Western States R Panel
Installation, Flashings & Shop Drawing Detail Guide

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Western States “R” Panel
Installation, Flashings & Shop Drawing Detail Guide

Notes to Designer and Installers

The details contained in this guide are proven industry details and are intended to be used as a design aid and installation guide. It does not depict all situations that may be encountered on all projects. Modifications are the responsibility of the designer/owner/installer. Consideration should be given for Fit for Purpose, Building use, Climate conditions such as temperature, snow, wind, and moisture, Governing Building Codes, and Maintenance. It is highly recommended that all trims and flashings be of the same material as the panels (metal, gauge, finish) to ensure long term performance and durability. Where possible, flashing edges should be hemmed to strengthen the edge and protect the cut edge from exposure.

Framing and Substrates
“R” panels are used over all type of substrates like Steel Decking, open purlins, spaced sheathing, and wood decking such as plywood. Most details in this guide are shown with panels attached to Purlins.

Note on underlayment
Not all conditions require an underlayment, however metal roofing is susceptible to Condensation and it is recommended that an appropriate Roofing underlayment be used on all wood substrates to protect the structure during installation. For added protection from rain and snow, it is recommended to use rubberized Ice and water shield on eaves, valleys, and areas of roof penetrations.

Slope Requirements
It is recommended that “R” panels have a minimum slope requirement of 1:12 on all structures.

Valley and Snow Design
Valley design and dimension must be the proper width to accommodate high snow, rain, ice, and slope conditions. If possible, splices, penetrations, valleys, roof elevation changes, should be minimized in areas of high snow and ice accumulations.

Oil Canning
Oil canning is a condition common with flat metal surfaces. This waviness is caused by steel mill tolerances, forming, variations in the structures surfaces, and hardness of the steel. Measures are taken at the roll forming process, like profile design, steel gauge, corrective leveling, to minimize the effects of oil canning. Oil Canning is a Characteristic of steel and can not be eliminated totally and therefore is not reason for rejection of the panels.

Job Site Storage
While waiting to be installed on the job site, Storage of panels, trim crates, and flat sheet should be sloped in order to allow for proper moisture run off. One end should be elevated so as not to allow ponding of water on the metal surface. When using tarps for protection, proper ventilation should be provided to prevent condensation. Moisture or condensation that is trapped inside a bundle can lead to white rust on sheeting.

References
For other installation techniques and details, The Sheet Metal and Air Conditioning Contractors National Association Inc. (SMACNA) and NRCA manuals are great resources for working with sheet metal.

Technical Assistance
Contact your WSDI sales or technical representative for any additional information or assistance.
Western States Metal Roofing “R” Panel
Installation, Flashings & Shop Drawing Detail Guide

Fastener Placement and Selection

Notes to Installers:

• Fastener Selection will vary depending on type and thickness of substrate.
• Space panel lap screws 12” minimum - 24” O.C. maximum. Consult with design engineer.
• Spacing of fastener rows to be engineered by others.
• Lap panels away from prevailing winds whenever possible.
• The use of Butyl tape mastic is always recommended on the panel lap when used for roof panels.
• Panels and flashings should never be installed in contact with dissimilar metals.
• Use only those flashings and accessories designed for use with this panel.
• Panel attachment screws must be long enough to fully penetrate through roof deck substrate or penetrate solid lumber at least one inch.

• Exposed Fasteners should have sealing washers and be coated to provide protection against corrosion.
• Screws must be properly driven to ensure holding strength and proper seal. (see diagram)
• Recommended drill speed is 2000rpm. Improper setting of drill speed can lead to snapping of screw heads.
• Pre drilling of screw holes may be necessary with heavy gauge metals.
# Fastener Selection

