Tite-Loc

Technical Information and Flashing Details
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PAC, Petersen Aluminum Corporation reserves the right to discontinue products at any time or change specification and/or designs without notice and without incurring obligation. Application details are for illustration purposes only, and may not be appropriate for all environmental conditions, building designs, or panel profiles. Projects should be engineered to conform to applicable building codes, regulations, and accepted industry practices. Descriptions and specifications contained herein were in effect at the time this publication was approved for printing. Petersen Aluminum Corporation does not build or design buildings. It acts solely as a supplier of materials, and assumes no responsibility for the proper use or installation of those materials, nor for the suitability of those materials for any specific use or for compliance with local building codes.
# Tite-Loc

**Features:**
- .032 aluminum, .040 aluminum, 24 ga. steel, or 22 ga. steel
- (Standard colors are limited in .040 aluminum and 22 ga. steel)
- 12” o.c., 16” o.c., 18” o.c.
- Factory Applied Sealant Beam in Seam
- Tension Leveled
- Available Smooth, With Striations or Pencil Ribs with Striations

**Requirements:**
- Solid Substrate, Open Framing or Rigid Insulation
- Vapor Barrier (on solid substrate and rigid insulation)
- Clips - Low Float, Architectural, Fixed or Utility
- Bearing Plates: Required when used in assembly including rigid insulation over metal decking
- Minimum Roof Pitch: 1/2” on 12”

**Finish:**
- PAC-CLAD® (Kynar 500® or Hylar 5000®)

**Air & Water Infiltration Tested:**
- ASTM E331/1646 and E283/1680

**Note:**
- When a U.L. Rating is required, Petersen Aluminum Corporation must be notified prior to fabrication of the panels.

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**U.L. Construction Numbers 437, 616, 617**

Tite-Loc Panels combine structural panel performance with architectural panel aesthetics. Tite-Loc panels, field-seamed to a 90 degree lock, carry a U.L. rating over a wide variety of assemblies as indicated by the above listed U.L. Construction numbers.
UL Construction No. 437
Uplift - Class 90  /  Fire Not Investigated

1 Metal Roof Deck Panels * / “Tite-Loc”
No. 24 MSG min coated steel, 16 in. max, 12 in. min. width, 2 in. high at the ribs. Panels continuous over two or more spans. Endlaps to overlap 6 inches. Panels may be physically curved at a radius of 110 ft. or greater. A bead of sealant may be used at panel ends and side joints. Side laps to be tightened and crimped with an electric crimping machine to a 90 degree angle. Crimping process to include the upper portion of panel clips (Item 2).

2 Roof Deck Fasteners’ (Panel Clips)
Any of the following. Clip spacing to be 60 in. OC max. Sealant may be used at the top of the clips:

   Tite-Loc Utility Clip: One piece assembly; 3 in. wide, approximately 2 in. high with two guide holes in base. Fabricated from No. 22 MSG coated steel.
   Tite-Loc Low Fixed Clip: One piece assembly; 3 in. wide, approximately 2-3/8 in. or 3 in. high, with three guide holes in base. Fabricated from No. 22 MSG coated steel.
   Tite-Loc Low Floating Clip: Two piece assembly; base approximately 2 in. wide, 1-11/16 in. long formed to engage upper tab. Fabricated from No. 16 MSG coated steel. Tab approximately 4-5/16 in. wide; 2-3/8 in. or 2-7/8 in. high, formed to engage base. Fabricated from No. 22 MSG coated steel. Base to have two guide holes.
   Tite-Loc AR Floating Clip: Two piece assembly; base approximately 2 1/2 in. wide, 1-7/8 in. long formed to engage upper tab. Fabricated from No. 18 MSG coated steel. Base approximately 2 in. wide, 1-11/16 in. long formed to engage base. Fabricated from No. 22 MSG coated steel. Base to have two guide holes.

3 Fasteners (Screws)
Screws used to attach the panel clips to plywood (Item 4) to be No. 10 by 1 in. long Pancake head wood screws with a No. 2 Phillips head or 10 x 1 in., 1/4 in. Hex Head Woodgrip. Two screws per clip. Screws used at endlap (high system only) to be one of the following: 14x1-1/4 in. Hex Washer Head, self-drilling; 14x1 in. Type AB, Hex Washer Head self-tapping; 14x1-1/4 in. Hex Washer Head, self-drilling; 14x1 in. Type AB Phillips Stainless Steel, self-tapping. Five screws per panel in a 1, 3, 4, 4, 3 in. pattern. Screws used to attach plywood (Item 4) to wood trusses or joists (Item 7) to be No. 8 by 2 in. Bugle head screws. As an optional fastener, 2-1/2 in. long 8d common deformed shank nails may be used. When light gauge structural steel joists are used, screws to be No. 12 by 1-5/8 in. long with a Phillips head. Spacing of screws to be 6 in. O.C. at plywood or OSB ends and 12 in. O.C. at interior joists.

4 Substructure (Plywood or OSB)
Plywood decking or oriented strand board (OSB) to be a nom 5/8 in. thick, exposure sheathing span C-D, 40/20 plywood. (All butt joints to be sealed against leakage by using tape and/or caulking). In lieu of plywood, 1 in. tongue and groove decking may be used.

4A Endlap Back-Up Plate (Optional - High-System only) / (Not Shown)
Used at panel endlaps, 16 MSG min coated steel, width of backup plate to correspond to width of panel. Two, 1 in. wide by 3/4 in. long tabs for sliding over end of panel.

5 Moisture Barrier (Optional) / (Not Shown)
Any suitable membrane to protect plywood (Item 4).

6 Thermal Spacer (Optional)
Polystyrene: 3/8 in., 5/8 in. or 1 in. nom thickness, 3 in. wide by 15-7/8 in. long.

7 Joists
Joists, spaced at 2 ft, 0 in. O.C. max, may be one of the following:

   A Nom 2 by 6 in. wood joists, No. 2 or better.
   B Nom 2 by 4 in. wood when used on top chord of a wood truss, No. 2 or better.
   C Light gauge structural steel framing with the member against the plywood or OSB to be a min No.22 MSG coated steel.

Refer to General Information, Roof Deck Construction for items not evaluated.

*Bearing the UL Classification Marking
UL Construction No. 616
Uplift - Class 90 / Fire Not Investigated

1 Metal Roof Deck Panel* / “Tite-Loc”
Minimum 0.032 in. thick Aluminum, 18 in. max, 12 in. min. width, 2 in. high at the ribs. A line of sealant may be used at panel ends and sidelaps. Sidelap to be tightened and crimped with an electric seaming machine to an angle of 90 degrees. Crimping process to include the upper portion of the panel clip (Item 2).

2 Roof Deck Fasteners* (Panel Clips)
Any of the following. Clip spacing to be 30 in. OC max. Sealant may be used at the top of the clips:
- Tite-Loc Utility Clip: One piece assembly; 3 in. wide, approximately 2 in. high with two guide holes in base. Fabricated from No. 22 MSG coated steel.
- Tite-Loc Low Fixed Clip: One piece assembly; 3 in. wide, approximately 2-3/8 in. or 3 in. high, with three guide holes in base. Fabricated from No. 22 MSG coated steel.
- Tite-Loc Low Floating Clip: Two piece assembly; base approximately 2 in. wide, 1-11/16 in. long formed to engage upper tab. Fabricated from No. 16 MSG coated steel. Tab approximately 4-5/16 in. wide; 2-3/8 in. or 2-7/8 in. high, formed to engage base. Fabricated from No. 22 MSG coated steel. Base to have two guide holes.
- Tite-Loc AR Floating Clip: Two piece assembly; base approximately 2 1/2 in. wide, 1-7/8 in. long formed to engage upper tab. Fabricated from No. 18 MSG coated steel. Tab approximately 4-5/16 in. wide; 2-3/8 in. high, formed to engage base. Fabricated from No. 22 MSG coated steel. Base to have two guide holes.

