Rock-Lok
Metal Roofing
Panel Detail
Manual
Mechanically Seamed Roofing System

Applications
Architectural
Commercial
Industrial
New or Retrofit

Rock-Lok combines architectural styling with outstanding structural performance and ease of installation.

Mechanically Seamed
More Attractive & Lasts Longer than Conventional Roofing
Cost Effective & Energy Efficient
Reduces Insurance Premiums
UL Listing
Fire Resistant
150 MPH High Wind Hurricane Zone Rating
100% Recyclable
Low Maintenance
Full Line of Color Matched Accessories & Trims
Special Order Colors Available
Factory Applied Seam Sealant
## Table of Contents

<table>
<thead>
<tr>
<th>Description</th>
<th>Product Code</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Important Information</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Testing</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Rock-Lok Installation Information</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Open Steel Framing O.C.</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Rigid Insulation Over Wood Deck</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Rigid Insulation Over Steel Deck</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Mechanical Seaming Tool</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Sculptured Eave Detail</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Sculptured Gutter Detail</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Sculptured Gable Rake Detail</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Sculptured Gable Rake &amp; Slide Detail</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Side Wall Flashing Rake Detail</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>End Wall Flashing Detail</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Open Preformed Valley</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Endlapping Detail</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Gable Rake Detail</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Ridge Cap Hip Detail</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Open Ridge Cap</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Vented Ridge Cap Detail</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Ridge Cap</td>
<td>RC-5</td>
<td>10</td>
</tr>
<tr>
<td>Ridge Cap (Vented)</td>
<td>RC-13</td>
<td>10</td>
</tr>
<tr>
<td>11 Ridge Cap</td>
<td>RC-11</td>
<td>10</td>
</tr>
<tr>
<td>21 Ridge Cap</td>
<td>RC-12</td>
<td>10</td>
</tr>
<tr>
<td>High Side Ridge</td>
<td>HS-3</td>
<td>10</td>
</tr>
<tr>
<td>Hemmed Eave Detail</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Preformed Valley</td>
<td>PV-4, PV-5, PV-6</td>
<td>11</td>
</tr>
<tr>
<td>Preformed Valley</td>
<td>PV-7, PV-8, PV-9</td>
<td>11</td>
</tr>
<tr>
<td>Counter Flashing</td>
<td>CF-2</td>
<td>11</td>
</tr>
<tr>
<td>Reglet Flashing</td>
<td>RF-2</td>
<td>11</td>
</tr>
<tr>
<td>Cleat</td>
<td>CL-4</td>
<td>12</td>
</tr>
<tr>
<td>Cleat (Offset)</td>
<td>CL-2</td>
<td>12</td>
</tr>
<tr>
<td>Cleat</td>
<td>CL-1</td>
<td>12</td>
</tr>
<tr>
<td>Z-Closure</td>
<td>ZC-3</td>
<td>12</td>
</tr>
<tr>
<td>Cleat (Gable Rake)</td>
<td>CL-5</td>
<td>12</td>
</tr>
<tr>
<td>Rake Slide</td>
<td>RS-1</td>
<td>12</td>
</tr>
<tr>
<td>Endwall Flashing (Pitch Break)</td>
<td>EW-5</td>
<td>13</td>
</tr>
<tr>
<td>Side Wall Flashing</td>
<td>SW-6</td>
<td>13</td>
</tr>
<tr>
<td>Gable Rake</td>
<td>GR-8</td>
<td>13</td>
</tr>
<tr>
<td>Eave Flashing</td>
<td>EF-6</td>
<td>13</td>
</tr>
<tr>
<td>Gutter Apron</td>
<td>GA-1</td>
<td>13</td>
</tr>
<tr>
<td>Gutter Support</td>
<td>GS</td>
<td>13</td>
</tr>
<tr>
<td>Sculptured Corner Box</td>
<td>SCB</td>
<td>14</td>
</tr>
<tr>
<td>Sculptured Rake End</td>
<td>SRE</td>
<td>14</td>
</tr>
<tr>
<td>Sculptured Rake</td>
<td>SR-1</td>
<td>14</td>
</tr>
<tr>
<td>Sculptured Rake</td>
<td>SR-2</td>
<td>14</td>
</tr>
<tr>
<td>Sculptured Eave</td>
<td>SE-2</td>
<td>14</td>
</tr>
<tr>
<td>Sculptured Eave (Wide Top)</td>
<td>SE-1</td>
<td>14</td>
</tr>
<tr>
<td>Sculptured Peak Box</td>
<td>SPB</td>
<td>15</td>
</tr>
<tr>
<td>Sculptured Gutter End</td>
<td>SGE</td>
<td>15</td>
</tr>
<tr>
<td>Sculptured Gutter</td>
<td>SG-1</td>
<td>15</td>
</tr>
<tr>
<td>Sculptured Gutter (Retrofit)</td>
<td>SG-2</td>
<td>15</td>
</tr>
<tr>
<td>Gutter Hanger (Retrofit)</td>
<td>GH</td>
<td>15</td>
</tr>
<tr>
<td>Box Gutter End</td>
<td>BG-E</td>
<td>16</td>
</tr>
<tr>
<td>Box Gutter</td>
<td>BG-1</td>
<td>16</td>
</tr>
<tr>
<td>Downspout</td>
<td>DS-2</td>
<td>16</td>
</tr>
<tr>
<td>Downspout Strap</td>
<td>DSS</td>
<td>16</td>
</tr>
<tr>
<td>Seam Cover (Inner)</td>
<td>SC-2</td>
<td>16</td>
</tr>
<tr>
<td>Seam Cover (Outer)</td>
<td>SC-1</td>
<td>16</td>
</tr>
<tr>
<td>Panel Accessories</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Details and Formulas</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Slope Data</td>
<td></td>
<td>19-20</td>
</tr>
<tr>
<td>Price List</td>
<td></td>
<td>21-22</td>
</tr>
<tr>
<td>Notes</td>
<td></td>
<td>23-25</td>
</tr>
</tbody>
</table>
Important Information