<table>
<thead>
<tr>
<th>Description</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>#9 x1” Wood Drillers</td>
<td>Used to attach panels to dimensional Lumber and plywood</td>
</tr>
<tr>
<td>#9 x 1.5” Wood Drillers</td>
<td></td>
</tr>
<tr>
<td>#9 x2” Wood Drillers</td>
<td></td>
</tr>
<tr>
<td>#12-14 x 1” SD</td>
<td>Used to attach panels to Purlins and other metal substrates</td>
</tr>
<tr>
<td>#12- 14 x1.5” SD</td>
<td></td>
</tr>
<tr>
<td>#12- 14 x 2” SD</td>
<td></td>
</tr>
<tr>
<td>#12-24 x1.25 SD</td>
<td></td>
</tr>
<tr>
<td>¼ x 7/8” Lap Self tap</td>
<td>Used to attach Trims and panel side laps. Stainless to be used with A606-4 Steel</td>
</tr>
<tr>
<td>¼” x7/8 Lap Stainless</td>
<td></td>
</tr>
<tr>
<td>#10-12 x1” Pancake Wood</td>
<td>Used to secure trims to substrates. Also available in Stainless Steel.</td>
</tr>
<tr>
<td>#10-12 x 1” SD Self Driller</td>
<td></td>
</tr>
<tr>
<td>1/8” Stainless Rivets</td>
<td>Used for Trim to Trim attachment or trim to wall panels.</td>
</tr>
<tr>
<td>Stainless Screws</td>
<td></td>
</tr>
<tr>
<td>#10 x1  Wood Drillers</td>
<td>Used for panel attachment for panels made with A606-4 Steel</td>
</tr>
<tr>
<td>#10 x 1.5 Wood Drillers</td>
<td></td>
</tr>
<tr>
<td>#10 x 2” Wood Drillers</td>
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The table above shows the panel Fasteners provided by WSD. Special order screws are available.
<table>
<thead>
<tr>
<th>PANEL TYPE</th>
<th>DETAIL #</th>
<th>PANEL TYPE</th>
<th>DETAIL #</th>
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<tbody>
<tr>
<td>EAVE FLASHING WS-204</td>
<td>B 01-14-13</td>
<td>MINI EAVE FLASHING WS-240</td>
<td>A 06-18-12</td>
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<td>PITCH BREAK LOW TO HIGH WS-237</td>
<td></td>
<td>SCULPTURED EAVE WS-245</td>
<td></td>
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<tr>
<td>PITCH BREAK HIGH TO LOW WS-236</td>
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<td>CUSTOM TRIM REGLET FLASHING WS-229</td>
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<tr>
<td>MINI GABLE FLASHING WS-241</td>
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<td>SCULPTURED GABLE WS-209</td>
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<tr>
<td>UNIVERSAL GABLE FLASHING WS-298</td>
<td></td>
<td>GABLE FLASHING WS-211</td>
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<tr>
<td>OVERSIZED VALLEY WS-223</td>
<td></td>
<td>MINI GABLE FLASHING WS-241</td>
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<tr>
<td>STANDARD VALLEY WS-224</td>
<td></td>
<td>UNIVERSAL GABLE FLASHING WS-298</td>
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Phoenix, AZ 85007
www.MetalForRoofing.com
www.RustedRoofing.com
www.MetalDeck.com

Phone: (602) 495-0048
Fax: (602) 261-7726
877-PURLINS (787-5467)
<table>
<thead>
<tr>
<th>EXTENDED VALLEY WS-225</th>
<th>PEAK FLASHING WS-219</th>
<th>JAMB TRIM WS-203</th>
<th>HEAD TRIM WS-208</th>
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<td><img src="image2.png" alt="Diagram" /></td>
<td><img src="image3.png" alt="Diagram" /></td>
<td><img src="image4.png" alt="Diagram" /></td>
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</table>

**BASE TRIM WS-206**

![Diagram](image5.png)

**ENDWALL FLASHING WS-228**

![Diagram](image6.png)

**SIDEWALL FLASHING WS-207**

![Diagram](image7.png)

**RIDGE/HIP CAP WS-205**

![Diagram](image8.png)

**RIDGE/HIP CAP WS-205H**

![Diagram](image9.png)

**RIDGE/HIP CAP WS-220**

![Diagram](image10.png)

**RIDGE/HIP CAP WS-220H**

![Diagram](image11.png)

**DIE FORMED RIDGE CAP WS-221**

![Diagram](image12.png)

**BASE TRIM WS-206**

![Diagram](image13.png)

**ENDWALL FLASHING WS-228**

![Diagram](image14.png)

**SIDEWALL FLASHING WS-207**

![Diagram](image15.png)

**RIDGE/HIP CAP WS-205**

![Diagram](image16.png)

**RIDGE/HIP CAP WS-205H**

![Diagram](image17.png)

**RIDGE/HIP CAP WS-220**

![Diagram](image18.png)

**RIDGE/HIP CAP WS-220H**

![Diagram](image19.png)

