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UL FIRE RESISTANCE ASSEMBLY; OPEN WEB STEEL JOIST WITH CEMENTIOUS THERMAL BARRIER
A. BERRIDGE ZEE-LOCK PANEL: THE BERRIDGE ZEE-LOCK PANEL IS FACTORY FABRICATED AND/OR FIELD FABRICATED (USING THE BERRIDGE SP-21 PORTABLE ROLL FORMER) TO A CONSTANT PAN WIDTH OF 16" AND A CONSTANT SEAM HEIGHT OF 2" (THE ZEE-LOCK SIDE LAPS ARE MECHANICALLY SEAMED IN THE FIELD WITH THE BERRIDGE POWER DRIVEN ZEE-LOCK SEAMER MACHINE).


C. MATERIAL STORAGE: CAUTION MUST BE EXERCISED IN STORAGE OF MATERIAL PRIOR TO INSTALLATION. KEEP ALL BERRIDGE PREFINISHED MATERIAL IN A DRY LOCATION WITH ADEQUATE VENTILATION AND OUT OF DIRECT SUNLIGHT.

EXPOSURE TO DIRECT SUNLIGHT AND/OR MOISTURE MAY CAUSE THE FACTORY APPLIED STRIPPABLE PLASTIC FILM TO ADHERE TO THE METAL PERMANENTLY AND DISCOLOR THE FINISH. IF THIS SHOULD OCCUR THE PAINT WARRANTY WILL BE VOID.

D. STRIPPABLE FILM: THE STRIPPABLE PLASTIC FILM WHICH IS APPLIED OVER MOST BERRIDGE PREFINISHED PRODUCTS, PANELS, FLASHINGS, COILS AND FLAT SHEETS PROVIDES PROTECTION OF THE FINISH DURING FABRICATION AND TRANSIT. THIS FILM MUST BE REMOVED PRIOR TO INSTALLATION.

E. SOLID SHEATHING REQUIREMENTS: BERRIDGE MANUFACTURING COMPANY RECOMMENDS THE USE OF EITHER BERRIDGE 24 GA. CORRUGATED SHEATHING (NOMINAL 2 1/2" PITCH BY 11/16" DEPTH) OR A MINIMUM OF 1/2" PLYWOOD SHEATHING TO PROVIDE SUFFICIENT HOLDING POWER FOR FASTENERS. CONTACT BERRIDGE MANUFACTURING’S ENGINEERING DEPARTMENT FOR USE OF ANY OTHER TYPE OF SOLID SHEATHING. (#30 FELT UNDERLAYMENT OR EQUAL MUST BE USED OVER ANY SOLID SHEATHING).

DUE TO #30 FELTS TENDENCY TO TEAR WHEN USED OVER CORRUGATED DECKING BERRIDGE MANUFACTURING RECOMMENDS GRACE ICE AND WATERSHIELD OR EQUAL TO BE USED AS AN UNDERLAYMENT FOR ALL CORRUGATED DECKS.

NOTE: FOR PROJECTS REQUIRING UL 90 ASSEMBLY, REFER TO UL 90 DETAILS.

F. SHEATHING INSPECTION:
1. SHEATHING END JOINTS SHOULD BE STAGGERED.
2. ALL END JOINTS SHOULD MEET AT EITHER A JOIST OR RAFTER.
3. BLOCKING OF "H" CLIPS SHOULD BE USED IF JOINTS DO NOT REMAIN FLAT UNDER THE WEIGHT OF WORKMEN.
4. USE SHIMS TO KEEP ENTIRE SUBSTRATE EVEN; UNEVEN SUBSTRATE WILL RESULT IN "OIL-CANNING" IN THE PANELS. SUBSTRATE SHOULD BE LEVEL TO 1/4" IN 20'-0".
5. ALL CUTS AT PENETRATIONS SHOULD BE TIGHT, WITHOUT GAPS.
6. USE WOOD Framed CRICKETS AT LARGE PENETRATIONS.
7. MAKE SURE SUBSTRATE JOINTS ARE TIGHT AT ALL HIPS, VALLEYS AND RIDGES.

G. INSTALLATION OVER OPEN FRAMING: REFER TO LOAD TABLES ON PAGES ZI-6 AND ZI-7 FOR STRUCTURAL PROPERTIES AND ALLOWABLE LOAD SPANS OF THE BERRIDGE ZEE-LOCK PANEL.

DIAPHRAGM CAPABILITIES AND PURLING STABILITY ARE MINIMAL AS PROVIDED BY THE BERRIDGE ZEE-LOCK PANEL SYSTEM, THEREFORE OTHER BRACING MAY BE REQUIRED TO

BERRIDGE MANUFACTURING COMPANY

INSTALLATION INSTRUCTIONS

Zee-Lock Panel

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ZI-1
CONFORM TO AISC OR AISI SPECIFICATIONS.

BERRIDGE MANUFACTURING COMPANY RECOMMENDS THE USE OF THE VINYL WEATHERSEAL (US PATENT NO. 5,134,825) FOR ALL OPEN FRAME APPLICATIONS.

H. OPEN FRAMING INSPECTION:

1. PURLINS SHOULD BE ALIGNED WITH TOP FLANGES IN THE SAME PLANE TO A TOLERANCE OF 1/4” IN 20'-0”. UNEVENNESS IN THE TOP PLANE OF THE PURLINS WILL RESULT IN ABNORMAL “OIL CANNING” PANELS. PURLINS SHALL BE ADEQUATELY BRACED.

2. BERRIDGE MANUFACTURING COMPANY RECOMMENDS SOLID SHEATHING IN VALLEY AND AROUND ROOF PENETRATIONS. DO NOT APPLY PANELS ON OPEN FRAMING AT VALLEYS OR ROOF PENETRATIONS WITHOUT REFERING TO DETAILS Z-73, Z-87 AND Z-88.

3. FOOT TRAFFIC ON THE PANELS MUST BE KEPT TO A MINIMUM. ARCHITECTURAL PANEL ARE DESIGNED FOR AESTHETICS AND CAN BE EASILY DAMAGED OR DEFORMED IF EXTREME CARE IS NOT USED.

I. FASCIA/RAKE INSPECTION:

1. STRIKE A LINE THE FULL LENGTH OF THE FASCIA OR RAKE. IF NOT STRAIGHT, CORRECT WITH SHIMS.

2. MAKE SURE FASCIA/RAKE IS FLUSH WITH SHEATHING.

J. FELT UNDERLAYMENT: A SINGLE LAYER OF NUMBER THIRTY FELT UNDERLAYMENT (OR EQUAL) MUST BE APPLIED OVER SOLID SHEATHING AS SHOWN IN THE BERRIDGE MANUFACTURING COMPANY TYPICAL FELTING DETAILS. THE USE OF ADDITIONAL LAYERS OF NUMBER THIRTY FELT IS RECOMMENDED ON LOW SLOPED ROOFS, AT ALL VALLEY CONDITIONS, AT ROOF PENETRATIONS AND CERTAIN OTHER FLASHING CONDITIONS AS DEPICTED IN THE ZEE-LOCK TYPICAL DETAILS.

GRACE ICE AND WATERSHIELD MAY BE REQUIRED ON LOW SLOPED ROOFS OR AT CERTAIN FLASHING CONDITIONS.

K. FELTING INSTALLATION:

1. DO NOT USE RED ROSIN PAPER UNDER METAL ROOFING PANELS.

2. SWEEP ROOF AREA CLEAN.

3. USE FLAT HEAD GALVANIZED ROOFING NAILS 1 1/4” LONG WITH BERRIDGE GALVANIZED FELT CAPS.

4. INSTALL VALLEY FELT FIRST.

5. INSTALL FELT PARALLEL TO THE EAVE, (2 LAYERS REQUIRED AT EAVE) STARTING AT EAVE AND USING MINIMUM 6" LAPS. USE 2 LAYERS OF FELT ON ENTIRE ROOF DECK IF ROOF SLOPE IS 3 ON 12 OR LESS. 2 LAYERS REQUIRED AT EAVE REGARDLESS OF SLOPE.

6. REFER TO FELTING DETAILS WHEN VALLEYS OR ROOF PENETRATIONS ARE INVOLVED ON OPEN FRAMING CONDITIONS.

7. INSULATE BETWEEN WOOD BLOCKING AND METAL WITH FELT OR GRACE ICE AND WATERSHIELD.

L. THERMAL MOVEMENT: EXPANSION AND CONTRACTION OF METAL PANELS WHICH EXCEED THIRTY FEET IN LENGTH CAN BE A FACTOR IN THE DESIGN AND INSTALLATION OF FLASHING. PLEASE REFER TO THE CHART ON PAGE ZI-8 TO DETERMINE ANTICIPATED THERMAL MOVEMENT OF THE PANELS. IMPROPERLY DESIGNED FLASHING CAN ALLOW PANELS TO DISENGAGE FROM THE FLASHING, ALLOW OIL-CANNING IN THE PANEL.
AND/OR CAUSE FLASHING TO WORK LOOSE FORM ITS ANCHORAGE.

PANELS OVER 30'-0" LONG REQUIRE EXPANSION CLIPS WHEN USED WITH CONTINUOUS ZEE-RIB. REFER TO DETAIL Z-6.

M. ELECTROLYSIS: AVOID ALLOWING FLASHINGS AND PANELS TO COME INTO CONTACT WITH EITHER LEAD OR COPPER, AND PREVENT EXPOSURE TO WATER RUNDOWN FROM COPPER AND/OR LEAD.

N. SEALANT RECOMMENDATIONS: TREMCO, INC. SPECTREM 1 SILICONE SEALANT. DO NOT USE CLEAR CAULK.

O. FLASHING: IF BERRIDGE MANUFACTURING COMPANY IS TO SUPPLY FLASHINGS, ALL FLASHINGS WILL BE FABRICATED IN 10'-0" LENGTHS WITH SQUARE END CUTS ONLY. THE PURCHASER MUST PROVIDE ALL DIMENSIONS AND DEGREE OF ANGLES.