3 Fasteners (Screws)
The plywood deck is secured to the supports with 2-1/2 in. drywall screws spaced 6 in. on center at the perimeter and 12 in. on center in the field. The Tite-Loc Clip is fastened to the deck with two #10-12x1 in. long Phillips drive screws. Panel edges are attached to the plywood with 2-1/2 in. long drywall screws, spaced 6 in. on center and 1 in. from the panel edge.

4 Supports
Wood No. 2 or better, 2 in. x 10 in. x 179 in., spaced 24 in. on center.

5 Plywood Decking
19/32 in. B-C grade APA Rated. All joints are sealed with a 1 in. wide urethane Caulk (Bostik Chem) cured for 16 hours. The entire deck is covered with an asphalt-saturated felt per the manufacturers installation instructions.

5A Oriented Strand Board (OSB) / (Not Shown)
As an alternate, nom. 5/8 in. thick (19/32 in. actual) APA rated OSB may be substituted for plywood decking (Item 5). Installation procedures are to be same as for plywood.

Refer to General Information, Roof Deck Construction for items not evaluated.

*Bearing the UL Classification Marking
UL Construction No. 617

Uplift - Class 90  /  Fire Not Investigated

1 Metal Roof Deck Panels */ "Tite-Loc"
Minimum 24 MSG thick steel, 18 in. max, 12 in. min. width, 2 in. high at the ribs. A line of sealant may be used at panel ends and sidelaps. Sidelap to be tightened and crimped with an electric seaming machine to an angle of 90 degrees. Crimping process to include the upper portion of the panel clip (Item 2).

2 Roof Deck Fasteners* (Panel Clips)
Any of the following. Clip spacing to be 48 in. OC max. Sealant may be used at the top of the clips:

   Tite-Loc Utility Clip: One piece assembly; 3 in. wide, approximately 2 in. high with two guide holes in base. Fabricated from No. 22 MSG coated steel.
   Tite-Loc Low Fixed Clip: One piece assembly; 3 in. wide, approximately 2-3/8 in. or 3 in. high, with three guide holes in base. Fabricated from No. 22 MSG coated steel.
   Tite-Loc Low Floating Clip: Two piece assembly; base approximately 2 in. wide, 1-11/16 in. long formed to engage upper tab. Fabricated from No. 16 MSG coated steel. Tab approximately 4-5/16 in. wide; 2-3/8 in. or 2-7/8 in. high, formed to engage base. Fabricated from No. 22 MSG coated steel. Base to have two guide holes.
   Tite-Loc AR Floating Clip: Two piece assembly; base approximately 2 1/2 in. wide, 1-7/8 in. long formed to engage upper tab. Fabricated from No. 18 MSG coated steel. Tab approximately 4-5/16 in. wide; 2-3/8 in. high, formed to engage base. Fabricated from No. 22 MSG coated steel. Base to have two guide holes.

3 Fasteners (Screws)
The plywood deck is secured to the supports with 2-1/2 in. drywall screws spaced 6 in. on center at the perimeter and 12 in. on center in the field. The Tite-Loc clip is fastened to the deck with two #14-1/4 x 1 in. long Phillips drive screws. Panel edges are attached to the plywood with 2-1/2 in. long drywall Phillips head screws, spaced 6 in. on center and 1 in. from the panel edge.

4 Supports
Wood No. 2 or better, 2 in. x 10 in. x 179 in., spaced 24 in. on center.

5 Plywood Decking
19/32 in. B-C grade APA Rated. All joints are sealed with a 1 in. wide urethane Caulk (Bostik Chem) cured for 16 hours. The entire deck is covered with an asphalt-saturated felt per the manufacturers installation instructions.

5A Oriented Strand Board (OSB) / (Not Shown)
As an alternate, nom. 5/8 in. thick (19/32 in. actual) APA rated OSB may be substituted for plywood decking (Item 5). Installation procedures are to be same as for plywood except that the clips shall be spaced a maximum of 30in.

Refer to General Information, Roof Deck Construction for items not evaluated.

*Bearing the UL Classification Marking
**Mechanically Attached Metal Roof Panels**

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type “Snap-Clad” roof deck panels</td>
<td>(No. 24 MSG min gauge coated steel or 0.032 min. gauge coated aluminum) placed over specified insulation and/or roof covering for respective designs. Type “Snap-Clad” panels are secured by “Snap-Clad Clips” with the upper portion of the clip engaging the panel rib. A 4-1/2 by 6 in. bearing plate fabricated from No. 26 MSG coated steel is used under each panel clip (the bearing plate shall be placed over the specified insulation). Panel clips are attached to the steel deck with No. 14 steel screws having a No. 3 Phillips-drive truss head with an off-set drill-type point. Two fasteners per clip are used.</td>
</tr>
<tr>
<td>Types “High Snap-On Standing Seam”, “Snap-On Standing Seam”, “Integral Batten”, “Integral Standing Seam”, “Redi-Roof Standing Seam”, “Redi-Roof Batten”, “Snap-Clad”, “Tite-Loc”, “Tite-Loc Plus” roof deck panels</td>
<td>(No. 24 MSG min. gauge coated steel or 0.032 min. gauge coated aluminum) placed over specified insulation and/or roof covering for respective designs. Panels secured to a top layer of 7/16 in. APA-Rated oriented strand board (OSB) laminated to rigid insulation or 5/8 in. plywood over rigid insulation. Panels secured to oriented strand board or plywood at side ribs with panel clips designed specifically for these panels. Panel clips spaced 18 in. OC using No. 10 by 1-1/4 in. long self-drilling, self tapping wafer head. Zinc-plated carbon steel screws. The oriented strand board laminated insulation or plywood covered rigid insulation are mechanically fastened to steel roof deck and covered with a 30 lb. felt.</td>
</tr>
<tr>
<td>Types “Tite-Loc” and “Tite-Loc Plus” roof deck panels</td>
<td>(No. 24 MSG min. gauge coated steel or 0.032 min. gauge coated aluminum) placed over specified insulation and/or roof covering for respective designs. Both types secured to hat sections+ or bearing plates++ with panel clips designed for the particular panel.</td>
</tr>
</tbody>
</table>

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+Hat-shaped member to be a minimum of 16 MSG, 1 in. min. depth. Member to be fastened through the roof insulation to the steel roof deck with No. 14 self-drilling and/or self-tapping fasteners. Spacing to be determined by the structural loading requirements. In addition, any compressible UL Classified glass fiber compressible blanket insulation with or without a vapor retarding facing may be used between the specified roof insulation and the metal roof panels.