Finishes
30 year warranted SemCoat Plus is a fluoroceram premium coating manufactured by BASF/Morton International Inc. It contains 70% Kynar 500 or Hylar 5000 PVDF resin over Galvalume ASTM-A792 structural steel grade 50. Also available in 20 year warranted acrylic coat galvalume ASTM-A792 structural steel grade 50.

Acrylic coated galvalume panels are not warranted to perform aesthetically. Acrylic coated Galvalume panel may discolor or weather unevenly after installation. This is not a defect in the product or a cause for rejection. If appearance or aesthetic performance are an important consideration for a particular job, Southeastern Metals recommends selection of a color-coated panel.

Colors
Brick Red, Regal Blue, Patina Green, Teal Green, Hartford Green, Slate Gray, Onyx Gray, Colonial White, Acrylic Coated Galvalume

Disclaimer
The information contained in this product manual is subject to change without notice. Southeastern Metals reserves the right to discontinue or modify products and installation methods at any time without notice and incurring no obligation. Contact the appropriate Southeastern Metals location to obtain the latest information.

Throughout this product manual each panel series is specified per Southeastern Metals recommended use and application of these products. The use of these products should not vary from these recommendations or should not be applied using another manufacturer's specifications or guidelines. If you have any questions about any of the products and their appropriate applications, please call the nearest sales office.

Job Estimating and Takeoffs
If projects are complex and very large, estimating assistance can be requested. If Southeastern Metals becomes involved in this manner, it is absolutely necessary that Southeastern Metals be furnished with detailed, accurate information and drawings regarding the project prior to assistance. We offer this value-added service for a reasonable fee. Please contact Southeastern Metals Tech Services Department for a quote on estimation services. Estimate fees will be invoiced at the time of presentation to our customer. Estimate fees will be applied towards the cost of materials upon ordering. A takeoff disclaimer must be completed to use this service.

Southeastern Metals can assist customers in determining the amount and length of material required for the project, but it is the customers responsibility to review and verify the material required to complete the project. Southeastern Metals will not be held accountable for incorrect lengths and quantities.

Prior to ordering and installing materials, all dimensions should be verified by field measurements.

Job Site Delivery Available
Job site delivery disclaimer must be completed to use this service.

Warranties
Southeastern Metals offers a weathertightness warranty for Rock-Lok. Under no circumstances will a warranty be offered or given without prior notification given to Southeastern Metals Corporate Office.

This notification must be made prior to bidding and not be offered if the building end use, design, surroundings, or installation techniques are not in accordance with the conditions set forth in Southeastern Metals warranty.

Southeastern Metals will be happy to provide you with a draft copy of our warranty for Acrylic Galvalume or Semcoat painted products. Failure to request this draft will indicate you accept the contents there in.

Delivery, Handling and Storage
Proper care in storing and handling metal panels is essential in providing you with years of service. Panels should be immediately installed! Any panels not immediately installed must be kept dry and stored in an indoor area. Extreme caution should be taken in order to prevent moisture penetration of the stack(s) by rain, snowfall or condensation. Condensation is moisture that accumulates naturally from the change in temperature of the material nested in a stack where adequate ventilation has been restricted. Do not cover metal with plastic, which can create condensation.

Safety Precautions
It is the responsibility of the buyer to ensure the safe installation of these product systems. Metal panels have sharp edges, therefore protective clothing and gloves should be utilized. To prevent eye injury, safety glasses must be worn when drilling or cutting steel panels. Use extreme care when walking on any roofing panel. Proper underlayment is necessary to prevent fall-through. Plywood is recommended on all non-structural panel applications. Southeastern Metals recommends all installers follow the OSHA (Occupational Safety & Health Administration) requirements for all protection (#3146, dated 1995). Steel panels can become slippery when wet. Do not work on steel panels when wet or when weather conditions are not suitable for safe installation. Southeastern Metals recommends the compliance with the Florida Fall Protection Act and OSHA Fall Protection Rules, and any other applicable safety rules or laws. Please contact Southeastern Metals if you have any questions.

Cancellations
Southeastern Metals will honor cancellation prior to manufacturing. Any order which has already been manufactured is the property of the purchaser.