FLASHING INSTALLATION:
1. REMOVE STRIPPABLE PLASTIC FILM FROM ALL FLASHINGS PRIOR TO INSTALLATION.
2. ALWAYS STAGGER JOINTS WHEN ONE FLASHING IS INSTALLED OVER OTHER FLASHINGS.
3. INSTALL ALL FLASHINGS AS PER BERRIDGE TYPICAL DETAILS.
4. ALL FLASHINGS ARE TO BE DESIGNED AND INSTALLED TO NOT TRAP WATER.

P. PANELS: BERRIDGE MANUFACTURING COMPANY WILL PROVIDE SQUARE END CUTS ONLY ON ALL ZEE-LOCK PANELS. COMPUTATION OF ALL QUANTITIES AND DIMENSIONS ARE THE RESPONSIBILITY OF THE PURCHASER.

Q. PANEL INSTALLATION:
1. REMOVE STRIPPABLE PLASTIC FILM FROM EACH PANEL PRIOR TO INSTALLATION.
2. START AT ONE GABLE END WITH THE FEMALE LEG OF THE PANEL AND WORK TOWARD THE OTHER GABLE.
3. INSTALL EITHER THE CONTINUOUS ZEE-RIB OR ZEE-LOCK CLIPS ALONG THE LEADING MALE LEG OF EACH PANEL AS PER BERRIDGE TYPICAL DETAILS AND RIB AND CLIP INSTALLATION NOTES.
4. USE BERRIDGE ZEE-LOCK SEAMER AT PANEL SIDE LAPS. REFER TO PANEL SEAM NOTES.
5. EACH PANEL IS TO BE KEPT TIGHT AGAINST THE LEG OF THE ADJOINING PANEL. NEVER PERMIT A GAP BETWEEN VERTICAL LEGS. ANY CRIMPS IN VERTICAL LEGS MUST BE STRAIGHTENED (TOTALLY STRAIGHT WITHOUT ANY BENDS, CRIMPS, CREASES, ETC.) PRIOR TO SEAM INSTALLATION.
6. KEEP PANELS ALIGNED SO THAT SEAMS MATCH AT HIPS, VALLEYS AND WHERE VERTICAL PANELS ADJOIN ROOF PANELS. DO NOT INSTALL LONG CONTINUOUS RUNS OF PANELS ALL AT ONE TIME WHERE SEAM LINES MUST MATCH. INSTALL TEN OR TWELVE PANELS IN ONE ELEVATION AND THEN FOLLOW WITH A LIKE NUMBER OF PANELS ON THE OTHER ELEVATION. WHEN YOU INSTALL PANELS IN THIS MANNER, YOU WILL BE ABLE TO MAKE ANY ADJUSTMENTS REQUIRED TO INSURE SEAM MATCHING.
7. COPPER-COTE™, CHAMPAGNE, LEAD-COTE™, AND PREWEATHERED GALVALUME® PANEL INSTALLATION: NOTE THE SERIES OF ARROWS PAINTED ON THE UNDERSIDE OF THE PANEL. ALL PANELS MUST BE INSTALLED IN CONSISTENT MANNER, MEANING THAT THE ARROWS ON EVERY PANEL ARE ALL POINTING IN THE SAME DIRECTION. IF A PANEL IS REVERSED (ARROWS POINTING OPPOSITE OF THOSE ON OTHER PANELS) IT WILL APPEAR, FORM A DISTANCE, A DIFFERENT SHADE DUE TO THE GRANULAR EFFECT OF THE PIGMENTS IN THE FINISH. METALLIC FINISHES ARE MATCH - LOT FINISHES. DO NOT MIX LOTS.

R. PANEL SEAM: THE BERRIDGE ZEE-LOCK PANEL IS A MECHANICALLY SEAMED PANEL BY USE OF THE BERRIDGE ZEE-LOCK SEAMER MACHINE.

S. SEAMER INSTRUCTIONS:

1. PREPARE THE SIDE LAP SEAM FOR MACHINE SEAMING BY CRIMPING THE STARTING END OF THE SIDE LAP USING THE BERRIDGE HAND CRIMPER TOOL. THIS CREATES A SEAMED AREA WHERE THE ZEE-LOCK SEAMER MACHINE WILL BE POSITIONED TO COMMENCE SEAMING THE SIDE LAP.

2. POSITION SEAMER ON PANEL SIDE LAP, WHEN CORRECTLY POSITIONED SEAMER WILL REST AT A 30° ANGLE, WITH BOTH ROLLER WHEELS RESTING ON PANEL FLATS.

3. HAND SEAM TERMINATING END OF SIDE LAP IF OBSTRUCTION PREVENTS SEAMING MACHINE FROM SEAMING SIDE LAP ALL THE WAY TO THE END.

4. DO NOT LET SEAMER TRAVEL OFF END OF PANEL AND OVER EDGE OF EAVE. SEAMER DOES NOT AUTOMATICALLY SHUT OFF AT END OF SEAM.

5. ROOF SLOPES WITH A RISE OF MORE THAN 6" ON 12" SHOULD BE SEAMED IN A DOWNHILL DIRECTION. ATTEMPTING TO RUN SEAMER UP HILL ON STEEP SLOPE ROOFS MAY CAUSE ROLLER DIES TO SLIP AND RUB PAINT OFF PANEL LEGS.

6. REFER TO OPERATIONS MANUAL FOR IN-DEPTH INSTRUCTIONS AND MAINTENANCE PROCEDURES.

T. ZEE-LOCK CLIP INSTALLATION:

1. INSTALL CLIPS AS PER BERRIDGE TYPICAL ZEE-LOCK PANEL DETAILS.

2. CLIP SPACING ON SOLID SHEATHING TYPICALLY 36" ON CENTER. *

U. CONTINUOUS ZEE-RIB:

1. INSTALL ZEE-RIB AS PER BERRIDGE TYPICAL ZEE-LOCK PANEL DETAILS.

2. THE ZEE-RIB IS TO RUN CONTINUOUS ALONG THE ENTIRE LENGTH OF THE PANELS. IF PANEL LENGTH IS OVER 30'-0" LONG OR EXPANSION AND CONTRACTION OF PANELS IS A DESIGN FACTOR, REFER TO DETAIL Z-6.

* NOTE: IF LOCAL CODES OR OTHER REGULATIONS DICTATE SPECIFIC WIND UPLIFT REQUIREMENTS, CONSULT BERRIDGE ENGINEERING DEPARTMENT, AS IT MAY BE NECESSARY TO USE A DIFFERENT CLIP SPACING OR FASTENER.
THE OPTIONAL VINYL WEATHERSEAL IS FACTORY APPLIED TO THE CONTINUOUS ZEE-РИB. THIS ALLOWS THE ARCHITECT TO SPECIFY A VINYL WEATHERSEAL WITHOUT INCURRING ANY ADDITIONAL FIELD LABOR. BERRIDGE MANUFACTURING COMPANY RECOMMENDS VINYL WEATHERSEAL FOR ALL OPEN FRAME APPLICATIONS.

INSTALL FASTENERS AS PER TYPICAL DETAILS. USE #10 HEX HEAD ZINC PLATED FASTENERS WHEN FASTENING TO WOOD. USE #12 HEX HEAD ZINC PLATED FASTENERS WHEN FASTENING TO METAL. WHEN USING POP RIVETS ON FLASHING, STAINLESS STEEL RIVETS ARE RECOMMENDED TO AVOID RUST STAINS.

MAKE SURE ALL FASTENERS ARE DRIVEN STRAIGHT AND SET FLAT. DO NOT OVERDRIVE FASTENERS AS THIS WILL CAUSE THE CLIP AND/OR FLASHINGS TO BUCKLE OR BECOME RECESSED BELOW THE ELEVATION OF THE SUBSTRATE.

THE BERRIDGE ZEE-LOCK PANEL COMPLIES WITH UL TEST PROCEDURE NO. 580 "TEST FOR WIND UPLIFT RESISTANCE OF ROOF ASSEMBLIES" CLASS UL 90 CONSTRUCTION NUMBER 312 REFER TO DETAILS Z-90, Z-91, Z-92 AND Z-93. CONSTRUCTION NUMBER 335 REFER TO DETAILS Z-94 AND Z-95, AND CONSTRUCTION NUMBER 403 REFER TO DETAILS Z-101 AND Z-102. REFER TO DETAILS Z-96, Z-97 AND Z-98 FOR UL FIRE RESISTANCE DESIGN ASSEMBLIES.

BERRIDGE MANUFACTURING COMPANY STRIVES TO PROVIDE ITS CUSTOMERS WITH THE HIGHEST QUALITY STRETCHER LEVELED STEEL AVAILABLE. THE LATEST TECHNOLOGY IS ALSO INCORPORATED IN BERRIDGE’S HIGH-PRECISION COIL HANDLING AND ROLL FORMING EQUIPMENT TO MINIMIZE THE STRESS ON METAL DURING PRODUCTION. FURTHERMORE, BERRIDGE UTILIZES HEAVIER 24 GAUGE METAL RATHER THAN 26 GAUGE STEEL OR LIGHT GAUGE ALUMINUM AS OFFERED BY MANY COMPETITORS. ALL THESE MEASURES HAVE BEEN TAKEN TO MINIMIZE THE AMOUNT OF "OIL-CANNING" (WAVINESS) WHICH IS NATURALLY INHERENT IN FLAT SHEET METAL. MANY TIMES, HOWEVER, THE CAUSE OF WAVINESS OR "OIL-CANNING" CAN BE TRACED TO UNEVEN SHEATHING, IMPROPER FELT INSTALLATION, OR IN THE CASE OF OPEN FRAMING, UNEVENNESS OF THE TOP PLANE OF THE PURLINS OR FOOT TRAFFIC ON THE PANELS.