**DIE FORMED RIDGE CAP WS-221**

![Diagram](image20.png)
<table>
<thead>
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<td><img src="image1" alt="Outside Corner" /></td>
<td><img src="image2" alt="Inside Corner" /></td>
<td><img src="image3" alt="Cricket Flashing" /></td>
<td><img src="image4" alt="Sculptured Gutter" /></td>
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<td><img src="image5" alt="Box Gutter Pre-Hung" /></td>
<td><img src="image6" alt="Box Gutter Post-Hung" /></td>
<td><img src="image7" alt="Sculptured Post-Hung Gutter" /></td>
<td><img src="image8" alt="Spline for Box Gutter" /></td>
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<th>DOWNSPOUT STRAIGHT WS-226</th>
<th>DOWNSPOUT WITH KICKOUT WS-227</th>
<th>DOWNSPOUT ELBOW WS-243</th>
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</thead>
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<td><img src="image10" alt="Downspout Straight" /></td>
<td><img src="image11" alt="Downspout with Kickout" /></td>
<td><img src="image12" alt="Downspout Elbow" /></td>
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<table>
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<th>STANDARD TRIM</th>
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<td>R-Panel</td>
<td>WSD-ST7</td>
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<tr>
<td>Panel Type</td>
<td>Detail</td>
<td>Dimensions</td>
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<tr>
<td>----------------------------------</td>
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<td>---------------------</td>
</tr>
<tr>
<td>DOWNSPOUT STRAP WS-242</td>
<td>1/2&quot; HEM</td>
<td>3 5/8&quot; 1&quot; 4 1/8&quot; 3 5/8&quot;</td>
</tr>
<tr>
<td>DOWNSPOUT OUTLET WS-275</td>
<td>3 3/8&quot; 3 7/8&quot; 4&quot; 1/2&quot; WEBS 1/2&quot; TABS</td>
<td></td>
</tr>
<tr>
<td>GUTTER STRAP WS-212</td>
<td>5/8&quot; HEM</td>
<td>3/8&quot; HEM 1&quot;</td>
</tr>
<tr>
<td>BOX GUTTER END CAP WS-214</td>
<td>4 11/16&quot; 5 7/8&quot; 1 1/4&quot; 1&quot; TABS</td>
<td></td>
</tr>
</tbody>
</table>

**SCULPTURE GUTTER END CAP WS-249**

- 3 5/16" 1 1/4" 4 1/16" 3 15/16" 1" TABS
NOTE:
FOR HIGH SNOW AREA THE OVERHANG
SHOULD BE 1” MAX.

R PANEL
INSIDE FOAM CLOSURE
(SET IN SEALANT)

#12-14X1” SELF DRILLER W/
WASHER (SEE PAGE 3 & 4 FOR
FASTENER PLACEMENT AND
SELECTION) *FOOTNOTE

#14X7/8” LAP OR STITCH SCREW
@ 24” O.C.

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD
TO BE #9X_ WOOD SCREW
FASTENER

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NOTE:
FOR HIGH SNOW AREA THE OVERHANG SHOULD BE 1" MAX.

MINI EAVE DETAIL
WSD-ME1
R-Panel

06-18-12

BREAKS:
FINISH:
MATERIAL:
GAUGE:
COLOR:
STRETCH OUT:
LENGTH:

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

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MINI EAVE DETAIL
WSD-ME1
R-Panel

