE NON-PRYING CONDITION, SHOWN BELOW:

FASTENER SIZE								
Fy (KSI)	MIL (STEEL	NO. 10						
/	GA)	SHEAR (LB)	TENSION (LB)					
50 (ATTACHMENT)	54 (16)	140	B (159)					
33 (EQUIPMENT)	33 (20)	(100)	84					

CONTROLLED BY MINIMUM STEEL THICKNESS AND GRADE. STEEL CABINET: MAX SHEAR=100 LB, MAX. TENSION = 159 LB. 3/4" PARTICLE BOARD MAX SHEAR = 51 LB, MAX. TENSION = 159 LB (LISTED PARTICLE BOARD TENSION VALUES REQUIRE 14 GA STEEL INSERT PLATE. WITHOUT PLATE, MAX TENSION = 86 LB).

2. "THE ALLOWABLE STRENGTHS ARE BASED UPON THE LEAST OF THE AVERAGE TESTED TENSILE AND SHEAR STRENGTHS TABULATED FROM ICC ESR'S 1976, 2196, 1730, 1408, AND THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA), FASTENER TYPES AND SIZES APPLY TO NON-PROPRIETARY FASTENER TYPES AND SIZES. AND DOES NOT ENDORSE A SPECIFIC MANUFACTURER. WHERE PROPRIETARY FASTENERS ARE SPECIFIED, NO EXCEPTIONS ARE TAKEN TO THE USE OF MANUFACTURER SPECIFIC VALUES THAT ARE BASED UPON THE AISI S100-07/S2-10. SECTION E4. ALL SCREW FASTENERS SHALL SATISFY AC118 - ACCEPTANCE CRITERIA FOR TAPPING SCREW FASTENERS."

EQUIPMENT LOAD VALUES:

- 1. EQUIPMENT SELF-WEIGHT IS CALCULATED USING THE MAXIMUM OF SHEET STEEL OR FIBERBOARD CONSTRUCTION FOR EACH UNIT.
- 2. EQUIPMENT CONTENT WEIGHTS ARE BASED ON THE UNIT INTERIOR VOLUME WITH AN ASSUMED CONTENT DENSITY PER THE APPLICABLE SCHEDULE FOR EACH UNIT.
- 3. TOTAL EQUIPMENT WEIGHTS ARE BASED ON THE SUM OF EQUIPMENT SELF WEIGHT AND CONTENT WEIGHT AS NOTED ABOVE.







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General Structural Notes (Continued)

CONCRETE ANCHORAGE

- POST-INSTALLED ANCHORAGE SHALL BE AS DETAILED ON THE PLANS. ANY REVISIONS TO THIS OPM WILL REQUIRE AN ALTERNATE METHOD OF COMPLIANCE (AMC) TO BE SUBMITTED TO AND APPROVED BY OSHPD.
- 2. ALL EMBEDMENTS NOTED ON THE DRAWINGS ARE TO BE CONSIDERED THE "EFFECTIVE EMBEDMENT", hef, AS NOTED IN THE ICC/IAPMO EVALUATION REPORT(S).
- EXPANSION ANCHORS IN CONCRETE SHALL BE HILTI KB-TZ (ICC ESR-1917, REISSUED MAY 2015) INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AS LISTED IN THE ICC REPORT ADOPTED FOR THE CODE LISTED. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION ANCHORS, U.N.O. SEE NOTES AND TABLE BELOW FOR ADDITIONAL INSTALLATION INFORMATION.
 - A. THE REQUIRED TENSION TEST LOADS SHOWN IN THE TABLE WERE DETERMINED BY THE MINIMUM OF 1.25 x THE MAXIMUM DESIGN STRENGTH OF THE ANCHOR AS PROVIDED IN THE ICC REPORT ADOPTED FOR THE CODE LISTED, OR AS DETERMINED IN ACCORDANCE WITH ACT 318 APPENDIX D, OR 80% OF THE NOMINAL YIELD STRENGTH OF THE ANCHOR ELEMENT (0.8 x Ase x fya).
 - B. THE REQUIRED TORQUE TEST VALUES SHOWN IN THE TABLE ARE THE MANUFACTURER'S RECOMMENDED INSTALLATION TORQUE AS APPROVED IN THE ICC REPORT ADOPTED FOR THE CODE LISTED.
 - C. WHEN EXPANSION ANCHORS ARE USED FOR NONSTRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE. 50 PERCENT OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP, SHALL BE TESTED.
 - D. TESTING OF THE EXPANSION ANCHORS SHALL BE DONE IN THE PRESENCE OF THE OSHPD SPECIAL INSPECTOR AND A REPORT OF THE TEST RESULTS SHALL BE SUBMITTED TO THE ENFORCEMENT AGENCY AND SEOR. IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TEST FREQUENCY.
 - G. TESTING SHALL OCCUR A MINIMUM OF 24 HOURS AFTER THE INSTALLATION OF THE SUBJECT ANCHORS.
 - H. TEST ACCEPTANCE CRITERIA FOR EXPANSION ANCHORS SHALL BE BASED ON THE ICC REPORT USING CRITERIA ADOPTED IN THIS CODE. FIELD TESTS SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENTS:
 - HYDRAULIC RAM METHOD: ANCHORS TESTED WITH A HYDRAULIC JACK OR SPRING LOADED DEVICES SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF 15 SECONDS AND SHALL EXHIBIT NO DISCERNABLE MOVEMENT DURING THE TENSION TEST, (EX. AS EVIDENCED BY THE LOOSENING OF THE WASHER UNDER
 - TORQUE WRENCH METHOD: ANCHORS TESTED WITH A CALIBRATED TORQUE WRENCH MUST ATTAIN THE H.2. SPECIFIED TORQUE WITHIN ONE-HALF (1/2) TURN OF THE NUT.

ĺ	HILTI K	B-TZ EXPAN	ISION ANCH	HORS IN NO	RMALWEIG	HT CONCRET	TE (f'c=3,000	PSI)
	ANCHOR DIAMETER (d _a)	EFFECTIVE EMBEDMENT (h _{ef})	MINIMUM MEMBER THICKNESS (t _{min})	MIN. EDGE DISTANCE (DESIGN)	MIN. SPACING (DESIGN)	INSTALLATION TORQUE (T _{inst})	TENSION TEST	
	½" C.S.	31/4"	6"	4"	6"	10"	40 FT-LB	3281 LB
	¾" C.S.	3¾"	6"	4½"	8"	7"	110 FT-LB	3342 LB

- 1. "C.S" REFERS TO CARBON STEEL ANCHOR.
- 2. SPACING, EDGE DISTANCE, AND TESTING VALUES VALID FOR THIS OPM ONLY. OTHER CONFIGURATIONS TO BE SPECIFIED BY THE SEOR AND SUBMITTED TO OSHPD FOR REVIEW AND APPROVAL ON A PROJECT SPECIFIC BASIS.