ALL ARCHITECTURAL PANELS REQUIRE CARE IN HANDLING AND INSTALLATION TO AVOID DAMAGING OR DEFORMING THE PANELS.

THESE INSTALLATION INSTRUCTIONS AND THE FOLLOWING TYPICAL DETAILS ARE INTENDED TO PROVIDE OUR CUSTOMERS WITH THE INFORMATION REQUIRED FOR AN AESTHETICALLY PLEASING AND FUNCTIONAL INSTALLATION OF THE BERRIDGE ZEE-LOCK PANEL SYSTEM.

NOTE: ALL PRODUCT SPECIFICATIONS, DETAILS AND INSTALLATION INSTRUCTIONS SUBJECT TO CHANGE WITHOUT NOTICE. FOR SPECIFIC PROJECT DETAILS, CONTACT BERRIDGE.

CONSULT BERRIDGE MANUFACTURING'S ENGINEERING DEPARTMENT REGARDING FASTENER SPACING TO MEET DESIGN CRITERIA, AND THE USE OF ANY OTHER TYPE OF FASTENER.
## Structural Properties

<table>
<thead>
<tr>
<th>ZEE-LOCK PANEL</th>
<th>(d_{l}(\text{ln/ft})^4)</th>
<th>(M_{u}(\text{Ft-lbs/Ft}))</th>
<th>(V_{u}(\text{Lbs}))</th>
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</thead>
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<tr>
<td>POSITIVE BENDING</td>
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<td>NEGATIVE BENDING</td>
<td>0.06645</td>
<td>104.53</td>
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Properties are effective and are per foot of panel coverage. Based on 1986 AISI ColdForm Steel Design Manual, March 1987, and Rational Analysis. Design thickness = 0.0215 in.

### Recommended Load in Pounds per Square Foot

(PANEL WEIGHT = 1.3 PSF)

<table>
<thead>
<tr>
<th>SPAN (FEET)</th>
<th>NET VERTICAL LIVE LOAD</th>
<th>NET VERTICAL WIND UPLIFT</th>
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<tr>
<td></td>
<td>1-SPAN</td>
<td>2-SPAN</td>
</tr>
<tr>
<td>2'-0&quot;</td>
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<td>70</td>
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<tr>
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<td>35</td>
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<td>25</td>
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<tr>
<td>6'-0&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7'-0&quot;</td>
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</tbody>
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**Notes**

1. All loads meet L/240 deflection criteria unless otherwise noted.
2. Wind load allowables increased by 33 percent.
SECTION PROPERTIES BASED ON 24 GAUGE 40 K.S.I.

<table>
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<tr>
<th>ZEE-LOCK PANEL WITH CONTINUOUS 24-GAUGE ZEE-RIB</th>
<th>d_k(\text{In/ft})^4</th>
<th>M_k(\text{Ft-lbs/ft})</th>
<th>V_k(\text{Lbs})</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIVE BENDING</td>
<td>0.1525</td>
<td>184.65</td>
<td>990</td>
</tr>
<tr>
<td>NEGATIVE BENDING</td>
<td>0.1030</td>
<td>161.33</td>
<td>990</td>
</tr>
</tbody>
</table>

PROPERTIES ARE EFFECTIVE AND ARE PER FOOT OF PANEL COVERAGE. BASED ON 1986 AISI COLDFORM STEEL DESIGN MANUAL, MARCH 1987, AND RATIONAL ANALYSIS. DESIGN THICKNESS = 0.0215 IN.

RECOMMENDED LOAD IN POUNDS PER SQUARE FOOT (PANEL WEIGHT = 1.3 PSF)

<table>
<thead>
<tr>
<th>SPAN (FEET)</th>
<th>NET VERTICAL LIVE LOAD</th>
<th>NET VERTICAL WIND UPLIFT</th>
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</thead>
<tbody>
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<td>1-SPAN</td>
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<tr>
<td>6'-0&quot;</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>7'-0&quot;</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>

NOTES:
1. ALL LOADS MEET L/240 DEFLECTION CRITERIA UNLESS OTHERWISE NOTED.
2. WIND LOAD ALLOWABLES INCREASED BY 33 PERCENT.
3. * DENOTES LOADS CONTROLLED BY STANDARD UL-90 CONNECTION.
EXPANSION AND CONTRACTION OF METAL PANELS DUE TO LONGITUDINAL THERMAL MOVEMENT MUST BE CONSIDERED IN BOTH DESIGN AND INSTALLATION. THE ABOVE CHART EMPHASIZES THE NEED TO PROVIDE AMPLE CLEARANCES FROM GUTTERS, RIDGES, ENDWALL, ETC.

MAXIMUM TEMPERATURE SHOULD BE NO LOWER THAN 140°F FOR WHITE PANELS, UP TO 180°F FOR DARK PAINTED PANELS. REGARDLESS OF AMBIENT MAXIMUM, MINIMUM SHOULD BE FIGURED WELL BELOW AMBIENT MINIMUM TO ALLOW FOR RADIATION TO NIGHT SKY. IN ANY CASE, A MINIMUM OF 100°F DIFFERENTIAL IS RECOMMENDED.
Expansion and contraction of aluminum panels due to longitudinal thermal movement must be considered in both design and installation. The above chart emphasizes the need to provide ample clearances from gutters, ridges, endwall, etc.

Maximum temperature should be no lower than 140°F for white panels, up to 180°F for dark painted panels, regardless of ambient maximum. Minimum should be figured well below ambient minimum to allow for radiation to night sky. In any case, a minimum of 100°F differential is recommended.
THE DETAILS CONTAINED IN THE FOLLOWING PAGES ARE MERELY RECOMMENDATIONS AS TO HOW BERRIDGE MANUFACTURING MATERIALS SHOULD BE INSTALLED. THEY MAY REQUIRE ADAPTATIONS OR MODIFICATIONS FOR A SPECIFIC PROJECT AS CONDITIONS VARY IN BOTH BUILDING DESIGN AND LOCAL WEATHER PECULIARITIES.

BERRIDGE MANUFACTURING COMPANY SHALL BE HELD HARMLESS FROM ANY AND ALL CLAIMS ARISING FROM LACK OF WATERTIGHTNESS AS A RESULT OF FOLLOWING THESE RECOMMENDED DETAILS. ENSURING WATERTIGHTNESS ON ANY GIVEN PROJECT IS THE FUNCTION OF THE INSTALLER. THE ARCHITECT/GENERAL CONTRACTOR/INSTALLER MUST ACCEPT THE RESPONSIBILITY TO ADAPT THESE DETAILS TO MEET PARTICULAR BUILDING REQUIREMENTS AND TO ASSURE ADEQUATE WATERTIGHTNESS.

THE INSTALLER CAN VIRTUALLY ASSURE WATERTIGHTNESS IF THESE FLASHING DETAILS HAVE BEEN PROPERLY ADAPTED, ADEQUATE LAPS HAVE BEEN PROVIDED, CORRECT TYPE OF SEALANT USED, ALL JOINTS ADEQUATELY CAULKED, AND PROFESSIONAL WORKMANSHIP EMPLOYED.
OVERVIEW
CONTINUOUS ZEE-RIB
WITH VINYL WEATHERSEAL

Zee-Lock Panel
BERRIDGE ZEE-LOCK PANEL

ZEE-LOCK CLIP; 36" O.C. MAX. FOR SOLID SHEATHING CONDITIONS OR ZEE-LOCK CLIP AT EVERY PURLIN FOR OPEN FRAMING CONDITION

OVERVIEW

ZEE-LOCK CLIP

PANEL SECTION

BERRIDGE ZEE-LOCK PANEL

ZEE-LOCK CLIP

PANEL SUPPORT (OPTIONAL)

SEAM ASSEMBLY USING ZEE-LOCK CLIPS. FOR ASSEMBLY USING CONTINUOUS RIB SEE DETAIL Z-4

2 FASTENERS PER CLIP
NO. 12 HEX HEAD FASTENERS
ATTACH THROUGH SUPPORT CLIPS ONLY

WHEN USING THE VINYL WEATHERSEAL, EXTRA VINYL IS REQUIRED AT THIS LOCATION (ORDER APPROX. 6" EXTRA AT EACH EXISTING DETAIL)

TOP SUPPORT CLIP

BOTTOM SUPPORT CLIP

PURLIN OR HIGH RIBS OF METAL DECK
TOP OF SOLID SHEATHING OR RIGID INSULATION

NOT TO SCALE
1. ALL FELT UNDERLAYMENT, STRUCTURAL MEMBERS, CORRUGATED DECK, AND INSULATING MATERIAL, ARE ITEMS TO BE FURNISHED AND INSTALLED BY OTHERS AT THE DISCRETION OF THE ARCHITECT.

2. CONTINUOUS WOOD BLOCKING (BY OTHERS) MAY BE USED IN LIEU OF ZEE PURLINS. BLOCKING MUST BE SAME DEPTH AS INSULATION.

3. PURLIN SPACING AND FASTENER TYPE WILL BE DEPENDENT ON GOVERNING CODE AND SPECIFICATION REQUIREMENTS.

ZEE PURLIN, MINIMUM 24 GAUGE STEEL, DEPTH DETERMINED BY INSULATION DEPTH AND LEGS DETERMINED BY PITCH OF METAL DECK

BUTT INSULATION UP TO PURLIN
1. ONLY FOR USE WITH 10'-0" ZEE RIB, SEE ALTERNATE DETAIL Z-6 FOR ZEE RIB LONGER THAN 10 FEET.

2. DETAIL USED FOR ZEE-LOCK PANEL WITH OUT VINYL WEATHERSEAL, NOT FOR USE ON PROJECTS REQUIRING A WATERTIGHTNESS WARRANTY.