Claims
All claims of shortage, damage, etc. must be made within 48 hours of the date of receipt. Claims must be accompanied by a copy of the bill of lading verified by the shipper which must indicate shortages or damages as received. Southeastern Metals can not honor shortage or damage claims on freight carriers unless the carrier’s paperwork is duly noted.

Return Policy
All Rock-Lok Panel orders are considered “special order products.” Special order products can not be returned.

Terms of Sale
1/2% 10 Net 30 FOB shipping point.

The application details are for illustration purposes only. These details may not be suitable for all building designs or conditions. Projects should be engineered to confirm to building codes, regulations, and industry practices which are applicable.

Consult Southeastern Metals for any additional information not outlined in this manual.
**Testing**

UL 580 tested
UL 2218 Class 4
Impact Resistance
UL 790 Class A
Fire Resistance Rating
UL 263
Fire Resistance Rating

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**Rock-Lok Panel Section Properties**

**Allowable Wind Loads PSF (for three or more spans)**

<table>
<thead>
<tr>
<th>Live Load (Stress)</th>
<th>Live Load (Deflection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>277.1</td>
<td>155.8</td>
</tr>
<tr>
<td>99.7</td>
<td>69.3</td>
</tr>
<tr>
<td>318.9</td>
<td>178.9</td>
</tr>
<tr>
<td>114.5</td>
<td>79.5</td>
</tr>
</tbody>
</table>

**Panel**

Gauge 24
Width inches 16
Thickness inches 0.0236

**Minimum Slope**

1/2 :12 pitch

**Yield Strength**

50 KSI fy

**Weight**

1.356 PSF

**Positive Bending**

1 x IN./4 0.213
S x IN./3 0.123

**Negative Bending**

1 x IN./4 0.122
1 x IN./3 0.107

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1. Section Properties are theoretical computed for flexural loads per A.I.S.I. Cold Formed Steel Design Manual 1986 edition. Sx is for stress determination, and lx is for deflection determination.

2. Panels are not designed to provide diaphragm capabilities or stability to purlins, for proper bracing design refer to A.I.S.C. or A.I.S.I. specifications.

3. Tabulated loads are based on a continuous beam over three equal spans. For stress loads a 2 span load will be .80 of the 3 span load.

4. The allowable loads have not been increased by 33 1/3% for wind uplift.

5. The allowable loads for deflection are based on a limitation of span/180.

6. The actual weight of the roof panel has to be deducted from the allowable inward load to estimate the actual "Live Load" capacity of the panel.
Rock-Lok Installation Information

Installation Information

The following chart should be used to determine proper fasteners required for clip installation on the selected applications. Insulation is recommended over open framing to reduce roof panel noise.

<table>
<thead>
<tr>
<th>APPLICATION</th>
<th>INSTALLATION REQUIREMENTS</th>
<th>CLIP SPACING</th>
<th>TYPE OF FASTENER</th>
<th># REQ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clips over Purlins (12 Gauge Max)</td>
<td>Standard 24 Gauge</td>
<td>4 -0 o.c.</td>
<td>#10 x 1 Pancake Head Self Driller</td>
<td>1 Fastener</td>
</tr>
<tr>
<td></td>
<td>UL-90 24 Gauge</td>
<td>4 -0 o.c.</td>
<td>#10 x 1 Pancake Head Self Driller</td>
<td>2 Fasteners</td>
</tr>
<tr>
<td>Clips Over Wood Deck</td>
<td>Standard 24 Gauge</td>
<td>4 -0 o.c.</td>
<td>#10 x 1 Pancake Head Woodscrew</td>
<td>1 Fastener</td>
</tr>
<tr>
<td></td>
<td>UL-90* 24 Gauge</td>
<td>2 -0 o.c.</td>
<td>#10 x 1 Pancake Head Woodscrew</td>
<td>2 Fasteners</td>
</tr>
<tr>
<td>Clips Over Rigid Insulation/Panel</td>
<td>Standard 24 Gauge</td>
<td>4 -0 o.c.</td>
<td>Dek-Fast #12-13 x 3/4* Self Driller</td>
<td>1 Fastener</td>
</tr>
<tr>
<td></td>
<td>UL-90* 24 Gauge</td>
<td>2 -0 o.c.</td>
<td>Dek-Fast #12-13 x 3/4* Self Driller</td>
<td>2 Fasteners</td>
</tr>
</tbody>
</table>

* Length of Dek-Fast screw will vary depending on the total thickness of the rigid insulation and metal deck.

Bearing Plate

Bearing Plate is used when installing panel directly over rigid insulation material. The Bearing Plate (Flat) is used in conjunction with the Clip.

Panel

There are three critical measurements involving roof panels: the length required at the eave, the peak and the amount of panel lap (if required). In each case a certain measurement is required. Check each measurement to ensure panel placement gives you the distance required at the eave, peak and lap condition (if required). In most cases any variance can be taken out at the eave and peak.

Metal Roofing Fire Resistance Ratings

This is to advise that Southeastern Metals Manufacturing Co., Inc. metal roofing panels have been analyzed for fire resistance ratings according to test criteria set forth by Underwriters Laboratories "Standard Fire Tests of Building Construction and Materials" (ANSI/UL 263), and ASTM E119 and NFPA 251.

