



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT  
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OPM-0444-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: ☒ New ☐ Renewal ☒ Update to Pre-CBC 2013 OPA Number: 2710-10

Manufacturer Information

Manufacturer: Middle Atlantic Products Inc.

Manufacturer's Technical Representative: Angelo Cacciatore

Mailing Address: 300 Fairfield Road Fairfield, NJ 07004

Telephone: 973-839-1011 x1035

Email: Angelo.cacciatore@middleatlantic.com

Product Information

Product Name: BGR Series Equipment Rack Enclosures

Product Type: Racks and Enclosures

Product Model Number: BGR-1927, BGR-2527, BGR-3827, BGR-4127, BGR-4527, BGR-2532, BGR-3832, BGR-4132, BGR-4532, BGR-4138, BGR-4538

General Description: Gang-able Floor Standing Enclosures intended to enclose audio, video and IT equipment.

Applicant Information

Applicant Company Name: Middle Atlantic Products Inc.

Contact Person: Keith Carney

Mailing Address: 300 Fairfield Road Fairfield, NJ 07004

Telephone: 973-839-1011

Email: Keith.carney@middleatlantic.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant:

Date: 8-30-17

Title: VP Engineering

Company Name: Middle Atlantic Products Inc.

"Access to Safe. Quality Healthcare Environments that Meet

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY  
OSH-FD-700 (REV 12/16/15)



OSHPD

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

**Registered Design Professional Preparing Engineering Recommendations**

Company Name: Simpson Gumpertz & Heger

Name: William M. Bruin California License Number: C57867

Mailing Address: 500 12<sup>th</sup> Street, Suite 270 Oakland, CA 94607

Telephone: 510-457-4449 Email: wmbuin@sgh.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 1950-16
- ☒ Other\* (Please Specify): Finite Element Analysis

\*Use of criteria other than those adopted by the California Building Standards Code, 2016 (CBSC 2016) 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 2016 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): Seismic Evaluation of the BGR Series Enclosures

**OFFICE USE ONLY – OSHPD APPROVAL VALID FOR CBC 2016 & ALL PRE-2016 CODE BASED PROJECTS**

Signature: Jeffrey Kikumoto Date: 10-12-2018

Print Name: Jeffrey Kikumoto

Title: SSE

Condition of Approval (if applicable): \_\_\_\_\_

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3. INSTALLATION OF THE RACK ENCLOSURES IS LIMITED TO INTERIOR LOCATIONS ONLY, WHERE DESIGN IS CONTROLLED BY SEISMIC FORCES.

- | Anchor Type<br>(Reference Table)                                    | Maximum Shear ( $V_u$ ) and Tension ( $T_u$ ) Per Anchor (pounds) |                             |      |      |          |
|---|---|-----------------------------|------|------|----------|
|   | Demand<br>Parameter   | Elevation in Building (z/h) |      |      |          |
|   |   | 0<br>(Ground)               | 1/3  | 2/3  | $\leq 1$ |
| Epoxy Anchor<br>Solid Slab of NW<br>Concrete<br>(Table 2)           | $V_u$   | 826                         | 826  | 1019 | 1285     |
|   | $T_u$   | 2588                        | 2588 | 2859 | 2819     |
| Expansion Anchor<br>Solid Slab of NW<br>Concrete<br>(Table 3)       | $V_u$   | 786                         | 786  | 999  | 1036     |
|   | $T_u$   | 1898                        | 1898 | 1882 | 1916     |
| Expansion Anchor<br>Solid Slab of Sand LW<br>Concrete<br>(Table 4)  | $V_u$   | 741                         | 741  | 729  | 724      |
|   | $T_u$   | 1300                        | 1300 | 1296 | 1272     |
| Expansion Anchor<br>NW Concrete Fill over<br>Deck<br>(Table 5)      | $V_u$   | 733                         | 733  | 729  | 714      |
|   | $T_u$   | 1222                        | 1222 | 1219 | 1254     |
| Expansion Anchor<br>Sand LW Concrete Fill<br>over Deck<br>(Table 6) | $V_u$   | 502                         | 502  | 497  | 489      |
|   | $T_u$   | 835                         | 835  | 842  | 845      |
| Thru-Bolt Connection<br>Concrete Fill over Deck<br>(Table 7)        | $V_u$   | 1376                        | 1376 | 1376 | 1376     |
|   | $T_u$   | 2189                        | 2189 | 2189 | 2189     |