3. CONSULT BERRIDGE MANUFACTURING FOR FASTENER SPACING.

5" X 5", 24 GAUGE BEARING PLATE, CENTER BETWEEN RIBS

3/8" MIN. FROM EDGE OF BEARING PLATE

HIGH RIBS OF METAL DECK TOP OF SOLID SHEATHING OR RIGID INSULATION

FASTENER; ATTACH THROUGH BEARING PLATE INTO STRUCTURE

NOT TO SCALE

10'-0" ZEE-RIB SPLICE BEARING PLATE DETAIL

Zee-Lock Panel
1. THE "GAP" BETWEEN EAVE FLASHING AND PANEL (SEE DETAIL ABOVE) CAN BE INCREASED TO ALLOW FOR LINEAR EXPANSION AND CONTRACTION OF PANELS. NOTE 1/2" OF PANEL PAN MUST BE ENGAGED WITH EAVE FLASHING WHEN PANEL HAS EXPANDED TO ITS MAXIMUM LENGTH REFER TO NOMINAL LINEAR EXPANSION CHART, PAGE ZI-8.

2. GAP BETWEEN EAVE FLASHING AND PANEL MUST BE ADJUSTED TO SUIT TEMPERATURE DURING INSTALLATION.

3. SEE ALSO EXPANSION JOINT DETAIL Z-6.

MIN. 1" OR MAXIMUM EXPANSION OF PANEL + 1/2"

F = FINISH SIDE
1. The "gap" between eave flashing and panel (see detail above) can be increased to allow for linear expansion and contraction of panels. Note 1/2" of panel must be engaged with eave flashing when panel has expanded to its maximum length. Refer to nominal linear expansion chart page ZI-8.

2. Gap between eave flashing and panel must be adjusted to suit temperature during installation.

3. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

4. All felt underlayment, caulk, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

5. See also expansion joint detail Z-6.
RIDGE/HIP DETAIL
OPEN FRAMING CONDITION
Zee-Lock Panel

1. FIELD CUT ZEE CLOSURE TO FIT BETWEEN PANEL SEAMS AT HIPS. SEE DETAIL Z-23 FOR RIDGE.

2. ALL CAULKING AND FASTENERS ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.
CONTINUOUS ZEE-RIB WITH 2 FASTENERS 36" O.C. OR ZEE-LOCK CLIPS 36" O.C. WITH 2 FASTENERS PER CLIP

BERRIDGE ZEE-LOCK PANEL

RIDGE/HP CAP: 4" END LAPS WITH CONTINUOUS CAULK AT LAPS, POP RIVET TO ZEE CLOSURE 40" O.C.

CONTINUOUS BEAD OF CAULK BETWEEN ZEE-LOCK PANEL AND ZEE CLOSURE

ZEE CLOSURE: CUT TO FIT BETWEEN SEAMS. USE Z-23 AT RIDGE

FASTENERS: 2 PER ZEE CLOSURE MINIMUM

# 30 FELT UNDERLAYMENT

SOLID SHEATHING

1. FIELD CUT ZEE CLOSURE TO FIT BETWEEN PANEL SEAMS AT HIPS. SEE DETAIL Z-23 FOR RIDGE.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

F = FINISH SIDE

ZEE CLOSURE

OPEN HEMS

RIDGE/HP CAP

1 1/2" 1 1/2"

1 1/4" 2 1/8"

F

F

BERRIDGE MANUFACTURING COMPANY

RIDGE/HP DETAIL

SOLID SUBSTRATE

ZEE-LOCK PANEL

DATE: 04-01-97

PAGE/FILE

Z-21
1. SEE DETAIL Z-23 FOR ZEE CLOSURE AT RIDGE.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.
1. ZEE CLOSURE IS DIE FORMED TO FIT PERPENDICULARLY BETWEEN PANEL SEAMS.
SECTION VIEW

FIELD FORM END OF RIDGE FLASHING AND EXTEND UNDER CLEAT

RIDGE FLASHING: 4" END LAPS WITH CONTINUOUS CAULK AT LAPS

FIELD TAPERED ZEE CLOSURE WITH CONTINUOUS CAULK UNDER ZEE CLOSURE

CONTINUOUS ZEE-RIB WITH 2 FASTENERS 36" O.C. OR ZEE-CLIP 36" O.C. WITH 2 FASTENERS PER CLIP 2 CLIPS ARE REQUIRED AT END OF PANEL

Z-21

VALLEY FLASHING; 12" LAPS WITH CONTINUOUS CAULK AT LAPS

# 30 FELT UNDERLAYMENT

FIELD TAPERED ZEE CLOSURE WITH CONTINUOUS CAULK UNDER ZEE CLOSURE

FASTENERS; 20" O.C. MAX. PLACE A DAB OF CAULK AT FASTENER LOCATION DRIVE FASTENER AND CAULK FASTENER HEAD

SOLID SHEATHING

PLAN VIEW

MAIN ROOF PANELS

RIDGE FLASHING

VALLEY FLASHING

DORMER PANEL

RIDGE TERMINATION AT DORMER VALLEY

Zee-Lock Panel

DATE: 04-01-97

PAGE/FILE
Z-24
1. FIELD CUT AND FORM LAST PANEL AROUND DRIP FLASHING. PANEL MUST BE CONTINUOUS FROM RIDGE TO EAVE.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.
1. FIELD CUT AND FORM LAST PANEL AROUND DRIP FLASHING. PANEL MUST BE CONTINUOUS FROM RIDGE TO EAVE.

FACTORY APPLIED EXTRUDED VINYL WEATHERSEAL (OPTIONAL)
US PATENT NO. 5,134,825
SEE DETAIL Z-4

BERRIDGE ZEE-LOCK PANEL
CONTINUOUS ZEE-RIB WITH 2 FASTENERS 36" O.C. OR ZEE-LOCK CLIPS 36" O.C. WITH 2 FASTENERS PER CLIP
SUB-FLASHING; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS
FIELD CUT AND FORM AROUND DRIP FLASHING, PANEL TO BE CONTINUOUS RIDGE TO EAVE
DRIP FLASHING; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS
BERRIDGE FASCIA/SIDING

1/2"

SUB-FLASHING FASTENER; ONE AT EACH PURLIN
FASTENERS; 20" O.C. MAX.

SUB-FLASHING

F = FINISH SIDE

DRIP FLASHING

PURLIN

FASCIA/SIDING

GABLE DETAIL PANEL TURNDOWN OPEN FRAMING
Zee-Lock Panel

DATE: 04-01-97
PAGE/FIELD Z-31
1. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

2. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

F = FINISH SIDE

1/2" 4"

CLOSURE FLASHING

2 1/16"

F

DRIP FLASHING

1/2"
1. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

2. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.
BERRIDGE ZEE-LOCK PANEL

CONTINUOUS ZEE-RIB WITH 2 FASTENERS 36" O.C. OR ZEE-LOCK CLIPS 36" O.C. WITH 2 FASTENERS PER CLIP

CONTINUOUS BEAD OF CAULK

J-CLIP; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS

DRIP FLASHING; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS

NOTE: PLACE A SMALL AMOUNT OF CAULK AT J-CLIP FASTENER LOCATION, DRIVE FASTENER THROUGH CAULK, THEN CAULK FASTENER HEAD.

1. FIELD CUT LAST PANEL AND SLIP INTO J-CLIP. PANEL MUST BE CONTINUOUS FROM RIDGE TO EAVE WHEN USING THIS DETAIL.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

F = FINISH SIDE

BERRIDGE MANUFACTURING COMPANY

GABLE DETAIL

J-CLIP; SOLID SUBSTRATE

Zee-Lock Panel

DATE: 04-01-97

PAGE/FILE

Z-34
1. Field cut and form last panel around gable flashing panel must be continuous from ridge to eave.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulking, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.
1. Field cut last panel and slip into J-clip. Panel must be continuous from ridge to eave.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulk, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

F = Finish Side

Special Channel Closure

J-Clip

Factory applied extruded vinyl weatherseal (optional) US Patent No. 5,134,825. See detail Z-4

Top layer of felt to be parallel with roof slope

#30 felt underlayment

Fasteners; 20" O.C. max. Place a small amount of caulk at J-clip fastener location. Drive fastener through caulk, then caulk fastener head.
1. Field cut Zee Closure to fit between panel seams if panel seams are not perpendicular to wall.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulk, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.

F = Finish Side

Z-40
1. FIELD CUT ZEE CLOSURE TO FIT BETWEEN PANEL SEAMS IF PANEL SEAMS ARE NOT PERPENDICULAR TO WALL.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.
1. Field cut Zee closure to fit between panel seams if panel seams are not perpendicular to wall.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All caulking and fasteners are items to be furnished and installed by the roofing installer at the discretion of the architect.
1. FIELD CUT AND FORM LAST PANEL. PANEL TO BE CONTINUOUS FROM RIDGE TO EAVE. SEE DETAIL Z-54 FOR CONDITION AT EAVE.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

F = FINISH SIDE

OPEN HEM

COUNTERFLASHING

SUB-FLASHING

CLOSURE CHANNEL

# 30 FELT UNDERLAYMENT

FASTENERS; 20" O.C. MAX.

FIELD CUT LAST PANEL AND FORM NEW LEG

CLOSURE CHANNEL; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS

CONTINUOUS BEAD OF CAULK

SUB-FLASHING; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS

SOLID SHEATHING

FASTENERS; 20" O.C. MAX.

FASTENERS; 40" O.C. MAX.

# 30 FELT UNDERLAYMENT

FASTENERS; 20" O.C. MAX.

FIELD CUT LAST PANEL AND FORM NEW LEG

CLOSURE CHANNEL; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS

CONTINUOUS BEAD OF CAULK

SUB-FLASHING; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS

SOLID SHEATHING

FASTENERS; 20" O.C. MAX.