The fire resistance rating is for the total assembly and not just the external metal roofing panels. Ratings are expressed in hours and vary depending upon the assembly. In general, the test criteria is to evaluate the assemblies ability to continue to support the imposed loads and to resist the passage of flame, high temperature, or hot gasses which will ignite combustible sub-assembly, framing, or decking materials.

For detail information on specific assemblies and hourly ratings see the UL Fire Resistance Directory.

For class A or B fire rating, requires the installation of minimum 1/4 thick Georgia Pacific “Dens Deck” or a minimum 4mm thick of Partek Insulation’s, Inc. “Roctex” or ½ water resistant type X gypsum sheathing with treated core and facer, over the combustible deck, prior to installing the metal roofing panels.
Open Steel Framing 60 O.C.

Rock-Lok Construction No. 506    Wind uplift - Class 90    Fire - not investigated

1. Metal Roof Deck Panels* - No. 24 MSG min. thick coated steel. Max. panel width 16 and 18; rib height 2. Panels continuous over two or more spans. The panel flat area may have optional striated or minor ribs placed at various locations in the panel flat area beginning min of 2 from side ribs. The upper flange of the panel rib may be horizontal, or optionally formed down to an angle of 0° to 90° between the vertical segment and the top flange of the rib. An end lap back-up plate (Item 2A) to be used at panel endlap. A bead of sealant may be used at panel end laps and side ribs. Ribs to be seamed with an electrical or hand seaming tool to form a flange with a tight hem. Seaming process to include the upper portion of the Panel Clips (Item 2).

2. Roof Deck Fasteners* (Panel Clips) - Located at side of panels over purlins (max spacing 60 o.c.) Either of the following:
   Fixed Clip (Not Shown) - One piece assembly fabricated from No. 22 MSG min. thick steel, 3/16 wide.
   Floating Clip - Two piece assembly with a base fabricated from No.16 MSG min. thick steel, 2 wide and a tab fabricated from No. 22 MSG min. thick steel, 4 1/4 wide
2a. Endlap Back-up Plate (Not Shown) - No. 16 MSG min. coated steel channel, 3 wide with 3/8 deep legs. Located under the panel end lap (50 ksi min. yield strength).

3. Fasteners (Screws) - For panel clip-to purlin attachment to be No. 1/4-14 by min 1 long self drilling, self tapping hex-washer plated steel screws two fasteners used per clip. Fasteners used at end lap to be one of the following: No. 1/4-14 x 1 long type AB point, self-drilling, self-tapping hex-washer-head plated steel screws. The spacing for 16 wide panel will be a 1, 3, 4, 4, 3 pattern; spacing for 18 wide panels will be 1 1/2, 3 1/2, 4, 4, 3 1/2, 1 1/2 pattern.

4. Thermal Spacer (Optional) - Polystyrene 3/8 min, 2 3/8 max, thickness, 4 min. width, length sized to fit between panel clips.
4a. Thermal Block (optional) - Nominal 2 x 4 wood, continuous length.

5. Insulation (Optional) - Any compressible blanket type insulation 8 max. thickness before compression, or 6 max. thickness when located between thermal spacer (Item 4) or thermal block.

6. Purlins - No. 16 MSG min. thick steel (min. yield strength 50,000 psi), max. spacing 60 o.c.

*Bearing the UL Classification Marking
Rigid Insulation Over Wood Deck / UL 580 Wind Uplift Information

1. Metal Roof Deck Panels* - No. 24 MSG min. thick coated steel. Max. panel width 16 and 18: rib height 2. Panels continuous over two or more spans. The panel flat area may have optional striated or minor ribs placed at various locations in the panel flat area beginning min. of 2 from side ribs. The upper flange of the panel rib may be horizontal, or optionally formed down to an angle of 0° to 90° between the vertical segment and the top flange of the rib. An end lap back-up plate (Item 2A) to be used at panel endlap. A bead of sealant may be used at panel end laps and side ribs. Ribs to be seamed with an electrical or hand seaming tool to form a flange with a tight hem. Seaming process to include the upper portion of the Panel Clips (Item 2). Southeastern Metals Mfg. Co., Inc. "Rock-Lok"

2. Roof Deck Fasteners* (Panel Clips) - Located at side of panels over Substructure (Item 7A) (Max. Spacing 36 o.c.) Either of the following:
   - Fixed Clip (Not Shown) - One piece assembly fabricated from No. 22 MSG min. thick
   - Floating Clip - Two piece assembly with a base fabricated from No. 16 MSG min. thick steel, 2 wide and a tab fabricated from No. 22 MSG min. thick steel, 41/4" thick

2A. Endlap Back-Up Plate (Not Shown) - No. 16 MSG min. coated steel channel, 3 wide with two 9/16 deep legs. Located under the panel end lap (50 ski min. yield strength)

3. Substructure (Gypsum Board) (Optional) - Min. thickness 1/2 thick. To be placed either on top of the plywood decking (Item 8) or rigid insulation (Item 6). Combined thickness of the gypsum board and rigid insulation (Item 6) not to exceed 4

3A. Substructure (Plywood) (Optional) (Not Shown) - Plywood decking to be used in lieu of gypsum board (Item 3) to be nom. 1/2 thick, exposure sheathing, span C-D 40/20 plywood. Combined thickness of the plywood and rigid insulation (Item 6) not to exceed 4

3B. Substructure (OSB) (Optional) (Not Shown) - OSB decking to be No. 22 MSG min. thick coated steel (Yield strength to be 33,000 psi). Used under each clip only when rigid insulation (Item 6) is located directly under metal roof deck panels. (Item 1).