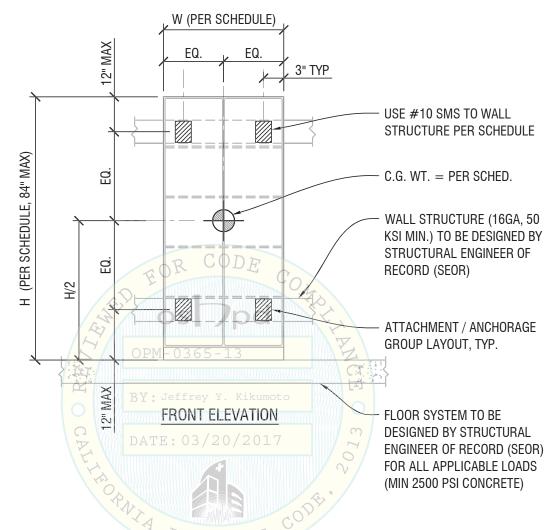


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Tall Cabinets



NOTES:

1. ATTACHMENT DESIGN PER 2013 CALIFORNIA BUILDING CODE - SECTION 1613A AND ASCE 7-10 SECTIONS 12 AND 13.

STRENGTH LEVEL FORCES:

HORIZONTAL FORCE (Eh)=1.80Wp ($S_{DS} \le 2.5$, Ip=1.5, ap=1.0, Rp=2.5, $\Omega_0 = 2.5$ AS APPLICABLE)

VERTICAL FORCE (Ev) = 0.50 Wp

- 2. CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN. EQUIPMENT MANUFACTURER SHALL DESIGN UNIT TO WITHSTAND THE FULLY LOADED CONDITION AT THE H_{CG} SHOWN ABOVE.
- 3. STRUCTURAL ENGINEER OF RECORD (SEOR) FOR THE BUILDING SHALL PROVIDE RIGID (ap=1.0) SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS, INCLUDING WALL FRAMING AND FLOOR SLAB/DECK.
- 4. SEE GENERAL NOTES: SHEET 2-4





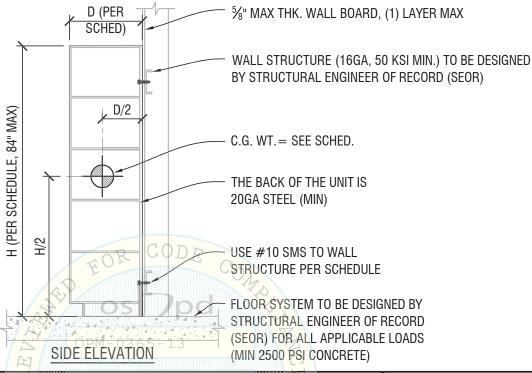


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Tall Cabinets (Sheet Steel)



				///////////////////////////////////////		LEVANAALEYYYYVVAA	AAAAXXYYYAAXXYYX		_	
			TALLTA	ABINET SCH	HEDULE (CONTEN	IT WEIGH	HT = 50	PCF) ¹	
	HEIGHT	DEPTH	TOTAL WEIGHT	ATTACHMENT GROUPS	SMS PER GROUP	TOTAL	(ASD,	FORCES NO Ω ₀)	2 PER GROUP, 8	ES (LRFD W/ Ω_0) ANCHORS TOTAL
"W" (IN)	"H" (IN)	"D" (IN)	(LB) ²			SMS	T _{MAX} (LB/ SCREW)	V _{MAX} (LB/ SCREW)	$\Omega_0 T_u$ (LB/GROUP)	Ω ₀ V _u (LB/GROUP)
18	84	18	930	4	6	24	77	49	1657	1046
18	84	25	1280	A 4	10	40	83 °	40	2952	1440
24	84	18	1240	4	8	32	62	49	1779	1395
24.75	84	20	1420	4	9	36	65	50	2096	1597
24	84	31	2135	4	15LD	I 160	82	45	4409	2402
30	84	18	1550	4	9	36	66	54	2117	1744
30	84	31	2670	4	17	68	74	49	4489	3004
34	84	26	2490	4	15	60	66	52	3540	2801
36	84	18	1860	4	11	44	63	53	2459	2093
36	84	22	2275	4	13	52	67	55	3100	2559
42	84	18	2170	4	12	48	65	57	2803	2441
48	84	18	2480	4	14	56	63	56	3148	2790

- 1. MANUFACTURER SHALL PROVIDE PERMANENT PLAQUE TO BE AFFIXED ON THE UNIT STATING: "CONTENT WEIGHT SHALL NOT EXCEED 50 FB/FT3"
- 2. TOTAL WEIGHT INCLUDES SELF-WEIGHT AND CONTENTS AS NOTED ON SCHEDULE AND PER GENERAL NOTES, PAGE 3.
- 3. TABULATED VALUES ARE VALID FOR SHEET STEEL CABINETS.





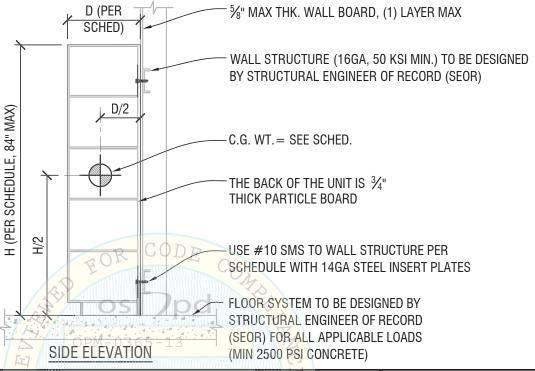


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Tall Cabinets (Particle Board)



						TUUAAAATTYYYVVVVA.	AAAAXXYYAA						
	TALL CABINET SCHEDULE (CONTENT WEIGHT = 50 PCF)												
WIDTH "W" (IN)	HEIGHT "H" (IN)	DEPTH "D" (IN)	TOTAL WEIGHT (LB) ²	ATTACHMENT GROUPS	SMS PER GROUP	TOTAL	T _{MAX} (LB/ V _{MAX} (LB/			ES (LRFD W/ Ω_0) ANCHORS TOTAL $\Omega_0 V_u$ (LB/GROUP)			
18	84	18	930	4	9	36	SCREW) 52	SCREW)	1657	1046			
18	84	25	1280	% 4	14	56	59	29	2952	1440			
24	84	18	1240	4	11	44	45	36	1779	1395			
24.75	84	20	1420	4	13	52	45	34	2096	1597			
24	84	31	2135	4	21LD	I 184	59	32	4409	2402			
30	84	18	1550	4	14	56	42	35	2117	1744			
30	84	31	2670	4	25	100	50	34	4489	3004			
34	84	26	2490	4	22	88	45	36	3540	2801			
36	84	18	1860	4	16	64	43	37	2459	2093			
36	84	22	2275	4	20	80	43	36	3100	2559			
42	84	18	2170	4	19	76	41	36	2803	2441			
48	84	18	2480	4	21	84	42	37	3148	2790			