FASTENERS; 40" O.C. MAX.

BERRIDGE FASCIA PANEL

COUNTERFLASHING: 4" END LAPS WITH CONTINUOUS CAULK AT LAPS

EXTRUDED VINYL WEATHERSEAL (OPTIONAL) US PATENT NO. 5,134,825

SEE DETAIL Z-4

BERRIDGE ZEE-LOCK PANEL

# 30 FELT UNDERLAYMENT (TOP LAYER MUST BE PARALLEL WITH ROOF SLOPE)

CONTINUOUS ZEE-RIB WITH 2 FASTENERS 36" O.C. OR ZEE-LOCK CLIPS 36" O.C. WITH 2 FASTENERS PER CLIP

CONTINUOUS ZEE-RIB WITH 2 FASTENERS 36" O.C. OR ZEE-LOCK CLIPS 36" O.C. WITH 2 FASTENERS PER CLIP

SEE DETAIL Z-54 FOR CONDITION AT EAVE.
1. FIELD CUT LAST PANEL AND FORM NEW LEG. PANEL TO BE CONTINUOUS FROM RIDGE TO EAVE.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.
TOP FELT LAYER TO RUN PARALLEL WITH ROOF SLOPE

# 30 FELT UNDERLAYMENT
SOLID SHEATHING
CLOSURE CHANNEL
DRIP FLASHING
FASCIA BOARD
FIELD FORM PANEL AROUND DRIP FLASHING

BERRIDGE ZEE-LOCK PANEL
FASCIA
FIELD CUT LAST PANEL AND FORM NEW LEG
SEE DETAIL BELOW FOR CAULKING AT THIS LOCATION

EAVE FLASHING; FORM LEG ON END OF FLASHING AND PUSH INTO CORNER

# 30 FELT UNDERLAYMENT; CARRY FELT UP RAKE WALL
RAKE WALL
SOLID SHEATHING
CAULK AT CORNER
FASCIA BOARD

RAKE AT EAVE
USE THIS DETAIL AT RAKE DETAILS, Z-52 AND Z-53
1. Field cut Zee Closure to fit between seams.

2. Solid sheathing (by others) to be minimum 1/2" plywood or equivalent in strength for holding power of fasteners.

3. All felt underlayment, caulking, and fasteners, are items to be furnished and installed by the roofing installer at the discretion of the architect.
BERRIDGE ZEE-LOCK PANEL

CONTINUOUS ZEE-RIB WITH 2 FASTENERS 36" O.C. OR ZEE-LOCK CLIPS 36" O.C. WITH 2 FASTENERS PER CLIP, 2 CLIPS ARE REQUIRED AT END OF PANEL

CONTINUOUS CLEAT

CUT BACK PANEL LEG AND FIELD FORM PANEL PAN TO ENGAGE CONTINUOUS CLEAT

1:12 MIN. SLOPE AWAY FROM PANEL HOOK

TRANSITION FLASHING; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS. POP RIVET TO ZEE CLOSURE 40" O.C.

ZEE CLOSURE; REFER TO DETAIL Z-23

CAULK RIVET HEADS

SUB-FLASHING; 4" END LAPS WITH CONTINUOUS CAULK AT LAPS.

NOTE: PLACE A SMALL AMOUNT OF CAULK AT CLEAT FASTENER LOCATION, DRIVE FASTENER, THEN CAULK FASTENER HEAD.

DO NOT: RUN A CONTINUOUS BEAD OF CAULK ON CLEAT OR UNDER CLEAT

F = FINISH SIDE

CONTINUOUS BEAD OF CAULK BETWEEN ZEE CLOSURE AND ZEE-LOCK PANEL

FASTENERS; 20" O.C. MAX.

# 30 FELT UNDERLAYMENT

SOLID SHEATHING

FASTENERS; MIN. 2 PER CLOSURE

1. FIELD CUT ZEE CLOSURE TO FIT BETWEEN SEAMS. IF PANEL SEAMS ARE NOT PERPENDICULAR.

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

BERRIDGE MANUFACTURING COMPANY

SLOPE TRANSITION DETAIL

SOLID SUBSTRATE

Zee-Lock Panel

DATE: 04-01-97

PAGE/FILE Z-61
1. Field cut seam and break panel to desired angle of roof to fascia.

2. Place panels on roof, use the continuous Zee-rib or Zee-Lock clip on roof. Use only Zee-Lock clips on fascia.

3. Only one slope transition per panel is recommended. Maximum fascia span for open framing is 3'-0".

4. Use hand seam crimper on roof panels as required to keep panels in place.

5. Caulk joint between panel legs; see detail Z-63.

6. Install additional male and female legs as shown on detail Z-63. (The additional legs can be field fabricated or purchased from the factory).

7. Use hand seam crimper to seam panel on fascia then machine seam roof panels.

8. Caulk between roof panel legs and additional legs. See detail Z-63.
**Zee-Lock Panel**

**Roof to Fascia Transition Panel Turndown Instructions**

- **Continuous bead of caulk between roof panel legs and additional legs.**
- **Place additional male leg between male and female legs of roof panel at this point.**
- **Caulk between panel legs.**
- **Field bend panel to desired angle.**
- **Additional female leg.**
- **Place additional male leg between male and female legs of roof panel at this point.**
- **Field cut tab.**
- **Additional male leg.**
- **Field cut female leg of fascia panel.**
- **Use hand crimper to seam fascia panel.**
- **Additional female leg.**
- **Additional male leg.**
- **Female panel leg.**
- **Zee-lock clip.**
- **Seam section at fascia.**

**Dimensions:**
- **1/2"**
- **11/16"**
- **80°**
- **1/2"**
- **120°**
- **1/2"**
- **19/16"**
BERRIDGE ZEE-LOCK PANEL

CONTINUOUS ZEE-RIB WITH 2 FASTENERS 36" O.C. OR ZEE-LOCK CLIP 36" O.C. WITH 2 FASTENERS PER CLIP, 2 CLIPS REQUIRED AT END OF PANEL.

DO NOT USE FASTENERS IN VALLEY FLASHING.

CONTINUOUS CLEAT, WITH FASTENERS 20" O.C. MAX.

CONTINUOUS BEAD OF CAULK BETWEEN VALLEY FLASHING AND FELT UNDERLayment

VALLEY FLASHING

SOLID SHEATHING

SEE DETAIL Z-71 FOR VALLEY FLASHING LAPING

1. FOR EXPANSION AND CONTRACTION OF PANELS, SEE ZI-8 AND Z-10.

2. SOLID SHEATHING (BY OTHERS) TO BE A MINIMUM OF 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. ALL FELT UNDERLayment, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

F = FINISH SIDE

CUT PANEL SEAM BACK, TURN PANEL PAN UNDER AND HOOK PANEL PAN ONTO VALLEY FLASHING.

1/2" MIN.

1 1/2" MIN.

VALLEY FLASHING

CONTINUOUS CLEAT

# 30 FELT UNDERLayment

FIELD CUT PANEL SEAM AND FORM PANEL PAN AROUND CLEAT OF VALLEY FLASHING, DO NOT RUN CAULK IN OR ON CLEAT OF VALLEY FLASHING

BERRIDGE MANUFACTURING COMPANY

Zee-Lock Panel

DATE: 04-01-97

PAGE/FILE Z-70
BERRIDGE ZEE-LOCK PANEL

FIELD CUT PANEL SEAM AND FORM PANEL PAN AROUND CLEAT OF VALLEY FLASHING

CONTINUOUS CLEAT

CONTINUOUS BEAD OF CAULK
DO NOT RUN CONTINUOUS CAULK IN OR UNDER CLEAT OF VALLEY FLASHING EXCEPT AT VALLEY FLASHING LAPS.

FASTEN THROUGH VALLEY ONLY AT TOP OF FLASHING UNDER LAP, NO FASTENERS ARE TO BE EXPOSED ON TOP (OVERLAPPING) VALLEY

12" LAP

2 CONTINUOUS BEADS OF CAULK AT LAPS

FASTEN THROUGH VALLEY CLIP (OR ZEE-RIB) DO NOT RUN RIB OR CLIP FASTENERS THRU VALLEY FLASHING START FIRST FASTENER BEHIND VALLEY FLASHING

SOLID SHEATHING VALLEY FLASHING # 30 FELT UNDERLAYMENT

ZEE-LOCK CLIP (OR ZEE-RIB)

ZEE-LOCK PANEL

BERRIDGE MANUFACTURING COMPANY

VALLEY DETAIL; ISOMETRIC SOLID SUBSTRATE AND OPEN FRAMING

DATE: 04-01-97

PAGE/FIELD

Z-71

Zee-Lock Panel
BERRIDGE ZEE-LOCK PANEL
CONTINUOUS 2" ZEE-RIB WITH VINYL WEATHERSEAL
CONTINUOUS CLEAT; WITH FASTENERS 20" O.C. MAX.

FIELD CUT PANEL SEAM AND FORM PANEL PAN AROUND CLEAT OF VALLEY FLASHING, DO NOT RUN CAULK IN OR UNDER CLEAT OF VALLEY FLASHING.

* FLASHING PROFILES AND NOTES, SEE DETAIL Z-70 AND Z-71

ROOFS WITH A SLOPE OF 4:12 OR LESS 6'-0" MIN. ROOFS ABOVE 4:12 3'-0" MIN.
BERRIDGE ZEE-LOCK PANEL
CONTINUOUS 2" ZEE-RIB WITH VINYL WEATHERSEAL
CONTINUOUS CLEAT; WITH FASTENERS 20" O.C. MAX.

