## Manufacturer Information

**Manufacturer:** Legrand AV (Middle Atlantic Products)

**Manufacturer's Technical Representative:** Sudharsan Yogasuntharam

**Mailing Address:** 300 Fairfield Road, Fairfield, NJ 07004

**Telephone:** (973) 839-1011  
**Email:** sudharsan.yogasuntharam@legrand.com

## Product Information

**Product Name:** AXS-1R Series

**Product Type:** Racks and Enclosures


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

## Applicant Information

**Applicant Company Name:** Legrand AV (Middle Atlantic Products)

**Contact Person:** Sudharsan Yogasuntharam

**Mailing Address:** 300 Fairfield Road, Fairfield, NJ 07004

**Telephone:** (973) 839-1011  
**Email:** sudharsan.yogasuntharam@legrand.com

**Title:** Compliance Engineer
**Certification Method**

Testing in accordance with:  
- [ ] ICC-ES AC156  
- [ ] FM 1950-16  
- [ ] Other(s) (Please Specify):  

*Use of criteria other than those adopted by the California Building Standards Code, 2019 (CBSC 2019) for component supports and attachments are not permitted. For distribution system, interior partition wall, and suspended ceiling seismic bracings, test criteria other than those adopted in the CBSC 2019 may be used when approved by OSHPD prior to testing.*

[X] Analysis  
- [ ] Experience Data  
- [ ] Combination of Testing, Analysis, and/or Experience Data (Please Specify):  

**OSHPD Approval**

<table>
<thead>
<tr>
<th>Date: 7/15/2020</th>
<th>Name: Jeffrey Kikumoto</th>
<th>Title: Senior Structural Engineer</th>
</tr>
</thead>
</table>

Condition of Approval (if applicable):  

---

Certification Method

- Testing in accordance with:  
  - [ ] ICC-ES AC156  
  - [ ] FM 1950-16  
  - [ ] Other(s) (Please Specify):  

*Use of criteria other than those adopted by the California Building Standards Code, 2019 (CBSC 2019) for component supports and attachments are not permitted. For distribution system, interior partition wall, and suspended ceiling seismic bracings, test criteria other than those adopted in the CBSC 2019 may be used when approved by OSHPD prior to testing.*

- [ ] Analysis  
- [ ] Experience Data  
- [ ] Combination of Testing, Analysis, and/or Experience Data (Please Specify):  

OSHPD Approval

- Date: 7/15/2020  
- Name: Jeffrey Kikumoto  
- Title: Senior Structural Engineer  

Condition of Approval (if applicable):  

---

**OSHPD Special Seismic Certification Preapproval (OSP)**

- [ ] Special Seismic Certification is preapproved under OSP  
  - OSP Number:  

---

Registered Design Professional Preparing Engineering Recommendations

- Company Name: SIMPSON GUMPERTZ & HEGER  
- Name: William Bruin  
- California License Number: CE57867  
- Mailing Address: 500 12th Street, Suite 270, , Oakland, CA 94607  
- Telephone: 510-457-4456  
- Email: wmbruin@sgh.com  

---

State of California – Health and Human Services Agency

7/14/2020  
OPM-0503-19: Reviewed for Code Compliance by Jeffrey Kikumoto  
2 of 9
GENERAL
1. THIS OSHPD PREAPPROVAL OF MANUFACTURER’S CERTIFICATION (OPM) IS BASED ON THE CBC 2019. THE DEMAND (DESIGN FORCE) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2019.

2. THE WORK SHOWN ON THESE DRAWINGS IS FOR THE SEISMIC SUPPORTS & ATTACHMENTS OF THE SUBJECT RACK ENCLOSURES. MAXIMUM PERMISSIBLE CAPACITIES FOR VARIOUS HEIGHTS WITHIN THE BUILDING ARE PROVIDED IN TABLES 1 THRU 7.

3. SEISMIC SUPPORTS & ATTACHMENTS DESIGN HAS BEEN DONE IN ACCORDANCE WITH THE 2019 EDITION OF THE CALIFORNIA BUILDING CODE, PART 2, VOLUME 2 OF 2, AND ASCE 7-16, USING THE FOLLOWING PARAMETERS:

   \[ L = 1.5 \text{(CBC §1617.1.17)} \]
   \[ \beta_{\text{SOS}} = 2.04 \text{G} \]
   \[ \beta_{\text{SOS}} = 2.5 \]
   \[ R_{\text{P}} = 6 \]
   \[ Z, H, \text{VARIES} \]

4. CENTER OF GRAVITY (C.G.) WEIGHT IS A MAXIMUM. THIS PREAPPROVAL ENCOMPASSES ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.