- 1. MANUFACTURER SHALL PROVIDE PERMANENT PLAQUE TO BE AFFIXED ON THE UNIT STATING: "CONTENT WEIGHT SHALL NOT EXCEED 50 FB/FT3"
- 2. TOTAL WEIGHT INCLUDES SELF-WEIGHT AND CONTENTS AS NOTED ON SCHEDULE AND PER GENERAL NOTES, PAGE 3.
- 3. TABULATED VALUES ARE VALID FOR PARTICLE BOARD CABINETS WITH STEEL INSERT PLATES AT FASTENERS. SITE SPECIFIC CONFIGURATIONS NOT USING INSERT PLATES SHALL USE PARTICLE BOARD FASTENER PULL-THROUGH VALUES LISTED ON PAGE 3.



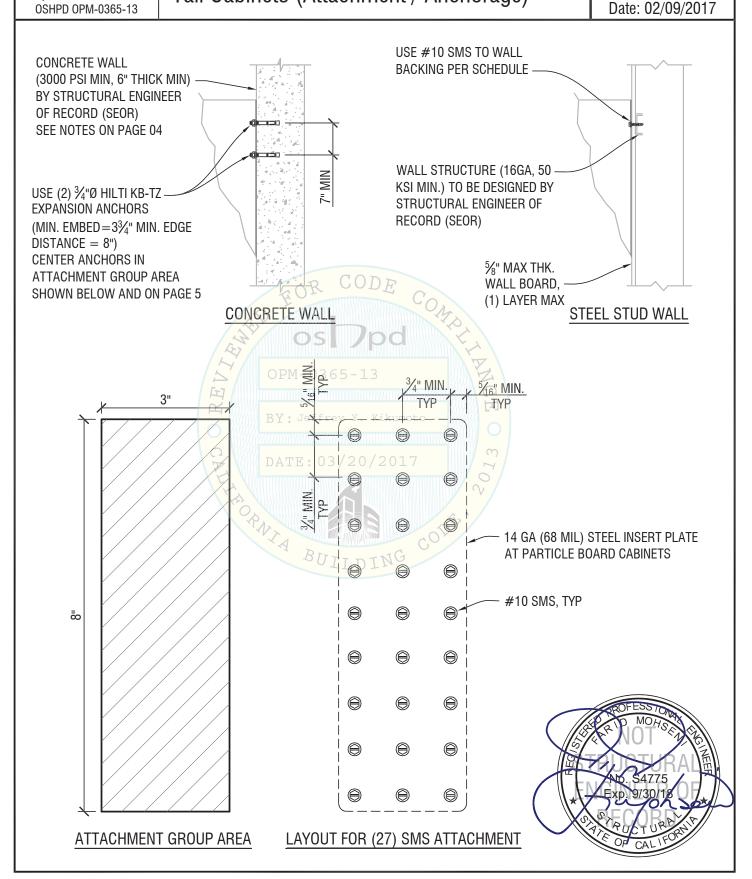




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Tall Cabinets (Attachment / Anchorage)





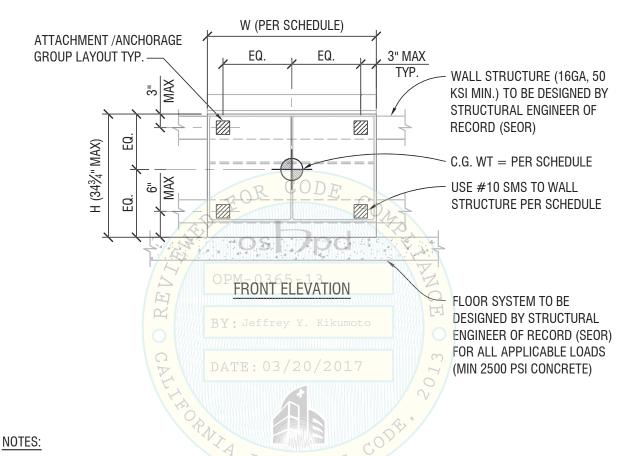


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Lower Cabinets



 ATTACHMENT DESIGN PER 2013 CALIFORNIA BUILDING CODE - SECTION 1613A AND ASCE 7-10 SECTIONS 12 AND 13.

STRENGTH LEVEL FORCES:

HORIZONTAL FORCE (Eh)=1.80Wp ($S_{DS} \le 2.5$, Ip=1.5, ap=1.0, Rp=2.5)

VERTICAL FORCE (Ev) = 0.50 Wp

- 2. CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN. EQUIPMENT MANUFACTURER SHALL DESIGN UNIT TO WITHSTAND THE FULLY LOADED CONDITION AT THE H_{CG} SHOWN ABOVE.
- 3. STRUCTURAL ENGINEER OF RECORD (SEOR) FOR THE BUILDING SHALL PROVIDE RIGID (ap=1.0) SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS, INCLUDING WALL FRAMING AND FLOOR SLAB/DECK.
- 4. SEE GENERAL NOTES: SHEET 2-4





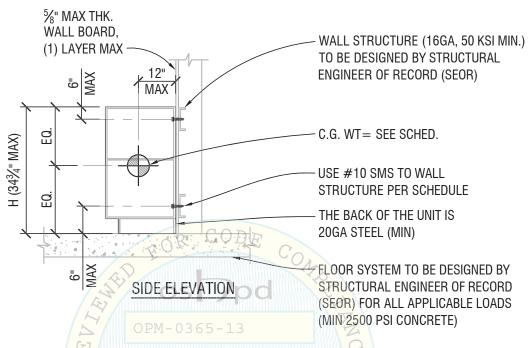


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Lower Cabinets (Sheet Steel)



	LOWER CABINET SCHEDULE (CONTENT WEIGHT = 50 PCF) ¹											
WIDTH "W" (IN)	TOTAL WEIGHT (LB) ²	ATTACHMENT	SMS PER		SCREW FORCES $0.1.7$ (ASD, NO Ω_0)		ANCHOR FORCES (LRFD W/ Ω_0) 1 PER GROUP, 4 ANCHORS TOTAL					
		GROUPS	GROUP	SMS	T _{MAX} (LB/SCREW)	(LB/SCREW)	$\Omega_0 T_u$ (LB/GROUP)	$\Omega_0 V_u$ (LB/GROUP)				
18	495	4	P1 4	16	77	39	1104	557				
24.75 ³	535	4	4	16	62	42	879	602				
24	660	4	5 57	II20 I	NG 62	42	1116	742				
30	825	4	5	20	67	52	1189	928				
36	990	4	6	24	64	52	1369	1114				
42	1155	4	7	28	62	52	1552	1299				
48	1325	4	8	32	61	52	1742	1491				

- 1. MANUFACTURER SHALL PROVIDE PERMANENT PLAQUE TO BE AFFIXED ON THE UNIT STATING: "CONTENT WEIGHT SHALL NOT EXCEED 50 FB/FT³"
- 2. TOTAL WEIGHT INCLUDES SELF-WEIGHT AND CONTENTS AS NOTED ON SCHEDULE AND PER GENERAL NOTES, PAGE 3.
- 3. STANDARD LOWER CABINETS ARE 24" DEEP. 24.75" WIDTH CABINET IS 18.75" DEEP.
- TABULATED VALUES ARE VALID FOR SHEET STEEL CABINETS.