01-14-13
06-18-12
**EAVE DETAIL**

PRE-HUNG

GUTTER DETAIL

**PANEL TYPE:**

R-Panel

---

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---

**BREAKS:**

**FINISH:**

**MATERIAL:**

**GAUGE:** 

**COLOR:**

---

**LENGTH:**

**STRETCH OUT:**

---

**DETAIL #:**

WSD-EPRG1

---

**DATE:**

**REV:**

B 01-14-13
A 06-18-12

---

**FOOTNOTE:**

FASTENER TYPE OVER PLYWOOD 
TO BE #9X_ WOOD SCREW FASTENER

---

**ROOF EAVE STRUT**

---

**FASTENER AT 12” O.C.**

---

**INSIDE FOAM CLOSURE**
*(SET IN SEALANT)*

---

**#12-14x1" SELF DRILLER W/ WASHER (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) **

---

**GUTTER STRAP AT 36” O.C**

MAX. FASTEN STRAP TO GUTTER W/(2) #14X7/8" LAP SELF DRILLER

---

**BOX GUTTER PRE-HUNG**
*(WS-210)*

**DENOTES ANGLE**

---

**GUTTER END CAP (WS-214)**
**EAVE DETAIL**

**POST HUNG**

**GUTTER DETAIL**

**Panel Type:** R-Panel

**Detail #:** WSD-EG2

**Date:** 06-18-12

---

**R PANEL**

**INSIDE FOAM CLOSURE**

*(SET IN SEALANT)*

**#12-14X1" SELF DRILLER W/ WASHER (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) *FOOTNOTE***

*(WS-212) GUTTER STRAP AT 36" O.C. MAX. FASTEN STRAP TO GUTTER W/(2) #14X7/8" LAP SELF DRILLER***

---

**#14X7/8" LAP SELF DRILLER @ 12" O.C. MAX.***

**APPROPRIATE UNDERLAYMENT**

**ROOF EAVE STRUT**

**BREAKS:**

**FINISH:**

**MATERIAL:**

---

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NOTE:
GUTTER SPLICE TO BE INSTALLED ON OUTSIDE OF GUTTER

POP RIVET ONE SIDE AS REQUIRED

*GUTTER SPLICE (WS---)

APPLY NON-CURING BUTYL SEALANT ON BOTH SIDES OF GUTTER

1" GAUGE

1/4" BOX GUTTER

GUTTER SPLICE (WS-213) * DENOTES ANGLE

"POST/PRE-HUNG GUTTER"

GUTTER SPLICE (WS-260) * DENOTES ANGLE

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GAUGE: ________ COLOR: ________
BREAKS: ________ FINISH: ________
LENGTH: ________ STRETCH OUT: ________
MATERIAL: ________

GUTTER SPLICE DETAIL

R-Panel

B 01-14-13
A 06-18-12
REV: DATE:
DETAIL #: WSD-EG3
#14X7/8" LAP SELF DRILLER @ 12" O.C. MAX.

BUTYL TAPE SEAL

GABLE FLASHING (WS-211)

#14X7/8" LAP OR STITCH SCREW @ 24" O.C.

WALL PANEL

ROOF PURLIN

COLOR SIDE

GABLE FLASHING (WS-211)

#12-14X1" SELF DRILLER W/WASHER (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) *FOOTNOTE

R PANEL

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X WOOD SCREW FASTENER

<table>
<thead>
<tr>
<th>GAUGE</th>
<th>COLOR</th>
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<table>
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<th>BREAKS</th>
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<table>
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<tr>
<th>LENGTH</th>
<th>STRETCH OUT</th>
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Fax: (602) 261-7726
877-PURLINS (787-5467)
#14x7/8" Lap Self Driller @ 12" O.C. Max.

Butyl Tape Seal

Mini Gable Flashing (WS-241)

#14x7/8" Lap or Stitch Screw @ 24" O.C.

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#12-14x1" Self Driller W/ Washer (see page 3 & 4 for fastener placement and selection) *Footnote

R Panel

Color Side

1/2 Hem

7/8 Hem

1/2 Hem

MINI GABLE FLASHING (WS-241)

* Footnote:
Fastener type over plywood to be #9x_ wood screw fastener

<table>
<thead>
<tr>
<th>GAUGE:</th>
<th>COLOR:</th>
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<tbody>
<tr>
<td>BREAKS:</td>
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<td>LENGTH:</td>
<td>STRETCH OUT:</td>
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<td>MATERIAL:</td>
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</table>

MINI GABLE FLASHING DETAIL

R-Panel

B 01-14-13
A 06-18-12
REV: DATE:
DETAIL #: WSD-MGF2
**Sculptured Gable Flashing**

*FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

**Details:**
- Butyl Tape Seal
- #14X7/8" Lap or Stitch Screw @ 24" O.C.
- #14X7/8" Lap Self Driller @ 12" O.C. Max.

**Material:**
- Gauge: ________
- Color: ________
- Breaks: ________
- Finish: ________
- Length: ________
- Stretch Out: ________
- Material: ________

**Contact:**
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**Date:**
- A 06-18-12
- B 01-14-13
#14X7/8" LAP SELF DRILLER @ 12" O.C. MAX.

BUTYL TAPE SEAL

PEAK FLASHING (WS-219)

BUTYL TAPE SEAL

#14X7/8" LAP OR STITCH SCREW @ 24" O.C.