4. Vapor Barrier (Optional) (Not Shown) - Single ply, used between the substructure (Item 3, 3A and 3B) or plywood decking and metal deck panels to be a min. 30 lb. roofing felt.

5. Joint Tape (Not Shown) - All gypsum board (Item 3) joints shall be taped with 2.5 wide joint tape.

6. Foamed Plastic (Rigid Insulation) - Foamed plastic max. thickness 31/2 when gypsum board (Item 3), plywood (Item 3A) or OSB (Item 3B) is used and 6 when bearing plates are used. Min. bearing strength to be 20 psi.

7. Fasteners (Screws) - Fasteners used to attach panel clips (Item 2) to plywood substructure (Item 3A) or plywood decking (Item 8) to be No. 10-12 Phillips drive, A-point, coated steel screw. Fastener length to penetrate plywood deck by min 1/2. Two fasteners per clip.

7A. Fasteners (Screws) (Optional) - Screws used to attach panel clips through gypsum board, OSB, bearing plate (Item 3, 3B, 3C, respectively) and foam (Item 6) into plywood deck to be No. 10-12 pancake head, No. 2 Phillips drive, A-point, coated steel screw. Two fasteners per clip.

Note: The panel clip may be fastened to the bearing plate using a No. 10-16 or 1 long self-driving, self-tapping pancake head No. 2 Phillips drive coated steel screw. The panel clip/bearing plate combination is to be fastened to the plywood deck using the No. 12-13 truss head screws described above, inserted through a guide hole in the clip and bearing plates and into the plywood deck.

7B. Fasteners (Screws) (Optional) - Screws used to attach gypsum and OSB substructure (Item 3 and 3B) to plywood deck to be min. 0.140 diameter threaded shank Phillips, bugle or trumpet head, self-driving, self-tapping, corrosion resistant coated steel screws supplied by the manufacturer.

7C. Fasteners (Screws) - Screws used to attach plywood substructure (Item 3A) into plywood deck to be No. 14-13, No. 3 Phillips drive truss head screws. Fastener length to penetrate plywood deck by min 1/2. Total of 33 fasteners per 4 x 8 plywood sheet.

7D. Fasteners (Screws) - Fasteners at end lap to be one of the following: No. 1/4-14 x 1 long Type AB point self-drilling, self-tapping hex-washer-head plated or stainless steel screws or No. 12-14 x 11/4 long self-driving, self-tapping hex-washer-head plated steel screws. Spacing for 16 wide panels will be a 1, 3, 4, 4, 3 pattern; spacing for 18 wide panels will be 11/2, 31/2, 4, 4, 31/2, 11/2 pattern.

8. Plywood Decking - Plywood decking to be graded per PS83 specifications. 5/16 thick, exposer 1, APA 20 o.c., square edged. Butt ends not blocked.

*Bearing the UL Classification Marking
Rigid Insulation Over Steel Deck / UL 580 Wind Uplift Information

1. Metal Roof Deck Panels* - No. 24 MSG min. thick coated steel. Max. panel width 16 and 18; rib height 2. Panels continuous over two or more spans. The panel flat area may have optional striated or minor ribs placed at various locations in the panel flat area beginning min. of 2 from side ribs. The upper flange of the panel rib may be horizontal, or optionally formed down to an angle of 0° to 90° between the vertical segment and the top flange of the rib. An end lap back-up plate (Item 2A) to be used at panel endlap. A bead of sealant may be used at panel end laps and side ribs. Ribs to be seam with an electrical or hand seamning tool to form a flange with a tight hem. Seaming process to include the upper portion of the Panel Clips (Item 2). Southeastern Metals Mfg. Co., Inc. “Rock-Lok”

2. Roof Deck Fasteners* (Panel Clips) - Located at side of panels over Substructure (Item 3, or 3B) (Max. spacing 48 o.c.), Substructure (Item 3A or 3C with max. spacing of 36 o.c.) and over Sub-Purlin (Item 8 with max. spacing of 60 o.c.) Either of the following:
   - Fixed Clip (Not Shown) - One piece assembly fabricated from No. 22 MSG min. thick steel, 3½ wide. Floating Clip - Two piece assembly with a base fabricated from No. 16 MSG min. thick steel, 2 wide and a tab fabricated from No. 22 MSG min. thick steel, 4½ wide.

2A. Endlap Back-Up Plate (Not Shown) - No. 16 MSG min. thick coated steel channel, 3 wide with two 3/8 deep legs. Located under the panel end lap (50 ksi min. yield strength).