1. INCLUDES ALL BGR SERIES RACK ENCLOSURES UP TO A HEIGHT OF 45 SPACES.
2. DEMAND LOADS ARE MAXIMUM ULTIMATE LOADS PER ANCHOR, INCLUDING AN OVERSTRENGTH FACTOR ( $\Omega_o = 2.0$ ).
3. DEMAND LOADS ARE THE WORST CASE FOR A GIVEN ANCHOR AND ELEVATION COMBINATION, LOADED TO THE CONTENT CAPACITIES PROVIDED IN THE REFERENCED TABLES.



TABLE 2: BGR SERIES ENCLOSURES & MAXIMUM OSHPD SEISMIC CONTENT CAPACITY WITH APPROVED EPOXY ANCHORING SYSTEM IN SOLID SLAB NORMAL WEIGHT CONCRETE (SEE FOOTNOTES 1-4)

RACK ENCLOSURE	ELEVATION IN BUILDING (Z/H)			
	GROUND	1/3	2/3	≤1.0
BGR-1927	1200	1200	1200	1200
BGR-2527	1200	1200	1200	1200
BGR-3827	1200	1200	1150	850
BGR-4127	1200	1200	1050	800
BGR-4527	1100	1100	980	720
BGR-2532	1200	1200	1200	1200
BGR-3832	1200	1200	1150	850
BGR-4132	1200	1200	1050	800
BGR-4532	1200	1200	980	720
BGR-4138	1200	1200	1050	800
BGR-4538	1200	1200	980	720
BGR-19SA-27	1200	1200	1200	1200
BGR-25SA-27	1200	1200	1200	1150
BGR-38SA-27	1200	1200	1100	800
BGR-41SA-27	1200	1200	1000	750
BGR-45SA-27	1100	1100	950	680
BGR-25SA-32	1200	1200	1200	1150
BGR-38SA-32	1200	1200	1100	800
BGR-41SA-32	1200	1200	1000	750
BGR-45SA-32	1200	1200	950	680

1. INCLUDES ALL BGR SERIES RACK ENCLOSURES UP TO A HEIGHT OF 45 SPACES
2. RACK ENCLOSURES SHOULD BE INSTALLED WITH MIDDLE ATLANTIC BGR-Z4 SEISMIC BRACKETS AND 5/8" WELD WASHERS (BY CONTRACTOR) AT EACH ANCHOR LOCATION, AS DETAILED ON SHEET 6 AND 7.
3. THE SUPPORTED RACK ENCLOSURE CONTENTS SHALL BE DISTRIBUTED WITHIN THE ENCLOSURE SUCH THAT 50% OF THE TOTAL WEIGHT IS LOCATED WITHIN THE BOTTOM THIRD OF THE RACK ENCLOSURE HEIGHT, 25% IN THE MIDDLE THIRD, AND 25% IN THE TOP THIRD. CONTENTS ARE IN ADDITION TO UNIT SELF-WEIGHT
4. ANCHORAGE WITH HILTI HIT-RE 500 V3 (ICC-ES ESR 3184) OR SIMPSON STRONG-TIE SET-XP (ICC-ES ESR 2508). REFER TO TABLE 8.