WALL PANEL

ROOF PURLIN

OUTSIDE FOAM CLOSURE (SET IN SEALANT)

#12-14X1" SELF DRILLER W/WASHER (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) *FOOTNOTE

R PANEL

5" (VARIES) COLOR SIDE

2" HEM

PEAK FLASHING/HIGH EAVE FLASHING (WS-219)  
* DENOTES ANGLE

* FOOTNOTE:  
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

---

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Fax: (602) 261-7726  
877-PURLINS (787-5467)
SIDEWALL FLASHING DETAIL

WSD-SW4
R-Panel

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GAUGE: ________  COLOR: ________
BREAKS: ________  FINISH: ________
LENGTH: ________  STRETCH OUT: ________
MATERIAL: ________
**Detail #:**

**Panel Type:** R-Panel

**Rev.:** B

**Date:** 01-14-13

---

- **Flashings:**
  - Endwall Flashing (WS-228)

- **Materials:**
  - **Material:**
  - **Color:**
  - **Gauge:**
  - **Breaks:**
  - **Finish:**
  - **Length:**
  - **Stretch Out:**

---

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DIE FORMED RIDGE (WS-221)

#14X7/8" LAP SELF DRILLER
@ 12" O.C. MAX.

BUTYL TAPE SEAL
(UNDER RIDGE CAP)

RIDGE/HIP SUPPORT PLATE
16GA MINIMUM

FASTENER AT 12" O.C.

ROOF PURLIN

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD
TO BE #9X_ WOOD SCREW
FASTENER

* 6:12 PITCH MAX.
RIDGE/HIP CAP (WS---)

#14X7/8" LAP SELF DRILLER @ 12" O.C. MAX.

BUTYL TAPE SEAL

FASTENER AT 12" O.C.

RIDGE/HIP SUPPORT PLATE 16GA MINIMUM

ROOF PURLIN

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD
TO BE #9X_ WOOD SCREW FASTENER

RIDGE/HIP CAP DETAIL

FINISH:

MATERIAL:

GAUGE:

COLOR:

BREAKS:

STRETCH OUT:

LENGTH:

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COLOR SIDE

OUTSIDE FOAM CLOSURE
(SET IN SEALANT)

R PANEL

#12-14X1" SELF DRILLER W/ WASHER (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) *FOOTNOTE
#12-14x1” SELF DRILLER W/ WASHER (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION)

FASTENER AT 12” O.C.

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X WOOD SCREW FASTENER

VALLEY SUPPORT PLATE 16GA MINIMUM

ROOF PURLIN

* VALLEY FLASHING (WS-223, WS-224, WS-225)
* DENOTES ANGLE

INSIDE FOAM CLOSURE (SET IN SEALANT)

R PANEL

* VALLEY FLASHING (WS-____)
#12-14X1" SELF DRILLER W/ WASH (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) *FOOTNOTE

PITCH BREAK HIGH TO LOW (WS-236)

#14X7/8" LAP SELF DRILLER @ 12" O.C. MAX.

BUTYL TAPE SEAL

OUTSIDE FOAM CLOSURE (SET IN SEALANT)

R PANEL

2 ROWS OF BUTYL TAPE SEAL

ROOF PURLIN

SUPPORT PLATE 16GA MINIMUM

* FOOTNOTE:
FAS TER TYPE OVER PLYWOOD TO BE #9X WOOD SCREW FASTENER

PITCH BREAK HIGH TO LOW FLASHING (WS-236)

* DENOTES ANGLE

---

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#12-14x1" SELF DRILLER W/ WASHERS (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION)

INSIDE FOAM CLOSURE (SET IN SEALANT)

PITCH BREAK LOW TO HIGH (WS-237)

#14x7/8" LAP SELF DRILLER @ 12" O.C. MAX.

BUTYL TAPE SEAL

OUTSIDE FOAM CLOSURE (SET IN SEALANT)

R PANEL

SLOPE S1

PITCH BREAK LOW TO HIGH FLASHING (WS-237)

* DENOTES ANGLE

R PANEL

SLOPE S2

COLOR:

GAUGE:

MATERIAL:

BREAKS:

FINISH:

LENGTH:

STRETCH OUT:

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PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"

Western States Metal Roofing

PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"

Western States Metal Roofing

PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"

Western States Metal Roofing

PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"

Western States Metal Roofing

PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"

Western States Metal Roofing

PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"

Western States Metal Roofing

PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"

Western States Metal Roofing

PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"

Western States Metal Roofing

PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"

Western States Metal Roofing

PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"

Western States Metal Roofing

PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"

Western States Metal Roofing

PITCH BREAK LOW TO HIGH DETAIL

B 01-14-13
A 06-18-12

PALNE PANEL TYPE: R-Panel

DETAIL #: WSD-PB9

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

2 ROWS OF BUTYL TAPE SEAL

SUPPORT PLATE 16GA minimum

FASTENER AT 12" O.C.