3. Substructure (Gypsum Board) (Optional) - Min. thickness 1/2 thick. To be placed either on the top of steel deck (Item 9) or rigid insulation (Item 6). Combined thickness of the gypsum board and rigid insulation (Item 6) not to exceed 4.

3A. Substructure (Plywood) (Optional) (Not Shown) - Plywood decking to be used in lieu of gypsum board (Item 3) to be nom. 1/2 thick, exposure sheathing, span C-D 40/20 plywood. Combined thickness of the plywood and rigid insulation (Item 6) not to exceed 4.

3B. Substructure (OSB) (Optional) (Not Shown) - OSB decking to be used in lieu of gypsum board (Item 3) to be nom. 1/2 thick. Combined thickness of the OSB and rigid insulation (Item 6) not to exceed 4.

3C. Substructure (Bearing Plates) (Optional) (Not Shown) - Bearing Plate to be used in lieu of gypsum board (Item 3) to be 4 x 4 x No. 22 MSG min. thick coated steel (Yield strength to be 33,000 psi). Used under each clip only when rigid insulation (Item 6) is located directly under metal roof deck panels (Item 1).

4. Vapor Barrier (Optional) (Not Shown) - Single ply, used between the substructure (Item 3, 3A, or 3B) and metal deck panels (Item 1) to be a min. 30 lb. roofing felt.

5. Joint Tape (Not Shown) - All gypsum board (Item 3) joints shall be taped with 2.5 wide joint tape.

6. Foam Plastic (Rigid Insulation) - Foamed plastic max. thickness 3½ when gypsum board (Item 3), plywood (Item 3A) or OSB (Item 3B) is used and 6 when bearing plates are used. Min. bearing strength to be 20 psi.

6A. Insulation (Optional) - Compressible blanket insulation max. thickness before compression.

7. Fasteners (Screws) - Screws used to attach panels clips to steel sub-purlins (Item 8) to be No. 1/4-14 by min. 1 long self drilling, self tapping hex-washer-head plated steel screws. Two fasteners per clip.

Fasteners used at end lap to be one of the following:
   - No. 11/16-14 by 1 long Type AB point self-drilling, self-tapping hex-washer-head plated or stainless steel screws or No. 12-14 x 1 1/4" long self-drilling, self-tapping hex-washer-head plated steel screws. Spacing for 16 wide panels will be a 1, 3, 4, 3, 1 pattern; spacing for 18 wide panels will be 1 1/2, 3 1/2, 4, 3 1/2, 1 1/2 pattern.

7A. Fasteners (Screws) - Screws used to attach panels clips through sub-purlins. Bearing plate (Item 3, 3B, or 3C, respectively) into metal deck to be No. 10-12, No. 3 Phillips drive truss head coated steel screws with Phillips head. Fastener length to penetrate liner panel 1/2. Two fasteners per clip.

Note: The panel clip may be fastened to the bearing plate using two No. 10-16 by 1 long self-driving, self-tapping pancake head No. 2 Phillips drive coated steel screw. The panel clip/bearing plate combination is to be fastened to the steel deck using the No. 10-13 truss head screws described above, inserted through a guide hole in the bearing plates and into the liner panel.

*Bearing the UL Classification Marking

Continued Page 7
**Rock-Lok Construction Products**

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**Rigid Insulation Over Steel Deck / UL 580 Wind Uplift Information**

| Rock-Lok | Construction No. 506B | Wind uplift - Class 90 | Fire - not investigated |

7B. Fasteners (Screws) (Optional) - Screws used to attach gypsum and OSB substructure (Item 3 and 3B) to metal deck to be min. 0.140 diameter threaded shank Phillips, bugle or trumpet head, self-drilling, self-tapping, corrosion resistant coated steel screws supplied by the manufacturer.

7C. Fasteners (Screws) - Screws used to attach plywood substructure (Item 3A) through rigid insulation (Item 6) to metal deck to be No. 14-13, No. 3 Phillips drive truss head screws. Fastener length to penetrate plywood decking b min 1/2. Total of 33 fasteners per 4 x 8 plywood sheet. Screws used to attach panel clips to plywood to be No. 10-12 x 1 long pancake head wood screw with No. 2 Phillips drive, or No. 10-12 x 1 long hex-head wood screw. Two fasteners per clip.

8. Sub-Purlin - No. 16 MSG min. thickness coated steel (min. yield strength 50 ksi), hat section min. 3/4 deep, 2 wide or Zee or Cee sections, 2 wide, 2 deep. Max. spacing between sub-purlins to be 48 o.c.

9. Structural (Steel Deck) - No. 22 MSG min. thickness coated steel. Fabricated to various profiles, min. yield strength, 33 ksi. Steel deck depth and profile type, support spacing, method of positioning (End and Sidelaps), fastening deck to supports and supports to spacing to be per deck manufacturer's and local code requirements for uplift loading.

9A. Structural (Purlins) - 16 MSG min. gauge steel (min. yield strength 50,000 psi). Max. spacing per deck and local code requirements for uplift loading.

9B. Structural (Joist) (Optional) (Not Shown) - Open web steel joint having a min. No. 16 MSG upper flange (min. yield strength 50,000 psi) or a min. 1/8 thick upper flange (min. yield strength 33,000 psi). Max. spacing per deck and local code requirements for uplift loading.

10. Structural Fasteners (Screws) - Screws used to attach sub-purlins (Item 8) into structural (Item 9, 9A or 9B) to be No. 12-13, No. 3 Phillips drive truss head coated steel screws with Phillips head or equal. When thickness of steel is greater than No. 16 MSG, No. 12-20, self-drilling, self tapping, hex-head, plated steel screws to be used. Fastener length to penetrate structural (Item 9, 9A or 9B) by 1/2. Max. fastener spacing to be 24 .

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*Bearing the UL Classification Marking*

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**Rock-Lok Installation Information**

**Sidetap Details**

**Mechanical Seaming Tool**

The Rock-Lok panel system requires the use of a mechanical seamer for proper installation. This necessary seamer is designed to seam the panel clips and the legs of the panel together for weathertightness and resistance to wind uplift loads.

**Hand Seaming Tool**

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**Gibraltar Construction Products • 800/690-7235**
Sculptured Eave Detail

- ROCK-LOK PANEL
- 12-14 x 1" SD (1'-0" o.c.)
- 12-14 x 1 1/2" SD
- BUTYL TAPE
- OFFSET CLEAT (CL-2)
- SCULPTURED EAVE (SE-2)
- 1/4-14 x 7/8" STITCH (1'-0" o.c.)

Sculptured Gable Rake Detail

- ROCK-LOK PANEL
- CLIP W/ 1/4-14 x 1 1/2" SD
- 12-14 x 1/2" SD (1'-0" o.c.)
- BUTYL TAPE
- Z CLOSURE (ZC-3)
- SCULPTURED RAKE (SR-2)
- 1/4-14 x 7/8" STITCH SD (1'-0" o.c.)
- BUTYL TAPE

Sculptured Gable Rake & Slide Detail

- ROCK-LOK PANEL
- 1/4-14 x 7/8" STITCH SD (1'-0" o.c.)
- BUTYL TAPE
- CLEAT GABLE RAKE (CL-6)
- Z CLOSURE (ZC-3)
- 12-14 x 1 1/4" SHOULDER SD (1'-0" o.c.)
- RAKE ANGLE (BY OTHERS)
- SCULPTURED RAKE (SR-1)
- RAKE SLIDE (RS-1)
- 1/4-14 x 7/8" STITCH SD (1'-0" o.c.)
- BUTYL TAPE

Side Wall Flashing Rake Detail

- TUBE SEALANT
- FASTENERS (BY OTHERS)
- COUNTER FLASHING (CF-2)
- SIDE WALL FLASHING (SW-6)
- Z CLOSURE (ZC-3)
- 1/4-14 x 7/8" STITCH (1'-0" o.c.)
- BUTYL TAPE
- 12-14 x 1 1/2" SD (1'-0" o.c.)
- CLEAT GABLE RAKE (CL-6)
- 12-14 x 1 1/4" SHOULDER SD (1'-0" o.c.)
- ROCK-LOK PANEL

End Wall Flashing Detail

- TUBE SEALANT
- FASTENERS (BY OTHERS)
- COUNTER FLASHING (CF-2)
- ENDWALL FLASHING (EW-5)
- 12-14 x 1" SD
- 1/4-14 x 7/8" STITCH SD
- BUTYL TAPE
- Z CLOSURE (ZC-3)
- BUTYL TAPE
- BACK-UP CHANNEL
- CLIP W/ 1/4-14 x 1 1/2" SD
- ROCK-LOK PANEL

Butyl Tape

- 1/8" x 3/16" POP RIVET (1 PER GUTTER SD)
- GUTTER SUPPORT (GS)
- ROCK-LOK SCULPTURED GUTTER (SG-1)
- BUTYL TAPE
- 1/4-14 x 7/8" STITCH SD
- 12-14 x 1 1/2" SD
- CLEAT (CL-2)
- 12-14 x 1" SD (1'-0" o.c.)
- GUTTER APRON (GA-1)
**RC-5 Ridge Cap**

- **RC-11 Ridge Cap**

**RC-13 Ridge Cap (Vented)**

- **RC-12 Ridge Cap (HIP)**

**HS-3 High Side Ridge**

**Hemmed Eave Detail**

- Field apply butyl sealant in bends
Preformed Valley*

* PV-4 – 1/2 (low)
* PV-5 – 1 (medium)
* PV-6 – 1 1/2 (deep)

Preformed Valley*

* PV-7 – 1/2 (low)
* PV-8 – 1 (medium)
* PV-9 – 1 1/2 (deep)

CF-2 Counter Flashing

5/8" 3/8"

1 135°

135° 3/4"

1/2" 3/4"

RF-2 Reglet Flashing

1 1/2"

45° 2"
Preformed Valley*

* PV-4 – 1/2 (low)
* PV-5 – 1 (medium)
* PV-6 – 1 1/2 (deep)

Preformed Valley*

* PV-7 – 1/2 (low)
* PV-8 – 1 (medium)
* PV-9 – 1 1/2 (deep)