RACK ENCLOSURE	ELEVATION IN BUILDING (Z/H)			
	GROUND	1/3	2/3	≤1
BGR-1927	1200	1200	1200	950
BGR-2527	1200	1200	1050	800
BGR-3827	1000	1000	750	550
BGR-4127	900	900	680	500
BGR-4527	850	850	600	450
BGR-2532	1200	1200	1050	800
BGR-3832	1000	100	750	550
BGR-4132	900	900	680	500
BGR-4532	850	850	600	450
BGR-4138	900	900	680	500
BGR-4538	850	850	600	450
BGR-19SA-27	1200	1200	1200	950
BGR-25SA-27	1200	1200	1050	750
BGR-38SA-27	950	950	700	500
BGR-41SA-27	900	900	650	450
BGR-45SA-27	800	800	550	400
BGR-25SA-32	1200	1200	1050	700
BGR-38SA-32	950	950	700	500
BGR-41SA-32	900	900	650	450
BGR-45SA-32	800	800	550	400

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4. ANCHORAGE WITH HILTI KWIK-BOLT TZ OR SIMPSON STRONG-TIE STRONG BOLT 2. REFER TO TABLE 8.

RACK ENCLOSURE	ELEVATION IN BUILDING (Z/H)			
	GROUND	1/3	2/3	≤1
BGR-1927	1150	1150	850	650
BGR-2527	950	950	700	520
BGR-3827	650	650	460	320
BGR-4127	600	600	420	300
BGR-4527	540	540	380	250
BGR-2532	950	950	700	520
BGR-3832	650	650	460	320
BGR-4132	600	600	420	300
BGR-4532	540	540	380	250
BGR-4138	600	600	420	300
BGR-4538	540	540	380	250
BGR-19SA-27	1150	1150	850	600
BGR-25SA-27	900	900	650	480
BGR-38SA-27	600	600	420	300
BGR-41SA-27	550	550	380	250
BGR-45SA-27	500	500	320	200
BGR-25SA-32	900	900	650	480
BGR-38SA-32	600	600	420	300
BGR-41SA-32	550	550	380	250
BGR-45SA-32	500	500	320	200

1. INCLUDES ALL BGR SERIES RACK ENCLOSURES UP TO A HEIGHT OF 45 SPACES
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4. ANCHORAGE WITH HILTI KWIK-BOLT TZ OR SIMPSON STRONG-TIE STRONG BOLT 2. REFER TO TABLE 8.

Engineering of Structures  
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USED ON -- --	APPROVALS MODELED	DATE		
	DRAWN			
NEXT ASSY. -- --	CIRCLED DIMENSIONS ARE CRITICAL INSPECTION DIMENSIONS UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: 2 PLC ±.03 3 PLC ±.010 FRACTIONS: ±1/32 ANGLES: ±1°		TITLE	BGR-SERIES OSHPD
MATERIAL: SEE COMPONENTS			PART NO.	PART REV.
FINISH -- --	SCALE = 1/8"		SIZE 11	DXF NO. NONE DWG NO.
				DWG REV.

TABLE 6: BGR SERIES ENCLOSURES & MAXIMUM OSHPD SEISMIC CONTENT CAPACITY WITH APPROVED EXPANSION ANCHORS IN SAND-LIGHTWEIGHT CONCRETE FILL OVER METAL DECK (SEE FOOTNOTES 1-4)

RACK ENCLOSURE	ELEVATION IN BUILDING (Z/H)			
	GROUND	1/3	2/3	≤1
BGR-1927	750	750	550	400
BGR-2527	600	600	440	320
BGR-3827	400	400	250	180
BGR-4127	340	340	220	150
BGR-4527	300	300	200	120
BGR-2532	600	600	440	320
BGR-3832	400	400	250	180
BGR-4132	340	340	220	150
BGR-4532	300	300	200	120
BGR-4138	340	340	220	150
BGR-4538	300	300	200	120
BGR-19SA-27	750	750	550	400
BGR-25SA-27	580	580	400	280
BGR-38SA-27	350	350	220	140
BGR-41SA-27	300	300	180	100
BGR-45SA-27	250	250	150	80
BGR-25SA-32	580	580	400	280
BGR-38SA-32	350	350	220	140
BGR-41SA-32	300	300	180	100
BGR-45SA-32	250	250	150	80