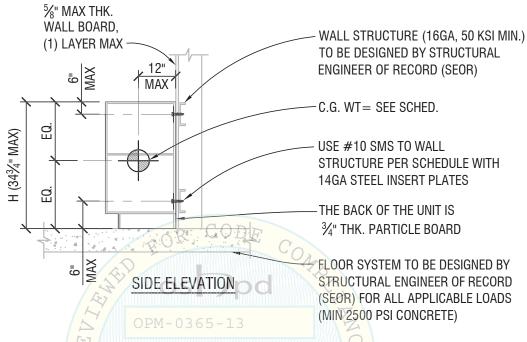


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Lower Cabinets (Particle Board)



		LOWER CAB	INET SCHE	DULE (C	ONTENT V	VEIGHT =	50 PCF) ¹	
WIDTH "W" (IN)	TOTAL WEIGHT (LB) ²	ATTACHMENT			SCREW FORCES $0.1.7$ (ASD, NO Ω_0)		ANCHOR FORCES (LRFD W/ Ω_0) 1 PER GROUP, 4 ANCHORS TOTAL	
		GROUPS	GROUP	SMS	T _{MAX} (LB/SCREW)	(LB/SCREW)	$\Omega_0 T_u$ (LB/GROUP)	$\Omega_0 V_u$ (LB/GROUP)
18	495	4	6	24	52	26	1104	557
24.75 ³	535	4	45	20	49	34	879	602
24	660	4	7 50	II28 II	45	30	1116	742
30	825	4	8	32	42	32	1189	928
36	990	4	9	36	43	35	1369	1114
42	1155	4	10	40	43	36	1552	1299
48	1325	4	12	48	41	35	1742	1491

- 1. MANUFACTURER SHALL PROVIDE PERMANENT PLAQUE TO BE AFFIXED ON THE UNIT STATING: "CONTENT WEIGHT SHALL NOT EXCEED 50 FB/FT³"
- 2. TOTAL WEIGHT INCLUDES SELF-WEIGHT AND CONTENTS AS NOTED ON SCHEDULE AND PER GENERAL NOTES, PAGE 3.
- 3. STANDARD LOWER CABINETS ARE 24" DEEP. 24.75" WIDTH CABINET IS 18.75" DEEP.
- 4. TABULATED VALUES ARE VALID FOR PARTICLE BOARD CABINETS WITH STEEL INSERT PLATES AT FASTENERS. SITE SPECIFIC CONFIGURATIONS NOT USING INSERT PLATES SHALL USE PARTICLE BOARD FASTENER PULL-THROUGH VALUES LISTED ON PAGE 3.





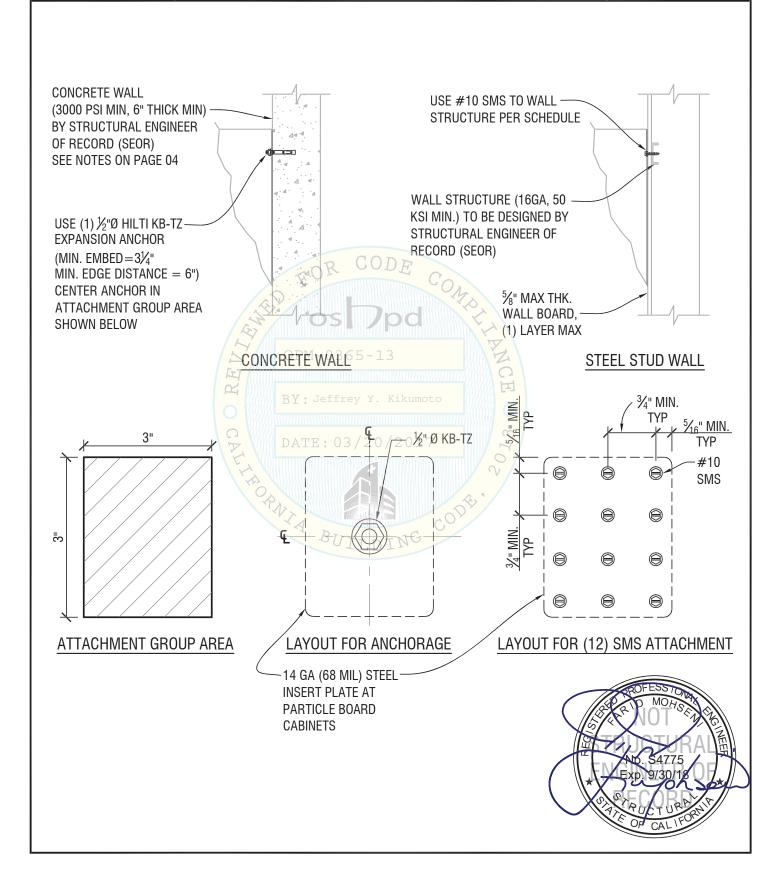


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Lower Cabinets (Attachment / Anchorage)





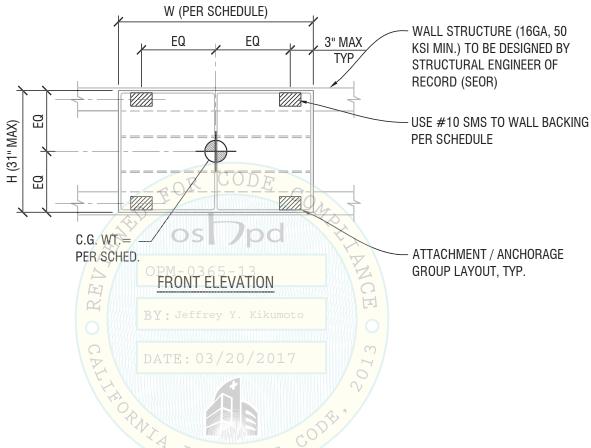


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Upper Cabinets



 ATTACHMENT DESIGN PER 2013 CALIFORNIA BUILDING CODE - SECTION 1613A AND ASCE 7-10 SECTIONS 12 AND 13.