INSTALLATION NOTES
1. RACK ENCLOSURES MAY BE ANCHORED TO EITHER A SAND-LIGHT OR NORMAL-WEIGHT REINFORCED CONCRETE FLOOR OR SLAB (TABLES 2-4) OR SAND-LIGHT OR NORMAL-WEIGHT CONCRETE FILL OVER METAL DECK (TABLES 5,7). IN ALL CASES, THE MINIMUM CONCRETE COMpressive STRENGTH (f'c) SHALL BE 3,000 PSI.

2. REINFORCED CONCRETE FLOOR SLAB (OR CONCRETE FILL OVER METAL DECK) SHALL HAVE MINIMUM THICKNESS BASED ON THE ANCHOR TYPES AS NOTED IN TABLE 8 AND 9.

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

4. DESIGN LOADS SHOWN IN TABLE 1 ARE FACTORED LOADS THAT SHALL BE USED FOR STRENGTH DESIGN.

5. THIS PREAPPROVAL COVERS ONLY THE SUPPORTS & ATTACHMENTS OF THE EQUIPMENT TO THE STRUCTURE. IT DOES NOT COVER THE COMPONENT OR ITS CONTENTS. IF THE RACKS CONTAIN INTERNAL COMMUNICATION SERVERS & ROUTERS, SPECIAL SEISMIC CERTIFICATION IS REQUIRED.

6. MFR RESPONSIBLE FOR EQUIPMENT INCLUDING SEISMIC BRACKETS. CONTRACTOR RESPONSIBLE FOR ANCHOR HARDWARE & INSTALLATION.

TABLE 1: MAXIMUM DEMAND LOADS FOR AXS-IR SERIES ENCLOSURES (SEE FOOTNOTES 1-3)

FOOTNOTES TABLE 1
1. INCLUDES ALL AXS-IR SERIES RACK ENCLOSURES UP TO A HEIGHT OF 45 SPACES.

2. DEMAND LOADS ARE MAXIMUM ULTIMATE LOADS PER ANCHOR, INCLUDING AN OVERSTRENGTH FACTOR (\( \beta_{\text{SOS}} = 2.0 \)).

3. DEMAND LOADS ARE THE WORST CASE FOR A GIVEN ANCHOR AND ELEVATION COMBINATION, LOADED TO THE CONTENT CAPACITIES PROVIDED IN THE REFERENCED TABLES.

4. THESE LOADS ARE PROVIDED FOR THE END USER TO CHECK THE SLAB AND BUILDING STRUCTURE.

5. THE MAXIMUM TENSION AND SHEAR SHOWN ARE INDEPENDENT MAXIMUMS. THEY DO NOT OCCUR SIMULTANEOUSLY FOR THE SAME UNIT OR INSTALLATION SCENARIO. THUS THEY MAY BE CONSERVATIVE FOR SOME INSTALLATIONS.

6. ANCHORAGE CAPACITIES WERE VALIDATED WITHIN THIS OPM APPLICATION USING CONCURRENT LOADS FOR SPECIFIC INSTALLATION SCENARIOS.
### Table 2: AXS-IR Series Enclosures & Maximum OSHPD Seismic Content Capacity (lbs) with Approved Expansion Anchors in Solid Slab Normal Weight Concrete (See Footnotes 1-4)

<table>
<thead>
<tr>
<th>Rack Enclosure Ground</th>
<th>1/3</th>
<th>2/3</th>
<th>5/6</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXS-IR-1927-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-1932-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-1938-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-2527-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-2532-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-2538-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-3827-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-3832-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-3838-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4127-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4132-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4138-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4527-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4532-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4538-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
</tbody>
</table>

### Table 3: AXS-IR Series Enclosures & Maximum OSHPD Seismic Content Capacity (lbs) with Approved Expansion Anchors in Solid Slab Sand-Lightweight Concrete (See Footnotes 1-4)

<table>
<thead>
<tr>
<th>Rack Enclosure Ground</th>
<th>1/3</th>
<th>2/3</th>
<th>5/6</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXS-IR-1927-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-1932-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-1938-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-2527-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-2532-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-2538-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-3827-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-3832-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-3838-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4127-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4132-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4138-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4527-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4532-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>AXS-IR-4538-20</td>
<td>1200</td>
<td>1200</td>
<td>1200</td>
</tr>
</tbody>
</table>

### Footnotes Table 2
1. Includes all AXS-IR Series rack enclosures up to a height of 45 spaces.
2. Rack enclosures shall be installed with middle Atlantic AXS-IR-24K seismic kit per manufacturer instructions. With the addition of a 5/8" weld washer at each anchor location.
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 Hi-RE 500 V3 (ICC-ES ESR 3184) or Simpson Strong-Tie SET XP (ICC-ES ESR 2508). Refer to Table 8.
5. Rated rack capacity = 1200 lbs.
1. INCLUDES ALL AXS-IR SERIES RACK ENCLOSURES UP TO A HEIGHT OF 45 SPACES

2. RACK ENCLOSURES SHALL BE INSTALLED WITH MIDDLE ATLANTIC AXS-IR-Z4K SEISMIC KIT PER MANUFACTURER INSTRUCTIONS, WITH THE ADDITION OF A 5/8" WELD WASHER AT EACH ANCHOR LOCATION.