VALLEY FLASHING
BERRIDGE CORRUGATED S-DECK

GRACE ICE AND WATER SHIELD.
ALLOW TO SAG INTO CORRUGATIONS OF S-DECK.
RUN RIDGE TO EAVE

BERRIDGE CORRUGATED S-DECK PLACED ON TOP OF PURLINS

THIS AREA USE THE 3" ZEE-RIB AS PER DETAIL Z-92, Z-93.

THIS AREA OVER CORRUGATED DECK USE 2" ZEE-RIB AS PER DETAIL Z-90, Z-91.

NOTE: LAP 2" ZEE-RIB INTO 3" ZEE-RIB (3" LAP)

FIELD CUT PANEL SEAM AND FORM PANEL PAN AROUND CLEAT OF VALLEY FLASHING, DO NOT RUN CAULK IN OR UNDER CLEAT OF VALLEY FLASHING.

* FLASHING PROFILES AND NOTES, SEE DETAIL Z-70 AND Z-71

NOTE: LAP 2" ZEE-RIB INTO 3" ZEE-RIB (3" LAP)
1. Cut hole to allow for thermal movement if panels are 30'-0" or longer.

2. If pipe is made of metal, it must be painted to prevent rust run-off from staining panels.

3. Position square based boots in a diamond orientation where possible to aid in diverting water.
*CALL BMC BEFORE USING THIS DETAIL

NOTE: CALL BMC BEFORE USING DETAILS ON THIS PAGE.
USE ONLY IF PENETRATION OCCURS ON SEAM OR WITHIN AREA OF PAN THAT WILL NOT ACCOMMODATE BOOT.
USE WITH SOLID SUBSTRATE ONLY.

IF PIPE IS MADE OF METAL IT MUST BE PAINTED TO PREVENT RUST RUN-OFF FROM STAINING PANELS.
**SECTION A**

Use this detail when stack is centered on seam.

- **Round Stack:** Must be of material compatible with 24 ga. galvanized painted metal.
- **Cut Panel and Bend Up 1” Around Stack and Caulk.
- **Run Seam and Panel Up to Stack and Caulk.**
- **30# Felt Underlayment.**
- **Zee-Lock Clips; 2 Req’d At Penetration (If Not Using Continuous Rib).**

*Call BMC Before Using This Detail*

**SECTION B**

Use this detail when stack is off center of seam.

- **Round Stack:** Must be of material compatible with 24 ga. galvanized painted metal.
- **Cut Panel and Bend Up 1” Around Stack and Caulk.**
- **Run Seam and Panel Up to Stack and Caulk.**
- **Zee-Lock Clips; 2 Req’d At Penetration (If Not Using Continuous Rib).**

*Call BMC Before Using This Detail*
BERRIDGE ZEE-LOCK PANEL SEAM

CONTINUOUS CLEAT

ANGLE FLASHING

BERRIDGE ZEE-LOCK PANEL; FIELD BEND TO CURB

CONTINUOUS CLEAT

ZEE CLOSURE

SEE DETAIL BELOW

COUNTERFLASHING

DO NOT: RUN CAULK ON OR UNDER CONTINUOUS CLEAT

BERRIDGE ZEE-LOCK PANEL SEAM

CONTINUOUS CLEAT

ANGLE FLASHING

LOWER ZEE-LOCK PANEL; FIELD BEND TO CURB

ROOF CURB

ZEE CLOSURE; CUT 2" OFF HORIZONTAL LEGS, BEND VERTICAL LEG AND SLIP BETWEEN ZEE-LOCK PANELS, CAULK BETWEEN ZEE CLOSURE, COUNTERFLASHING AND PANEL

COUNTERFLASHING; EXTEND 1/4" BEYOND ZEE CLOSURE (FLASHING CUT AWAY FOR CLARITY)

BERRIDGE ZEE-LOCK PANEL SEAM
1. SOLID SHEATHING IS REQUIRED AT THIS CONDITION WHEN THE ZEE-LOCK PANEL IS USED OVER OPEN FRAMING (SEE DETAILS Z-87 AND Z-88).

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS. (24 GA. METAL CORRUGATED SHEATHING MAY BE USED IN LIEU OF PLYWOOD).

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.

**BERRIDGE MANUFACTURING COMPANY**

**Zee-Lock Panel**

**DATE: 04-01-97**

**PAGE/FILE**

**Z-84**

**SQUARE PENETRATION SECTION A**

OPEN FRAMING AND SOLID SUBSTRATE

**CONTINUOUS CLEAT**

**OPEN HEM**

**COUNTERFLASHING**

**ANGLE FLASHING**

**ZEE CLOSURE**

**PLACE A DAB OF CAULK AT FASTENER LOCATIONS. DRIVE FASTENER AND CAULK FASTENER HEAD CONTINUOUS CLEAT SOLID SHEATHING ZEE-CLIPS; 2 REQ'D ABOVE PENETRATION (IF NOT USING ZEE-RIB) DO NOT: RUN A BEAD OF CAULK ON OR UNDER CONTINUOUS CLEAT.**
1. SOLID SHEATHING IS REQUIRED AT THIS CONDITION WHEN THE ZEE-LOCK PANEL IS USED OVER OPEN FRAMING (SEE DETAILS Z-87 AND Z-88).

2. SOLID SHEATHING (BY OTHERS) TO BE MINIMUM 1/2” PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS. (METAL CORRUGATED SHEATHING, MIN. 24 GA. MAY BE USED IN LIEU OF PLYWOOD).

3. ALL FELT UNDERLAYMENT, CAULKING, AND FASTENERS, ARE ITEMS TO BE FURNISHED AND INSTALLED BY THE ROOFING INSTALLER AT THE DISCRETION OF THE ARCHITECT.
DO NOT: RUN CONTINUOUS CAULK ON OR UNDER CONTINUOUS CLEAT

CONTINUOUS CLEAT

FLASHING

HEM PANEL PAN UNDER BOTH SIDES OF PENETRATION

BERRIDGE ZEE-LOCK PANEL FIELD BEND TO CURB

SEE DETAIL BELOW

ZEE CLOSURE; CUT AND BEND AT END AND CAULK

COUNTERFLASHING; EXTEND 1/4" BEYOND ZEE CLOSURE (CUT AWAY VIEW FOR CLARITY)

ANGLE FLASHING

UPPER PANEL

LOWER PANEL

CONTINUOUS CLEAT

CONTINUOUS BEAD OF CAULK BETWEEN ZEE CLOSURE AND PANEL
FOR ROOF PENETRATIONS LARGER THAN 4" IN DIAMETER.

- CARRY UP TO NEXT PURLIN
- SQUARE OR ROUND PENETRATION
- USE 2" ZEE-RIB AS PER DETAIL Z-90, Z-91

1. GRACE ICE AND WATER SHIELD RUN CONTINUOUS TO EAVE
2. FLAT SHEET SUB-FLASHING RUN CONTINUOUS TO EAVE
3. BERRIDGE CORRUGATED S-DECK
4. PURLINS
5. EAVE

- SEE SECTION

16 GA. HAT SECTION SIZE TO FIT OVER PURLIN AND TO ACCOMMODATE THE DEPTH OF THE BERRIDGE CORRUGATED S-DECK.

- FLAT SHEET VALLEY FLASHING
- GRACE ICE AND WATER SHIELD
- 16 GA. HAT SECTION
- PURLIN
- BERRIDGE CORRUGATED S-DECK

SECTION
Zee-Lock Panel

Date: 04-01-97

Penetration larger than 4" in dia.

Grace ice and water shield; allow to sag into corrugations of Berridge S-deck run continuous to eave.

Berridge corrugated S-deck on top of purlins.

Use 2" Zee-rib as per Detail Z-90, Z-91.*

Use 3" Zee-rib as per Detail Z-92, Z-93.

*Use shims to keep the Zee-rib from falling into the valleys of the corrugated deck.
1. **Metal Roof Deck Panels** - No. 24 MSG minimum thickness coated steel. 16 in. wide, 2 in. high. Panels continuous over two or more spans without end laps. An optional extruded vinyl weatherseal (US Patent No. 5,134,825) may be used at panel side laps. Adjacent panels are seamed together along side laps to include "Roof Deck Fasteners" (Item 2) using an electric seaming tool.

BERRIDGE MANUFACTURING CO. - "ZEE-LOCK PANEL"

2. **Roof Deck Fasteners** - (Panel Clips) - One piece assembly fabricated from No. 24 MSG coated steel. Clip located at each panel side lap with clip being continuous and equal to length of "Metal Roof Deck Panels" (Item 1)

BERRIDGE MANUFACTURING CO. - "ZEE-CLIP RIB" (2" ZEE-RIB)

3. **Fasteners (Screws)** - For attaching "ZEE-CLIP RIB" (Item 2) to purlins. Use No. 12 x 1 in. self-drilling, self-tapping steel screws. Two fasteners at each purlin location.

4. **Purlins** - No. 16 MSG minimum steel (min. yield strength 50,000 PSI) 5'-0" maximum spacing. BERRIDGE MANUFACTURING "CEE" or "ZEE" purlins.

5. **Lateral Bracing** - (Not shown) Refer to "General Information, Roof Deck Construction" (Building Material Directory) for items not evaluated.