++Bearing plate to be a minimum of 16 MSG. Member to be fastened through the roof insulation to the steel deck with No. 14 self-drilling and/or self-tapping fasteners.
UL Construction No. 790
Class A


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<th>Deck:</th>
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<tr>
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<td>Incline:</td>
<td>No Limitations</td>
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<tr>
<td></td>
<td>Barrier Board:</td>
<td>1/4 in. min G-P Gypsum DensDeck®</td>
</tr>
<tr>
<td></td>
<td>Ply Sheet (optional):</td>
<td>Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or WR Grace “Ice and Water Shield”</td>
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<tr>
<td></td>
<td>Surfacing:</td>
<td>Steel or aluminum roofing panels, mechanically fastened</td>
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<th>Deck:</th>
<th>NC</th>
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<tbody>
<tr>
<td></td>
<td>Incline:</td>
<td>No Limitations</td>
</tr>
<tr>
<td></td>
<td>Barrier Board:</td>
<td>5/8 in min. plywood</td>
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<tr>
<td></td>
<td>Ply Sheet (optional):</td>
<td>Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or WR Grace “Ice and Water Shield”</td>
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<td>Incline:</td>
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<tr>
<td></td>
<td>Barrier Board:</td>
<td>7/16 OBS or 5/8 in. plywood over polyisocyanurate insulation board or polyisocyanurate composite board, any thickness</td>
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<td>Ply Sheet (optional):</td>
<td>Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or WR Grace “Ice and Water Shield”</td>
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<td>Surfacing:</td>
<td>Steel or aluminum roofing panels, mechanically fastened</td>
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<td>Incline:</td>
<td>No Limitations</td>
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<tr>
<td></td>
<td>Insulation:</td>
<td>Polyisocyanurate, glass fiber, perlite or wood fiber, any thickness</td>
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<td></td>
<td>Ply Sheet (optional):</td>
<td>Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or WR Grace “Ice and Water Shield”</td>
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<tr>
<td></td>
<td>Surfacing:</td>
<td>Steel or aluminum roofing panels, mechanically fastened</td>
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<td>Incline:</td>
<td>No Limitations</td>
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<tr>
<td></td>
<td>Surfacing:</td>
<td>Steel roofing panels, mechanically attached to metal purlins</td>
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<th>Deck:</th>
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<td>Incline:</td>
<td>No Limitations</td>
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<tr>
<td></td>
<td>Barrier Board:</td>
<td>1/4 in. min G-P Gypsum DensDeck® with all joints staggered a min of 6 in. from the plywood joints</td>
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<td>Ply Sheet (optional):</td>
<td>Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or WR Grace “Ice and Water Shield”</td>
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<td>Steel or aluminum roofing panels mechanically fastened</td>
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# Maximum Clip Spacing

## Substrates

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Width</th>
<th>Open Frame Purlins</th>
<th>Solid Substrate</th>
<th>Rigid Insulation Over 22 GA Steel Deck With Bearing Plates</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 GA</td>
<td>16”, 12”</td>
<td>UL 90 (5’-0”)</td>
<td>UL 437 (5’-0”)</td>
<td>UL 180 (5’-0”)</td>
</tr>
<tr>
<td></td>
<td>16”, 12”</td>
<td>UL 176 (5’-0”)</td>
<td>UL 451 (2’-0”)</td>
<td>UL 238B (2’-6”)</td>
</tr>
<tr>
<td></td>
<td>16”, 12”</td>
<td>UL 449 (5’-0”)</td>
<td>UL 452 (2’-0”)</td>
<td>UL 487 (4’-0”)</td>
</tr>
<tr>
<td></td>
<td>18”, 16”, 12”</td>
<td></td>
<td>UL 617 (4’-0”)</td>
<td></td>
</tr>
<tr>
<td>24 GA</td>
<td>16”, 12”</td>
<td>UL 90 (5’-0”)</td>
<td>UL 437 (5’-0”)</td>
<td>UL 180 (5’-0”)</td>
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<tr>
<td></td>
<td>18”, 16”, 12”</td>
<td></td>
<td>UL 617 (4’-0”)</td>
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<tr>
<td>0.032</td>
<td>18”, 16”, 12”</td>
<td></td>
<td>UL 616 (2’-6”)</td>
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<tr>
<td>0.040</td>
<td>18”, 16”, 12”</td>
<td></td>
<td>UL 616 (2’-6”)</td>
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</tr>
</tbody>
</table>

1. Contact Petersen Aluminum Corporation for complete UL construction assemblies.
2. For complete information regarding appropriate purlin spacing, contact Petersen Aluminum Corporation directly.
3. Insulation thickness varies between 1” and 4-1/2” according to R-value desired. Refer to UL Roofing Materials directly.
4. Clip spacing should be evaluated for the applicable Building Code or governing regulation. Contact Petersen Aluminum Corp. for technical assistance regarding project specific spacing.
Valley Detail

ICE & WATER SHIELD

TYPE "AB" 10-12 x 1"

PA-115 VALLEY FLASHING

"Z" RETAINER STRIP SET IN SEALANT

5/8" PLYWOOD

SEE FOOT NOTE

TITE-LOC PANEL

TITE-LOC "AR" CLIP W/FASTENERS

* GAP APPROPRIATE FOR EXPANSION/CONTRACTION (CONSULT FACTORY)

NOTE: MINIMUM 6" FROM END OF PANEL TO VALLEY DIVERTER ON EACH SIDE OF PANEL.
CONSULT PAC ON LONGER VALLEY RUNS.

Job Name: ___________________________  Date: ___________________________

Contractor: ___________________________  Notes: ___________________________

* Gap appropriate for expansion/contraction (consult factory)

Note: Minimum 6" from end of panel to valley diverter on each side of panel.
Consult PAC on longer valley runs.
Hip/Ridge Detail

3/4" TURN-UP

PA-101 HIP/RIDGE FLASHING W/ "Z" CLOSURES

TITE-LOC "AR" CLIP W/FASTENERS

SEALANT

TITE-LOC PANEL

5/8" PLYWOOD

ICE & WATER SHIELD

TYPE "AB"
10-12 x 1"

SEALANT
(AT VERTICAL LEG & UNDER "Z")

Job Name: 

Date: 

Contractor: 

Notes: 

PETERSEN ALUMINUM CORPORATION

HQ: 1005 Tonne Road
Elk Grove Village, IL 60007
P: 800-PAC-CLAD
F: 800-722-7150

9060 Junction Drive
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P: 800-344-1400
F: 301-953-7627

10551 PAC Road
Tyler, TX 75707
P: 800-441-8661
F: 903-581-8592

350 73rd Ave., NE, Ste 1
Fridley, MN 55432
P: 877-571-2025
F: 666-901-2935

102 Northpoint Pkwy Ext, Bldg 1, Ste 100
Acworth, GA 30102
P: 800-272-4482
F: 770-420-2533

www.pac-clad.com / email: sales@petersenmail.com
Vented Ridge Detail

- TITE-LOC PANEL
- 3/4" TURN-UP
- TITE-LOC "AR" CLIP W/FASTENERS
- HIP/RIDGE FLASHING W/ "Z" CLOSURES
- PERFORATED "Z"
- SEALANT
- POP-RIVET
- TYPE "AB" 10-12 x 1"
- ICE & WATER SHIELD
- SEALANT (AT VERTICAL LEG & UNDER "Z")
- 5/8" PLYWOOD
- Vented Ridge Detail

Job Name: 
Date: 
Contractor: 
Notes: 

PETERSEN ALUMINUM CORPORATION

HQ: 1005 Tonne Road
Elk Grove Village, IL 60007
P: 800-PAC-CLAD
F: 800-722-7150

9060 Junction Drive
Annapolis Junction, MD 20701
P: 800-344-1400
F: 301-953-7627

10551 PAC Road
Tyler, TX 75707
P: 800-441-8661
F: 903-581-8592

350 73rd Ave., NE, Ste 1
Fridley, MN 55432
P: 877-571-2035
F: 612-902-2935

102 Northpoint Pkwy Ext, Bldg 1, Ste 100
Acworth, GA 30102
P: 800-272-4482
F: 770-420-2533
Eave Detail

TITE-LOC "AR" CLIP W/FASTENERS

"Z" RETAINER STRIP SET IN SEALANT

PA-116 EAVE FLASHING

PA-5 KEEPER

ICE & WATER SHIELD

5/8 " PLYWOOD

TYPE "AB" 10-12 x 1"

* GAP APPROPRIATE FOR EXPANSION/CONTRACTION (CONSULT FACTORY)
TITE-LOC "AR" CLIP W/FASTENERS

FIELD CUT & BEND RETURN IN PANEL.