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 HI/LT KWIK-BOLT T2 OR SIMPSON STRONG-TIE STRONG BOLT. REFER TO TABLE 9.

5. RATED RACK CAPACITY = 1200 LBS

FOOTNOTES TABLE 6

1. INCLUDES ALL AXS-IR SERIES RACK ENCLOSURES UP TO A HEIGHT OF 45 SPACES

2. RACK ENCLOSURES SHALL BE INSTALLED WITH MIDDLE ATLANTIC AXS-IR-Z4K SEISMIC KIT PER MANUFACTURER INSTRUCTIONS, WITH THE ADDITION OF A 5/8" WELD WASHER AT EACH ANCHOR LOCATION.

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 HI/LT KWIK-BOLT T2 OR SIMPSON STRONG-TIE STRONG BOLT. REFER TO TABLE 9.

5. RATED RACK CAPACITY = 1200 LBS

TABLE 7: AXS-IR SERIES ENCLOSURES & MAXIMUM OSHPD SEISMIC CONTENT CAPACITY (LBS) WITH APPROVED EXPANSION ANCHORS IN NORMAL WEIGHT OR SANDBLASTED CONCRETE FILL OVER METAL DECK (SEE FOOTNOTES 1-4)

AXS-IR-1932-26 1200 1200 1200 1200
AXS-IR-1938-26 1200 1200 1200 1200
AXS-IR-2532-26 1200 1200 1200 1200
AXS-IR-2538-26 1200 1200 1200 1200
AXS-IR-3832-26 1200 1200 1200 1200
AXS-IR-3838-26 1200 1200 1200 1200
AXS-IR-4132-26 1200 1200 1200 1200
AXS-IR-4138-26 1200 1200 1200 1200
AXS-IR-4538-26 1200 1200 1200 1200
CONCRETE ANCHOR NOTES

1. CONCRETE ANCHORS FOR THE SUBJECT RACK ENCLOSURES INSTALLED IN SOLID REINFORCED CONCRETE SHALL BE ONE OF THE TYPES LISTED IN TABLE 8, WITH THE DIAMETER, EMBRIDA, AND EGDGE DISTANCES SPECIFIED. ANCHORS SHALL BE OF CARBON STEEL AND FOLLOW ALL INSTALLATION REQUIREMENTS SPECIFIED IN THE CORRESPONDING ESR REPORTS.

2. CONCRETE ANCHORS FOR THE SUBJECT RACK ENCLOSURES INSTALLED IN TOP SIDE OF CONCRETE FILL OVER METAL DECK SHALL BE ONE OF THE TYPES LISTED IN TABLE 9 WITH THE DIAMETER, EMBRIDA, AND EGDGE DISTANCES SPECIFIED. ANCHORS SHALL BE OF CARBON STEEL AND FOLLOW ALL INSTALLATION REQUIREMENTS SPECIFIED IN THE CORRESPONDING ESR REPORTS.

3. ALTERNATIVELY, SUBJECT RACK ENCLOSURES MAY BE INSTALLED IN TOP SIDE OF CONCRETE FILL OVER METAL DECK USING THE THRU-BOLT CONNECTION AS LISTED IN TABLE 9 AND SHOWN ON THE DRAWINGS.

4. LOCATE ALL EXISTING REINFORCING BARS WITHIN 12 INCHES OF PROPOSED ANCHOR LOCATIONS PRIOR TO DRILLING FOR CONCRETE ANCHORS. DO NOT CUT, CORE, OR DRILL THROUGH EXISTING REINFORCING BARS.

5. ALL CONCRETE ANCHORS SHALL BE INSTALLED WITH PROPER TOOLS AND PROCEDURES IN STRICT ACCORDANCE WITH MANUFACTURER’S RECOMMENDATIONS AND ICC EVALUATION SERVICE REPORTS REFERENCED ABOVE.

6. CONCRETE ANCHORS REQUIRE SPECIAL INSPECTION FOR INSTALLATION IN ACCORDANCE WITH CBC TABLE 1705A.3.

7. CONCRETE ANCHORS SHALL BE TESTED A MINIMUM OF 24 HOURS AFTER INSTALLATION TO VERIFY PROPER INSTALLATION IN ACCORDANCE WITH CBC SECTION 1910A.5.3.