* Bearing the UL classification marking.
1. METAL ROOF DECK PANELS * - NO. 24 MSG MINIMUM THICKNESS COATED STEEL, 16 IN. WIDE, 2 IN. HIGH. PANELS CONTINUOUS OVER TWO OR MORE SPANS WITHOUT END LAPS. AN OPTIONAL EXTRUDED VINYL WEATHERSEAL (US PATENT NO. 5,134,825) MAY BE USED AT PANEL SIDE LAPS. ADJACENT PANELS ARE SEAMED TOGETHER ALONG SIDE LAPS TO INCLUDE "ROOF DECK FASTENERS" (ITEM 2) USING AN ELECTRIC SEAMING TOOL.
BERRIDGE MANUFACTURING CO. - "ZEE-LOCK PANEL"

2. ROOF DECK FASTENERS * - (PANEL CLIPS) - ONE PIECE ASSEMBLY FABRICATED FROM NO. 24 MSG COATED STEEL. CLIP LOCATED AT EACH PANEL SIDE LAP WITH CLIP BEING CONTINUOUS AND EQUAL TO LENGTH OF "METAL ROOF DECK PANELS" (ITEM 1)
BERRIDGE MANUFACTURING CO. - "ZEE-CLIP RIB" (2" ZEE-RIB)

3. PURLINS - NO. 16 MSG MINIMUM STEEL (MIN. YIELD STRENGTH 50,000 PSI) 5'-0" MAXIMUM SPACING. BERRIDGE MANUFACTURING "CEE" OR "ZEE" PURLINS.

* BEARING THE UL CLASSIFICATION MARKING.
1. BERRIDGE ZEE-LOCK PANEL * - NO. 24 MSG MINIMUM THICKNESS COATED STEEL, (MIN. YIELD STRENGTH 40,000 PSI) 16 IN. WIDE, 2 IN. HIGH. PANELS CONTINUOUS OVER TWO OR MORE SPANS WITHOUT END LAPS. AN OPTIONAL EXTRUDED VINYL WEATHERSEAL (US PATENT NO. 5,134,825) MAY BE USED AT PANEL SIDE LAPS. ADJACENT PANELS ARE SEAMED TOGETHER ALONG SIDE LAPS USING AN ELECTRIC SEAMING TOOL.

BERRIDGE MANUFACTURING CO. - "ZEE-LOCK PANEL"

2. BERRIDGE ZEE-RIB (CONTINUOUS) * - ONE PIECE ASSEMBLY FABRICATED FROM 24 MSG COATED STEEL. (MIN. YIELD STRENGTH 40,000 PSI) ZEE-RIB LOCATED AT EACH PANEL SIDE LAP BEING CONTINUOUS AND EQUAL TO LENGTH OF "METAL ROOF DECK PANELS" (ITEM 1) (3" ZEE-RIB)

3. FASTENERS (SCREWS) - FOR ATTACHING "ZEE-RIB" (ITEM 2) TO PURLINS. USE NO. 12 x 1 IN. SELF-DRILLING, SELF-TAPPING STEEL SCREWS. TWO FASTENERS AT EACH PURLIN LOCATION.

4. PURLINS - NO. 16 MSG MINIMUM STEEL (MIN. YIELD STRENGTH 50,000 PSI) 5'-0" MAXIMUM SPACING. BERRIDGE MANUFACTURING "CEE" OR "ZEE" PURLINS.

5. THERMAL BLOCK - 3" BY 16" BY 1" EXTRUDED POLYSTYRENE. (OPTIONAL)

6. INSULATION - (NOT SHOWN) 6 IN. VINYL FACED COMPRESSIBLE INSULATION. REFER TO DETAIL Z-93.

7. LATERAL BRACING - (NOT SHOWN) REFER TO "GENERAL INFORMATION, ROOF DECK CONSTRUCTION" (BUILDING MATERIAL DIRECTORY), FOR ITEMS NOT EVALUATED.

* BEARING THE UL CLASSIFICATION MARKING.
1. BERRIDGE ZEE-LOCK PANEL * - NO. 24 MSG MINIMUM THICKNESS COATED STEEL, (MIN. YIELD STRENGTH 40,000 PSI) 16 IN. WIDE, 2 IN. HIGH. PANELS CONTINUOUS OVER TWO OR MORE SPANS WITHOUT END LAPS. AN OPTIONAL EXTRUDED VINYL WEATHERSEAL (US PATENT NO. 5,134,825) MAY BE USED AT PANEL SIDE LAPS. ADJACENT PANELS ARE SEAMED TOGETHER ALONG SIDE LAPS USING AN ELECTRIC SEAMING TOOL.

BERRIDGE MANUFACTURING CO. - "ZEE-LOCK PANEL"

2. BERRIDGE ZEE-RIB (CONTINUOUS) * - ONE PIECE ASSEMBLY FABRICATED FROM NO. 24 MSG COATED STEEL. (MIN. YIELD STRENGTH 40,000 PSI) ZEE-RIB LOCATED AT EACH PANEL SIDE LAP BEING CONTINUOUS AND EQUAL TO LENGTH OF "METAL ROOF DECK PANELS" (ITEM 1) (3" ZEE-RIB)

3. PURLINS - NO. 16 MSG MINIMUM STEEL (MIN. YIELD STRENGTH 50,000 PSI) 5'-0" MAXIMUM SPACING.

4. THERMAL BLOCK - 3" BY 16" BY 1" EXTRUDED POLYSTYRENE. (OPTIONAL)

5. INSULATION - 6 IN. VINYL FACED COMPRESSIBLE INSULATION.

6. LATERAL BRACING - (NOT SHOWN) REFER TO "GENERAL INFORMATION, ROOF DECK CONSTRUCTION" (BUILDING MATERIAL DIRECTORY), FOR ITEMS NOT EVALUATED.

* BEARING THE UL CLASSIFICATION MARKING.
1. BERRIDGE ZEE-LOCK PANEL * - NO. 24 MSG MINIMUM THICKNESS COATED STEEL, (MIN. YIELD STRENGTH 40,000 PSI) 16 IN. WIDE, 2 IN. HIGH. PANELS CONTINUOUS OVER TWO OR MORE SPANS WITHOUT END LAPS. AN OPTIONAL EXTRUDED VINYL WEATHERSEAL (US PATENT NO. 5,134,825) MAY BE USED AT PANEL SIDE LAPS. ADJACENT PANELS ARE SEAMED TOGETHER ALONG SIDE LAPS USING AN ELECTRIC SEAMING TOOL.

   BERRIDGE MANUFACTURING CO. - "ZEE-LOCK PANEL"

2. BERRIDGE ZEE-RIB (CONTINUOUS) * - ONE PIECE ASSEMBLY FABRICATED FROM NO. 24 MSG COATED STEEL. (MIN. YIELD STRENGTH 40,000 PSI) ZEE-RIB LOCATED AT EACH PANEL SIDE LAP BEING CONTINUOUS AND EQUAL TO LENGTH OF "METAL ROOF DECK PANELS" (ITEM 1) (2" ZEE-RIB)

3. FASTENERS (SCREWS) -
   A. FOR ATTACHING "ZEE-RIB" (ITEM 2) TO PURLINS. USE NO. 12 SELF-DRILLING, SELF-TAPPING STEEL SCREWS. ONE FASTENER AT EACH PURLIN LOCATION.
   B. ALTERNATE IF ATTACHING TO DECK ONLY USE ONE NO. 12 @ 24" O.C.

4. PURLINS - NO. 16 MSG MINIMUM STEEL (MIN. YIELD STRENGTH 50,000 PSI) 5'-0" MAXIMUM SPACING. BERRIDGE MANUFACTURING "CEE" OR "ZEE" PURLINS.

5. INSULATION - 4" RIGID INSULATION BOARD.

6. BERRIDGE S-DECK METAL STRUCTURAL SHEATHING - NO. 24 MSG STEEL (MIN. YIELD STRENGTH 40,000 PSI), CORRUGATED DECK.

7. # 30 FELT UNDERLAYMENT.

8. LATERAL BRACING - (NOT SHOWN) REFER TO "GENERAL INFORMATION, ROOF DECK CONSTRUCTION" (BUILDING MATERIAL DIRECTORY), FOR ITEMS NOT EVALUATED.

* BEARING THE UL CLASSIFICATION MARKING.
1. BERRIDGE ZEE-LOCK PANEL * - NO. 24 MSG MINIMUM THICKNESS COATED STEEL, (MIN. YIELD STRENGTH 40,000 PSI) 16 IN. WIDE, 2 IN. HIGH. PANELS CONTINUOUS OVER TWO OR MORE SPANS WITHOUT END LAPS. AN OPTIONAL EXTRUDED VINYL WEATHERSEAL (US PATENT NO. 5,134,825) MAY BE USED AT PANEL SIDE LAPS. ADJACENT PANELS ARE SEAMED TOGETHER ALONG SIDE LAPS USING AN ELECTRIC SEAMING TOOL.

   BERRIDGE MANUFACTURING CO. - "ZEE-LOCK PANEL"

2. BERRIDGE ZEE-RIB (CONTINUOUS) * - ONE PIECE ASSEMBLY FABRICATED FROM NO. 24 MSG COATED STEEL. (MIN. YIELD STRENGTH 40,000 PSI) ZEE-RIB LOCATED AT EACH PANEL SIDE LAP BEING CONTINUOUS AND EQUAL TO LENGTH OF "METAL ROOF DECK PANELS". (ITEM 1) (2" ZEE-RIB)

3. PURLINS - NO. 16 MSG MINIMUM STEEL (MIN. YIELD STRENGTH 50,000 PSI) 5'-0" MAXIMUM SPACING.

4. INSULATION - 4" RIGID INSULATION BOARD.

5. BERRIDGE S-DECK METAL STRUCTURAL SHEATHING - NO. 24 MSG STEEL (MIN. YIELD STRENGTH 40,000 PSI), CORRUGATED DECK.

6. # 30 FELT UNDERLAYMENT.

7. LATERAL BRACING - (NOT SHOWN) REFER TO "GENERAL INFORMATION, ROOF DECK CONSTRUCTION" (BUILDING MATERIAL DIRECTORY), FOR ITEMS NOT EVALUATED.