SEE FOOT NOTE

PA-126 EAVE FLASHING

PA-5 KEEPER

TYPE "AB"
10-12 x 1"

ICE & WATER SHIELD

5/8" PLYWOOD

* GAP APPROPRIATE FOR EXPANSION/CONTRACTION (CONSULT FACTORY)

Job Name:

Date:

Contractor:

Notes:
Eave Detail

Tite-Loc Flashing Details

EAVE FLASHING

SEALANT (AT VERTICAL W/FASTENERS)

TITE-LOC "AR" CLIP W/FASTENERS

TITE-LOC PANEL

"Z" RETAINER STRIP SET IN SEALANT

SEE FOOT NOTE

EAVE FLASHING

5/8" PLYWOOD

ICE & WATER SHIELD

TYPE "AB"

10-12 x 1"

SEALANT (AT VERTICAL LEG & UNDER "Z")

* GAP APPROPRIATE FOR EXPANSION/CONTRACTION (CONSULT FACTORY)

Job Name:

Date:

Contractor:

Notes:
PA-151 GABLE FLASHING W/ "J" CLOSURE

FIELD-FORM PANEL LEG TO I.D. OF "J" CLOSURE

SEALANT

TITE-LOC PANEL

TITE-LOC "AR" CLIP W/FASTENERS

TYPE "AB"
10-12 x 1"

ICE & WATER SHIELD

5/8" PLYWOOD

PA-5 KEEPER

Job Name:
Date:
Contractor:
Notes:
Pitch Break Detail

Type "AB" 10-12 x 1"

3/4" Turn-Up

Sealant (at vertical leg & under "Z")

5/8" Plywood

Ice & Water Shield

Tite-Loc "AR" Clip W/ Fasteners

Tite-Loc Panel

PA-111 Pitch Break Detail W/ "Z" Closure

Job Name:

Date:

Contractor:

Notes:

Petersen Aluminum Corporation

www.pac-clad.com / email: sales@petersenmail.com

HQ: 1005 Tonne Road
Elk Grove Village, IL 60007
P: 800-PAC-CLAD
F: 800-722-7150

9060 Junction Drive
Annapolis Junction, MD 20701
P: 800-344-1400
F: 301-953-7627

10551 PAC Road
Tyler, TX 75707
P: 800-441-8661
F: 301-953-7627

350 73rd Ave., NE, Ste 1
Fridley, MN 55432
P: 877-571-2025
F: 866-901-2935

102 Northpoint Pkwy Ext, Bldg 1, Ste 100
Acworth, GA 30102
P: 800-272-4482
F: 770-420-2533
Outside Corner Detail

Job Name:

Date:

Contractor:

Notes:

TITE-LOC "AR" CLIP W/FASTENERS

TYPE "AB"
10-12 x 1"

5/8" PLYWOOD

ICE & WATER SHIELD

TITE-LOC PANEL

FIELD-FORMED PANEL

POP RIVET

SEALANT

PA-801 OUTSIDE CORNER FLASHING W/ "Z" CLOSURES

FIELD-FORMED PANEL
Inside Corner Detail

- Field-Form Panel Leg to I.D. of "J" Closure
- PA-701 Inside Corner Flashing W/ "J" Closures
- POP Rivet
- TITE-LOC "AR" Clip W/ Fasteners
- TITE-LOC Panel
- Type "AB" 10-12 x 1"
- Ice & Water Shield 5/8" Plywood
- Sealant

Job Name: ____________________________
Date: _____________________________
Contractor: ______________________
Notes: _____________________________
Peak Detail

Tite-Loc Flashing Details

3/4" TURN-UP

PA-143 PEAK FLASHING
W/ "Z" CLOSURE

TITE-LOC PANEL

TITE-LOC "AR" CLIP
W/ FASTENERS

SEALANT
(AT VERTICAL SEAM & UNDER "Z")

PA-5 KEEPER

TYPE "AB"
10-12 x 1"

ICE & WATER SHIELD

5/8" PLYWOOD

Job Name: __________________________

Date: __________________________

Contractor: __________________________

Notes: __________________________

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Acworth, GA 30102
P: 800-272-4482
F: 770-420-2533
Head Wall Detail

- **Job Name:**
- **Date:**
- **Contractor:**
- **Notes:**

**Diagram Details:**
- Fastener
- PA-121 Counter Flashing w/ reglet & "Z" closure
- 3/4" Turn-up
- Sealant (at vertical leg & under "Z")
- Tite-Loc "AR" Clip w/ fasteners
- Tite-Loc Panel
- Type "AB" 10-12 x 1"
- Ice & Water shield
- 5/8" Plywood

---

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www.pac-clad.com / email: sales@petersenmail.com
Fascia to Soffit

ICE & WATER SHIELD

5/8" PLYWOOD

TYPE "AB"
10-12 x 1"

"J" CLOSURE FOR SOFFIT

SOFFIT PANEL

PA-305 FASCIA TO SOFFIT FLASHING

TITE-LOC PANEL

TITE-LOC "AR" CLIP W/FASTENERS

Job Name:

Date:

Contractor:

Notes:
Fascia to Soffit

- **ICE & WATER SHIELD**
- **TYPE "AB"**
- **10-12 x 1"**
- **5/8" PLYWOOD**
- **FRAMING MEMBERS**
- **TITE-LOC PANEL**
- **TITE-LOC CLIP W/FASTENERS**
- **SOFFIT PANEL**
- **"J" CLOSURE FOR SOFFIT**
- **PA-405 FASCIA TO SOFFIT FLASHING**

**Job Name:**

**Date:**

**Contractor:**

**Notes:**
Gravel Stop/Head Detail

- PA-222 GRAVEL STOP/HEAD FLASHING W/“Z” CLOSURE
- TITE-LOC "AR" CLIP W/FASTENERS
- SEALANT
- 5/8" PLYWOOD
- TYPE "AB" 10-12 x 1"
- ICE & WATER SHIELD
- TITE-LOC PANEL
Gutter Detail

* GAP APPROPRIATE FOR EXPANSION/CONTRACTION (CONSULT FACTORY)
Fascia/Rake Wall Detail

TITE-LOC FASCIA PANEL

TITE-LOC "AR" CLIP W/FASTENERS

PA-601 FASCIA/RAKE WALL FLASHING W/ "J" CLOSURE

FIELD-FORM PANEL LEG TO I.D. OF "J" CLOSURE

TITE-LOC PANEL

SEALANT

TYPE "AB" 10-12 x 1"