RACK ENCLOSURE	ELEVATION IN BUILDING (Z/H)			
	GROUND	1/3	2/3	≤1
BGR-1927	1200	1200	1200	1200
BGR-2527	1200	1200	1200	1200
BGR-3827	1200	1200	1200	1200
BGR-4127	1200	1200	1200	1200
BGR-4527	1200	1200	1200	1200
BGR-2532	1200	1200	1200	1200
BGR-3832	1200	1200	1200	1200
BGR-4132	1200	1200	1200	1200
BGR-4532	1200	1200	1200	1200
BGR-4138	1200	1200	1200	1200
BGR-4538	1200	1200	1200	1200
BGR-19SA-27	1200	1200	1200	1200
BGR-25SA-27	1200	1200	1200	1200
BGR-38SA-27	1200	1200	1200	1200
BGR-41SA-27	1200	1200	1200	1200
BGR-45SA-27	1200	1200	1200	1200
BGR-25SA-32	1200	1200	1200	1200
BGR-38SA-32	1200	1200	1200	1200
BGR-41SA-32	1200	1200	1200	1200
BGR-45SA-32	1200	1200	1200	1200

FOOTNOTES TABLE 6

1. INCLUDES ALL BGR SERIES RACK ENCLOSURES UP TO A HEIGHT OF 45 SPACES
2. RACK ENCLOSURES SHOULD BE INSTALLED WITH MIDDLE ATLANTIC BGR-Z4 SEISMIC BRACKETS AND 5/8" WELD WASHERS (BY CONTRACTOR) AT EACH ANCHOR LOCATION, AS DETAILED ON SHEET 6 AND 7.
3. THE SUPPORTED RACK ENCLOSURE CONTENTS SHALL BE DISTRIBUTED WITHIN THE ENCLOSURE SUCH THAT 50% OF THE TOTAL WEIGHT IS LOCATED WITHIN THE BOTTOM THIRD OF THE RACK ENCLOSURE HEIGHT, 25% IN THE MIDDLE THIRD, AND 25% IN THE TOP THIRD. CONTENTS ARE IN ADDITION TO UNIT SELF-WEIGHT
4. ANCHORAGE WITH HILTI KWIK-BOLT TZ OR SIMPSON STRONG-TIE STRONG BOLT 2. REFER TO TABLE 9.


FOOTNOTES TABLE 7

1. INCLUDES ALL BGR SERIES RACK ENCLOSURES UP TO A HEIGHT OF 45 SPACES
2. RACK ENCLOSURES SHOULD BE INSTALLED WITH MIDDLE ATLANTIC BGR-Z4 SEISMIC BRACKETS AND 5/8" WELD WASHERS (BY CONTRACTOR) AT EACH ANCHOR LOCATION, AS DETAILED ON SHEET 6 AND 7.
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4. ANCHORAGE WITH ½" DIAMETER THRU-BOLTS OF ASTM F1554 GRADE 36 OR 105, WITH CONNECTION TO THE DECK SOFFIT AS DETAILED ON THE DRAWINGS. REFER TO TABLE 9

Simpson Gumpertz & Heger Inc.  
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USED ON --	APPROVALS	DATE		<div style="border: 1px solid black; padding: 5px; text-align: center;">             BGR-SERIES OSHPD           </div>	
	MODELED				
	DRAWN				
NEXT ASSY --	CIRCLED DIMENSIONS ARE CRITICAL INSPECTION DIMENSIONS		TITLE		
	UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES				
	TOLERANCES ARE:				
	DECIMAL: 2 PLC 0.03		PART NO.	PART RE	
	3 PLC 0.010				
	FRACTIONS: 16/32		SIZE	DWF NO.	
	ANGLES: 30"			NONE	
	SCALE = 1/8"		DWG NO.	DWG RE	





1

2

3

4

5

6

7

8

THIS DRAWING CONTAINS TRADE INFORMATION  
DEEMED TO BE CONFIDENTIAL AND PROPRIETARY  
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WHICH IT IS SUBMITTED AND FURTHER SHALL NOT  
BE COPIED IN WHOLE OR PART WITHOUT WRITTEN  
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ATLANTIC PRODUCTS, INC.