* BEARING THE UL CLASSIFICATION MARKING.
1. BERRIDGE ZEE-LOCK PANEL * - NO. 24 MSG MINIMUM THICKNESS COATED STEEL, (MIN. YIELD STRENGTH 40,000 PSI) 16 IN. WIDE, 2 IN. HIGH. PANELS CONTINUOUS OVER TWO OR MORE SPANS WITHOUT END LAPS. AN OPTIONAL EXTRUDED VINYL WEATHERSEAL (US PATENT NO. 5,134,825) MAY BE USED AT PANEL SIDE LAPS. ADJACENT PANELS ARE SEAMED TOGETHER ALONG SIDE LAPS USING AN ELECTRIC SEAMING TOOL.

   BERRIDGE MANUFACTURING CO. - "ZEE-LOCK PANEL"

2. BERRIDGE ZEE-RIB (CONTINUOUS) * - ONE PIECE ASSEMBLY FABRICATED FROM NO. 24 MSG COATED STEEL. (MIN. YIELD STRENGTH 40,000 PSI) ZEE-RIB LOCATED AT EACH PANEL SIDE LAP BEING CONTINUOUS AND EQUAL TO LENGTH OF "METAL ROOF DECK PANELS" (ITEM 1) (2" ZEE-RIB)

3. FASTENERS (SCREWS) - FOR ATTACHING "ZEE-RIB" (ITEM 2) TO S-DECK (ITEM 6). USE NO. 12 SELF-DRILLING, SELF-TAPPING STEEL SCREWS. ONE FASTENER AT 24" O.C.

4. PURLINS - NO. 16 MSG MINIMUM STEEL (MIN. YIELD STRENGTH 50,000 PSI) 5'-0" MAXIMUM SPACING. BERRIDGE MANUFACTURING "CEE" OR "ZEE" PURLINS.

5. INSULATION - 4" RIGID INSULATION BOARD.

6. BERRIDGE S-DECK METAL STRUCTURAL SHEATHING - NO. 24 MSG STEEL (MIN. YIELD STRENGTH 40,000 PSI), CORRUGATED DECK.

7. # 30 FELT UNDERLAYMENT.

8. LATERAL BRACING - (NOT SHOWN) REFER TO "GENERAL INFORMATION, ROOF DECK CONSTRUCTION" (BUILDING MATERIAL DIRECTORY), FOR ITEMS NOT EVALUATED.

* BEARING THE UL CLASSIFICATION MARKING.
1. BERRIDGE ZEE-LOCK PANEL * - NO. 24 MSG MINIMUM THICKNESS COATED STEEL, 
(MIN. YIELD STRENGTH 40,000 PSI) 16 IN. WIDE, 2 IN. HIGH. PANELS CONTINUOUS 
OVER TWO OR MORE SPANS WITHOUT END LAPS. AN OPTIONAL EXTRUDED VINYL 
WEATHERSEAL (US PATENT NO. 5,134,825) MAY BE USED AT PANEL SIDE LAPS. 
ADJACENT PANELS ARE SEAMED TOGETHER ALONG SIDE LAPS USING AN ELECTRIC 
SEAMING TOOL. 
   BERRIDGE MANUFACTURING CO. - "ZEE-LOCK PANEL"

2. BERRIDGE ZEE-RIB (CONTINUOUS) * - ONE PIECE ASSEMBLY FABRICATED FROM 
NO. 24 MSG COATED STEEL. (MIN. YIELD STRENGTH 40,000 PSI) ZEE-RIB LOCATED 
AT EACH PANEL SIDE LAP BEING CONTINUOUS AND EQUAL TO LENGTH OF "METAL 
ROOF DECK PANELS". (ITEM 1) (2" ZEE-RIB)

3. PURLINS - NO. 16 MSG MINIMUM STEEL (MIN. YIELD STRENGTH 50,000 PSI) 5'-0" 
MAXIMUM SPACING. BERRIDGE MANUFACTURING "CEE" OR "ZEE" PURLINS.

4. INSULATION - 4" RIGID INSULATION BOARD.

5. BERRIDGE S-DECK METAL STRUCTURAL SHEATHING - NO. 24 MSG STEEL (MIN. YIELD 
STRENGTH 40,000 PSI), CORRUGATED DECK.

6. # 30 FELT UNDERLAYMENT.

7. LATERAL BRACING - (NOT SHOWN) REFER TO "GENERAL INFORMATION, ROOF DECK 
CONSTRUCTION" (BUILDING MATERIAL DIRECTORY), FOR ITEMS NOT EVALUATED.

* BEARING THE UL CLASSIFICATION MARKING.
1. METAL ROOF DECK PANELS * - NO. 24 MSG MINIMUM THICKNESS COATED STEEL, (MIN. YIELD STRENGTH 40,000 PSI) 16" WIDE, 2" HIGH, WITH A NON-STRUCTURAL OPTIONAL VINYL WEATHERSEAL (US PATENT NO. 5,134,825) AT PANEL SEAMS. ADJACENT PANELS ARE SEAMED TOGETHER ALONG SIDE LAPS TO INCLUDE "ROOF DECK FASTENERS" (ITEM 2) USING AN ELECTRIC SEAMING TOOL. BERRIDGE MANUFACTURING CO. - "ZEE-LOCK PANEL"

2. ROOF DECK FASTENERS * - (PANEL CLIPS) - ONE PIECE ASSEMBLY FABRICATED FROM NO. 24 MSG COATED STEEL (MIN. YIELD STRENGTH 40,000 PSI). "ZEE-CLIP" LOCATED AT EACH PANEL SIDE LAP BEING PLACED AT 3'-0" O.C. MAXIMUM. BERRIDGE MANUFACTURING CO. - "ZEE-CLIP"

3. FASTENERS (SCREWS) - FOR ATTACHING "ZEE-CLIP" (ITEM 2) TO 5/8" PLYWOOD USE NO. 10 PANCAKE HEAD SELF-TAPPING SCREWS, TWO FASTENERS PER "ZEE-CLIP".

4. DECK - 5/8" APA 40/20 PLYWOOD.

5. JOIST - 2" x 4" AT 2'-0" O.C. MAXIMUM WITH #12 x 2" PAN HEAD WOOD SCREW AT 12" O.C. MAX. AT PLYWOOD TO JOIST CONNECTION AND AT PLYWOOD ENDS.

6. # 30 FELT UNDERLAYMENT.

7. LATERAL BRACING - (NOT SHOWN) REFER TO "GENERAL INFORMATION, ROOF DECK CONSTRUCTION" (BUILDING MATERIAL DIRECTORY) FOR ITEMS NOT EVALUATED.

* BEARING THE UL CLASSIFICATION MARKING.
1. METAL ROOF DECK PANELS * - NO. 24 MSG MINIMUM THICKNESS COATED STEEL, (MIN. YIELD STRENGTH 40,000 PSI) 16" WIDE, 2" HIGH, WITH A NON-STRUCTURAL OPTIONAL VINYL WEATHERSEAL (US PATENT NO. 5,134,825) AT PANEL SEAMS. ADJACENT PANELS ARE SEAMED TOGETHER ALONG SIDE LAPS TO INCLUDE "ROOF DECK FASTENERS" (ITEM 2) USING AN ELECTRIC SEAMING TOOL.
   BERRIDGE MANUFACTURING CO. - "ZEE-LOCK PANEL"

2. ROOF DECK FASTENERS * - (PANEL CLIPS) - ONE PIECE ASSEMBLY FABRICATED FROM NO. 24 MSG COATED STEEL (MIN. YIELD STRENGTH 40,000 PSI). "ZEE-CLIP" LOCATED AT EACH PANEL SIDE LAP WITH CLIPS BEING PLACED AT 3'-0" O.C. MAXIMUM.
   BERRIDGE MANUFACTURING CO. - "ZEE-CLIP"

3. DECK - 5/8" APA 40/20 PLYWOOD.

4. JOIST - 2" x 4" AT 2'-0" O.C. MAXIMUM WITH #12 x 2" PAN HEAD WOOD SCREW AT 12" O.C. MAX. AT PLYWOOD TO JOIST CONNECTION AND AT PLYWOOD ENDS.

5. # 30 FELT UNDERLAYMENT.

6. LATERAL BRACING - (NOT SHOWN) REFER TO "GENERAL INFORMATION, ROOF DECK CONSTRUCTION" (BUILDING MATERIAL DIRECTORY) FOR ITEMS NOT EVALUATED.

* BEARING THE UL CLASSIFICATION MARKING.
1. In order to qualify for a fire-resistant rating, the roof system cannot make a penetration in the insulation system. The Zee-Lock panel in order to make a positive attachment, must be attached to the steel deck. (If the insulation system has no nailable surface).

2. This assembly qualifies for the following UL fire-resistant roof assemblies:

3. Additional information regarding this assembly is available in the UL fire resistance directory.
1. IN ORDER TO QUALIFY FOR A FIRE-RESISTANT RATING, THE ROOF SYSTEM CANNOT MAKE A PENETRATION IN THE INSULATION SYSTEM. THE ZEE-LOCK PANEL IN ORDER TO MAKE A POSITIVE ATTACHMENT, MUST BE ATTACHED TO THE STEEL DECK. (IF THE INSULATION SYSTEM HAS NO NAILABLE SURFACE).

2. THIS ASSEMBLY QUALIFIES FOR THE FOLLOWING UL FIRE-RESISTANT ROOF ASSEMBLIES: UL DESIGN NO. P512.

3. ADDITIONAL INFORMATION REGARDING THIS ASSEMBLY IS AVAILABLE IN THE UL FIRE RESISTANCE DIRECTORY.
1. In order to qualify for a fire-resistant rating, the roof system cannot make a penetration in the insulation system. The Zee-Lock panel in order to make a positive attachment, must be attached to the steel deck. (If the insulation system has no nailable surface).

2. This assembly qualifies for the following UL fire-resistant roof assemblies: UL Design No. P701, P711, and P803, using sprayed on fiber in lieu of cementious mixture.

3. Additional information regarding this assembly is available in the UL fire resistance directory.