5/8" PLYWOOD

ICE & WATER SHIELD

Job Name: __________________________
Date: ____________________________
Contractor: __________________________
Notes: ____________________________
Sill Detail

ICE & WATER SHIELD

TYPE "AB"
10-12 x 1"

5/8" PLYWOOD

TITE-LOC PANEL

TITE-LOC "AR"
CLIP W/FASTENERS

PA-205 SILL FLASHING

Job Name:

Date:

Contractor:

Notes:
PRODUCT NAME
PAC-CLAD® Prefinished Sheet Aluminum & Steel

MANUFACTURER
Petersen Aluminum Corporation
1005 Tonne Road
Elk Grove Village, IL 60007
P: 800-323-1960
847-228-7150
F: 800-722-7150
www.pac-clad.com

PRODUCT DESCRIPTION
PAC-CLAD is a pre-finished specification grade aluminum sheet or a commercial quality extra-smooth galvanized or galvalume steel sheet, primed and coated with Petersen’s full strength fluoropolymer (PVDF) high-performance coating system of 1.0 mil (0.025 mm) total dry film thickness and, on the reverse side, a wash coat of 0.3 - 0.4 mil (0.008 – 0.01 mm) dry film thickness.

Basic Use: PAC-CLAD is for general sheet metal use in building applications, as well as formed roofing and wall panels produced by Petersen Aluminum. PAC-CLAD is frequently used in the following forms:
* Roofing and mansard panels
* Exposed Fastener panels
* Fascia and soffit panels
* Gravel stops and copings
* Store front components
* Flashing & Trim

Materials and Finishes:
PAC-CLAD consists of either Aluminum Association specification ASTM B209 aluminum sheet, temper H14 or H34; hot-dipped ASTM A 653 Grade A structural quality steel sheets, AISI G90 galvanized, commercial weight, or ASTM A792 Galvalume commercial weight. PAC-CLAD sheets, coil and panels are coated with a 2-coat system using a combination of 70% Kynar 500® / Hylar 5000® polyvinylidenefluoride (PVDF), acrylic resins, pigments and solvents. The system consists of Fluropon® top coat applied over a polyester primer. A wash coat is applied to the reverse side for additional protection.

Standard Sizes: Aluminum is available in .032” - .063” (0.8 – 1.6 mm) thickness in 48” (1219 mm) widths. Steel is available in 24 and 22 ga. in 48” (1219 mm) widths.

Special Sizes: Aluminum is available in thickness to .125” (3.2 mm) and in widths to 60” (1524 mm) on special order. Minimum quantity is 20,000 lb (9080 kg). Galvanized steel is available in gauges from 26 - 18 and in widths up to 60” (1525 mm) on special order. Minimum quantity is 20,000 lb (9080 kg).

Colors: For standard colors, refer to Table. Custom match colors are available in minimum quantities of 5000 lb (4540 kg) for standard gauges.

Finish: Sheens available – Dull, matte and specular, gloss rating of 25 – 35% at 60° viewing angle.

Textures available: Smooth; stucco embossed texture E-5.

Limitations: PAC-CLAD performance depends on the integrity of the coating film, and in galvanized steel, on the underlying coating of zinc. PAC-CLAD should not be used in areas of high abrasion or where it will be subject to mechanical damage.

TECHNICAL DATA
Applicable Standards:
• Aluminum Association - Specifications for Aluminum Structures
• American Iron and Steel Institute (AISI) G90 - Hot Dipped Galvanized Steel Sheet, Commercial Weight
• Specifications for Cold-Formed Steel Design Manual

American Society for Testing & Materials (ASTM):
• ASTM A653/A653-97 – Steel Sheet, Zinc-Coated (Galvanized) by the Hot Dip Process, Structural

Physical Quality:
• ASTM B117-95 – Operating Salt Spray (Fog) Apparatus
• ASTM B209/B209M-97 – Aluminum and Aluminum Alloy Sheet and Plate
• ASTM D523-89(1994) el – Specular Gloss
• ASTM D4214 – Degree of Chalking of Exterior Paint Films
• ASTM D968-93 – Abrasion Resistance of Organic Coatings by Falling Abrasive
• ASTM D4214 – Degree of Chalking of Exterior Paint Films
• ASTM D522 – Mandrel Bend Test of Attached Organic Coatings
• ASTM D2247-94 – Testing Water Resistance of Coatings in 100% Relative Humidity
• ASTM D2794-93 – Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
• ASTM D3359-95a – Measuring Adhesion by Tape Test
• ASTM D3363-82e1 – Film Hardness by Pencil Test
• ASTM G23-96 – Operating Light-Exposure Apparatus (Carbon Arc Type) With and Without Water

National Coil Coaters Association (NCAA):
• NCAA Procedure No. 11-5
• NCCA Procedure No. 11-18
• NCCA Technical Bulletin No. 11-6

Sheet Metal & Air Conditioning Contractors National Association, Inc. (SMACNA) - Architectural Sheet Metal Manual

Physical Properties of Fluoropolymer Coating:
• Abrasion Resistance – ASTM D968, 65 ± 10
• Accelerated Weathering, Chalk - ASTM G23, Type EH, 5000 hours, rating of 8 or better
• Accelerated Weathering, Color - ASTM G23, Type EH, 5000 hours, ≤ 5 ∆E (Hunter Units) color change
• Adhesion – ASTM D3359, no loss of adhesion
• Color Change – 20 years, ≤ 5 ∆E (Hunter Units) change, after removal of external deposits
• Chemical/Acid Pollution Resistance – ASTM D1308; pass, no color change
• Formability – ASTM D4145 – 1T - 3T, No loss of adhesion
• Gloss – ASTM D523 Specular gloss: At 60 degrees; Typical; 20 – 35 (low gloss/low sheen available)
• Pencil Hardness – ASTM D3363 – HB - 2H
• Humidity Resistance – ASTM D2247, Apparatus A1 - 2000 hours (hot dipped galvanized) or 3000 hours (aluminum); no field blisters
• Impact Resistance – ASTM D2794; 1/2” ball indenter, Gardner Impact tester: No cracking; no loss of adhesion.
• Life Expectancy – ASTM G23. Type EM, weatherometer, 5000 hours, chalk rating of 8 or better
• Salt Spray Resistance, Aluminum – ASTM B117, 3000 hours: No creep from scribe; no blisters
• Salt Spray Resistance, Steel – ASTM B117, 1000 hours, creep at scribe ≤ 1/16” (1.6 mm), no blisters
• Solvent Resistance – NCCA procedure 11-18, (no comparable ASTM test), pass

INSTALLATION
Methods: Fabricate and install PAC-CLAD sheet metal in accordance with SMACNA sheet metal practices. PAC-CLAD can be cut, formed, nailed, screwed or riveted using conventional hand or power tools. PAC-CLAD coatings must be mechanically removed if soldering or welding is necessary. For best results, cutting edges should be kept sharp, clean, properly dressed and closely aligned.

A strippable vinyl film can be applied for protection during fabrication and installation if desired. Vinyl film may remain on the coating during fabrication and erection. Vinyl must be removed prior to or immediately after installation.

PAC-CLAD is a finished material; care must be taken during fabrication and erection to avoid damage to the surface. Proper bend radii must be used in fabrication.

AVAILABILITY & COST
Availability: PAC-CLAD sheets are available nationwide and are stocked in standard colors for rapid shipping within 72 hours. Special finishes require additional time for color matching and approvals.