OPM-0444-13

REVISION:

B

REV BY

AC

EFFECTIVE DATE:

TBD

BGR-SERIES OSHPD

PAGE

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Middle Atlantic Products, Inc.

an ISO 9001:2000 Registered Company

A

TABLE 9: ACCEPTABLE FASTENERS FOR ANCHORING OF THE  
BGR SERIES OF RACK ENCLOSURES TO TOPSIDE OF  
CONCRETE FILL OVER METAL DECK (NOTES 1,2)

Anchor Type	ICC ESR	Outside Diameter (inches)	Effective Embedment (inches) (hef)	MIN Thick Above/Within Flute (inches)	MIN Edge Distance (Inches)	MIN Spacing (inches)
HILTI KWIK Bolt TZ Expansion Anchors	1917	0.5	2	3.25/1.5	6	6.5
Simpson Strong-Tie Strong-Bolt 2 Expansion Anchors	3037	0.5	2.25	3.25/1.5	6	8
ASTM F1554 Thru-Bolt (Note 3)	NA	0.5	NA	3.25/1.5	6	NA

C

NOTES TABLE 9

1. FOR NORMALWEIGHT OR SAND-LIGHTWEIGHT CONCRETE WITH A  
MINIMUM FC = 3000 PSI

2. APPLIES TO THE BGR SERIES ENCLOSURES LISTED IN TABLES 4-  
6

3. ASTM F1554 GRADE 36 OR 105 THRU-BOLTS WITH CONNECTION  
TO THE DECK SOFFIT AS DETAILED ON THE DRAWINGS.

B

RESPONSIBILITIES OF THE SEOR

1. THE STRUCTURAL ENGINEER-OF-RECORD (SEOR) SHALL  
VERIFY THAT THE WEIGHT OF RACK ENCLOSURE CONTENTS  
DOES NOT EXCEED THE APPROVED CAPACITY FOR THE  
LOCATION OF INSTALLATION.

2. THE SEOR SHALL VERIFY THAT PROJECT SPECIFIC SEISMIC  
PARAMETERS (S<sub>DS</sub> & z/h) DO NOT EXCEED THE DESIGN VALUES  
STATED ON THESE DRAWINGS

3. THE SEOR SHALL VERIFY THAT THE EXISTING STRUCTURE IS  
ADEQUATE TO SUPPORT THE LOADS AND REACTIONS  
IMPOSED BY THE ANCHORED RACK ENCLOSURE IN ADDITION  
TO ALL OTHER LOADS AND FORCES. MAXIMUM ANCHORAGE  
DEMAND LOADS ARE LISTED IN TABLE 1.

4. SEOR SHALL VERIFY THAT A PLACARD IS PLACED ON THE RACK  
STATING THE FOLLOWING:

A. UNIT MODEL NUMBER.

B. NAME OF THE BUILDING IN WHICH IT WILL BE INSTALLED.

C. HIGHEST FLOOR WHERE IT CAN BE USED.

D. MAXIMUM TOTAL WEIGHT OF THE CONTENTS THAT CAN BE  
STORED ON THE RACK.

E. MAXIMUM WEIGHT THAT CAN BE STORED ON EACH SHELF  
BASED ON THE WEIGHT DISTRIBUTION SPECIFIED IN THIS OPM.

F. MAXIMUM S<sub>DS</sub> VALUE AS LISTED IN THIS OPM.

5. SEOR SHALL VERIFY THAT THE CONCRETE FLOOR MEETS THE  
REQUIREMENTS OF THIS PRE-APPROVAL.

6. VERIFY THAT THE CONCRETE SLAB TO WHICH THE EQUIPMENT IS  
ANCHORED MEETS ALL REQUIREMENTS OF THE APPLICABLE ICC  
ESR.

7. VERIFY THAT THE ANCHORS ARE AN ADEQUATE DISTANCE FROM  
ANY SLAB EDGES OR OPENINGS.

8. VERIFY THAT ALL NEW OR EXISTING ANCHORS ARE AN  
ADEQUATE DISTANCE FROM THE ANCHORS SHOWN IN THIS PRE-  
APPROVAL. VERIFY THAT THERE IS NO ADVERSE INTERACTION  
WHERE OTHER ANCHORS ARE WITHIN 18" OR 6 hef FROM THIS  
UNIT'S ANCHORS.

9. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE  
2016 CBC AND THE DETAILS SHOWN IN THIS PRE-APPROVAL.

SIMPSON GUMPERTZ & HEGER

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REGISTERED PROFESSIONAL ENGINEER

WILLIAM M. BROWN

C 57967

EXP. 6/2020

CIVIL

STATE OF CALIFORNIA

10/11/2018

USED ON:  
-- --

MODELED  
DRAWN

NEXT ASSY:  
-- --

MATERIAL:  
SEE COMPONENTS

FINISH:  
-- --

APPROVALS

DATE

CIRCLED DIMENSIONS ARE CRITICAL  
INSPECTION DIMENSIONS  
UNLESS OTHERWISE SPECIFIED, ALL  
DIMENSIONS ARE IN INCHES  
TOLERANCES ARE:  
DECIMAL: ± .03  
3 PLC ±.010  
FRACTIONS: ± 1/32  
ANGLES: ± 1°  
SCALE = 3/8"

Middle Atlantic Products, Inc.

TITLE  
BGR-SERIES OSHPD

PART NO.  
-- --

PART REV  
-- --

SIDE  
1)

DXF NO.  
NONE

DWG NO.  
-- --

DWG REV  
-- --

10/12/2018

OPM-0444-13: Reviewed for Code Compliance by Jeffrey Kikumoto

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9

c

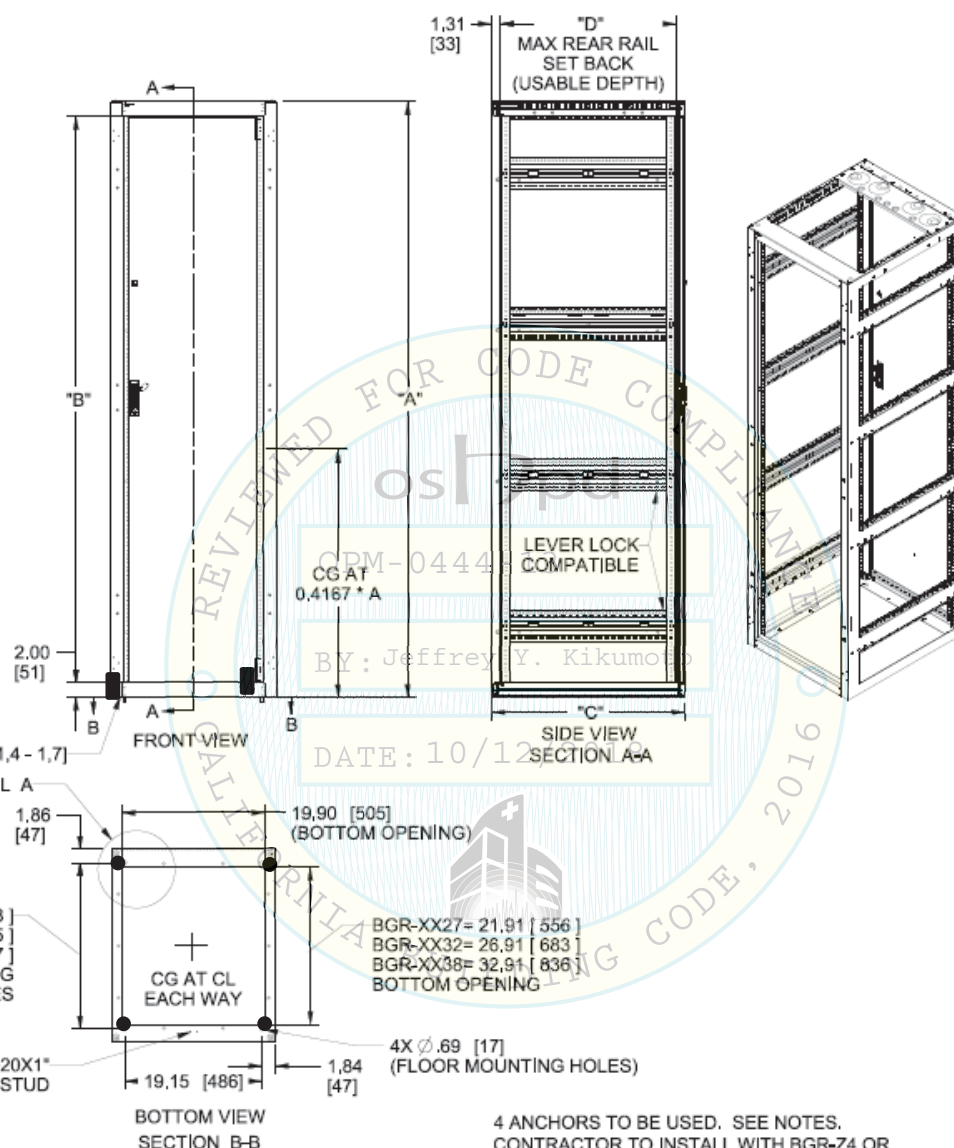
D

F

NOTE:  
ALL DIMENSIONS ARE EXPRESSED IN THE  
FORM IN [mm]

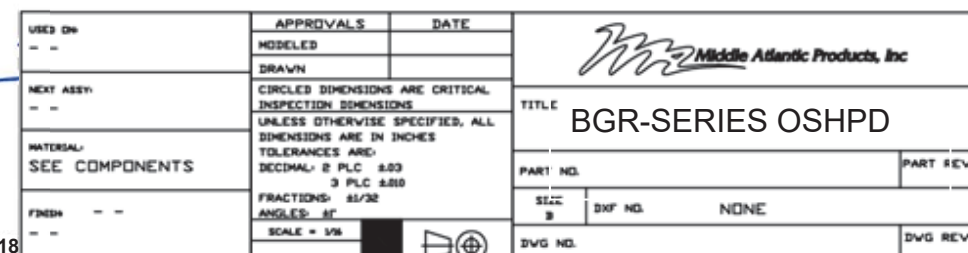
SUPPORTS & ATTACHMENTS MATERIAL THICKNESS = .060 [1,5] BASE + .125 [3,2] BRACKET

FIRST RACK IS 4 INCHES FROM BASE. ALL OTHER RACK SPACES ARE 1.755 INCHES IN HEIGHT. MAX CONTENT CAPACITY FOR EA UNIT CAN BE FOUND ON TABLES 2 THRU 7 BASED ON CAPACITY OF SUPPORTS & ATTACHMENTS. & z/n



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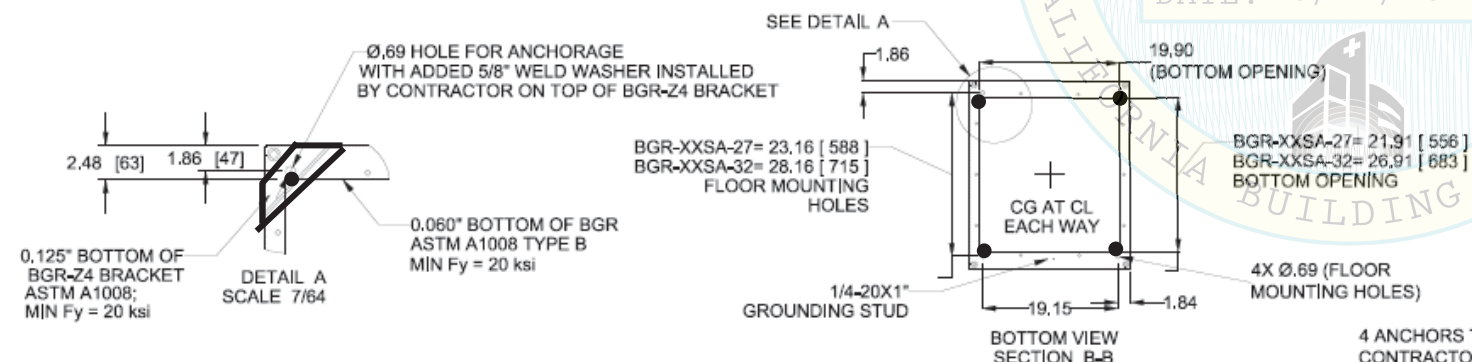