STRENGTH LEVEL FORCES:

HORIZONTAL FORCE (Eh)=1.80Wp ($S_{DS} \le 2.5$, Ip=1.5, ap=1.0, Rp=2.5, Ω_0 =2.5 AS APPLICABLE)

VERTICAL FORCE (Ev) = 0.50 Wp

- 2. CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN. EQUIPMENT MANUFACTURER SHALL DESIGN UNIT TO WITHSTAND THE FULLY LOADED CONDITION AT THE H_{CG} SHOWN ABOVE.
- 3. STRUCTURAL ENGINEER OF RECORD (SEOR) FOR THE BUILDING SHALL PROVIDE RIGID (ap=1.0) SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS, INCLUDING WALL FRAMING AND FLOOR SLAB/DECK.
- 4. SEE GENERAL NOTES: SHEET 2-4



NOTES:

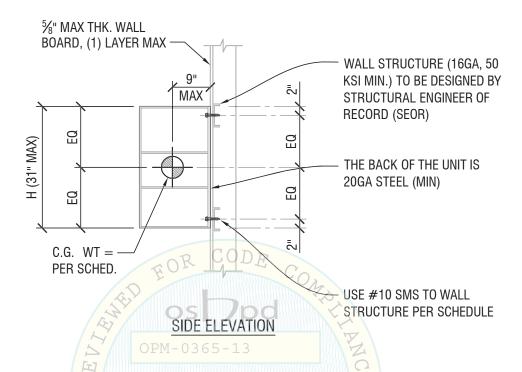




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Upper Cabinets (Sheet Steel)



		UPPER CAB	NET SCHE	DULE (C	ONTENT V	VEIGHT =	33 PCF) ¹	
WIDTH "W" (IN)	TOTAL WEIGHT (LB) ²	ATTACHMENT	SMS PER OGROUP	3 TOTAL 2		FORCES NO Ω ₀)	ANCHOR FORCES (LRFD W/ Ω_0) 1 PER GROUP, 4 ANCHORS TOTAL	
		GROUPS			T _{MAX} (LB/SCREW)	(LB/SCREW)	$\Omega_0 T_u$ (LB/GROUP)	Ω ₀ V _u (LB/GROUP)
18	250	4	3	12	60	38	547	320
24	335	4	3 Pr	12	70	52	617	429
24.75 ³	240	4	3	ILIDII	50	37	439	307
30	420	4	4	16	64	48	744	538
34 ³	335	4	3	12	67	52	583	429
36	500	4	5	20	59	46	864	640
42	585	4	5	20	69	54	993	749
48	670	4	6	24	65	52	1123	858

- 1. MANUFACTURER SHALL PROVIDE PERMANENT PLAQUE TO BE AFFIXED ON THE UNIT STATING: "CONTENT WEIGHT SHALL NOT EXCEED 33 FB/FT³"
- 2. TOTAL WEIGHT INCLUDES SELF-WEIGHT AND CONTENTS AS NOTED ON SCHEDULE AND PER GENERAL NOTES, PAGE 3.
- 3. TYPICAL UPPER CABINETS ARE 18" DEEP. SPECIFIED CABINET IS 13" DEEP.
- 4. TABULATED VALUES ARE VALID FOR SHEET STEEL CABINETS.



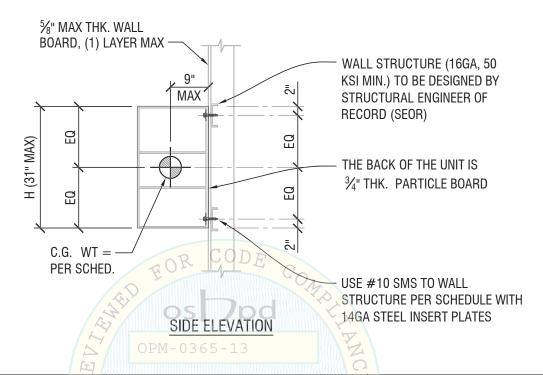




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Upper Cabinets (Particle Board)



		UPPER CAB	NET SCHE	DULE (C	ONTENT V	VEIGHT =	33 PCF) ¹	
I \//!!)!H !	TOTAL WEIGHT	ATTACHMENT	SMS PER O	3 TOTAL 2		FORCES NO Ω ₀)	ANCHOR FORCES (LRFD W/ Ω_0) 1 PER GROUP, 4 ANCHORS TOTAL	
	(LB) ²	GROUPS			T _{MAX} (LB/SCREW)	(LB/SCREW)	$\Omega_0 T_u$ (LB/GROUP)	Ω ₀ V _u (LB/GROUP)
18	250	4	4	16	45	29	547	320
24	335	4	45 P.	20	42	31	617	429
24.75 ³	240	4	4	ITIBIL	37	28	439	307
30	420	4	6	24	42	32	744	538
34 ³	335	4	5	20	40	31	583	429
36	500	4	7	28	42	33	864	640
42	585	4	8	32	43	34	993	749
48	670	4	9	36	43	34	1123	858

- 1. MANUFACTURER SHALL PROVIDE PERMANENT PLAQUE TO BE AFFIXED ON THE UNIT STATING: "CONTENT WEIGHT SHALL NOT EXCEED 33 FB/FT³"
- 2. TOTAL WEIGHT INCLUDES SELF-WEIGHT AND CONTENTS AS NOTED ON SCHEDULE AND PER GENERAL NOTES, PAGE 3.
- 3. TYPICAL UPPER CABINETS ARE 18" DEEP. SPECIFIED CABINET IS 13" DEEP.
- 4. TABULATED VALUES ARE VALID FOR PARTICLE BOARD CABINETS WITH STEEL INSERT PLATES AT FASTENERS. SITE SPECIFIC CONFIGURATIONS NOT USING INSERT PLATES SHALL USE PARTICLE BOARD FASTENER PULL-THROUGH VALUES LISTED ON PAGE 3.