There is a 20,000 lb (9080 kg) minimum for non-standard widths and colors. Delivery time and price will be quoted upon inquiry.

Cost: Contact the manufacturer for specific costs.

WARRANTY
A 20-year, non-prorated warranty covering color, fade, chalking and film integrity is available at no additional cost. The warranty is issued on a per project basis upon request. Contact PAC for specific requirements.

MAINTENANCE
Maintenance is not required. The panel finish is a member of the Teflon® family and is self-cleaning. If cleaning is desired, panels can be washed with mild soap and water followed by a clean water rinse.

TECHNICAL SERVICES
Technical services are available from Petersen Aluminum Corporation and regional architectural representatives.

FILING SYSTEMS
• Architects’ First Source for Products
• MANU-SPEC®
• Sweet’s Catalog Files
# PAC-CLAD Color Availability

<table>
<thead>
<tr>
<th>PAC-CLAD Standard</th>
<th>Reflectivity</th>
<th>Emissivity</th>
<th>3 Year Exposure</th>
<th>SRI*</th>
<th>Steel 24ga</th>
<th>Steel 22ga</th>
<th>Aluminum .032</th>
<th>Aluminum .040</th>
<th>Aluminum .050</th>
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### PAC-CLAD Metallic

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<th>PAC-CLAD Metallic</th>
<th>Reflectivity</th>
<th>Emissivity</th>
<th>3 Year Exposure</th>
<th>SRI*</th>
<th>Steel 24ga</th>
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### PAC-CLAD Standard Colors (do not meet cool roof requirements)

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PAC-CLAD® Metallic finishes are available from stock at a moderate extra cost. PAC-CLAD® Copper Penny is a Non-Weathering finish. Solar Reflectance Index calculated according to ASTM C-1549. *Low Gloss/Low Sheen, full Kynar 5000® or Hylar 5000® finish **Acrylic coated, non-Kynar Finish.
MANU SPEC®
Sheet Metal Roofing      07410
Petersen Aluminum Corporation

This MANU-SPEC® utilizes the Construction Specifications Institute (CSI) Project Resource Manual (PRM), including MasterFormat™, SectionFormat™ and PageFormat™. A MANU-SPEC is a manufacturer-specific proprietary product specification using the proprietary method of specifying applicable to project specifications and master guide specifications. Optional text is indicated by brackets []; delete optional text in final copy of specification. Specifier Notes precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

This MANU-SPEC specifies factory-formed metal wall, soffit and roof panels. These products are manufactured by Petersen Aluminum Corp. Revise MANU-SPEC section number and title below to suit project requirements, specification practices and section content. Refer to CSI MasterFormat for other section numbers and titles.

SECTION 07410
Metal Roof & Wall Panels

PART 1 GENERAL
1.01 SUMMARY
A. Section Includes: This Section specifies factory-formed metal wall, soffit and roof panels.
B. Related Sections:
Specifier Note: Include in this Article only those sections that directly affect the work of this section. Do not include Division 00 or Division 01 sections since it is assumed that all technical sections are related to all project Division 00 and Division 01 sections to some degree.
  1. Section [______].
Specifier Note: Article below may be omitted when specifying manufacturer’s proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Section 01 42 19 - Reference Standards may establish the edition date of standards. This article does not require compliance with standard, but is merely a listing of references used. Article below should list only those industry standards referenced in this section. Retain only those reference standards to be used within the text of this Section. Add and delete as required for specific project.

1.02 REFERENCES
A. ASTM International:
  1. ASTM A653/A653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  4. ASTM E283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen
B. FM Global (Factory Mutual):
1. FM Class I-90.
C. Sheet Metal and Air Conditioning Contractor’s National Association (SMACNA):
D. Underwriters Laboratories, Inc. (UL):
   2. UL 580 Tests for Uplift Resistance of Roof Assemblies.

1.03 SYSTEM DESCRIPTION

A. Materials:
   2. Hot-dipped galvalume commercial weight steel in compliance with ASTM A792.
   3. Alloy 3105 [H14] [H34] aluminum panels in compliance with ASTM B209.
   4. Cold-rolled copper.

B. Performance Requirements:
   1. Wind uplift in compliance with UL Classification 580 for UL Classified 90 rated assemblies.
   2. Static air infiltration of 0.06 cfm/sf (0.028 liters/second) with 6.24 psi (43 kPa) air pressure differential as tested in accordance with ASTM E283.
   3. No water infiltration at inward static air pressure differential of not less than 6.24 psi (43 kPa) and not more than 12 psi (83 kPa) as tested in accordance with ASTM E331.

Specifier Note: Article below includes the submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect’s and Contractor’s duties and responsibilities in Conditions of the Contract and Section 01 33 00 - Submittal Procedures.

1.04 ACTION SUBMITTALS

A. General: Submit listed action submittals in accordance with Conditions of the Contract and Section [01 33 00 - Submittal Procedures] [______].

B. Shop Drawings: Indicate information on shop drawings as follows:
   1. Layout, profiles and product components including dimensions, anchorage, erection details, flashing details, elevations, plans and sections required to indicate conditions.

C. Samples: Submit as follows:
   1. [Duplicate] [______], [12 inch × 12 inch (305 × 305 mm)] [______] samples of each [Roofing] [Soffit] [Wall panel] [______] [And] [Flashing] product to show selected [Colors] [Finishes] [Textures] used on project.

D. Product Data: Submit product data, including manufacturer’s SPEC-DATA® product sheet, for specified products.
   1. Material Safety Data Sheets (MSDS).

1.05 INFORMATION SUBMITTALS

A. Quality Assurance:
   1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
   2. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
   3. Manufacturer’s Instructions: Manufacturer’s installation instructions.

Specifier Note: Coordinate paragraph below with Part 3 Field Quality Requirements Article. Retain or delete as applicable.

B. Manufacturer’s Field Reports: Manufacturer’s field reports specified.

1.06 CLOSEOUT SUBMITTALS

A. Warranty: Submit warranty documents specified.
B. Operation and Maintenance Data: Submit operation and maintenance data for installed products in accordance with Section [01 78 00 - Closeout Submittals] [______].
   1. Include:
      a. Manufacturer’s instructions covering maintenance requirements.

1.07 QUALITY ASSURANCE
A. Qualifications:
   1. Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.
   2. Manufacturer Qualifications: Manufacturer capable of providing field service representation during construction and approving erection method.

Specifier Note: Paragraph below should list obligations for compliance with specific code requirements particular to this section. General statements to comply with a particular code are typically addressed in Conditions of the Contract and Section 01 41 00 - Regulatory Requirements. Repetitive statements should be avoided. Current data on building code requirements and product compliance may be obtained from manufacturer technical support specialists.

B. Regulatory Requirements:
   1. FM Class I-90.
   3. UL 263.
   4. UL 580.
   5. UL 790.
   6. UL 2218.

C. Preinstallation Meetings: Conduct preinstallation meeting to verify project requirements, manufacturer’s installation instructions and manufacturer’s warranty requirements. Comply with [Section 01 31 19 – Project Meetings] [______].