MODEL #	RACK SPACES	"A" OVERALL HEIGHT	"B" RACKING HEIGHT	"C" DEPTH	"D" USABLE DEPTH	RACK WEIGHT (EMPTY) (LBS)
BGR-19SA-27	19	37.375[949]	33.375[848]	27[686]	24.4[620]	92
BGR-25SA-27	25	47.875[1216]	43.875[1114]	27[686]	24.4[620]	112
BGR-38SA-27	38	70.625[1794]	66.625[1692]	27[686]	24.4[620]	146
BGR-41SA-27	41	75.875[1927]	71.875[1826]	27[686]	24.4[620]	158
BGR-45SA-27	45	82.875[2105]	78.875[2003]	27[686]	24.4[620]	169
BGR-25SA-32	25	47.875[1216]	43.875[1114]	32[812]	29.4[747]	118
BGR-38SA-32	38	70.625[1794]	66.625[1692]	32[812]	29.4[747]	159
BGR-41SA-32	41	75.875[1927]	71.875[1826]	32[812]	29.4[747]	178
BGR-45SA-32	45	82.875[2105]	78.875[2003]	32[812]	29.4[747]	184

SUPPORTS & ATTACHMENTS MATERIAL THICKNESS = .060 [1.5] BASE + .125 [3.2] BRACKET

MATERIAL: CRS 16AWG 0.055 - 0.065 [1.4 - 1.7]





4 ANCHORS TO BE USED. SEE NOTES.  
CONTRACTOR TO INSTALL WITH BGR-24 OR  
BGR4SO-Z4 BRACKETS (ONE BRACKET FIT  
SNUG IN EACH CORNER, PER SEISMIC KIT  
DIRECTIONS; EACH KIT CONTAINS 4 BRACKETS).  
CONTRACTOR TO ALSO INSTALL A 5/8" WELD  
WASHER ON TOP OF BRACKET AT EACH ANCHOR  
LOCATION

**SIMPSON GUMPERTZ & HEGER**  
Engineering of Structures  
and Building Enclosures

Simpson Gumpertz & Heger Inc.  
500 12th Street, Suite 270  
Oakland, California 94607  
main: 510.457.4600 fax: 510.457.4599  
www.sgh.com

Boston  
Chicago  
Houston  
Los Angeles  
New York  
San Francisco  
Washington, DC



USED ON: --	APPROVALS MODELED	DATE		
NEXT ASSY: --	DRAWN			
MATERIAL: SEE COMPONENTS	CIRCLED DIMENSIONS ARE CRITICAL INSPECTION DIMENSIONS		TITLE BGR-SERIES OSHPD	
	UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES			
	TOLERANCES ARE: DECIMAL: 2 PLC .03 3 PLC .010			
FINISH -- --	FRACTIONS: 16/32		PART NO.	
	ANGLED: 45°		SIZE 3	PART REV.
	SCALE = 1/8"		BOX NO.	NONE
			DWG NO.	DWG REV.





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San Francisco  
Washington, DC



USED ON: -- --	APPROVALS MODELED	DATE	 Middle Atlantic Products, Inc.	
NEXT ASSY: -- --	DRAWN			
MATERIAL: SEE COMPONENTS	CIRCLED DIMENSIONS ARE CRITICAL INSPECTION DIMENSIONS UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES TOLERANCES ARE: DECIMAL: 2 PLG ±.03 3 PLG ±.010		TITLE BGR-SERIES OSHPD	
	FRACTIONS: 16/32 ANGLES: 30°		PART NO. PART REV.	
	SCALE = 1/8" = 1"		SIZE: 8 BOX NO. NONE	
FINISH -- -- -- --			DWG NO. DWG REV.	