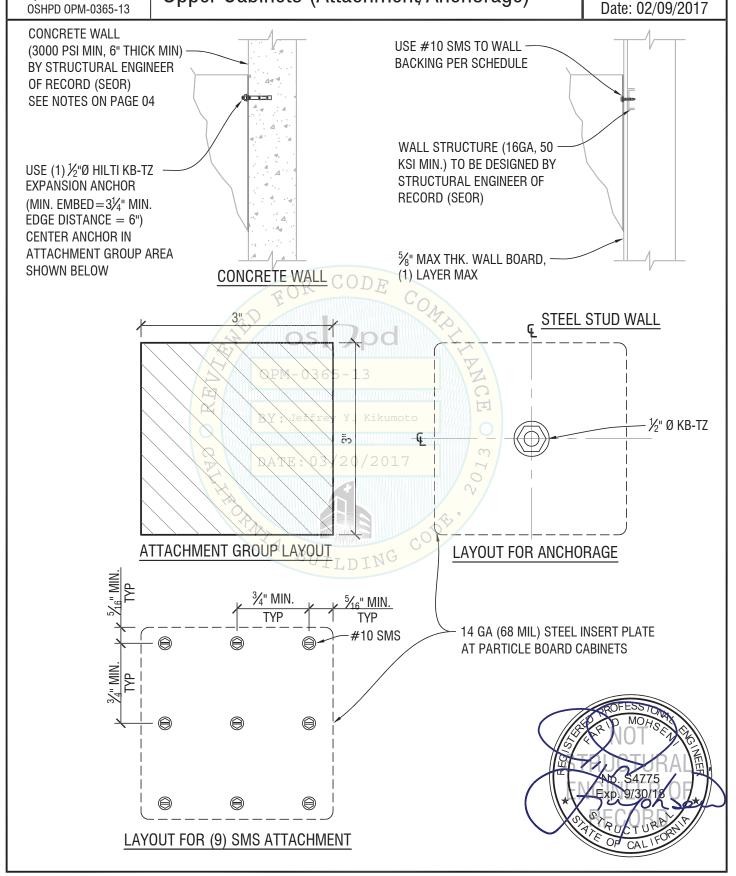




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Upper Cabinets (Attachment/Anchorage)



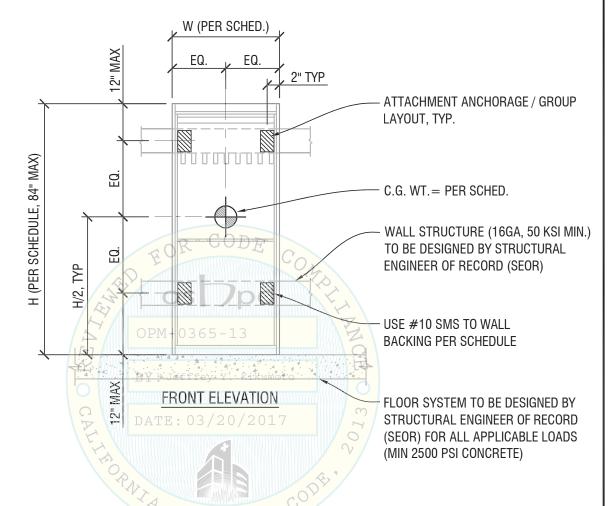




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Scope Cabinets



NOTES:

1. ATTACHMENT DESIGN PER 2013 CALIFORNIA BUILDING CODE - SECTION 1613A AND ASCE 7-10 SECTIONS 12 AND 13.

STRENGTH LEVEL FORCES:

HORIZONTAL FORCE (Eh)=1.80Wp ($S_{DS} \le 2.5$, Ip=1.5, ap=1.0, Rp=2.5, $\Omega_0=2.5$ AS APPLICABLE)

VERTICAL FORCE (Ev) = 0.50 Wp

- 2. CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN. EQUIPMENT MANUFACTURER SHALL DESIGN UNIT TO WITHSTAND THE FULLY LOADED CONDITION AT THE H_{CG} SHOWN ABOVE.
- 3. STRUCTURAL ENGINEER OF RECORD (SEOR) FOR THE BUILDING SHALL PROVIDE RIGID (ap=1.0) SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS, INCLUDING WALL FRAMING AND FLOOR SLAB/DECK.
- 4. SEE GENERAL NOTES: SHEET 2-4





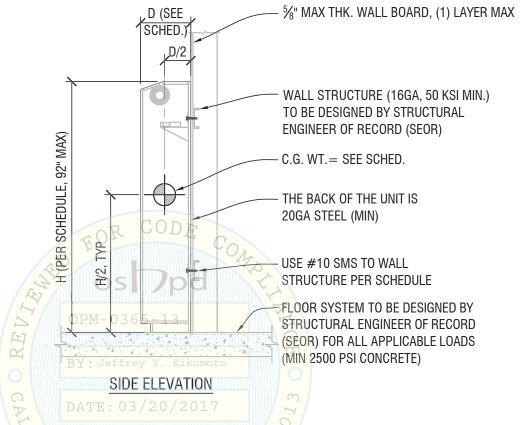


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Scope Cabinets (Sheet Steel)



	SCOPE CABINET SCHEDULE (CONTENT WEIGHT = 5 PCF) ¹												
WIDTH	HEIGHT	IIIIAI							ES (LRFD W/ Ω_0) ANCHORS TOTAL				
"W" (IN)		"D" (IN)	WEIGHT (LB) ²	ATTACHMENT GROUPS	SMS PER GROUP	TOTAL			$\Omega_0 T_u$	$\Omega_0 V_u$			
		. ,	(LB)		POLITD	ING	SCREW)	SCREW)	(LB/GROUP)	(LB/GROUP)			
24.75	92	18	415	4	3	12	55	44	591	467			
34	84	18	525	4	3	12	65	55	701	591			
34	84	24.75	720	4	5	20	57	45	1014	810			
36	84	18.75	575	4	4	16	53	45	761	647			
36	92	18	605	4	4	16	56	48	796	681			
42	84	18	645	4	4	16	58	51	830	726			

- 1. MANUFACTURER SHALL PROVIDE PERMANENT PLAQUE TO BE AFFIXED ON THE UNIT STATING: "WEIGHT CONTENTS SHALL NOT EXCEED 5 FB/FT³":
- 2. TOTAL WEIGHT INCLUDES SELF-WEIGHT AND CONTENTS AS NOTED ON SCHEDULE AND PER GENERAL NOTES, PAGE 3.
- TABULATED VALUES ARE VALID FOR SHEET STEEL CABINETS.





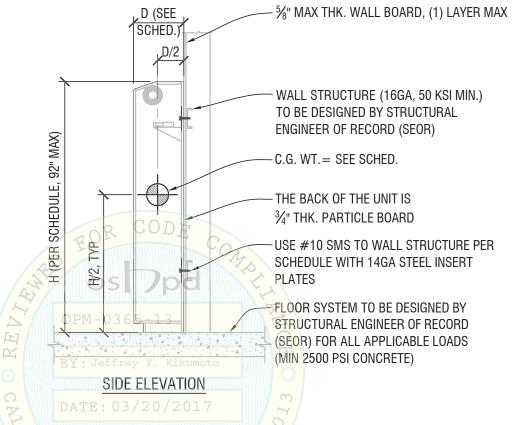


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Scope Cabinets (Particle Board)