CF-2 Counter Flashing

RF-2 Reglet Flashing
CL-4 Cleat

CL-2 Cleat ((Offset))

CL-1 Cleat

ZC-3 Z-Closure

CL-5 Cleat (Gable Rake)

RS-1 Rake Slide

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EW-5  Endwall Flashing (Pitch Break)

GR-8  Gable Rake

GA-1  Gutter Apron

SW-6  Side Wall Flashing

EF-6  Eave Flashing

GS  Gutter Support
**SCB  Sculptured Corner Box**

![SCB Diagram](image1)

**SR-1  Sculptured Rake**

![SR-1 Diagram](image2)

**SR-2  Sculptured Rake**

![SR-2 Diagram](image3)

**SE-2  Sculptured Eave**

![SE-2 Diagram](image4)

**SE-1  Sculptured Eave (Wide Top)**

![SE-1 Diagram](image5)
**SPB  Sculptured Peak Box**

- Dimensions: 6 1/2" x 4" x 4"
- Angle: 160°
- VARIES

**SGE  Sculptured Gutter End**

- Dimensions: 4 5/8" x 4"
- BEND DOWN 90°
- 11/16"
- 100°
- 7 1/4"

**SG-1  Sculptured Gutter**

- Dimensions: 6 5/8" x 6 1/4"
- 1 3/4"
- 100°
- 160°
- PAINTED

**SG-2  Sculptured Gutter (Retrofit)**

- Dimensions: 4 5/8" x 4 1/2"
- 1 1/4"
- 1/2"
- 100°
- 160°
- PAINTED

**GH  Gutter Hanger (Retrofit)**

- Dimensions: 18" x 1 7/8"
- 11/16"
- 7/8"
- PAINTED
Panel Accessories

Fasteners

- #9 x 2 1/2 x 1/4 hd
  Hex Head Woodfast Screw
  Metal-to-Wood Connection

- #9 x 1 1/4 hd
  Hex Head Woodfast Screw
  Metal-to-Wood Connection

- #10-12 x 1
  Pancake Head Woodfast Screw
  Metal-to-Wood Connection

- #12-13 x 3 1/4 x 1/4 hd
  Truss Head Dek-Fast Screw
  Metal-to-Metal Connection

- #9 x 1 1/4 hd
  Hex Head Metalfast Screw
  Metal-to-Metal Connection

- #10-12 x 1
  Pancake Head Metalfast Screw
  Metal-to-Metal Connection

- #9 x 1 1/4 hd
  Hex Head Woodfast Screw
  Metal-to-Wood Connection

- #10-12 x 1
  Pancake Head Woodfast Screw
  Metal-to-Wood Connection

- #9 x 2 1/2 x 1/4 hd
  Hex Head Woodfast Screw
  Metal-to-Wood Connection

- #9 x 1 1/4 hd
  Hex Head Metalfast Screw
  Metal-to-Metal Connection

- #10-12 x 1
  Pancake Head Metalfast Screw
  Metal-to-Metal Connection

Pipe Boot

Trim Line Ventilator (VEJTL)
Length 8" - 0

UL Clip
Requires 2 screws

Standard Clip
Requires 1 screw

Hand Seaming Tool

Touch Up Paint

Hemming Tool

Butyl Tube Sealant

Butyl Sealant Tape

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**Details and Formulas**

**Chimney Flashing/Cricket Detail**

**Helpful Formulas**

<table>
<thead>
<tr>
<th>Rise and Run (Pitch)</th>
<th>Multiply Flat Area By</th>
<th>LF of Hips or Valleys per LF of Common Run</th>
<th>Decimal Fraction of a Foot</th>
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<tbody>
<tr>
<td>2 in 12</td>
<td>1.041</td>
<td>1.424</td>
<td>1 .083</td>
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<td>12 in 12</td>
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**Roof Calculator**

Height = 1/2 Span x Rise/Run (common run)
Height = Span x Pitch
Slope = Common Run x Factor

**Triangle**

Area = 1/2 x B x H
Volume = 1/2 x B x H x W

\[ A = C^2 - B^2 = H \]
\[ B = C^2 - A^2 = \text{Run} \]
\[ C = A^2 + B^2 = \text{Slope} \]
### Slope Data

#### Flashing Angle Specifier Chart

<table>
<thead>
<tr>
<th>Profile/Flashing</th>
<th>1:12</th>
<th>2:12</th>
<th>3:12</th>
<th>4:12</th>
<th>5:12</th>
<th>6:12</th>
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<th>9:12</th>
<th>10:12</th>
<th>11:12</th>
<th>12:12</th>
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<td>172°</td>
<td>162°</td>
<td>152°</td>
<td>144°</td>
<td>136°</td>
<td>128°</td>
<td>120°</td>
<td>114°</td>
<td>108°</td>
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<td>90°</td>
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<tr>
<td>Ridge Cap (Vented)</td>
<td>172°</td>
<td>162°</td>
<td>152°</td>
<td>144°</td>
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<td>Sculptured Peak Box</td>
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### Slope Data

#### Flashing Angle Specifier Chart

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<tr>
<td>Sculptured Eave (Wide Top)</td>
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Other custom trim profiles available upon request!