COLOR SIDE

5"

6"

2"
ANCHOR FASTENER BY OTHERS

BUTYL TAPE SEAL

ROOF PURLIN

CAULK SEALANT
REGLET FLASHING CUSTOM TRIM (WS-229)
#14X7/8” LAP SELF DRILLER @ 12” O.C. MAX.
OUTSIDE FOAM CLOSURE (SET IN SEALANT)
ENDWALL FLASHING (WS-228)

#12-14X1” SELF DRILLER W/ WASHER (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) *FOOTNOTE

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

* DENOTES ANGLE

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877-PURLINS (787-5467)

ENDWALL (WS-228)

COLOR SIDE

COLOR SIDE

REGLET FLASHING CUSTOM TRIM (WS-229)

GAUGE: ________  COLOR: ________
BREAKS: ________  FINISH: ________
LENGTH: ________  STRETCH OUT: ________
MATERIAL: ________

CHIMNEY FLASHING DETAILS

B 01-14-13
A 06-18-12

PANEL TYPE:
R-Panel

DETAIL #:
WSD-CF10
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A 06-18-12
B 01-14-13
REV: DATE:
DETAIL #: WSD-CF11

CHIMNEY FLASHING DETAILS

ANCHOR FASTENER BY OTHERS

#14X7/8" LAP SELF DRILLER @ 12" O.C. MAX.

BUTYL TAPE SEAL

CAULK SEALANT
REGLET FLASHING CUSTOM TRIM (WS-229)

SIDEWALL FLASHING (WS-207)

#12-14X1" SELF DRILLER W/WASHER (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) *FOOTNOTE

R PANEL

ROOF PURLIN

* FOOTNOTE: FASTENER TYPE OVER PLYWOOD TO BE #9X WOOD SCREW FASTENER

SIDEWALL FLASHING (WS-207)

REGLET FLASHING CUSTOM TRIM (WS-229)

* DENOTES ANGLE

GAUGE: _______ COLOR: _______
BREAKS: _______ FINISH: _______
LENGTH: _______ STRETCH OUT: _______
MATERIAL: _______

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B 01-14-13
A 06-18-12

CHIMNEY FLASHING DETAILS

DETAIL #: WSD-CF12

R-Panel

GAUGE: __________  COLOR: __________
BREAKS: __________  FINISH: __________
LENGTH: __________  STRETCH OUT: __________
MATERIAL: __________

WESTERN STATES METAL ROOFING

COLOR SIDE

CRICKET SUPPORT PLATE
16GA MINIMUM
ANCHOR FASTENER
BY OTHERS

#12-14X1" SELF DRILLER W/ WASHER (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) *FOOTNOTE

REGLET FLASHING CUSTOM TRIM (WS-229)
* DENOTES ANGLE

CRICKET FLASHING CUSTOM TRIM (WS-299)
* DENOTES ANGLE

FIELD FORMED CRICKET
INSIDE FOAM CLOSURE
(SET IN SEALANT)

R PANEL

PANEL TYPE:

REV:

DATE:

A 06-18-12

B 01-14-13

CAULK SEALANT

REGLET FLASHING CUSTOM TRIM (WS-229)

CRICKET FLASHING CUSTOM TRIM (WS-299)

FASTENER AT 12" O.C.

#12-14X1" SELF DRILLER W/ WASHER (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) *FOOTNOTE

ROOF PURLIN

* FOOTNOTE:
FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER
ISOMETRIC VIEW

PLAN VIEW

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VENT/PIPE FLASHING
SET IN SEALANT AND FORM TO PANEL PROFILE

R PANEL

FASTEN AT 1” O.C.