SCOPE CABINET SCHEDULE (CONTENT WEIGHT = 5 PCF) ¹										
WIDTH	HEIGHT	DEPTH	TOTAL	ATTACHMENT	SMS PER	TOTAL	SCREW FORCES (ASD, NO Ω_0)		ANCHOR FORCES (LRFD W/ Ω_0) 1 PER GROUP, 4 ANCHORS TOTAL	
"W" (IN)		"D" (IN)	WEIGHT (LB) ²	GROUPS	GROUP		T _{MAX} (LB/		$\Omega_0 T_u$	$\Omega_0 V_u$
			(LD)		SOTITD	INO	SCREW)	SCREW)	(LB/GROUP)	(LB/GROUP)
24.75	92	18	415	4	4	16	41	33	591	467
34	84	18	525	4	5	20	39	33	701	591
34	84	24.75	720	4	7	28	41	32	1014	810
36	84	18.75	575	4	5	20	43	36	761	647
36	92	18	605	4	6	24	37	32	796	681
42	84	18	645	4	6	24	39	34	830	726

- 1. MANUFACTURER SHALL PROVIDE PERMANENT PLAQUE TO BE AFFIXED ON THE UNIT STATING: "WEIGHT CONTENTS SHALL NOT EXCEED 5 FB/FT³":
- 2. TOTAL WEIGHT INCLUDES SELF-WEIGHT AND CONTENTS AS NOTED ON SCHEDULE AND PER GENERAL NOTES, PAGE 3.
- 3. TABULATED VALUES ARE VALID FOR PARTICLE BOARD CABINETS WITH STEEL INSERT PLATES AT FASTENERS. SITE SPECIFIC CONFIGURATIONS NOT USING INSERT PLATES SHALL USE PARTICLE BOARD FASTENER PULL-THROUGH VALUES LISTED ON PAGE 3.



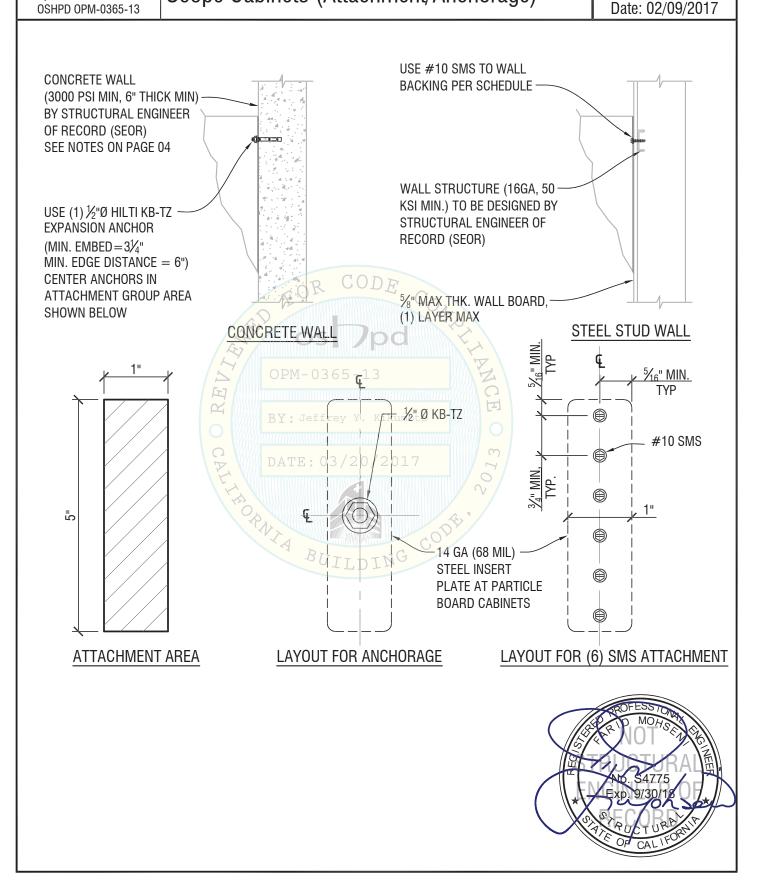




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Scope Cabinets (Attachment/Anchorage)



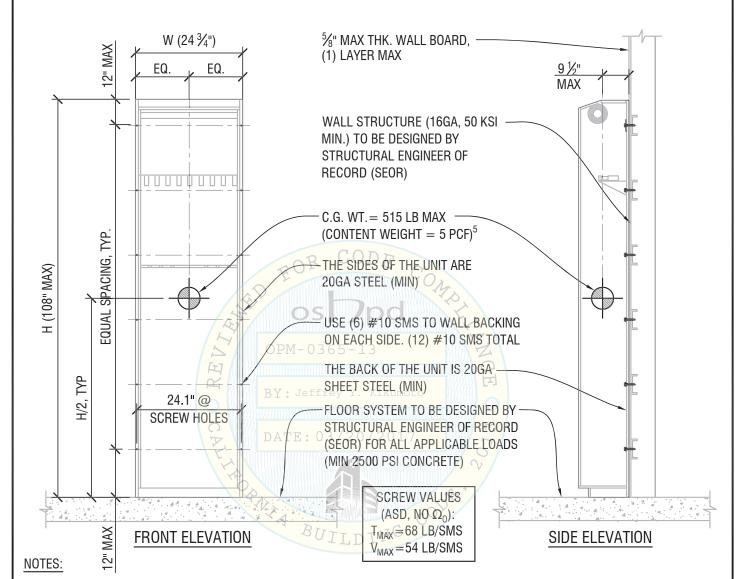




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Tall Scope Cabinets (Sheet Steel)



1. ATTACHMENT DESIGN PER 2013 CALIFORNIA BUILDING CODE - SECTION 1613A AND ASCE 7-10 SECTIONS 12 AND 13. TABULATED SCREW FORCE VALUES ARE PRESENTED AT ALLOWABLE STRESS (ASD) LEVEL.

STRENGTH LEVEL FORCES:

 $\label{eq:horizontal} \text{HORIZONTAL FORCE (Eh)} = 1.80 \text{Wp (S}_{DS} {\leq} 2.5, \, \text{lp} {=} 1.5, \, \text{ap} {=} 1.0, \, \text{Rp} {=} 2.5)$

VERTICAL FORCE (Ev) = 0.50 Wp

2. CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN. EQUIPMENT MANUFACTURER SHALL DESIGN UNIT TO WITHSTAND THE FULLY LOADED CONDITION AT THE H_{CG} SHOWN ABOVE.