1.08 DELIVERY, STORAGE & HANDLING
A. General: Comply with [01 61 00 - Common Product Requirements] [______].
B. Ordering: Comply with manufacturer’s ordering instructions and lead time requirements to avoid construction delays.
C. Delivery:
   1. Deliver materials in manufacturer’s original packaging with identification labels intact.
D. Storage and Protection:
   1. Store materials protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.
   2. Stack prefinished material to prevent twisting, bending, abrasion, scratching and denting.
   3. Elevate one end of each skid to allow for moisture runoff.
   4. Prevent contact with material that may cause corrosion, discoloration or staining.
   5. Provide factory installed strippable vinyl film protective coating to panels.
E. Waste Management and Disposal:

Specifier Note: Environment: The disposal of packaging waste into landfill site demonstrates an inefficient use of natural resources and consumes valuable landfill space. Specifying appropriate packaging and construction waste management and disposal procedures may contribute to points required for LEED® construction project certification.

   1. Separate waste materials for [Reuse] [And] [Recycling] [_____] in accordance with [Section 01 74 19 - Construction Waste Management and Disposal] [______].

Specifier Note: Manufacturer may take back packaging and delivery materials for recycling.
2. Remove from site and dispose of packaging materials at appropriate recycling facilities.
3. Collect and separate for disposal [Paper] [Plastic] [Polystyrene] [Corrugated cardboard] [_____] packaging material [In appropriate on site bins] [_____] for recycling.

Specifier Note: Coordinate article below with Conditions of the Contract and with [01 78 36 - Warranties] [_____].

1.09 PROJECT AMBIENT CONDITIONS
A. Installation Location: Assemble and erect components only when temperatures are above 40 degrees F (4 degrees C).

1.10 SEQUENCING
A. Sequence With Other Work: Comply with manufacturer’s written recommendations for sequencing construction operations.

1.11 WARRANTY
A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
B. Manufacturer’s Warranty: Submit, for Owner’s acceptance, manufacturer’s standard warranty document executed by authorized company official. Manufacturer’s warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

Specifier Note: Coordinate article below with manufacturer’s warranty requirements.
C. Warranty: Commencing on date of acceptance by [Owner] [Architect] [Consultant] [_____].

1.12 MAINTENANCE
A. Comply with manufacturer’s written instructions to maintain installed product.

1.13 EXTRA MATERIALS
A. Provide maintenance materials in accordance with Section [01 78 00 - Closeout Submittals] [_____].

PART 2 PRODUCTS
2.01 MANUFACTURERS
A. Ensure manufacturer has minimum [5] [_____] years experience in manufacturing components similar to or exceeding requirements of project.

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as “or equal” or “or approved equal” or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining “or equal” products.

2.02 SHEET METAL ROOFS, SOFFITS, WALL PANELS
A. Manufacturer: Petersen Aluminum Corp.
   1. Contact: 1005 Tonne Rd., Elk Grove Village, IL 60007; Telephone: (800) 323-7960, (847) 228-7150; Fax: (800) 722-7150; website: www.pac-clad.com.
B. Proprietary Products/Systems:

Specifier Note: If more than one metal panel product is required for the project, copy and edit the following articles as required and identify metal panels and other variables in a schedule at the end of Part 3 of this section.

1. Roof Panels [RP-1] [_____]:
   a. Panel Description: [TITE-LOC] [TITE-LOC PLUS].
i. Width: [12 inches (305 mm)] [16 inches (406 mm)] 18 inches (457 mm)].
  ii. Height: 2 inches (51 mm)

b. Panel Description: SNAP-CLAD Standing Seam.
   i. Width: [10 inches (254 mm)] [12 inches (305 mm)] [16 inches (406 mm)] [18 inches (457 mm)].
   ii. Height: 1 3/4 inches (45 mm).

c. Panel Description: SNAP-ON Standing Seam.
   i. Width: [12 inches (305 mm)] [18 inches (457 mm)] [19 inches (483 mm)] [20 inches (508 mm)].
   ii. Height: 1 inch (25.4 mm).

d. Panel Description: High SNAP-ON Standing Seam.
   i. Width: [11 inches (279 mm)] [18 inches (457 mm)] [19 inches (483 mm)].
   ii. Height: 1 1/2 inches (38.1 mm).

e. Panel Description: SNAP-ON Batten.
   i. Width: [11 inches (279 mm)] [12 inches (305 mm)] [18 inches (457 mm)].
   ii. Height: 1 1/2 inches (38.1 mm).

f. Panel Description: Redi-Roof Standing Seam.
   i. Width: [12 inches (305 mm)] [16 inches (406 mm)] [18 inches (457 mm)]
   ii. Height: 1 9/16 inches (40 mm).

g. Panel Description: Redi-Roof Batten.
   i. Width: 12 inches (305 mm).
   ii. Height: 1 1/4 inches (32 mm).

h. Material: [22 gauge (0.85 mm) hot-dipped galvalume steel] [24 gauge (0.70 mm) hot-dipped galvanized steel] [0.032 inch (0.81 mm) aluminum alloy 3105-H14] [0.040 inch (1.02 mm) aluminum alloy 3105-H14] [16 oz (0.45 kg) cold rolled copper].
   i. Type: [Standing seam] [High snap-on standing seam] [Batten] [With offsets].
   j. Radius: [Concave] [Convex] available in TITE-LOC, SNAP-ON Standing Seam and Redi-Roof Batten.
   k. Sealant: Factory applied and available on TITE-LOC, TITE-LOC PLUS and SNAP-CLAD Standing Seam.
   l. Stiations (optional).
   m. Stiffening Beads: [None] [1] [2] [3] manufacturer applied.
   n. Stiations with stiffening beads – Tite-Loc and Tite-Loc Plus only
   o. Texture: [Smooth] [Stucco embossed].
   p. Topside Panel Finish: Total dry film thickness of 1.0 mil. [From manufacturer’s standard colors] [______].
   q. Panel Underside Finish: Polyester wash coat with total dry film thickness of 0.5 mil.
   r. Eave notched.

2. Wall Panels [WP-1] [______]:
   a. Panel Description: Flush Panel.
      i. Width: [7 inches (178 mm)] [11 inches (279 mm)] [12 inches (305 mm)].
      ii. Height: 1 inch (25.4 mm).
   b. Panel Description: Reveal Panel.
      i. Width: [7 inches (178 mm)] [11 inches (279 mm)] [12 inches (305 mm)].
      ii. Height: 1 inch (25.4 mm).
   c. Panel Description: M-Panel.
      i. Width: [36 inches (914 mm)] [42 inches (1067 mm)].
      ii. Height: 3/4 inch (19.1 mm).
   d. Panel Description: R-Panel.
      i. Width: [36 inches (914 mm)] [41 inches (1041 mm)].
      ii. Height: 1 1/4 inch (32 mm).
   e. Panel Description: 2.67 x 7/8 inch (22.2 mm) Corrugated Panel.
      i. Width: 34.67 inches (881 mm) for roofing; 37.33 inches (948 mm) for siding.
      ii. Height: 7/8 inches (22 mm).
   f. Panel Description: 2.67 x 1/2 inch (12.7 mm) Corrugated Panel.
      i. Width: 40 inches (1016 mm) for roofing; 42.67 inches (1084 mm) for siding.
ii. Height: 1/2 inch (12.7 mm).

g. Panel Description: 7.2 Rib Panel.
i. Width: 36 inches (914 mm).
ii. Height: 1 1/2 inches (38.1 mm).

h. Material: [22 gauge (0.85 mm) hot-dipped galvalume steel] [24 gauge (0.70 mm) hot-dipped galvanized steel] [0.032 inch (0.81 mm) aluminum alloy 3105-H14] [0.040 inch (1.02 mm) aluminum alloy 3105-H14].
i. Texture: [Smooth] [Stucco embossed].