* SEE MANUFACTURING SPECIFICATIONS
FOR INSTALLATION INSTRUCTIONS
JAMB TRIM (WS-203)

HEAD TRIM (WS-208)

#12-14X1" SELF DRILLER W/ WASHER (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) *FOOTNOTE

WALL FRAME

HEAD AND JAMB DETAILS

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GAUGE: _______ COLOR: _______
BREAKS: _______ FINISH: _______
LENGTH: _______ STRETCH OUT: _______
MATERIAL: _______

HEAD AND JAMB DETAILS

R-Panel

WSD-W15

01-14-13
06-18-12
**BASE DETAIL**

**R-Panel**

**BASE TRIM (WS-206)**

**WALL FRAME**

**R PANEL**

**#12-14X1" SELF DRILLER W/ WASHER** (SEE PAGE 3 & 4 FOR FASTENER PLACEMENT AND SELECTION) *FOOTNOTE*

**BASE TRIM (WS-206)**

**CEE CHANNEL**

**FASTENER AT 12" O.C.**

* FOOTNOTE: FASTENER TYPE OVER PLYWOOD TO BE #9X_ WOOD SCREW FASTENER

---

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**GAUGE:**

**COLOR:**

**BREAKS:**

**FINISH:**

**LENGTH:**

**STRETCH OUT:**

**MATERIAL:**

---

**BASE DETAIL**

**B**
01-14-13

**A**
06-18-12

**PANEL TYPE:**
R-Panel

**DETAIL #:**
WSD-W17
**INSIDE CORNER WALL DETAIL**

**R-Panel**

**GAUGE:**
**COLOR:**

**BREAKS:**
**FINISH:**

**LENGTH:**
**STRETCH OUT:**

**MATERIAL:**

---

*FOOTNOTE:*

FASTENER TYPE OVER PLYWOOD
TO BE #9X_ WOOD SCREW FASTENER

---

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www.MetalDeck.com
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**CUSTOM TRIM NAME:**

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**PANEL TYPE:**

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**DETAIL #:**

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Western States “R” Panel
Installation, Flashings & Shop Drawing Detail Guide

Special Design Considerations
The details contained in this guide are proven industry details and are intended to be used as a design aid and installation guide. It does not depict all situations that may be encountered on all projects. Modifications are the responsibility of the designer/owner/installer. Consideration should be given for Fit for Purpose, Building use, Climate conditions such as temperature, snow, wind, and moisture, Governing Building Codes, and Maintenance.
It is highly recommended that all trims and flashings be of the same material as the panels (metal, gauge, finish) to ensure long term performance and durability. Where possible, flashing edges should be hemmed to strengthen the edge and protect the cut edge from exposure.

Acceptance
Use of this manual is strictly voluntary. Details that are provided are to be used as a guide only. Details may not be applicable for all situations. This guide provides one standard detail and WSDI accepts that other installation details may be needed and other details may exist. WSDI makes no guarantee as to the Weather Tightness of the system or details found with in this guide. The information in this manual is believed to be correct and accurate at the time of printing. WSDI reserves the right to change details, discontinue products, change designs at any time without incurring obligation. It is best to consult your Design Engineer for recommendations.

Underlayment
There are many types of underlayment’s on the market today. All designed with a special purpose depending on the type of Metal and profile. Many different types of metal will require a different type of underlayment, such as A606-4 (Corten) which requires a High Temperature underlayment. It is best to consult your Design Engineer for recommendations.

Valley and Snow Design
Valley design and dimension must be the proper width to accommodate high snow, rain, ice, and slope conditions. If possible, splices, penetrations, valleys, roof elevation changes, should be minimized in areas of high snow and ice accumulations. Details found in this manual may not pertain in areas of high snow and ice accumulations.

Panel Coverage and Fastening
Normal panel width of “R” panel is 36”. However depending on the finish selected and the required coil feed, it may be necessary for WSD to shorten the width of the panel. Please consult with your WSDI representative for details and fastening recommendations.

Safety and Maintenance
Walking on and installing any roof is dangerous! Extreme care should always be used when walking on roofs. Safety should always be a top priority and approved fall protection and equipment as approved by OSHA should always be used.
No roof is immune to severe weather or is completely maintenance free. To keep your roof performing as it was designed; an inspection and comprehensive maintenance program should be implemented.

References
For other installation techniques and details, The Sheet Metal and Air Conditioning Contractors National Association Inc. (SMACNA) and NRCA manuals are great resources for working with sheet metal.

Technical Assistance
Contact your WSDI sales or technical representative for any additional information or assistance. To insure you have the latest information available, please inquire or visit our web sites at www.metaldeck.com or Rustedroofing.com
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