8. A MINIMUM OF TWO ANCHORS (50%) PER ENCLOSURE MUST BE TESTED (CBC 1910A.5.3).


10. ANCHORS SHALL BE TESTED TO LOADS SHOWN BELOW (CBC 1910A.5.4)

A) EPOXY ANCHORS IN NORMAL WEIGHT CONCRETE – 3904 LB

B) 1/2" DIA EXPANSION ANCHORS IN NORMAL OR SAND-LIGHTWEIGHT CONCRETE 40 FT-LB FOR RWK-BOLT T2 OR 60 FT-LB FOR STRONG BOLT T2

C) 3/8" DIA EXPANSION ANCHORS FOR UNDERSIDE OF METAL DECK (SEE SHEET 7) 30 FT-LB FOR STRONG BOLT T2

11. TEST ACCEPTANCE CRITERIA (CBC 1910A.5.5)

A) HYDRAULIC RAM METHOD (EPOXY ANCHORS) ANCHOR THRU-BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE INSTALLATION REQUIREMENTS SPECIFIED IN THE CORRESPONDING ESR REPORTS.

B) TORSION IN FRENCH METHOD (EXPANSION ANCHORS) ANCHOR THRU-BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE INSTALLATION REQUIREMENTS SPECIFIED IN THE CORRESPONDING ESR REPORTS.

NOTES TABLE 8

1. FOR NORMAL WEIGHT OR SAND-LIGHTWEIGHT CONCRETE WITH A MINIMUM FC = 3000 PSI, EPOXY ANCHORS MAY ONLY BE USED IN NORMAL WEIGHT CONCRETE.

2. APPLIES TO THE AXS-I SERIES ENCLOSURES LISTED IN TABLES 2-14.

3. PROVIDE FOR FULL THREAD ENGAGEMENT OF NUT AND WASHER.

4. STANDARD THREADED ROD SHALL BE ASTM F1564 GRADE 36, OR 105.

5. MINIMUM SPACING APPLIES TO MULTIPLE UNITS INSTALLED ADJACENT TO ONE ANOTHER, AND IS TAKEN AS THE DISTANCE FROM CENTERLINE TO CENTERLINE OF ANCHORS.
TABLE 9: ACCEPTABLE FASTENERS FOR ANCHORING OF THE AXS-IR SERIES OF RACK ENCLOSURES TO TOPSIDE OF CONCRETE FILL OVER METAL DECK (NOTES 1,2)

<table>
<thead>
<tr>
<th>Anchor Type</th>
<th>ICC ESR</th>
<th>Outside Diameter (inch.)</th>
<th>Effective Embedment (inch.) (left)</th>
<th>MIN Bulk Adhesive/Weld Flute (inch.)</th>
<th>MIN Edge Distance (inch.)</th>
<th>MIN Spacing (inch.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hilti VX/TX 32 expansion Anchors</td>
<td>1917</td>
<td>0.5</td>
<td>2</td>
<td>3.15/1.5</td>
<td>6</td>
<td>6.5</td>
</tr>
<tr>
<td>Simpson String-Tie String Bolt 2 Expansion Anchors</td>
<td>3037</td>
<td>0.5</td>
<td>2.25</td>
<td>3.15/1.5</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>ASTM F1554 Thru-Bolt (Note 3)</td>
<td>NA</td>
<td>0.5</td>
<td>NA</td>
<td>3.15/1.5</td>
<td>6</td>
<td>NA</td>
</tr>
</tbody>
</table>

RESPECTS 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 (S1 & S2) 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 10% OF UNIT wt. STORED ON EACH SHELF, BASED ON THE WEIGHT DISTRIBUTION SPECIFIED IN THIS OPM
   - F. MAXIMUM XE 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’-6” FROM THIS UNIT’S ANCHORS

9. VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2011 CBC AND THE DETAILS SHOWN IN THIS PRE-APPROVAL.
FLOOR MOUNTING HOLES

AXS-IR-XX27-20 = 21.91 [566]
AXS-IR-XX32-20 = 26.91 [683]
AXS-IR-XX38-26 = 32.91 [836]

BOTTOM OPENING

12.15 [308]
15.75 [401]
18.35 [467]

Material: ASTM A1018 CS Type B
Minimum Yield = 29 ksi
PL ½" X 4" ASTM A36 GRADE 36 (OR GREATER) EXPANSION ANCHOR (TYP): – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef) – 3/8" dia X 3" (Hef)

THRU-BOLT CONNECTION DETAIL

EXPANSION ANCHOR IN DECK CONNECTION DETAIL

SAND-LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE (MINIMUM 3000PSI)