- 3. STRUCTURAL ENGINEER OF RECORD (SEOR) FOR THE BUILDING SHALL PROVIDE RIGID (ap=1.0) SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS, INCLUDING WALL FRAMING AND FLOOR SLAB/DECK.
- 4. SEE GENERAL NOTES: SHEET 2-4
- 5. MANUFACTURER SHALL PROVIDE PERMANENT PLAQUE TO BE AFFIXED ON THE UNIT STATING: "CONTENT WEIGHT SHALL NOT EXCEED 5 FB/FT3"





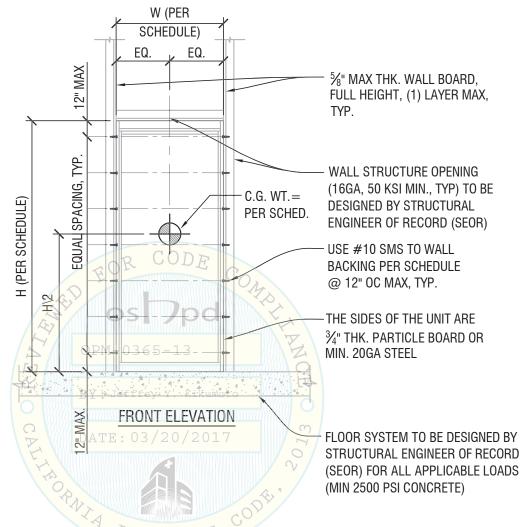


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Passthrough Cabinets



NOTES:

1. ATTACHMENT DESIGN PER 2013 CALIFORNIA BUILDING CODE - SECTION 1613A AND ASCE 7-10 SECTIONS 12 AND 13.

STRENGTH LEVEL FORCES:

HORIZONTAL FORCE (Eh)=1.80Wp ($S_{DS} \le 2.5$, Ip=1.5, ap=1.0, Rp=2.5)

VERTICAL FORCE (Ev) = 0.50 Wp

- 2. CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS PRE-APPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN. EQUIPMENT MANUFACTURER SHALL DESIGN UNIT TO WITHSTAND THE FULLY LOADED CONDITION AT THE H_{CG} SHOWN ABOVE.
- 3. STRUCTURAL ENGINEER OF RECORD (SEOR) FOR THE BUILDING SHALL PROVIDE RIGID (ap=1.0) SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN, IN ADDITION TO ALL OTHER LOADS, INCLUDING WALL FRAMING AND FLOOR SLAB/DECK.
- 4. SEE GENERAL NOTES: SHEET 2-4



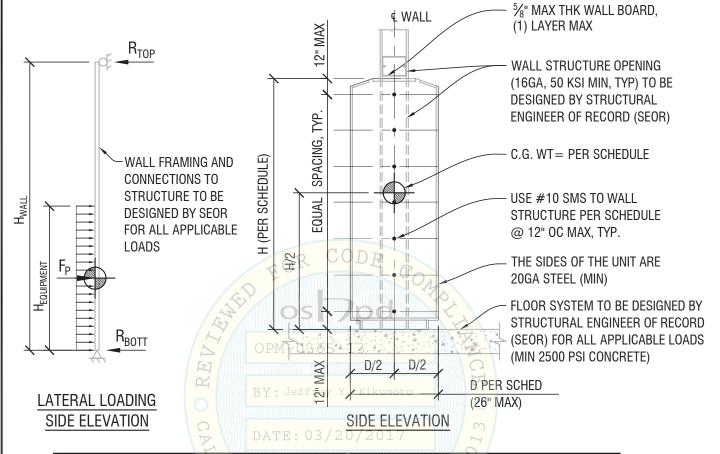




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Passthrough Cabinets (Sheet Steel)



PASSTHROUGH CABINET SCHEDULE (CONTENT WEIGHT = 50 PCF) ¹								
MAX WIDTH "W" (IN)	MAX HEIGHT "H" (IN)	MAX DEPTH "D" (IN)	TOTAL WEIGHT (LB) ²	SMS EA.	TOTAL SMS	$ m V_{MAX}$ (LB/SCREW) (ASD, NO $ m \Omega_{0}$)		
17.75	84	26	BU 13250 II	7G 9	18	93		
24.75	84	20	1420	9	18	99		
30	84	26	2240	15	30	94		
34	84	26	2535	16	32	100		
36	84	26	2685	17	34	100		
42	84	26	3135	20	40	99		
48	84	26	3580	23	46	98		

- 1. MANUFACTURER SHALL PROVIDE PERMANENT PLAQUE TO BE AFFIXED ON THE UNIT STATING: "CONTENT WEIGHT SHALL NOT EXCEED 50 FB/FT3"
- 2. TOTAL WEIGHT INCLUDES SELF-WEIGHT AND CONTENTS AS NOTED ON SCHEDULE AND PER GENERAL NOTES, PAGE 3.
- 3. USE (2) ROWS OF SMS IF NEEDED WITH 2" MIN SPACING, TYP.
- 4. TABULATED VALUES ARE VALID FOR SHEET STEEL CABINETS.





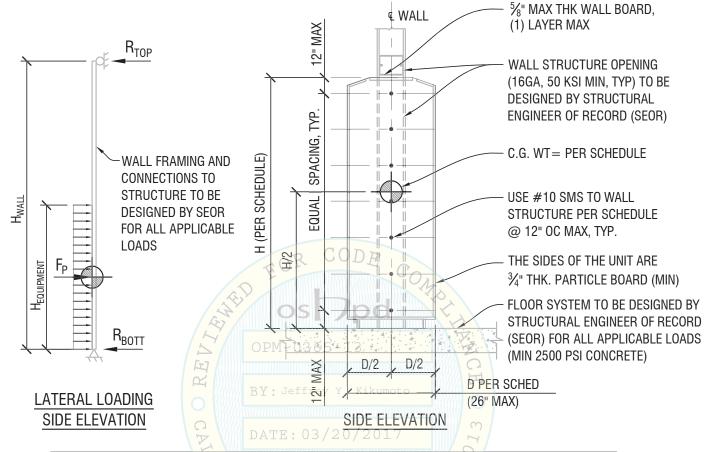


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Passthrough Cabinets (Particle Board)



PASSTHROUGH CABINET SCHEDULE (CONTENT WEIGHT = 50 PCF) ¹								
MAX WIDTH "W" (IN)	MAX HEIGHT "H" (IN)	MAX DEPTH "D" (IN)	TOTAL WEIGHT (LB) ²	SMS EA.	TOTAL SMS	$V_{\rm MAX}$ (LB/SCREW) (ASD, NO Ω_0)		
17.75	84	26	BU 13250 II	JG 17	34	49		
24.75	84	20	1420	18	36	50		
30	84	26	2240	28	56	50		
34	84	26	2535	32	64	50		
36	84	26	2685	34	68	50		
42	84	26	3135	39	78	51		
48	84	26	3580	45	90	50		

- 1. MANUFACTURER SHALL PROVIDE PERMANENT PLAQUE TO BE AFFIXED ON THE UNIT STATING: "CONTENT WEIGHT SHALL NOT EXCEED 50 FB/FT3"
- 2. TOTAL WEIGHT INCLUDES SELF-WEIGHT AND CONTENTS AS NOTED ON SCHEDULE AND PER GENERAL NOTES, PAGE 3.
- 3. USE (2) ROWS OF SMS IF NEEDED WITH 2" MIN SPACING, TYP.
- 4. TABULATED VALUES ARE VALID FOR PARTICLE BOARD CABINETS.