Specifier Note: Retain article below to specify perforation options for Exposed Fastener panels when used in Equipment Screen applications.
j. Perforation available

k. Topside Panel Finish: Total dry film thickness of 1.0 mil. [From manufacturer’s standard colors] [_____].
i. Panel Underside Finish: Polyester wash coat with dry film thickness of 0.5 mil.

3. Soffit Panels [SP-1] [_____]:
a. Panel Description: Flush Panel.
i. Width: [7 inches (178 mm)] [11 inches (279 mm)] [12 inches (305 mm)].
ii. Height: 1 inch (25.4 mm).

iii. Material: [22 gauge (0.85 mm) hot-dipped galvalume steel] [24 gauge (0.70 mm) hot-dipped galvanized steel] [0.032 inch (0.81 mm) aluminum alloy 3105-H14] [0.040 inch (1.02 mm) aluminum alloy 3105-H14].

b. Panel Description: Reveal Panel

i. Width: [7 inches (178 mm)] [11 inches (279 mm)] [12 inches (305 mm)].
ii. Height: 1 inch (25.4 mm).

iii. Material: [22 gauge (0.85 mm) hot-dipped galvalume steel] [24 gauge (0.70 mm) hot-dipped galvanized steel] [0.032 inch (0.81 mm) aluminum alloy 3105-H14] [0.040 inch (1.02 mm) aluminum alloy 3105-H14].
c. Panel Description: PAC-750 Soffit Panel.
i. Width: 12 inches (305 mm).
ii. Height: 1/2 inch (12.7 mm).

iii. Material: 0.032 inch (0.81 mm) aluminum alloy 3105-H14.

d. Panel Description: PAC-850 Soffit Panel.
i. Width: 12 inches (305 mm).
ii. Height: 1/2 inch (12.7 mm).

iii. Material: 0.032 inch (0.81 mm) aluminum alloy 3105-H14.

Specifier Note: Retain article below to specify venting options for PAC-750 Soffit or PAC-850 Soffit panels.

e. Venting: [Full Vent] [Half Vent] [No vent – Solid]

Specifier Note: Retain article below to specify venting/perforating options for Flush Soffit panels.

f. Venting/Perforating: [Non-vented] [1 row] [2 rows] [full perforation].
g. Topside Panel Finish: Total dry film thickness of 1.0 mil. [From manufacturer’s standard colors] [_____].
h. Panel Underside Finish: Polyester wash coat with dry film thickness of 0.5 mil.

4. Flashing and Trim:
a. Material: [22 gauge (0.85 mm) hot-dipped galvalume steel] [24 gauge (0.70 mm) hot-dipped galvanized steel] [0.032 inch (0.81 mm)] [0.040 inch (1.02 mm)] [0.050 inch (1.29 mm)] [0.063 inch (1.63 mm)] alloy 3105-H14 aluminum] [16 oz (0.45 kg) cold rolled copper].
b. Profiles: [To manufacturer’s standard flashing and trim profiles] [As detailed] [_____].
c. [Color and finish to match [Roof] [Wall] [Soffit] panels] [_____].

2.03 SOURCE QUALITY CONTROL
A. Ensure cladding/roofing components and materials are from single manufacturer.

Specifier Note: Edit Paragraph below to suit project requirements. If substitutions are permitted, edit text below. Add text to refer to Section 01 25 13 - Product Substitution Procedures.

2.04 PRODUCT SUBSTITUTIONS
A. Substitutions: [In accordance with Section 01 25 13 - Product Substitution Procedures] [______] [No substitutions permitted].

PART 3 EXECUTION
3.01 MANUFACTURER’S INSTRUCTIONS

Specifier Note: Article below is an addition to the CSI SectionFormat and a supplement to MANU-SPEC. Revise article below to suit project requirements and specifier’s practice. Compliance: Comply with manufacturer’s written data, including product technical bulletins, product catalog installation

A. Compliance: Comply with manufacturer’s written data, including product technical bulletins, product catalog, installation instructions, product carton installation instructions and Petersen Aluminum Corp. PAC-CLAD SPEC-DATA sheets.

3.02 EXAMINATION
A. Site Verification of Conditions:
   1. Verify that substrate conditions, which have been previously installed under other sections or contracts, are acceptable for product installation in accordance with manufacturer’s instructions prior to installation of [Roof] [Wall] [Soffit] panels.

3.03 PREPARATION
A. Ensure surfaces are clean and free of dirt and other foreign matter harmful to performance of [Roof] [Wall] [Soffit] materials.
B. Remove manufacturer’s protective film from panel surfaces.
C. Coordinate panel installation with work of other trades to provide a noncorrosive and leakproof installation.
D. Prevent galvanic action of dissimilar metals in proximity to one another.

3.04 INSTALLATION

Specifier Note: Coordinate installation with the manufacturer’s written installation details and instructions.

A. Seams: Provide uniform, neat seams.
B. Fasteners: Conceal fasteners where possible in exposed work. Cover and seal fasteners and anchors for watertight and leakproof installation.
C. Sealant-Type Joints: Provide sealant-type joint where indicated. Form joints to conceal sealant.

3.05 FIELD QUALITY CONTROL

Specifier Note: Use the following Articles only when manufacturer’s field services are desired to verify the quality of the installed components. Establish the number and duration of periodic site visits required by manufacturer and specify below. Consult manufacturer for services required. Delete if field services are not required.

A. Have manufacturer of products supplied under this Section review work involved in handling, installation/ application, protection and cleaning of its product(s), and submit written reports in acceptable format to verify compliance of work with Contract.
B. Manufacturer’s Field Services: Provide manufacturer’s field services consisting of product use recommendations
and periodic site visits for inspection of product installation in accordance with manufacturer’s instructions.

C. Schedule Site Visits to Review Work at Stages Listed:
   1. After delivery and storage of products, and when preparatory Work on which Work of this Section depends is complete, but before installation begins.
   2. [Twice] [_____] during progress of Work at [25%] [_____] and [60%] [_____] complete.
   3. Upon completion of Work, after cleaning is carried out.
   D. Obtain reports within [3] [_____] days of review and submit.

3.06 TESTING AND VERIFICATION
   A. Perform tests recommended and required by manufacturer to verify required performance of panel system, under supervision and monitoring process of accredited and designated design engineer.
   B. Perform and meet tests required by [Owner] [Architect] [Consultant] [Authorities having jurisdiction] [______].

3.07 FINAL CLEANING
   A. Do cleanup in accordance with Section [01 74 00 - Cleaning and Waste Management] [______].
   B. Upon completion, remove surplus and excess materials, rubbish, tools and equipment.

3.08 PROTECTION
   Specifier Note: Coordinate the following Article with Section 01 76 00 - Protecting Installed Construction.
   A. Protect installed product from damage during construction in accordance with Section [01 76 00 – Protecting Installed Construction] [______].

3.09 SCHEDULE
   Specifier Note: Include a schedule of panel types and locations to suit project requirements.
   A. Roof Panel Type RP-1: [Location].
   B. Roof Panel Type RP-2: [Location].
   C. Wall Panel Type WP-1: [Location].
   D. Soffit Panel Type SP-1: [Location].

END OF SECTION
Notes: