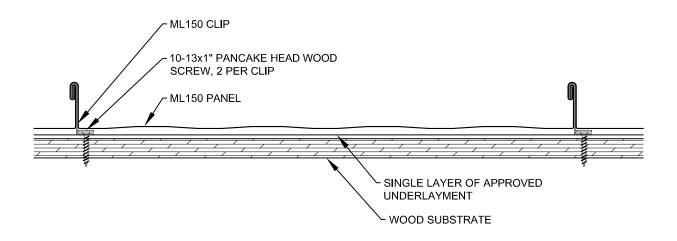


ML150 Standing Seam Wood Substrate Master Details

Architectural / Solid Substrate / Steep Slope

The following details are commonly used over steep sloped applications including those over solid substrates such as plywood or steel decking with rigid insulation. Such details are largely based on hydrokinetic (water shedding) design principles and architectural detailing.







ML150 Standing Seam -Wood Substrate-

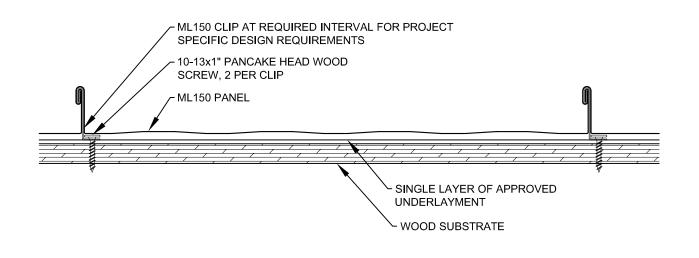
Panel Information	Detail No.
Panel Application	0.10
System Overview - Panel Profiles	
System Overview - Clips	0.21
Thermal Gap Installation Chart - Steel	
Thermal Gap Installation Chart - Aluminum	0.31
Eave Details	Detail No.
Extended Foxe	1 10
Extended Eave	
Extended Eave - Steep Slope	
Extended Eave with Gutter	
Extended Eave with Gutter - Steep Slope	
Extended Eave with Soffit	
Extended Eave with Soffit & Gutter	
Extended Eave with Vertical Flush Panel	1.50
Extended Eave with Vertical Standing Seam Panel	1.60
Extended Eave Lap Detail	1.90
Gable Details	Detail No.
Gable Details	Detail NO.
Gable - Extended Drip	2.10
Gable - Box	
Gable - Box with Zee Closure	
Box Gable Lap Detail	
Valley Details	Detail No.
Valley - Integral Cleat	3.10
Valley - Offset Cleat	3.20
Valley Lap Detail	3.90
Didge & Hin Detaile	Dotail No
Ridge & Hip Details	Detail No.
Standard Ridge & Hip	4.10
Vented Ridge	
Vented Ridge-to-Standard Ridge Transition	
Ridge Termination at Valley	
Ridge & Hip Lap Detail	
Ridge Cap Expansion Detail	
Peak Details	Detail No.
Peak Detail	5.10
Vented Peak Detail	
Peak Detail with Vertical Flush Panel	
reak Detail With Vehital Flush Pallel	5.40

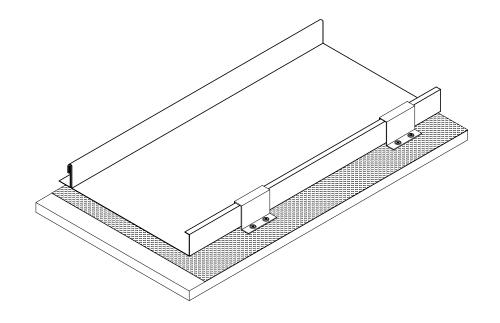




ML150 Standing Seam -Wood Substrate-

High Wall & Low Wall Details	Detail No.
High Wall - Reglet	6.10
Vented High Wall - Reglet	
High Wall - Surface Mount	
High Wall - Vertical Panel with Sill	6.14
High Wall - Parapet	6.20
Valley Wall Detail	
High Wall Lap Detail	
Sidewall Details	Detail No.
Sidewall - Reglet with Subflashing Angle	7.11
Sidewall - Surface Mount with Subflashing Angle	7.12
Sidewall - Wood Framing & Siding with Subflashing Angle	7.13
Sidewall - Reglet with J-Channel Subflashing	7.21
Sidewall - Surface Mount with J-Channel Subflashing	7.22
Sidewall - Wood Framing & Siding with J-Channel Subflashing	7.23
Sidewall - Reglet with Zee Closure	7.31
Sidewall - Surface Mount with Zee Closure	7.32
Sidewall - Wood Framing & Siding with Zee Closure	7.33
Sidewall Expansion Joint	7.40
Expansion Joint Mid-Roof	7.50
Sidewall Lap Detail	7.90
Slope Transition Details	Detail No.
Slope Transition	8.10
Transition at Membrane Roofing	
General Information Details	Detail No.
Panel Hemming	10 10
End Lap Detail - Low Slope	
End Lap Detail - Steep Slope	
Zee Closure Installation	
Pipe Penetration	
Pipe Penetration Through Panel Rib	
Curb at High Wall & Low Wall	
Curb at Sidewall	
Curb Installation Datail	CDB 1 6



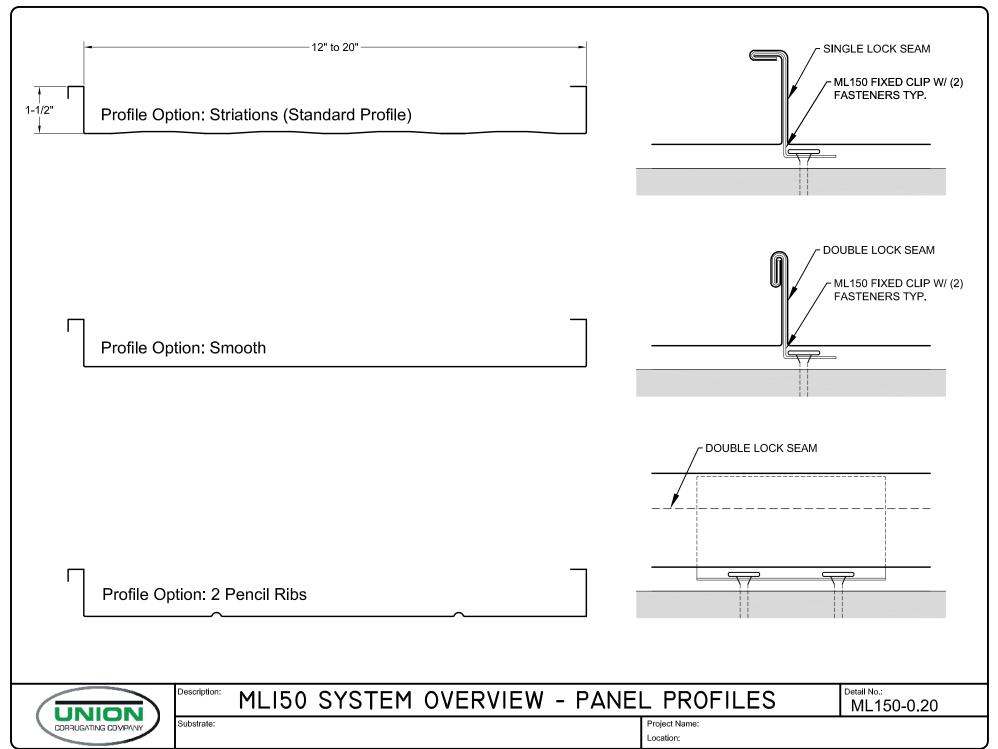


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MLI50 APPLICATION

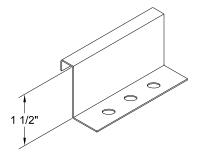
Detail No.: ML150-WS-0.10

Substrate: WOOD SUBSTRATE

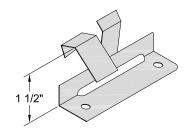


IMPORTANT INSTALLATION NOTE

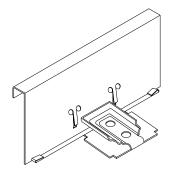
EXPANSION CLIPS ARE RECOMMENDED FOR PANEL LENGTHS GREATER THAN 30'-0".

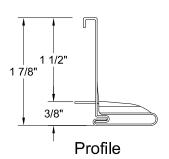


Clip 30 Fixed 26 Ga. Galvanized 1.5" x 3"

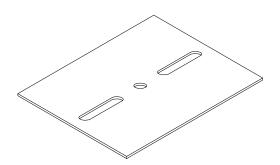


Clip 31 Butterfly Expansion
28 Ga. Stainless Steel
1.5" x 3"
Recommended for use with aluminum panels





Clip 32 Expansion 22 Ga. Galvanized 1.875" x 4.25" (0.375" Standoff)



4" X 5" Bearing Plate
16 Ga. Galvanized
Required for use when clips are applied
directly over rigid board insulation

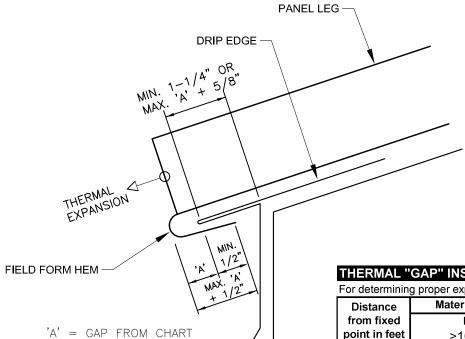


Description: MLI50 SYSTEM OVERVIEW - CLIPS

Detail No.:

ML150-0.21

Substrate:



THERMAL "GAP" INSTALLATION CHART (In inches) - STEEL

For determining proper expansion/contraction gap at panel ends during installation

Distance	Material Temperature (Surface Temperature) During Installation								
from fixed	Hot			Warm		Cold			
point in feet	>100° F			in feet >100° F 100° to 50° F		:o 50° F	<50° F		
10	0.145		1/8	0.072	1/16	0.000	0		
20	0.289		5/16	0.145	1/8	0.000	0		
30	0.434		7/16	0.217	3/16	0.125		1/8	
40	0.579		9/16	0.289	5/16	0.125		1/8	
50	0.724		3/4	0.362	3/8	0.188		3/16	
60	0.868		7/8	0.434	7/16	0.188		3/16	
70	1.013	1		0.507	1/2	0.250		1/4	
80	1.158	1	3/16	0.579	9/16	0.250		1/4	
90	1.302	1	5/16	0.651	5/8	0.375		3/8	
100	1.447	1	7/16	0.724	3/4	0.375		3/8	

^{*} Chart based on temperature differential of:

180 degrees F



Description: THERMAL GAP INSTALLATION CHART - STEEL

Detail No.:

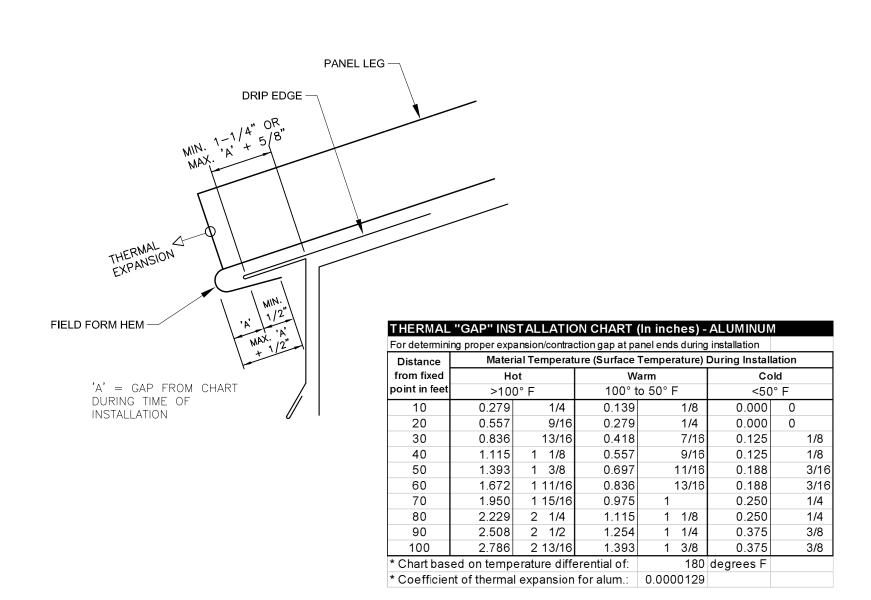
ML150-0.30

Substrate:

Project Name: Location:

DURING TIME OF INSTALLATION

^{*} Coefficient of thermal expansion for steel: 0.0000067



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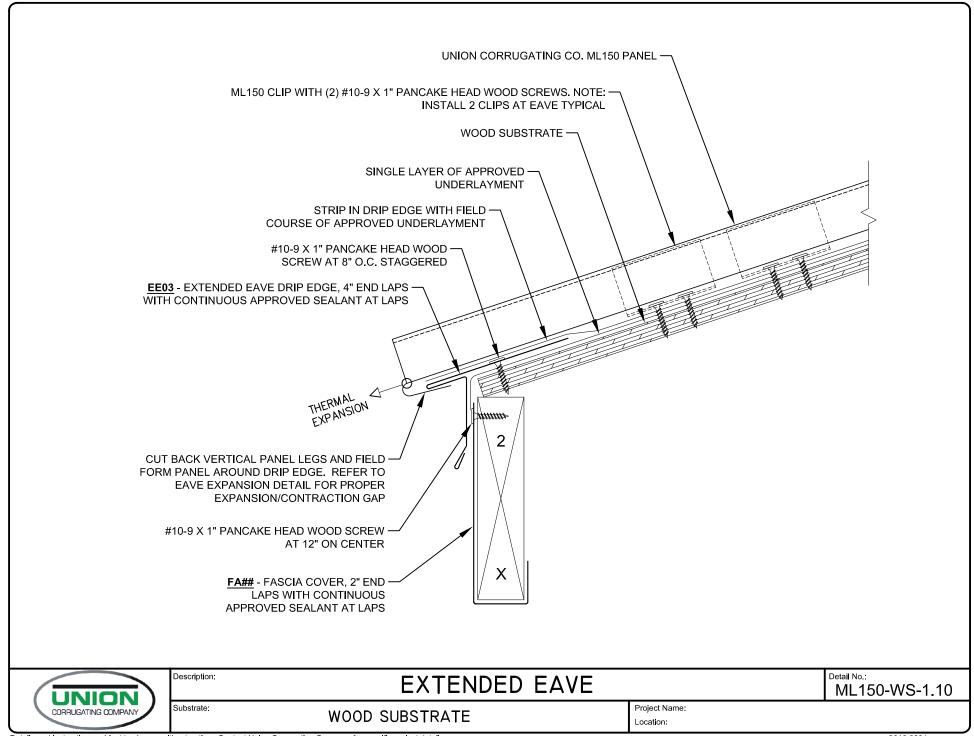
Description: THERMAL GAP INSTALLATION CHART - ALUMINUM

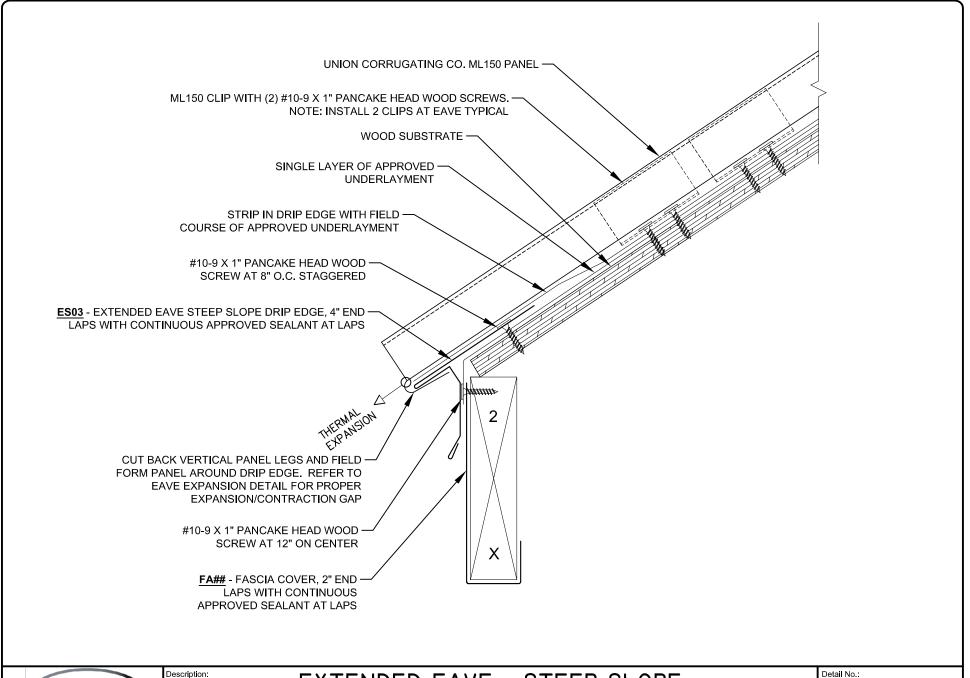
ALUMINUM | ML150-0.31

Detail No.:

Project Name:
Location:

Substrate:







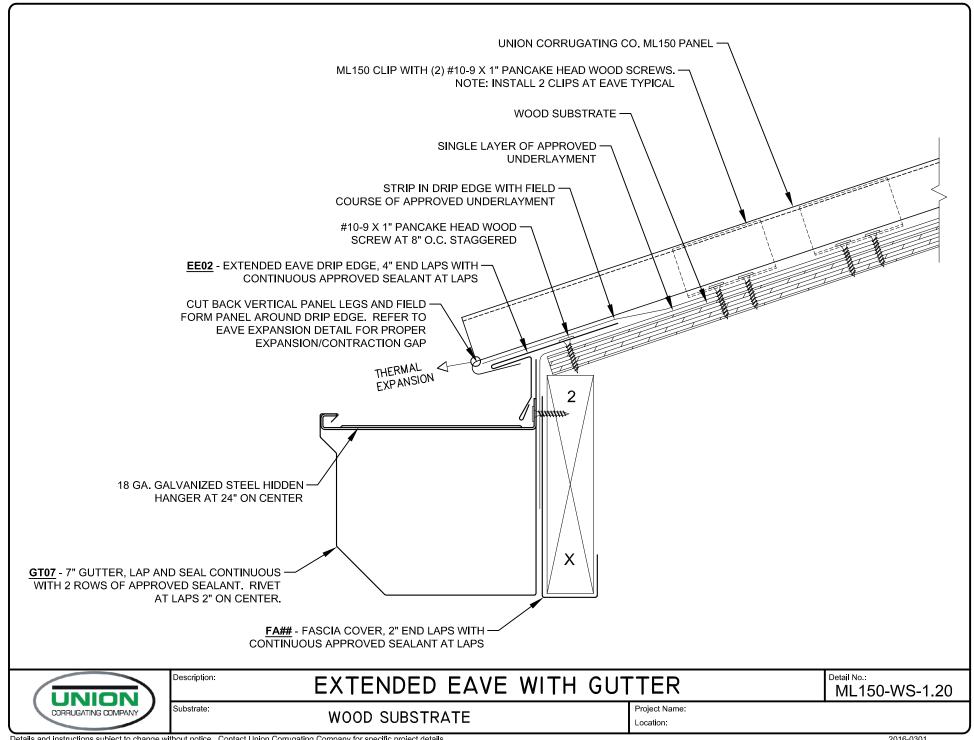
EXTENDED EAVE - STEEP SLOPE

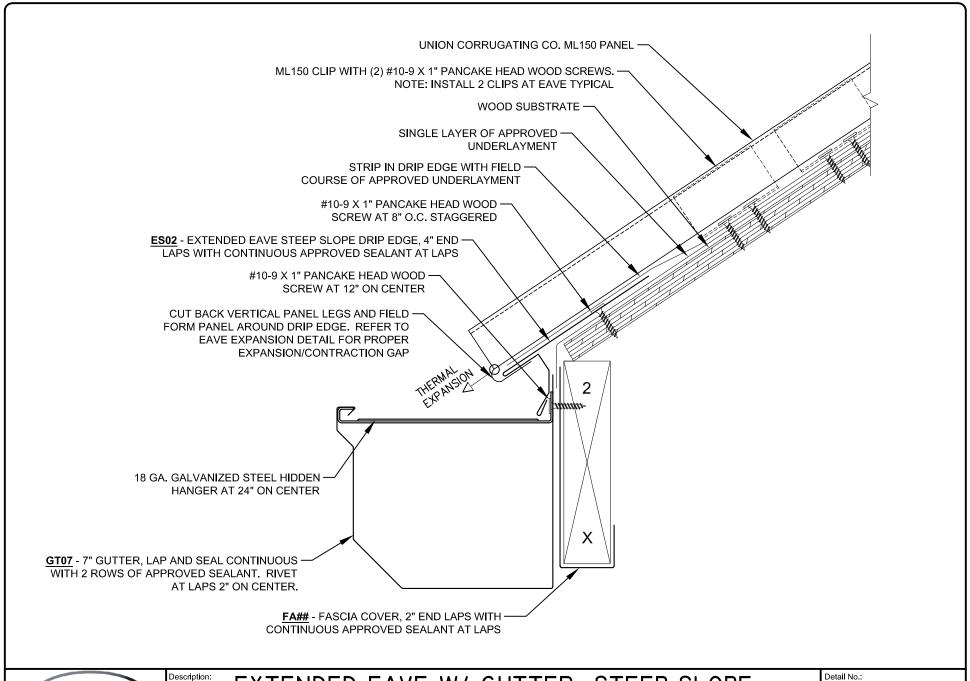
ML150-WS-1.10A

Substrate: WOOD SUBSTRATE

Project Name: Location:

Details and instructions subject to change without notice. Contact Union Corrugating Company for specific project details.



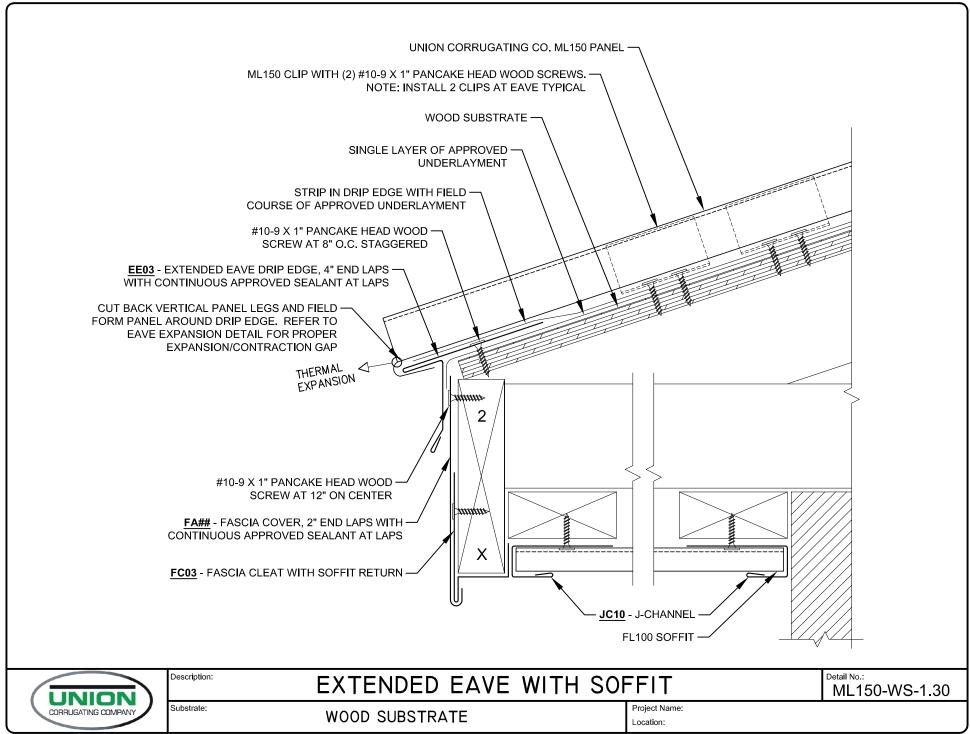


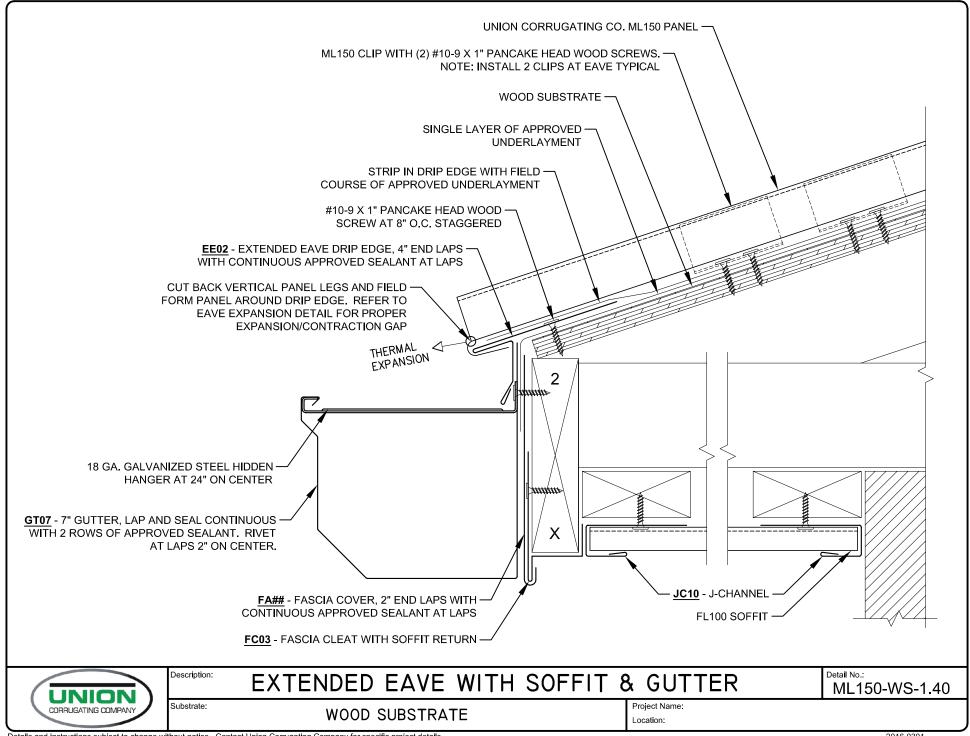


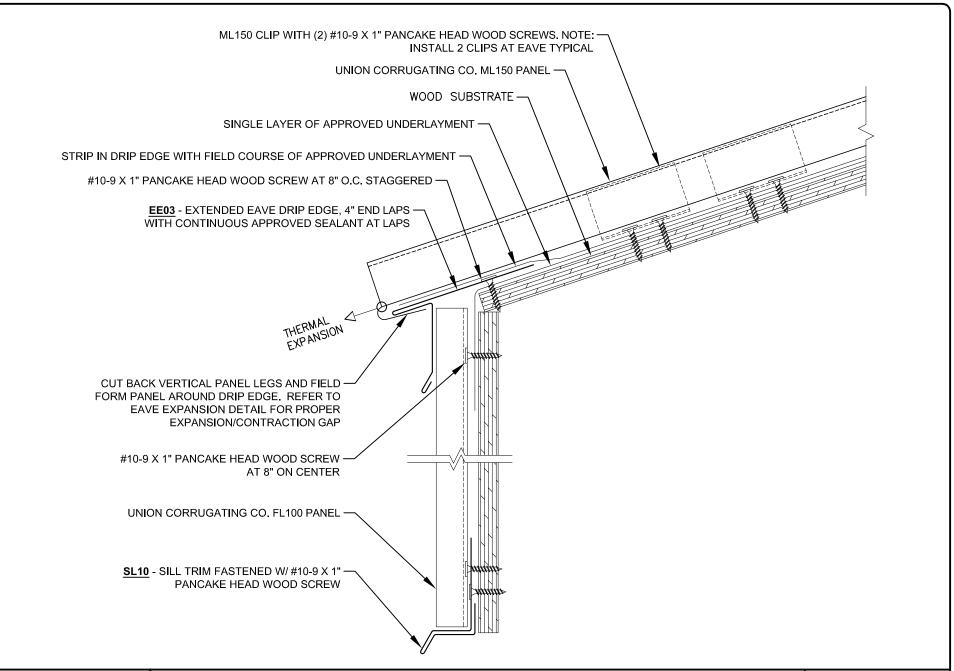
Description: EXTENDED EAVE W/ GUTTER- STEEP SLOPE

ML150-WS-1.20A

Substrate: WOOD SUBSTRATE









Description:

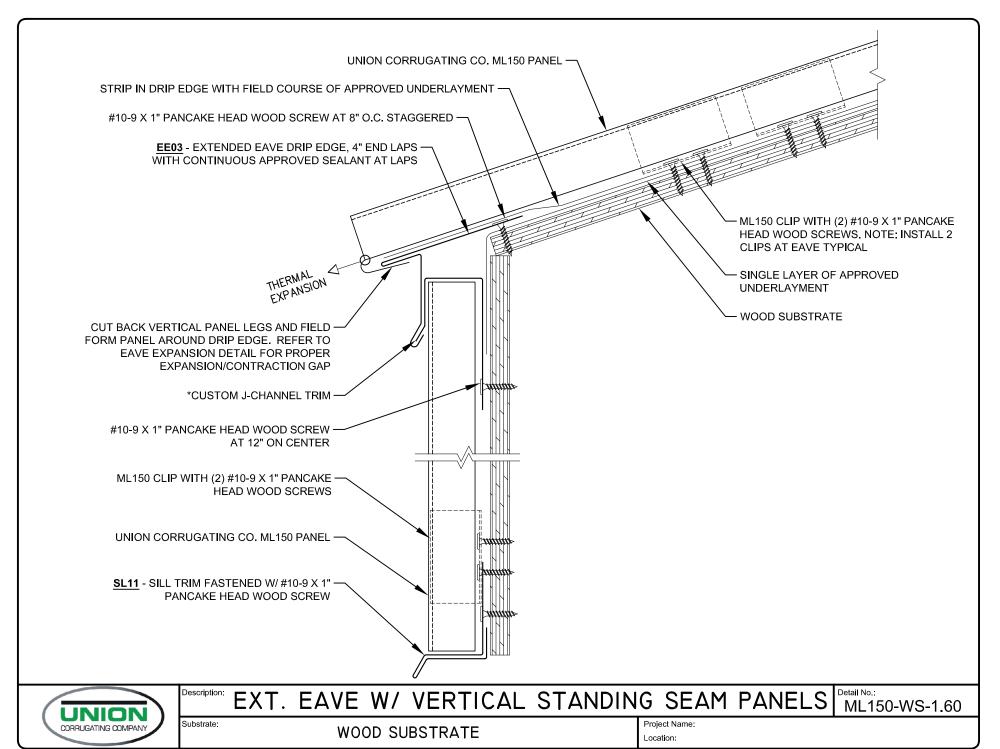
EXTENDED EAVE W/ VERTICAL FLUSH PANEL

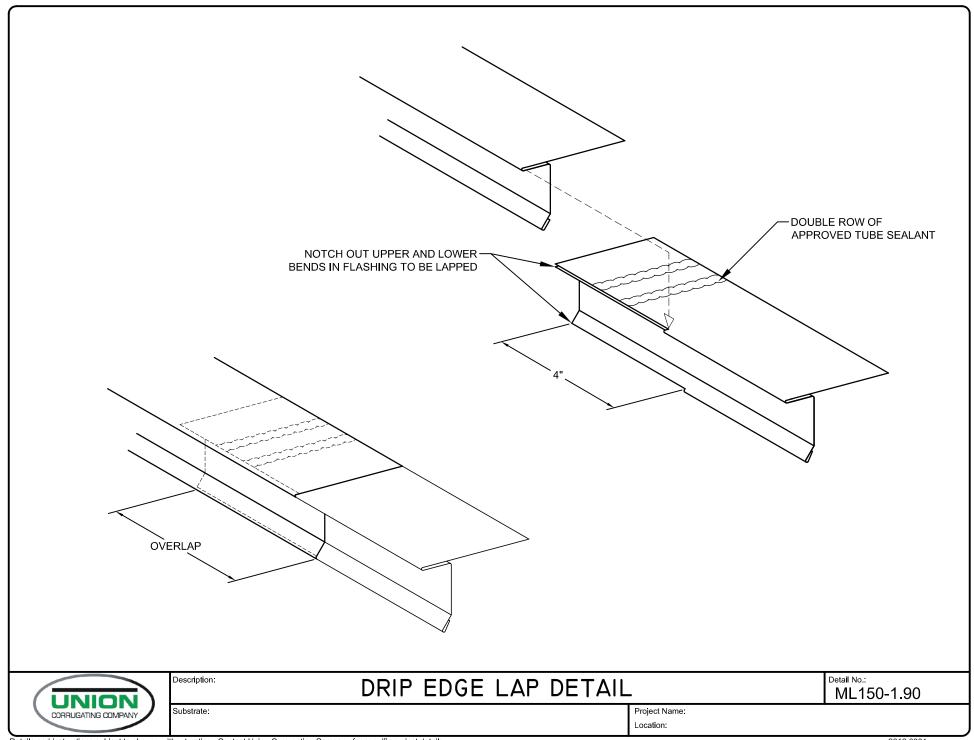
Detail No.:

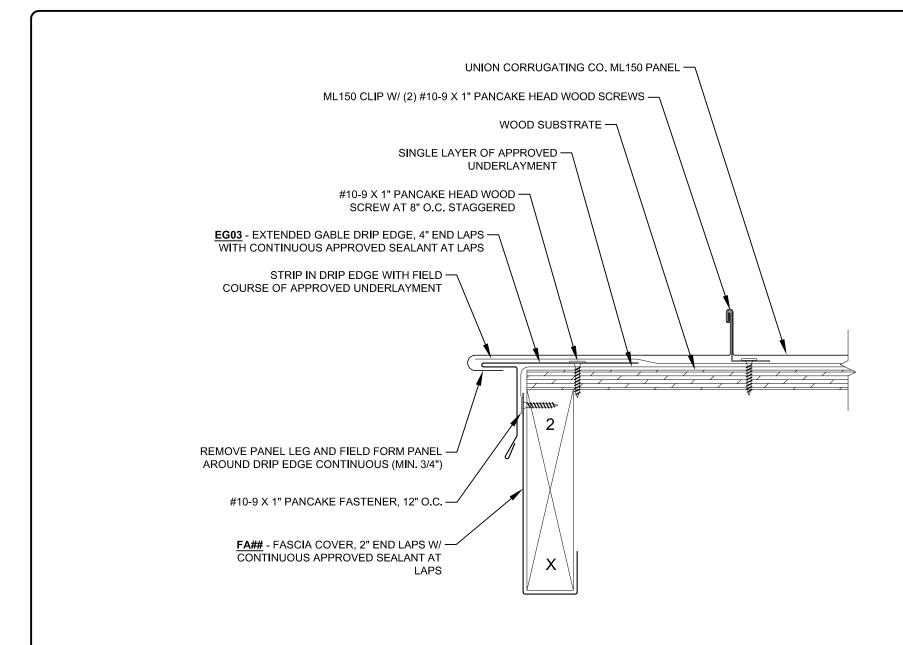
ML150-WS-1.50

Substrate:

WOOD SUBSTRATE







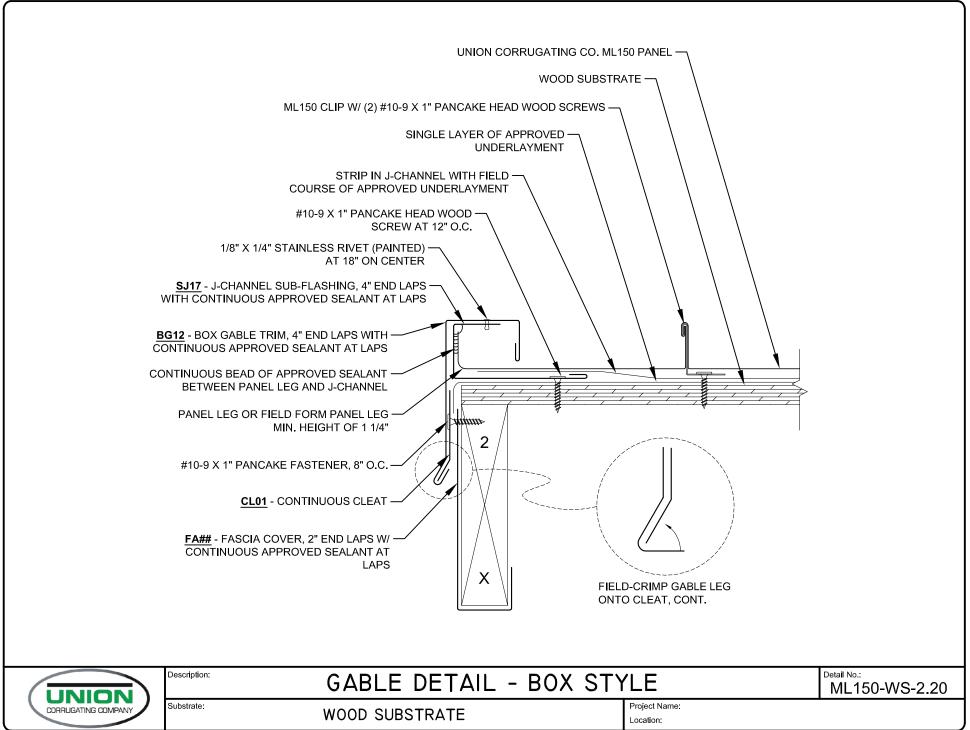


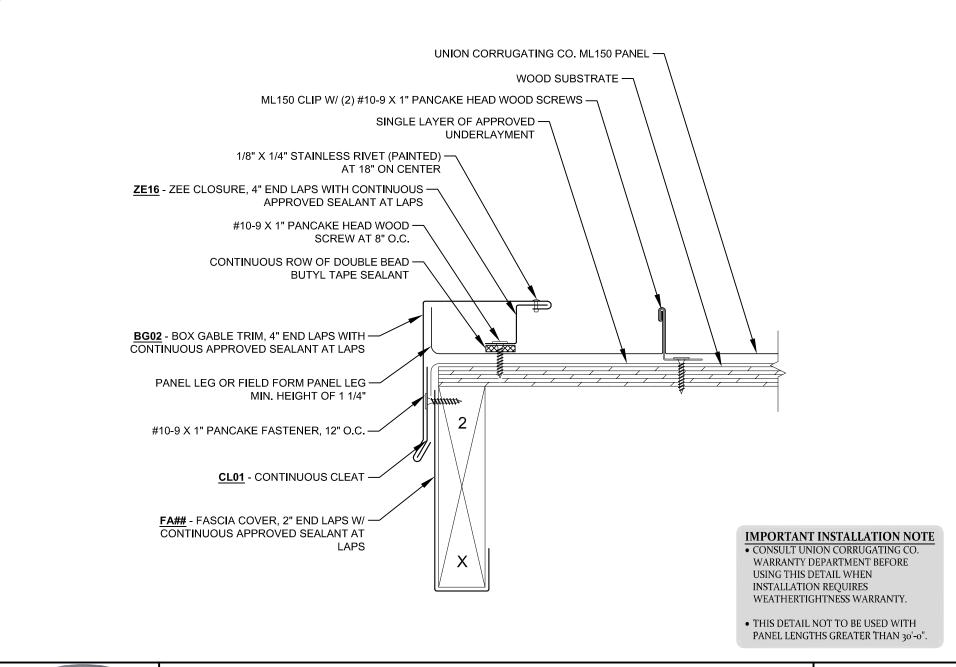
GABLE DETAIL - EXTENDED DRIP STYLE

| ML150-WS-2.10

Detail No.:

Substrate: WOOD SUBSTRATE







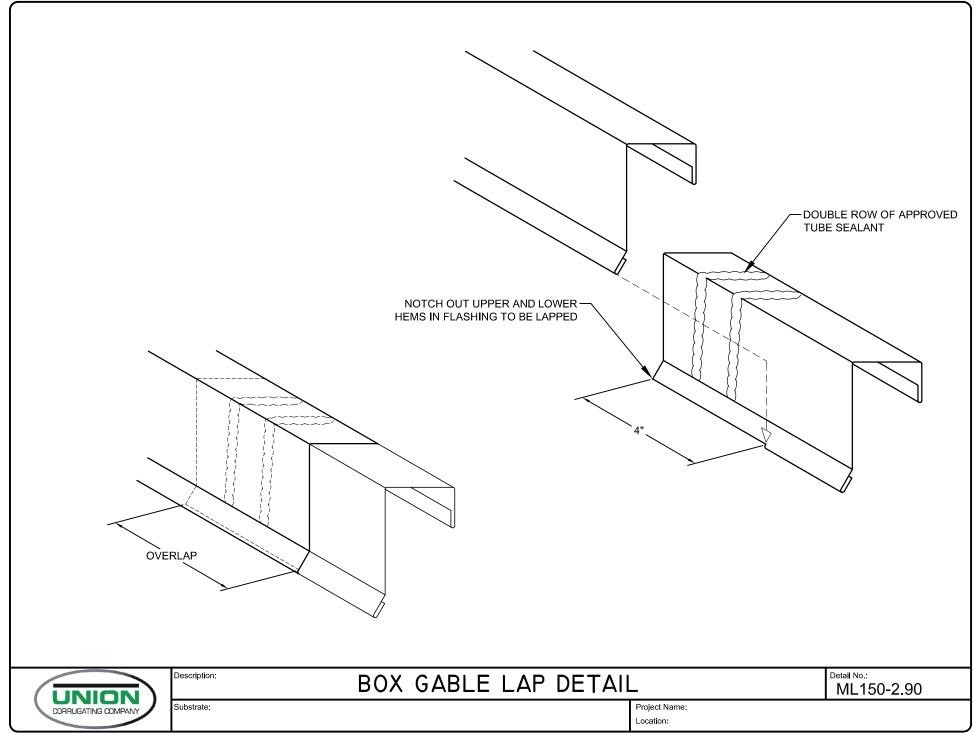
Description: GABLE DETAIL - BOX STYLE w/ Z-CLOSURE

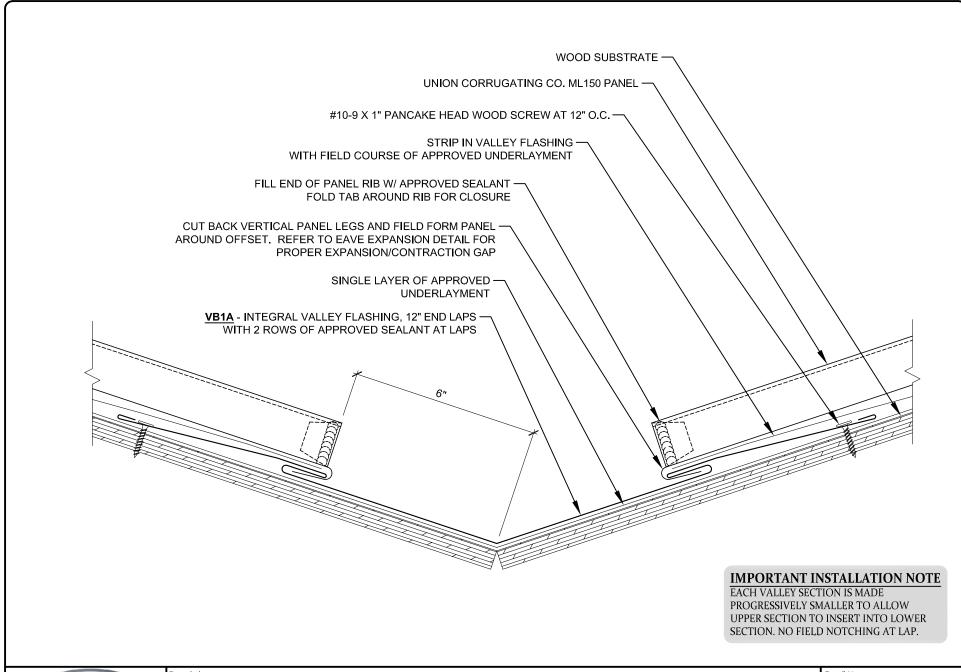
Detail No.:

ML150-WS-2.30

Substrate:

WOOD SUBSTRATE



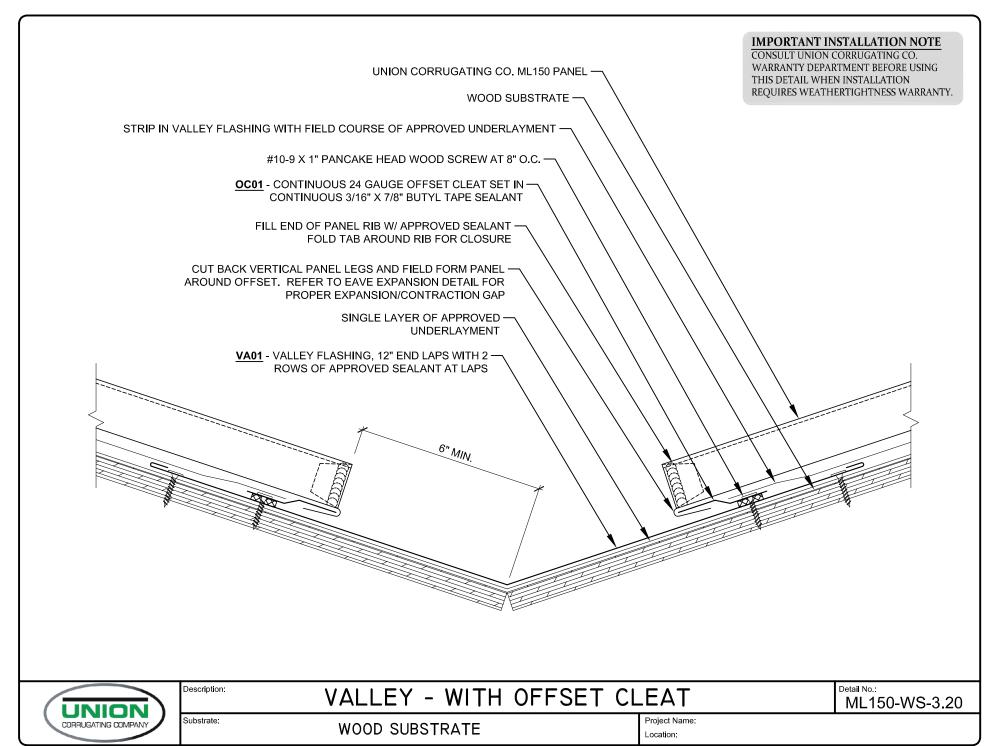


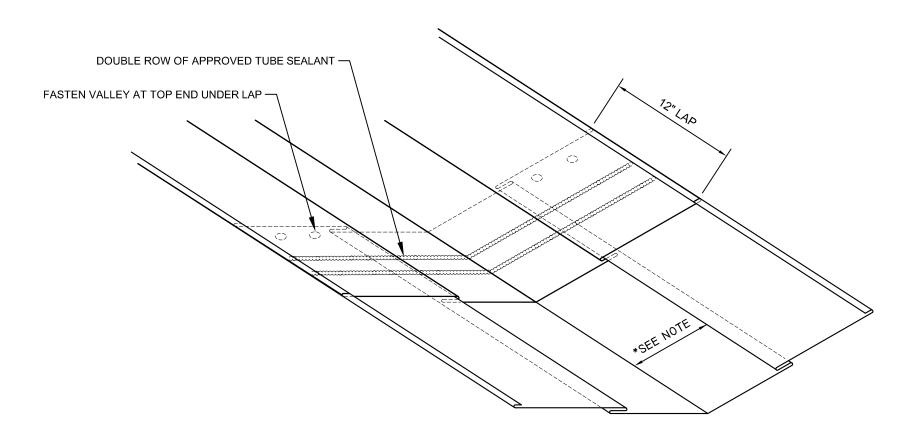


VALLEY DETAIL - INTEGRAL CLEAT

Detail No.: ML150-WS-3.10

Substrate: WOOD SUBSTRATE





TELESCOPING VALLEY FLASHING LAP

IMPORTANT INSTALLATION NOTE

EACH VALLEY SECTION IS MADE PROGRESSIVELY SMALLER TO ALLOW UPPER SECTION TO INSERT INTO LOWER SECTION. NO FIELD NOTCHING AT LAP.

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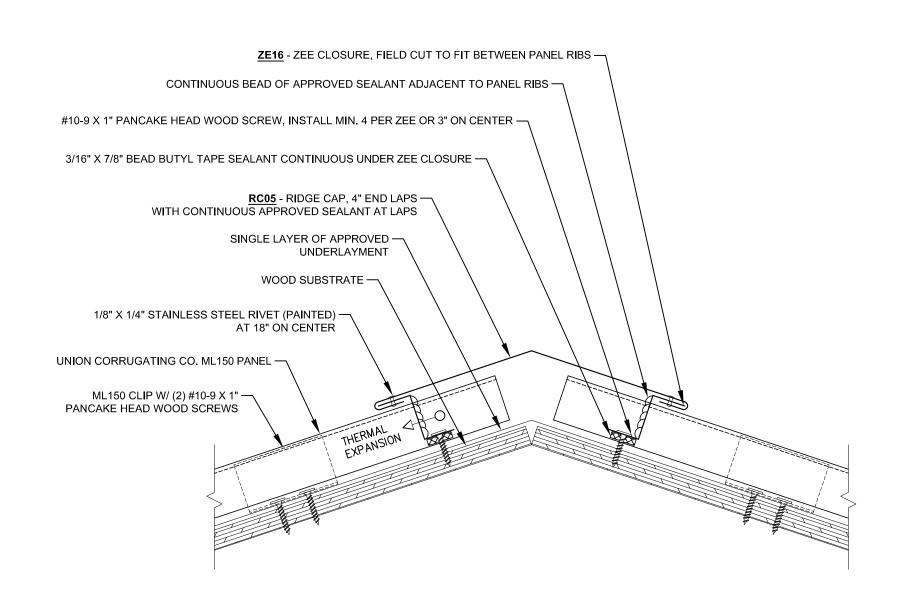
VALLEY LAP DETAIL

Detail No.:

ML150-3.90

Substrate:

Description:



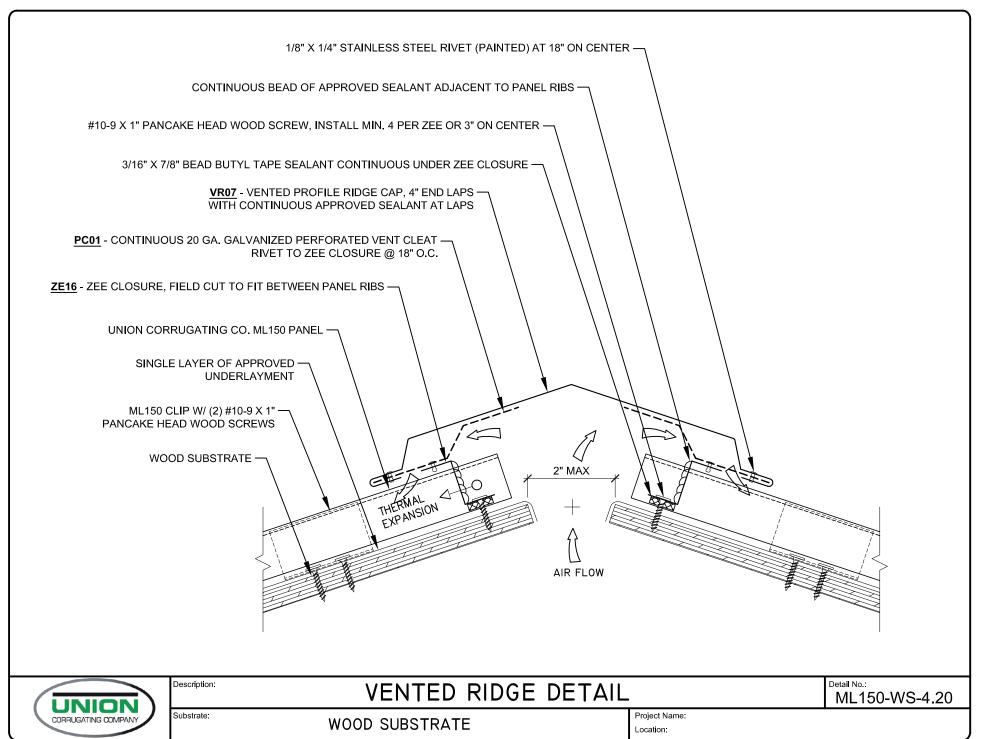
UNION CORRUGATING COMPANY Pescription: HIP AND RIDGE DETAIL

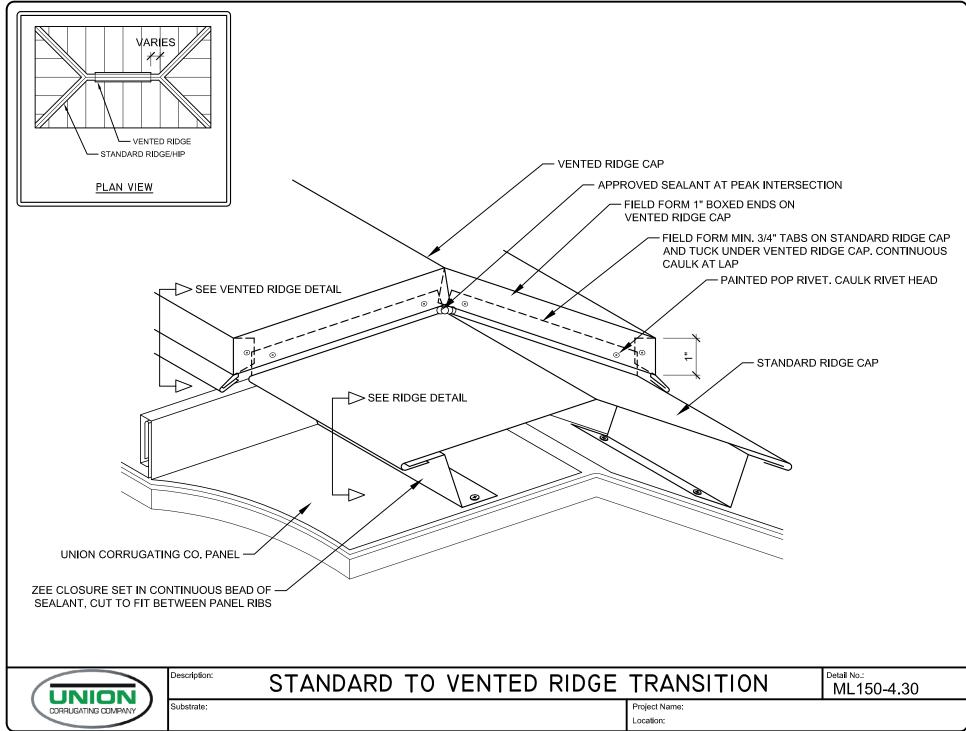
ML150-WS-4.10

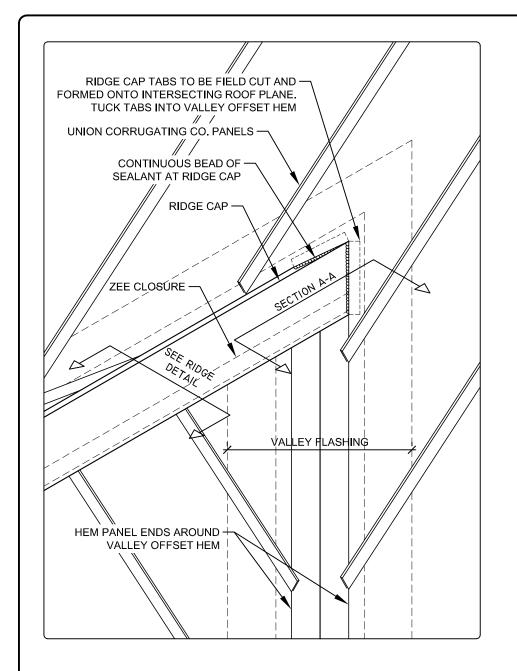
WOOD SUBSTRATE

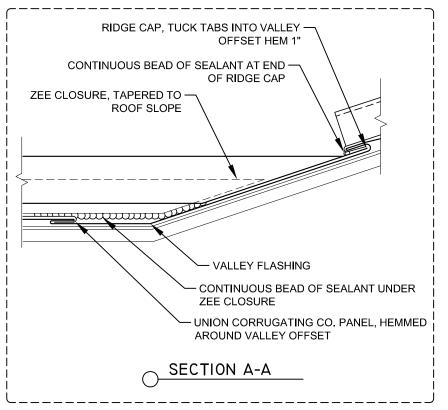
Project Name: Location:

Substrate:











Description:

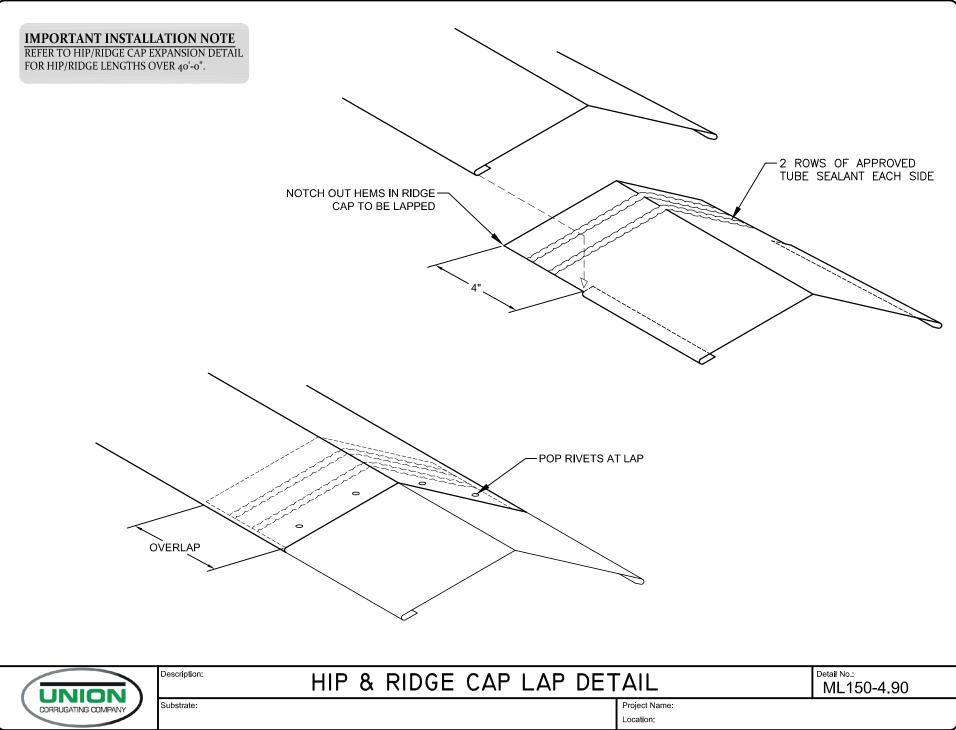
Substrate:

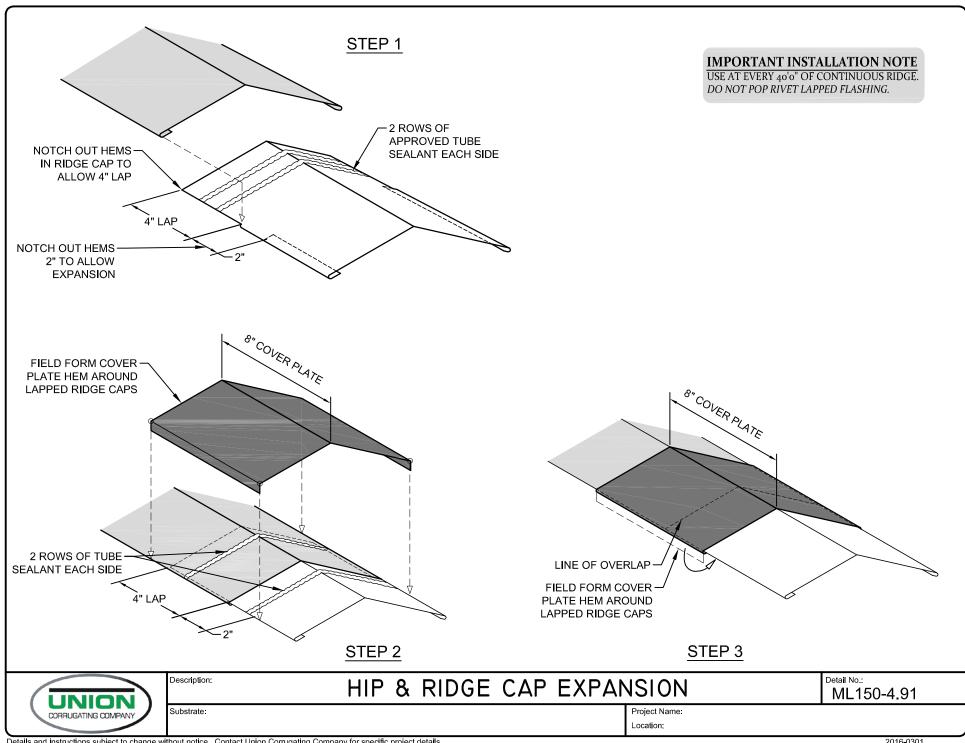
RIDGE TERMINATION @ VALLEY

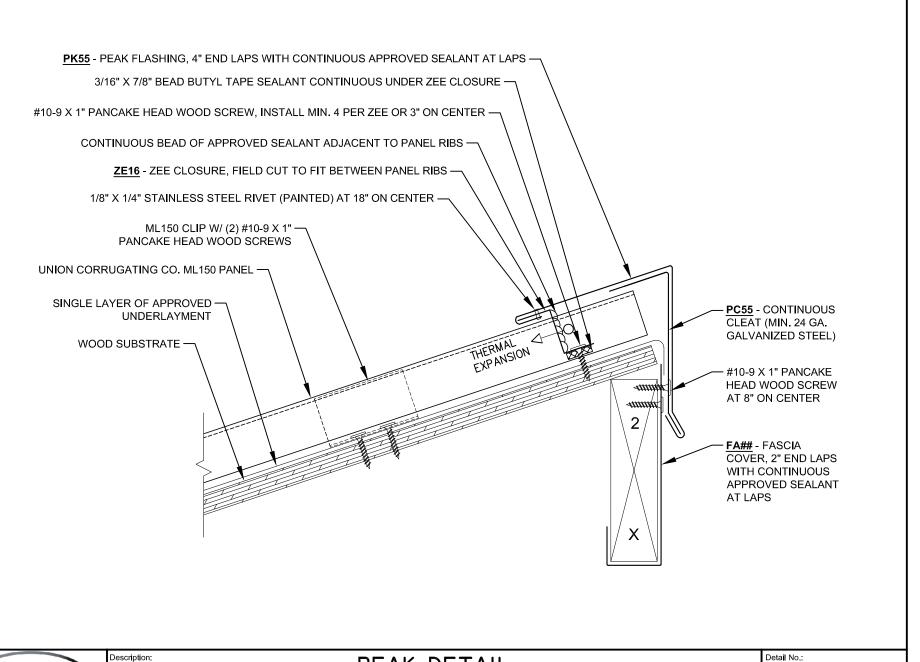
Detail No.: ML150-4.40

Project Name:

Location:





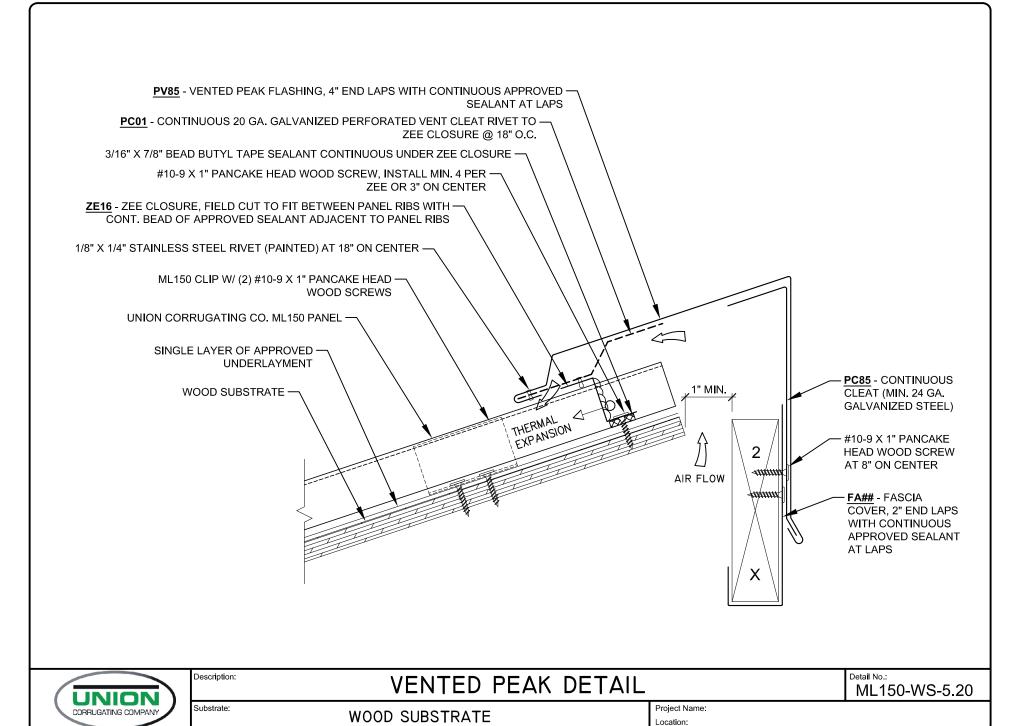


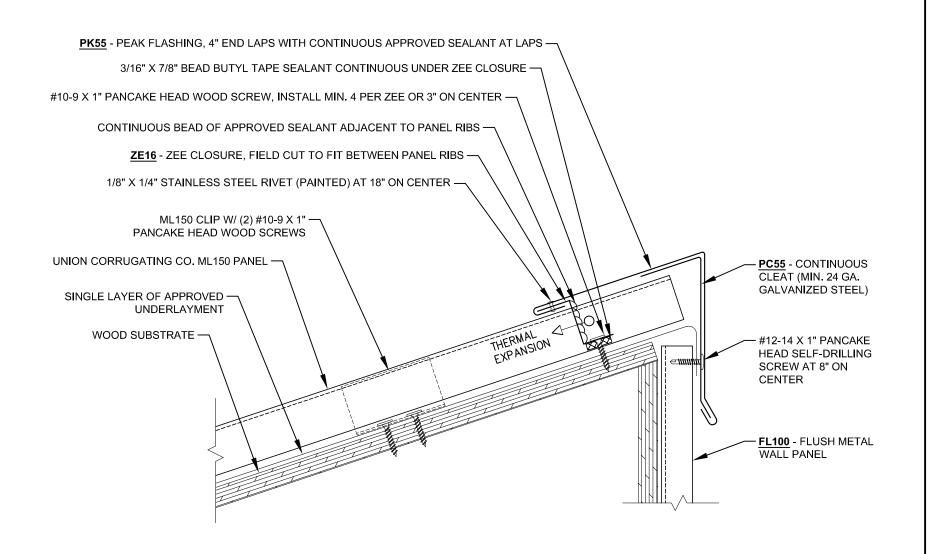


PEAK DETAIL

ML150-WS-5.10

Substrate: WOOD SUBSTRATE



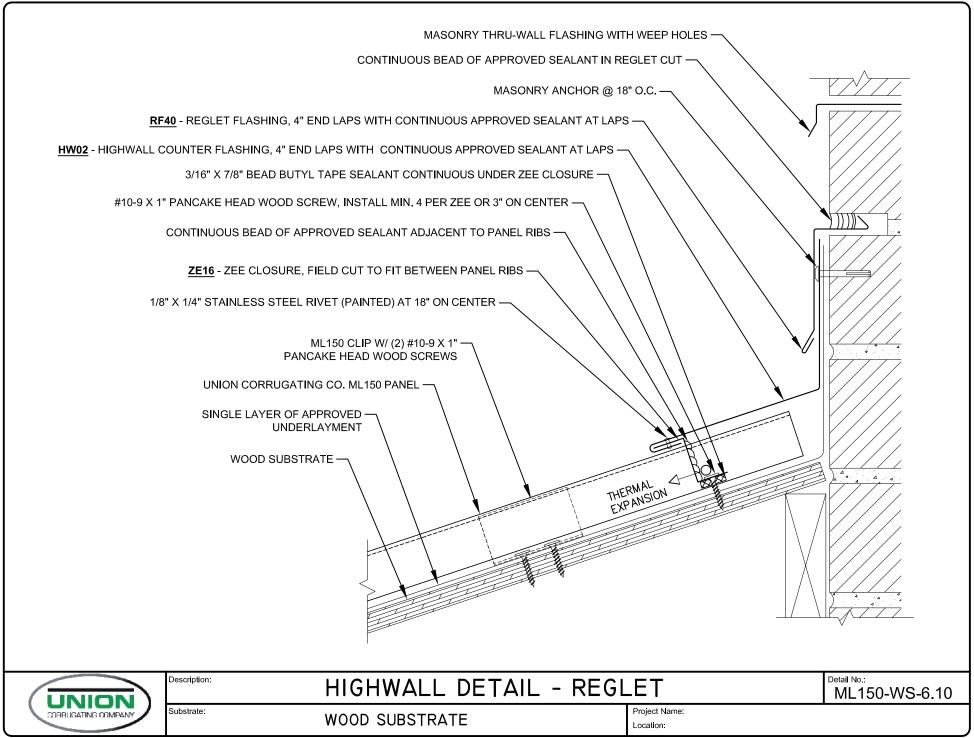


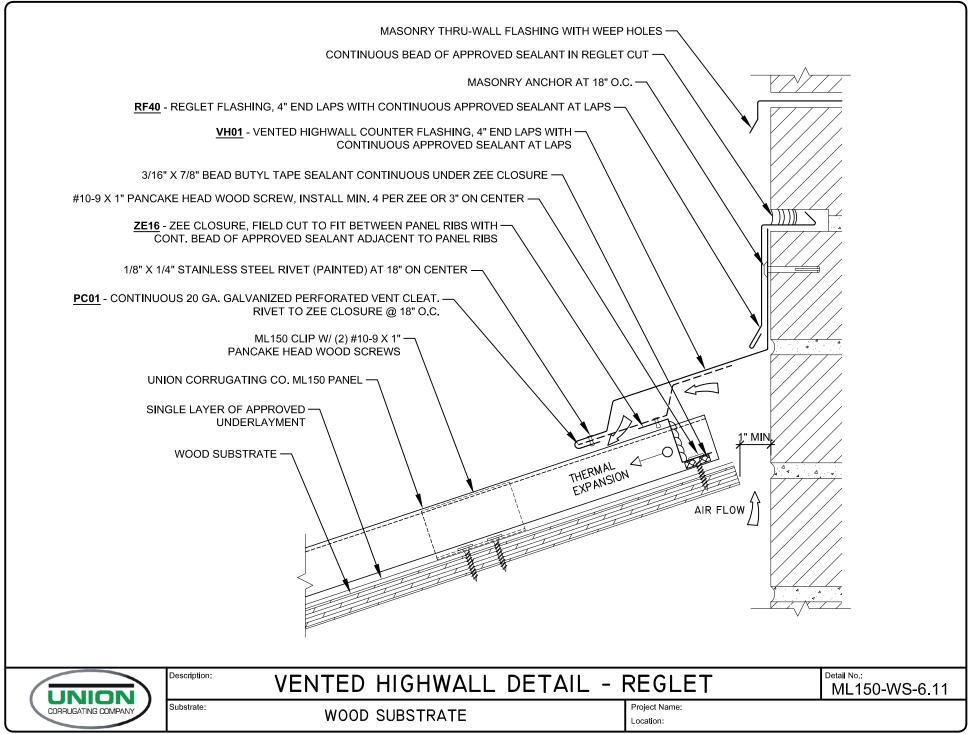


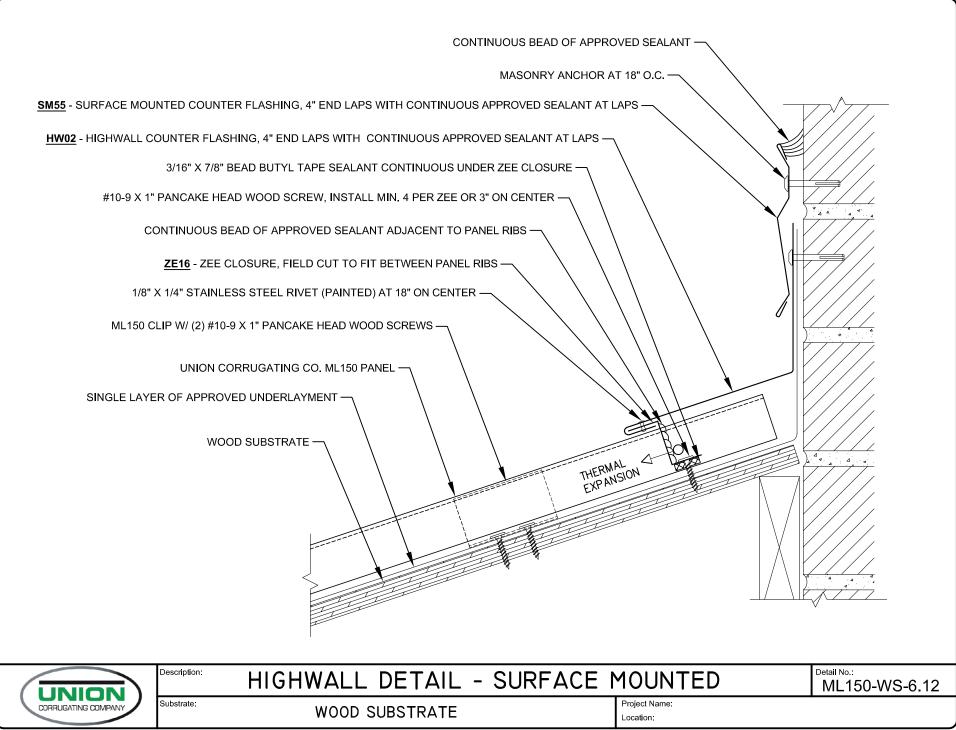
PEAK DETAIL - WITH WALL PANELS

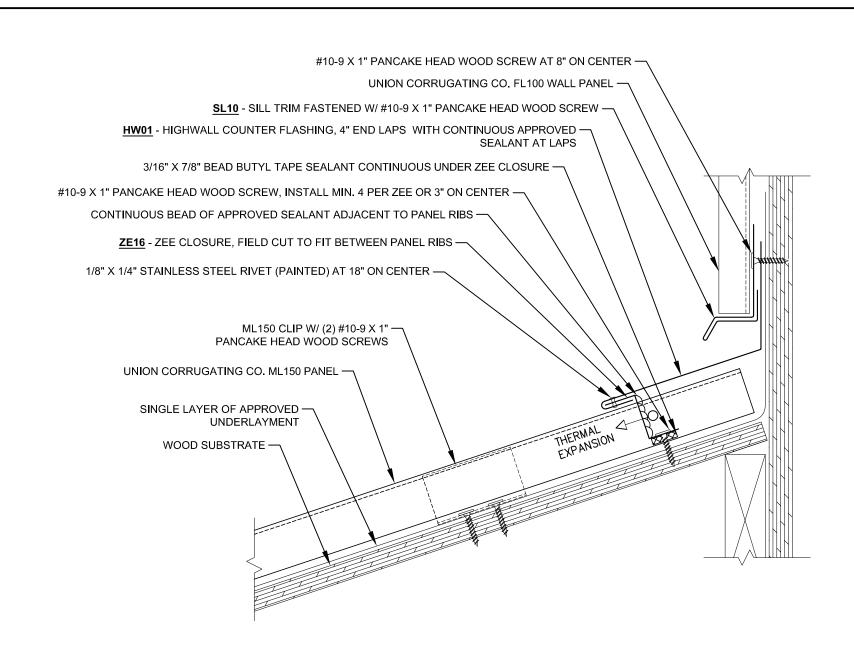
Detail No.: ML150-WS-5.40

Substrate: WOOD SUBSTRATE







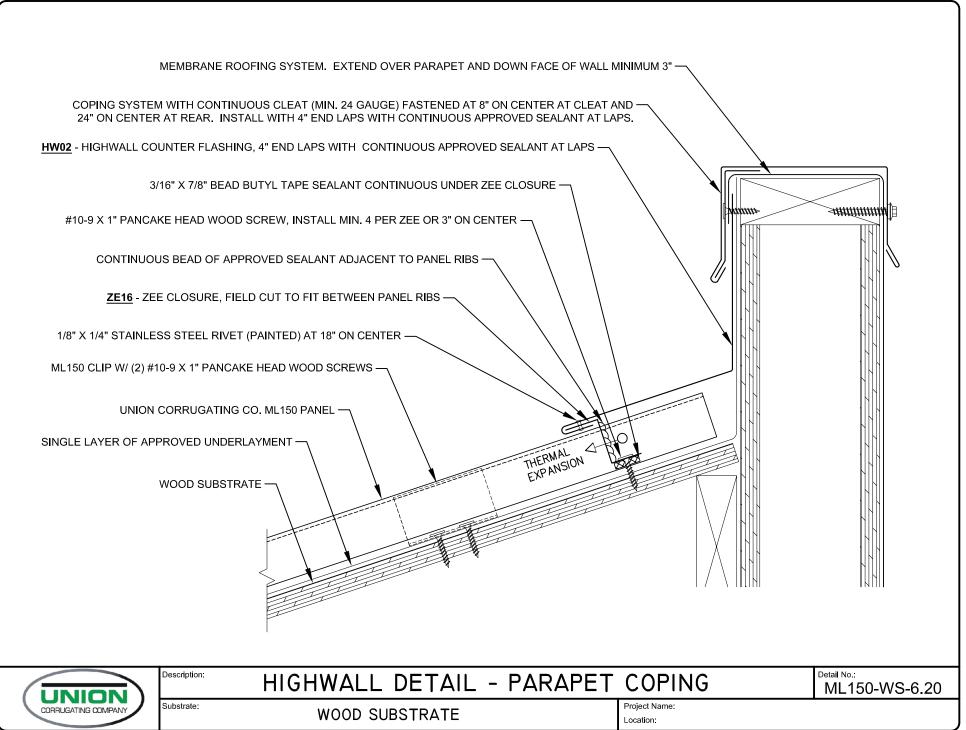


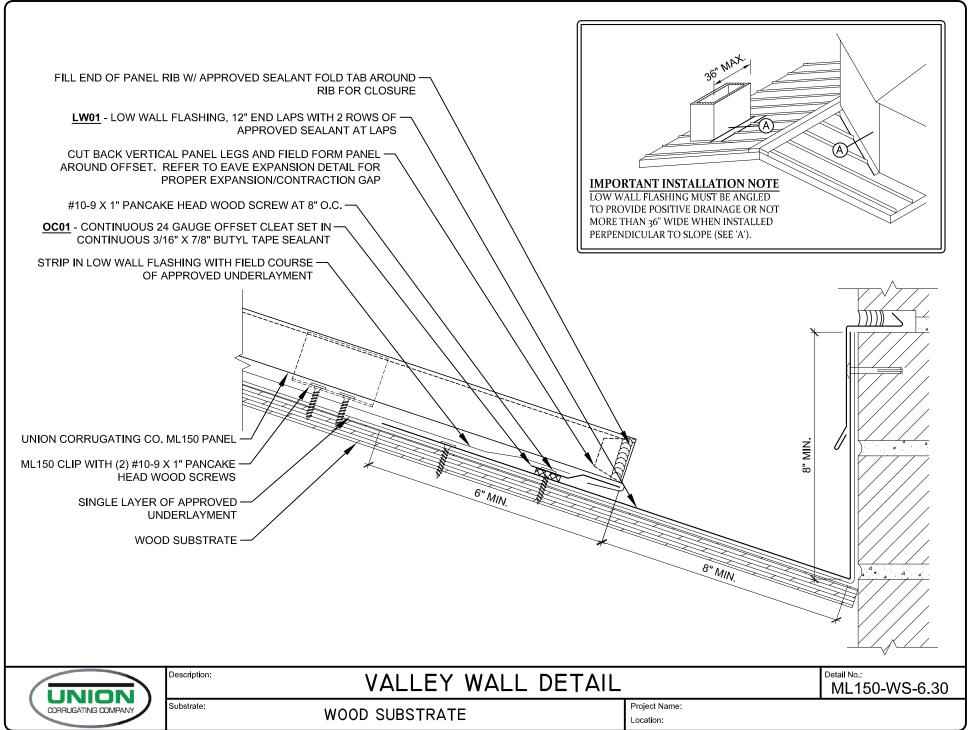


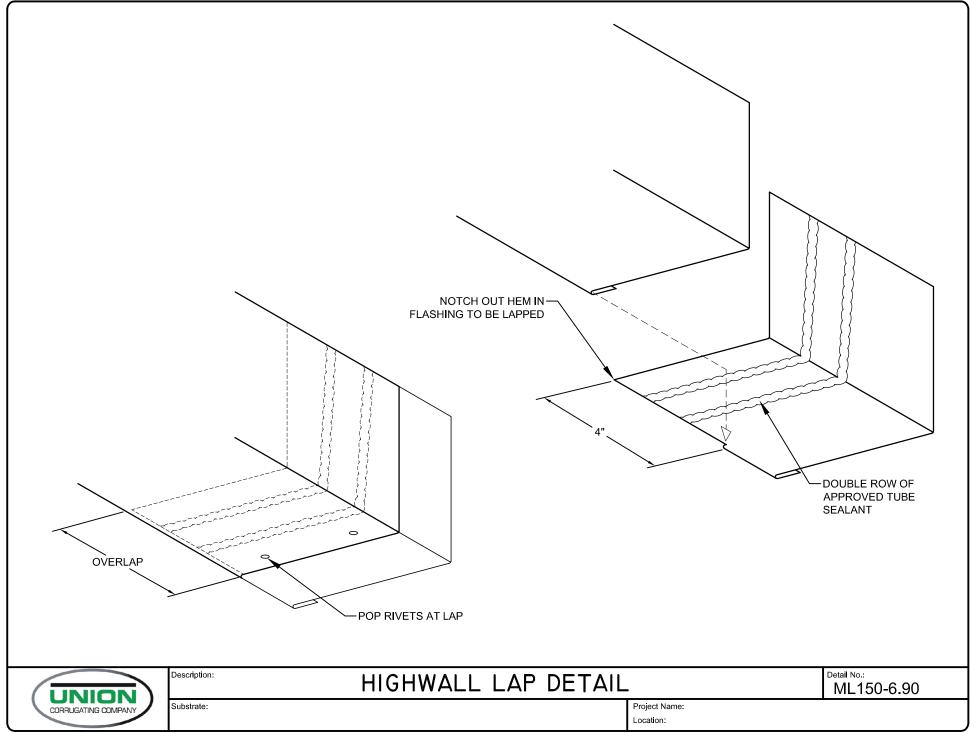
Description: HIGHWALL DETAIL - WALL PANEL W/ SILL

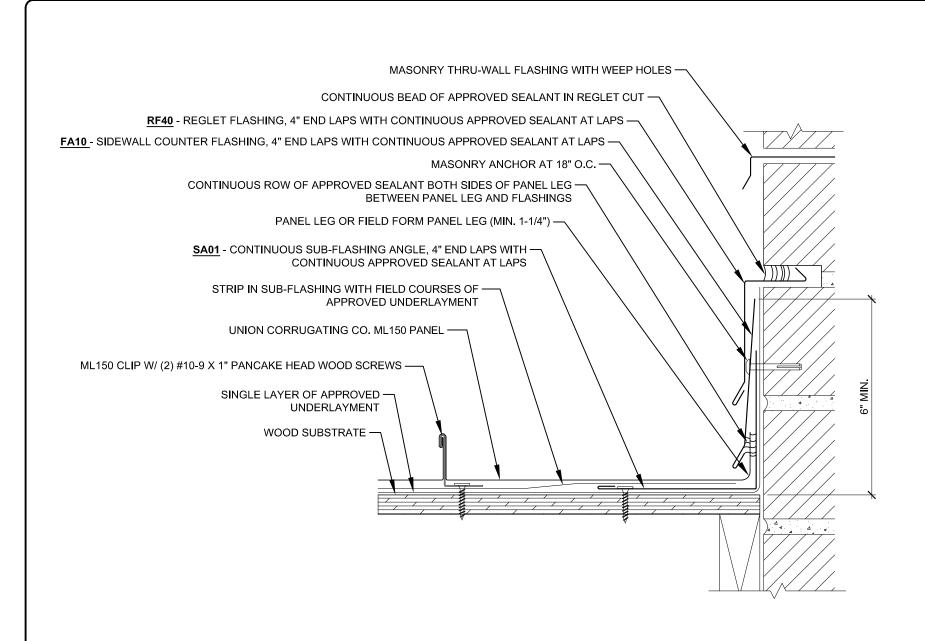
Detail No.: ML150-WS-6.14

Substrate: WOOD SUBSTRATE









UNION CORRUGATING COMPANY SIDEWALL DETAIL - REGLET

tail No.:

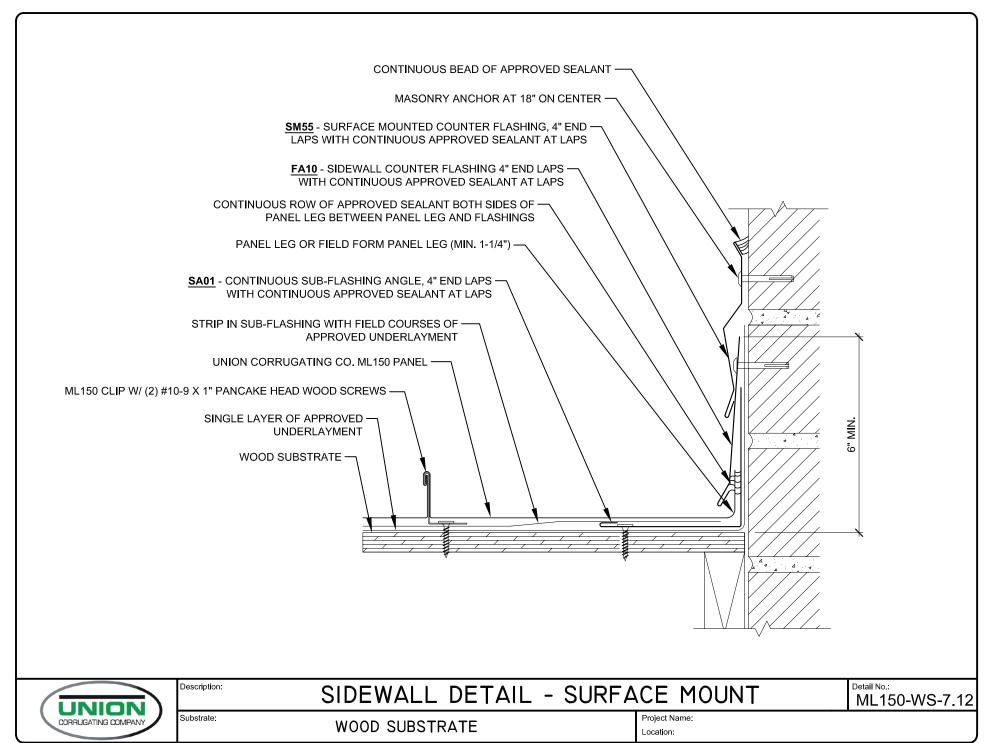
Project Name:

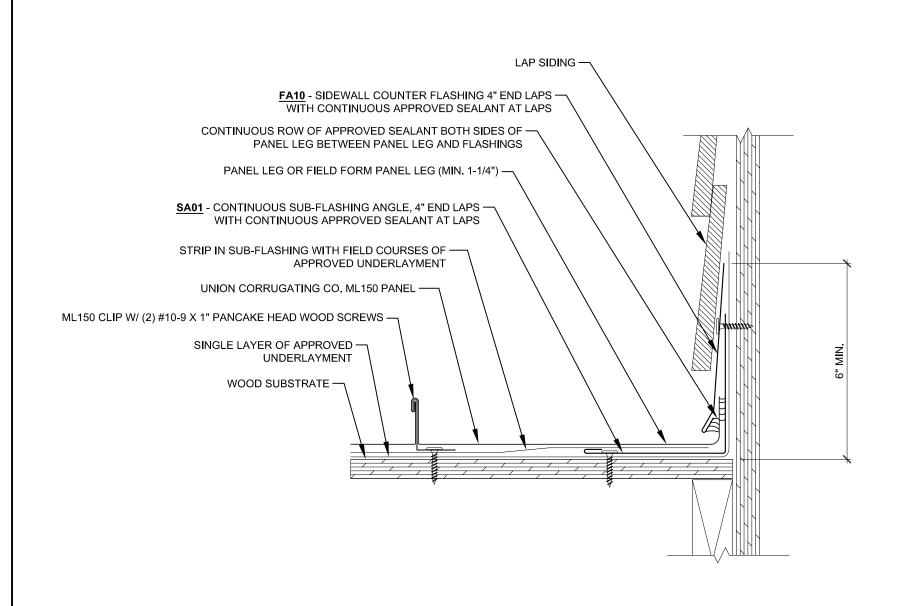
WOOD SUBSTRATE

Location:

Description:

Substrate:







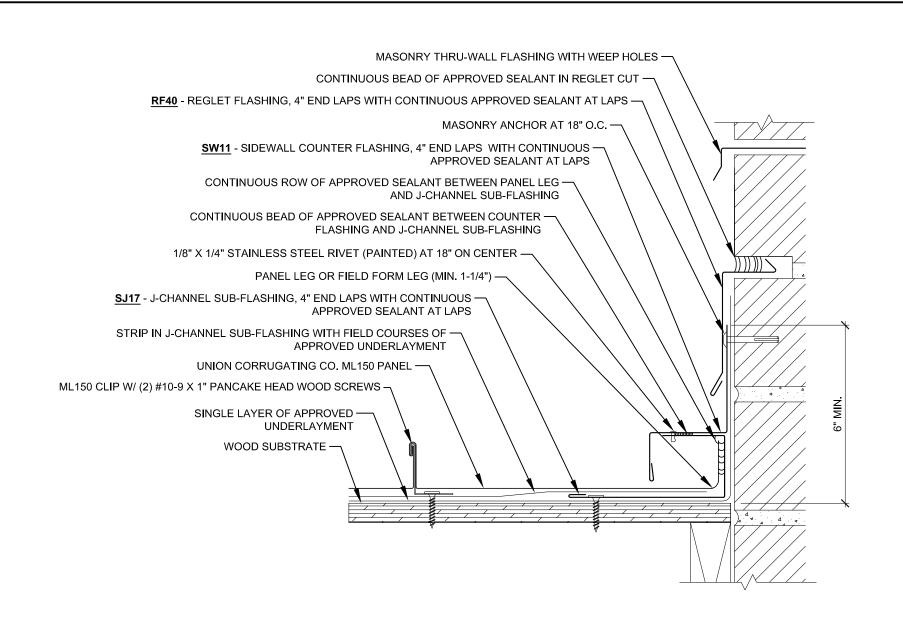
Description: SIDEWALL DETAIL - WOOD FRAMING & SIDING

Detail No.:

ML150-WS-7.13

Substrate:

WOOD SUBSTRATE





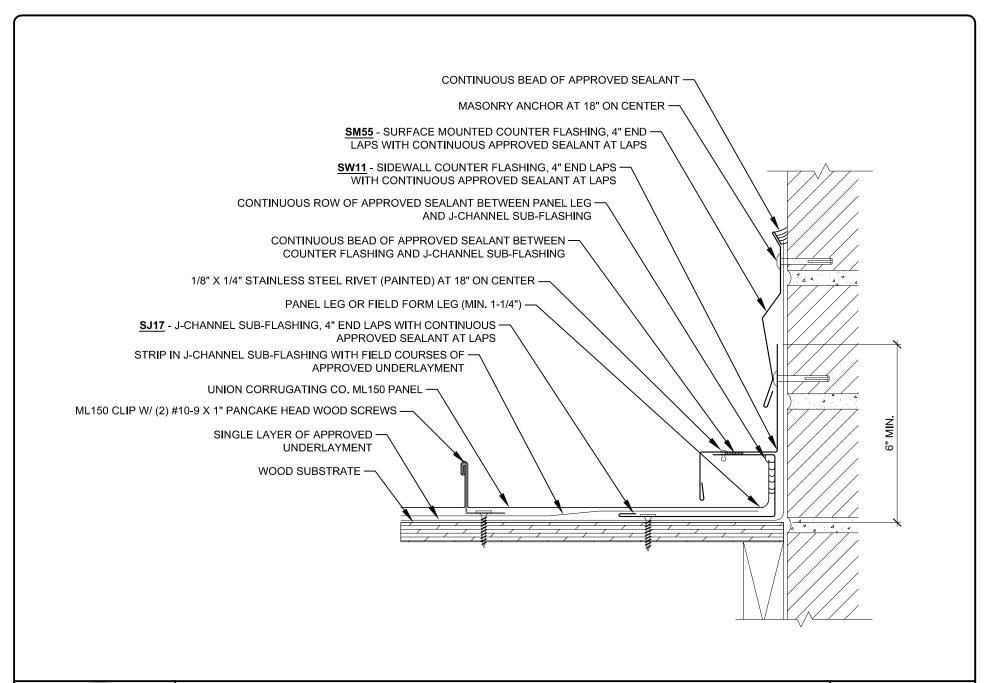
SIDEWALL DETAIL - REGLET

Detail No.: ML150-WS-7.21

Substrate: WOOD SUBSTRATE

Location

Description:





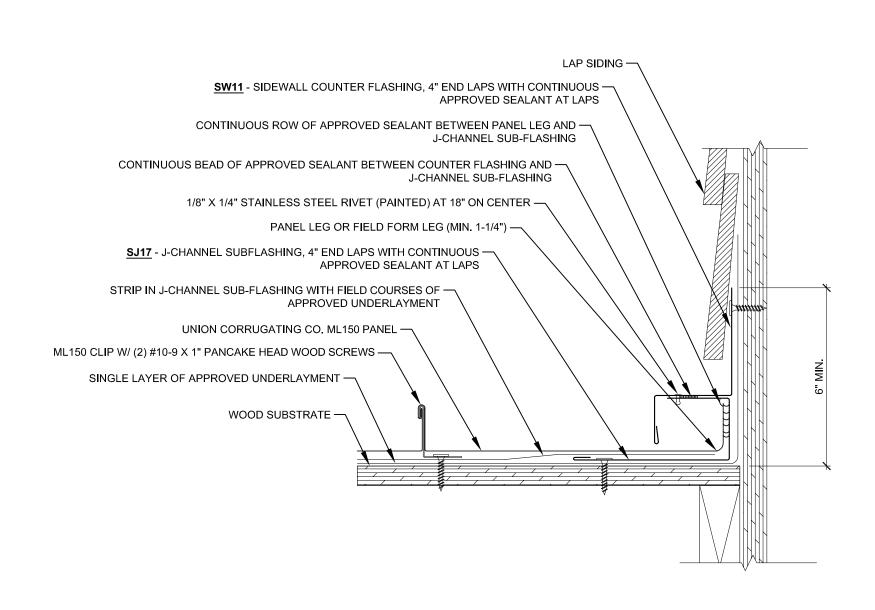
SIDEWALL DETAIL - SURFACE MOUNT

Detail No.: ML150-WS-7.22

Substrate: WOOD SUBSTRATE

Location:

Project Name





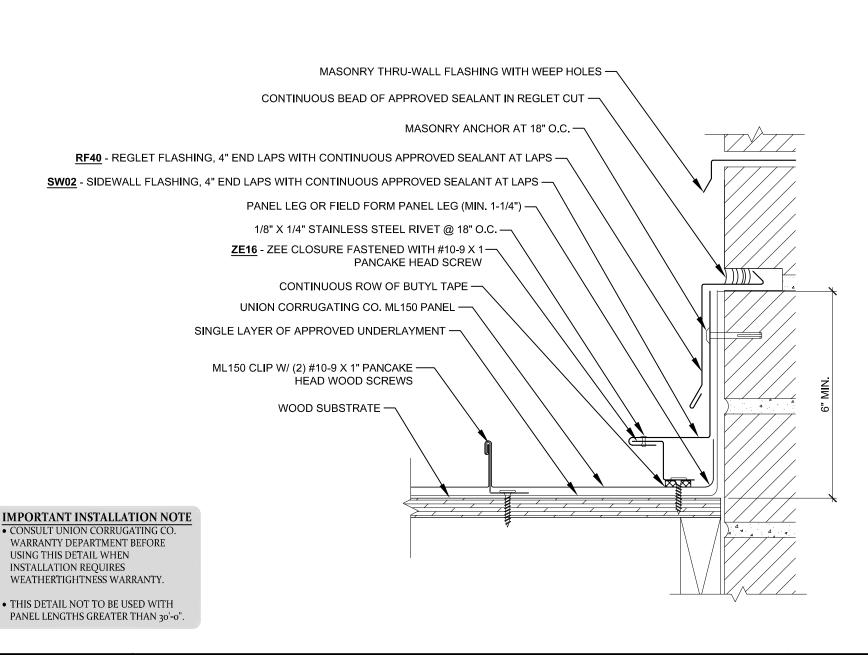
Description: SIDEWALL DETAIL - WOOD FRAMING & SIDING

Detail No.:

ML150-WS-7.23

Substrate:

WOOD SUBSTRATE





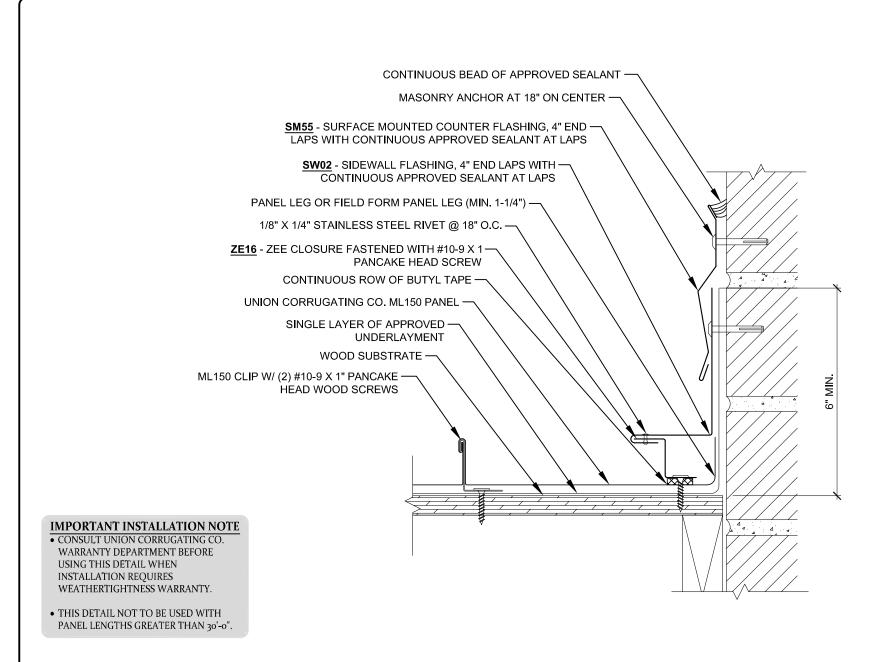
Description:

SIDEWALL W/ ZEE DETAIL - REGLET

Detail No.: ML150-WS-7.31

Substrate: WOOD SUBSTRATE Project Name: Location:

Details and instructions subject to change without notice. Contact Union Corrugating Company for specific project details.





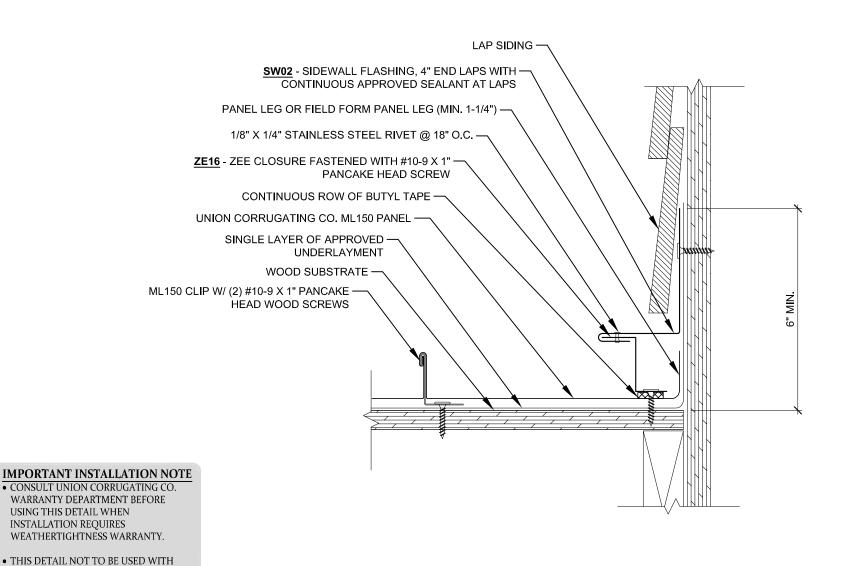
Description:

SIDEWALL W/ ZEE DETAIL - SURFACE MOUNT

ML150-WS-7.32

Substrate:

WOOD SUBSTRATE





PANEL LENGTHS GREATER THAN 30'-0".

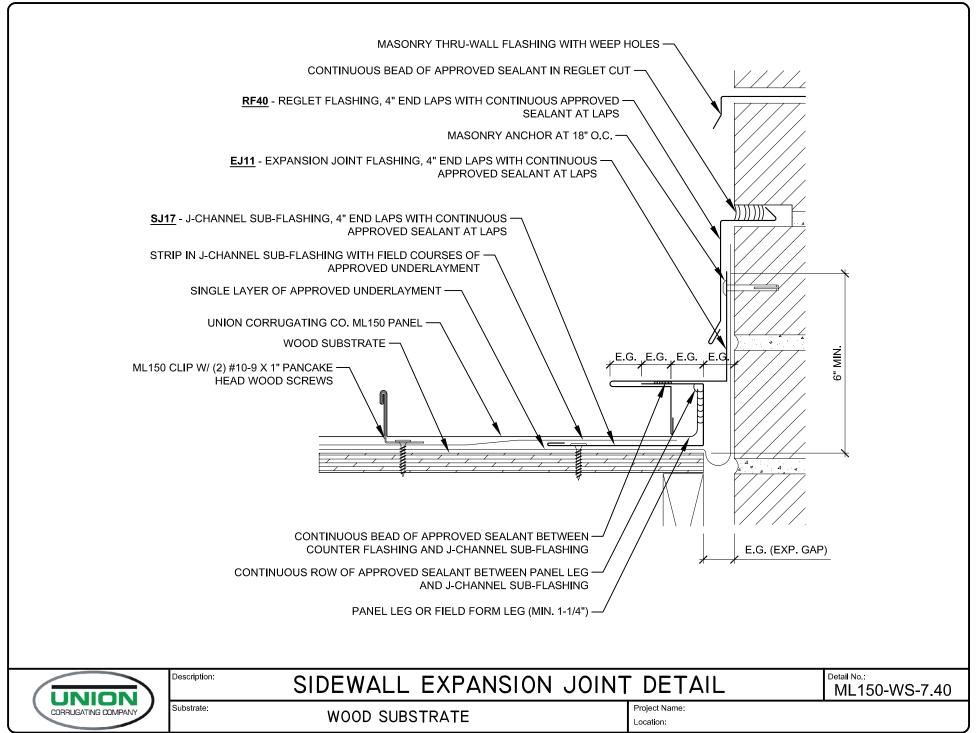
Description: SIDEWALL W/ ZEE - WOOD FRAMING & SIDING

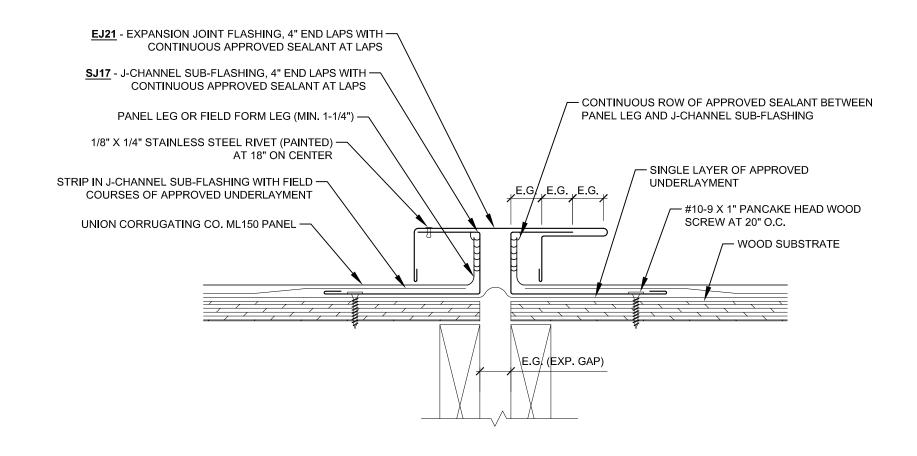
ail No.:

Project Name:

Substrate: WOOD SUBSTRATE

Location:







EXPANSION JOINT (MID-ROOF)

Detail No.: ML150-WS-7.50

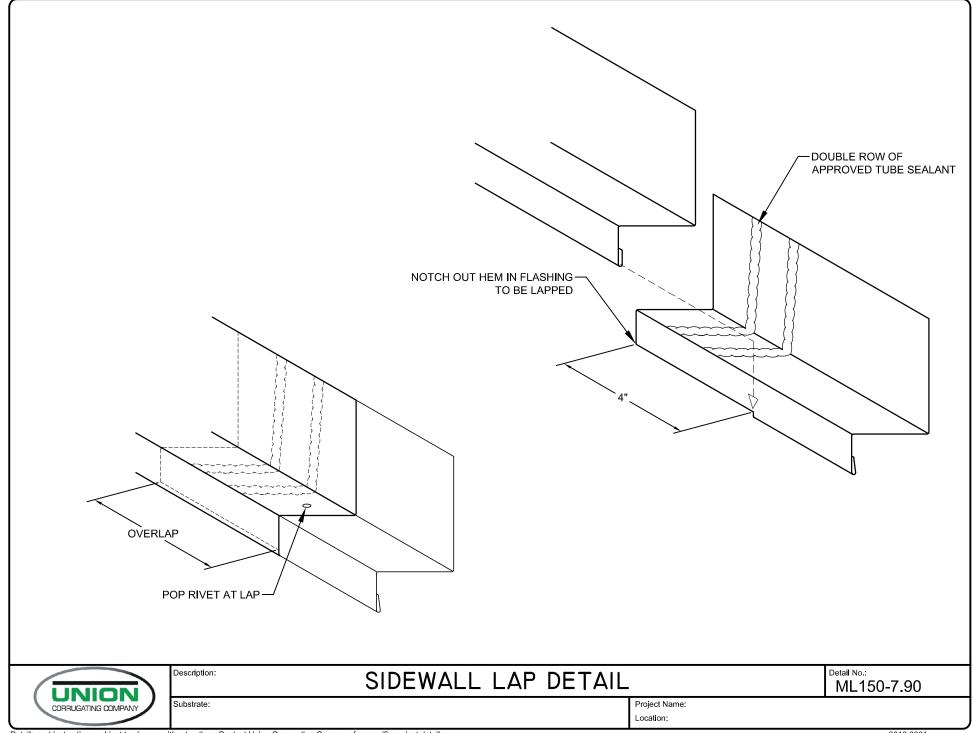
Project Name:

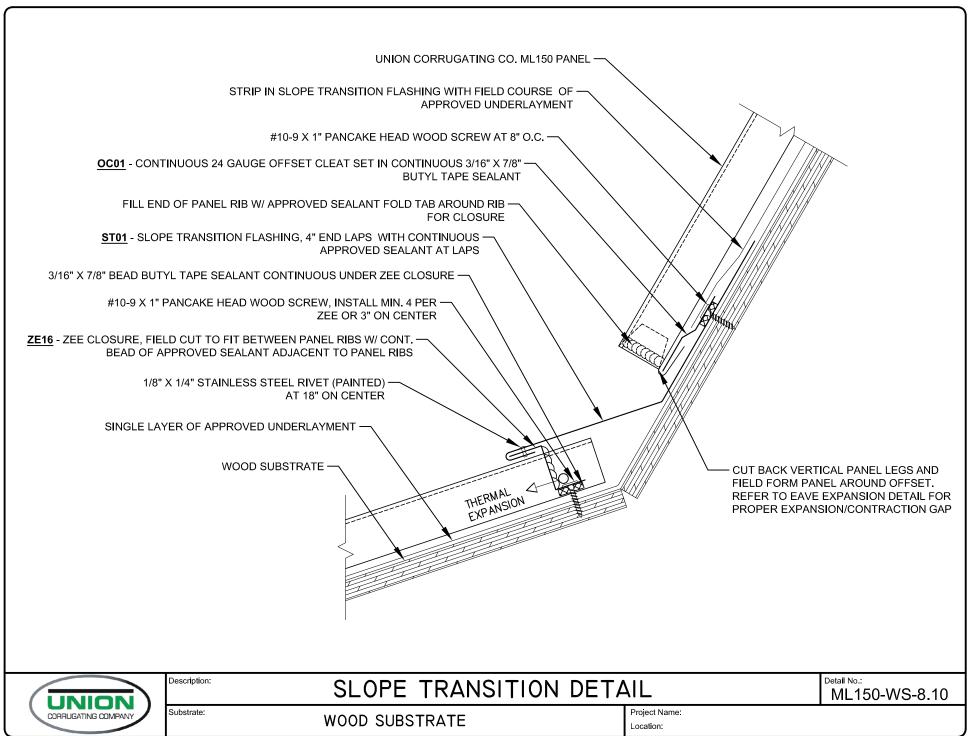
Location:

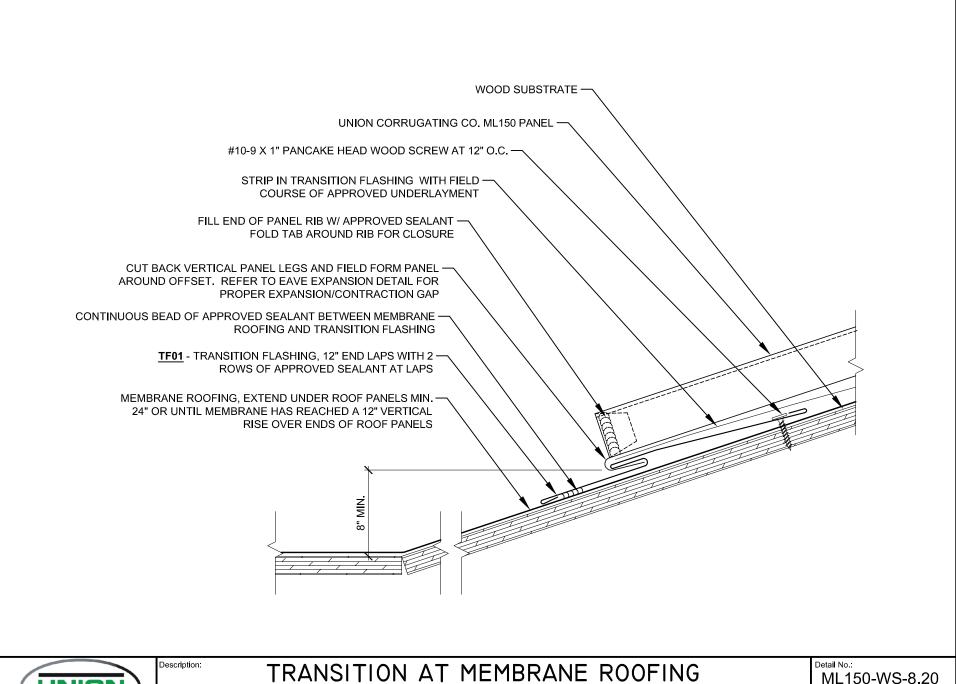
WOOD SUBSTRATE

Description:

Substrate:



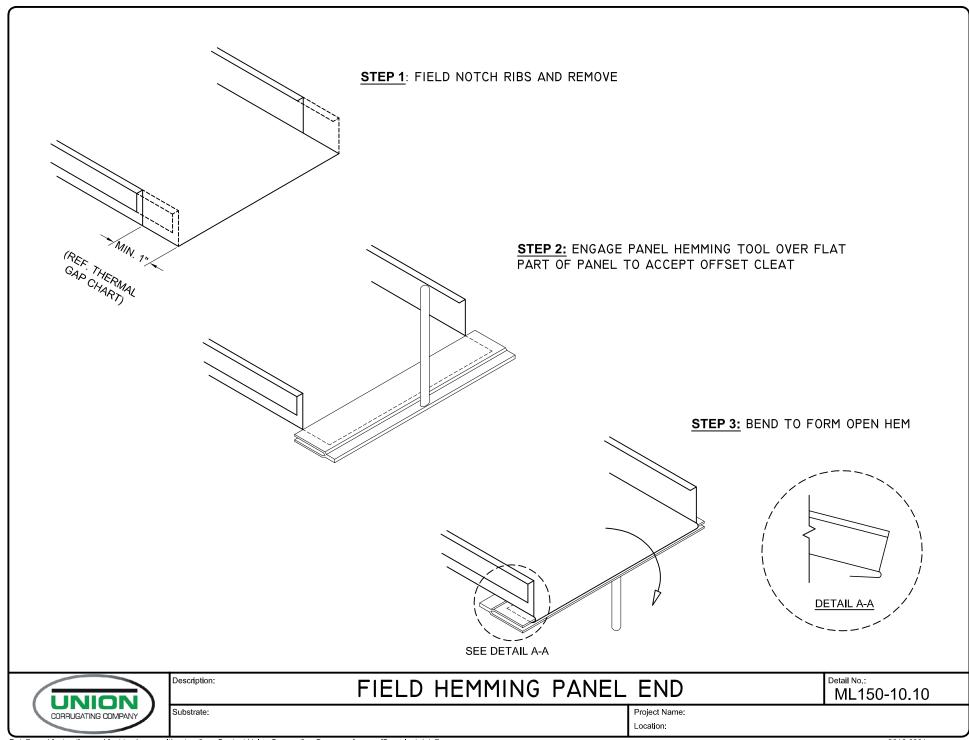


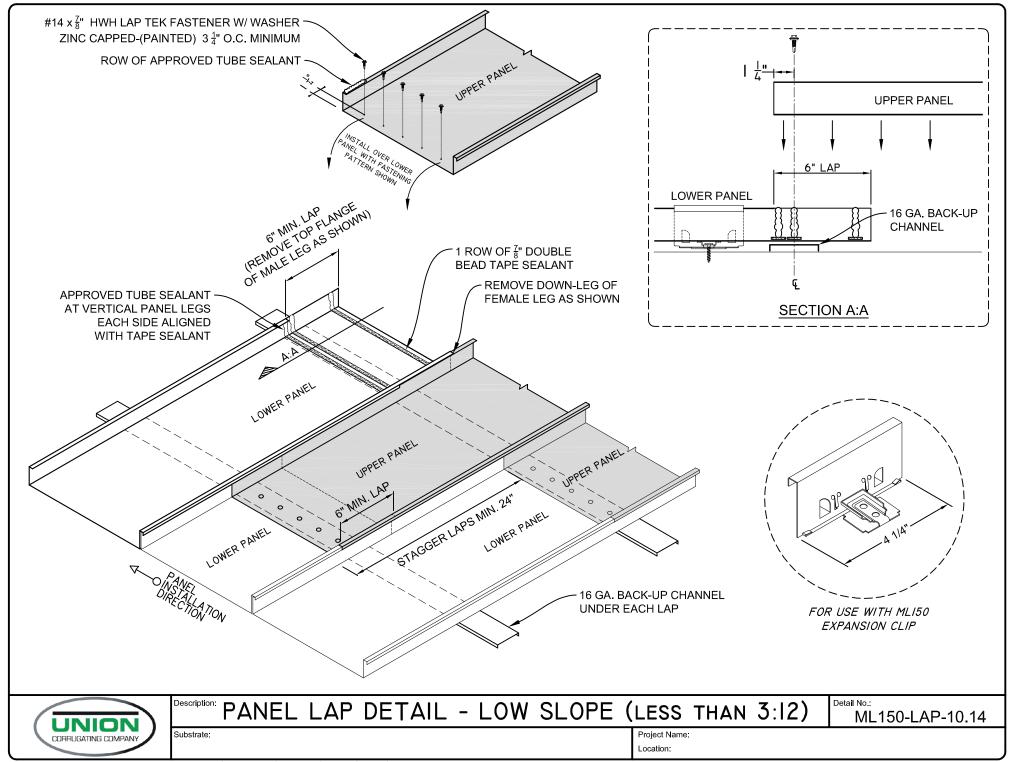


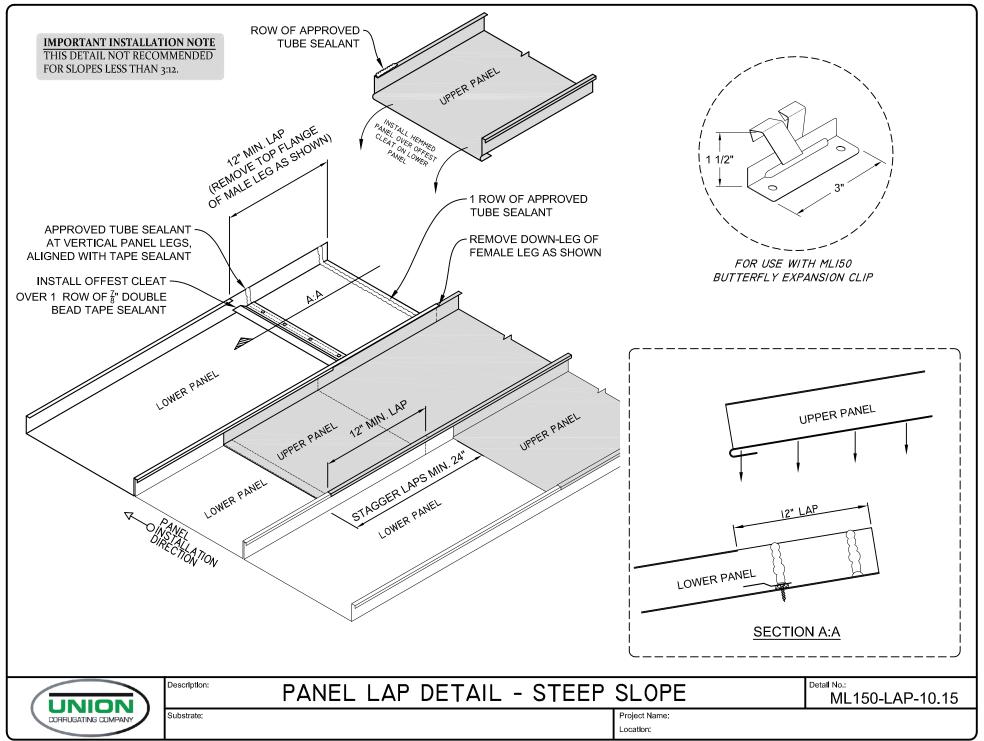


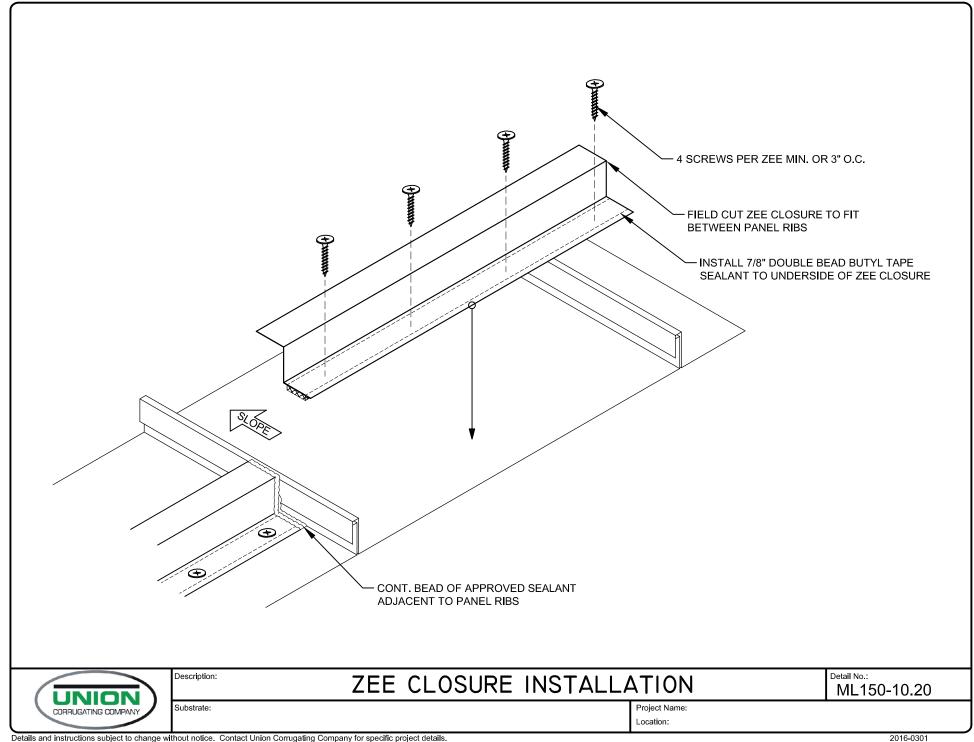
ML150-WS-8.20

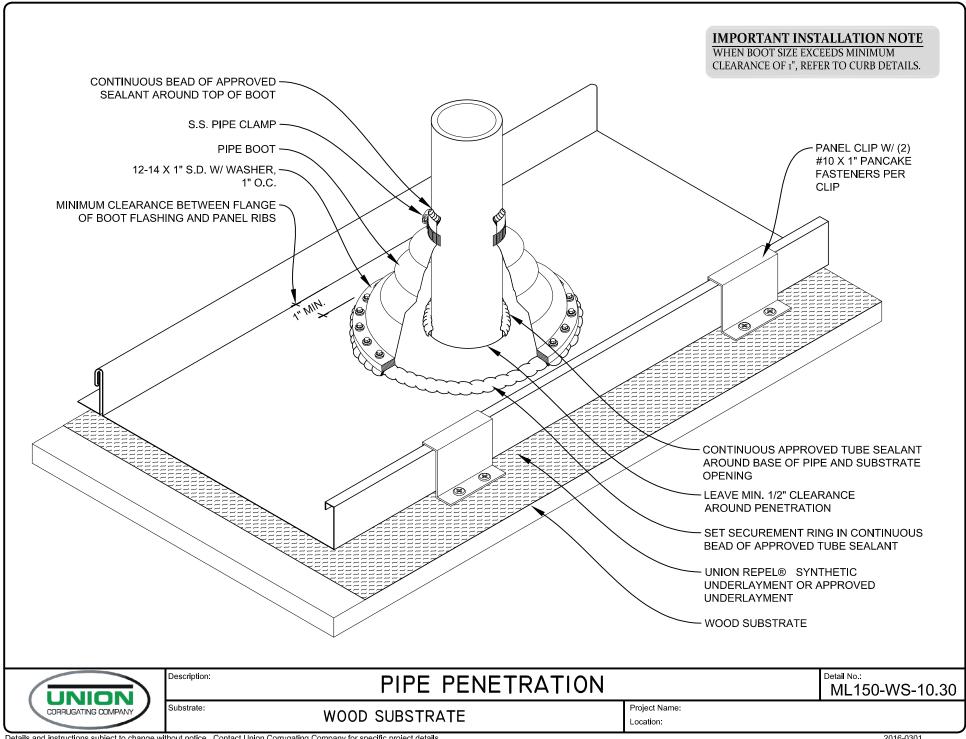
Substrate: WOOD SUBSTRATE

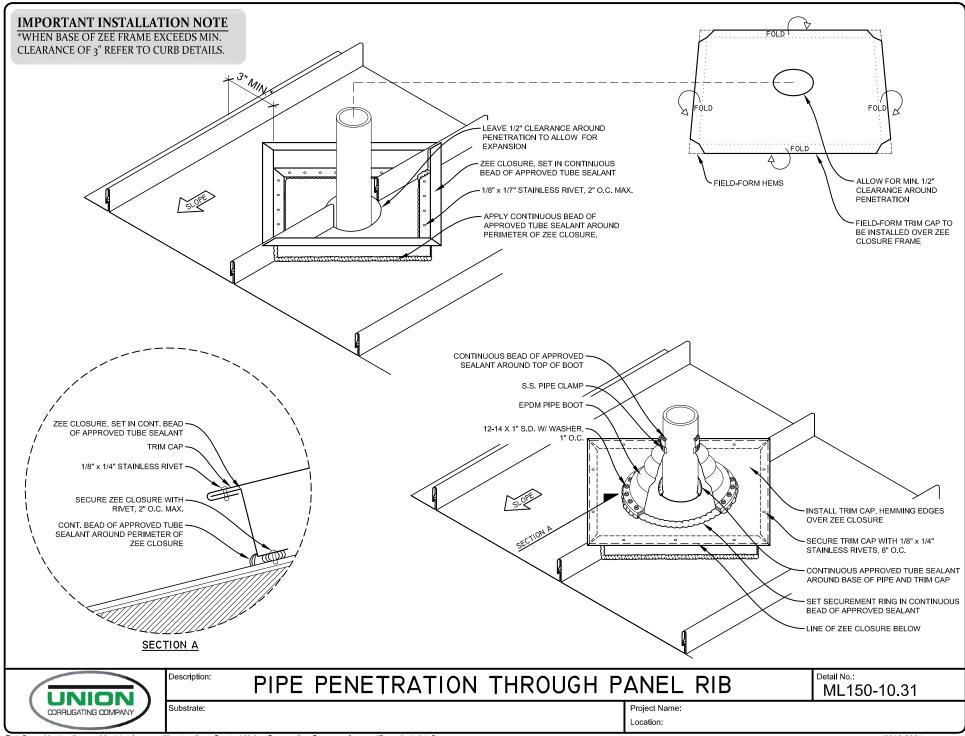


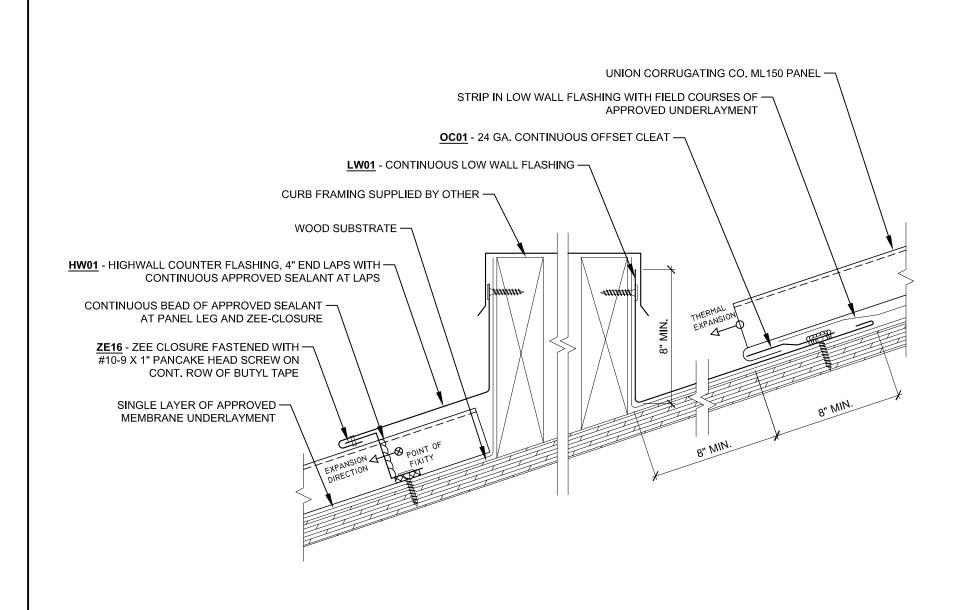












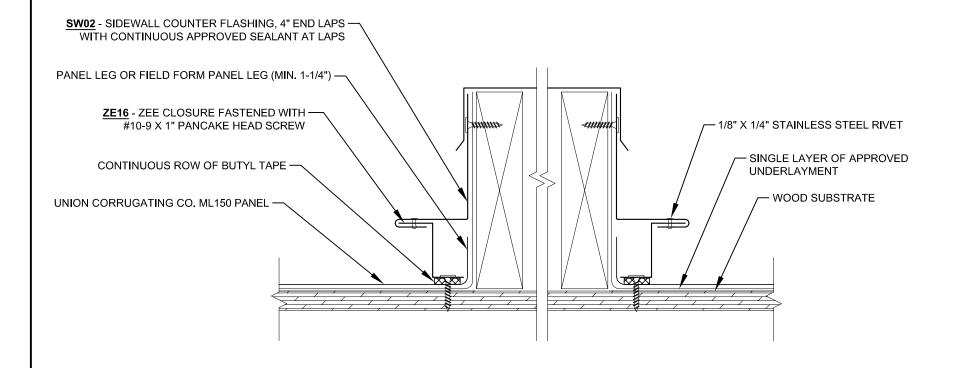


Description: LOW WALL & HIGHWALL @ SQUARE PENETRATION

Detail No.: ML150-WS-10.40

Substrate:

WOOD SUBSTRATE





SIDEWALL @ SQUARE PENETRATION

Detail No.:

ML150-WS-10.41

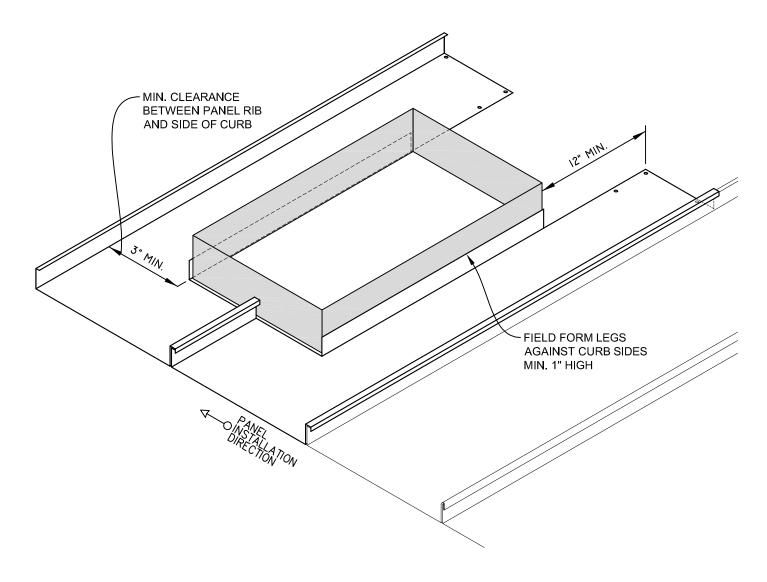
Substrate: WOOD SUBSTRATE

Project Name: Location:

Description:

STEP I

INSTALL PANELS AROUND CURB





MLI50 CURB DETAILS - STEP I

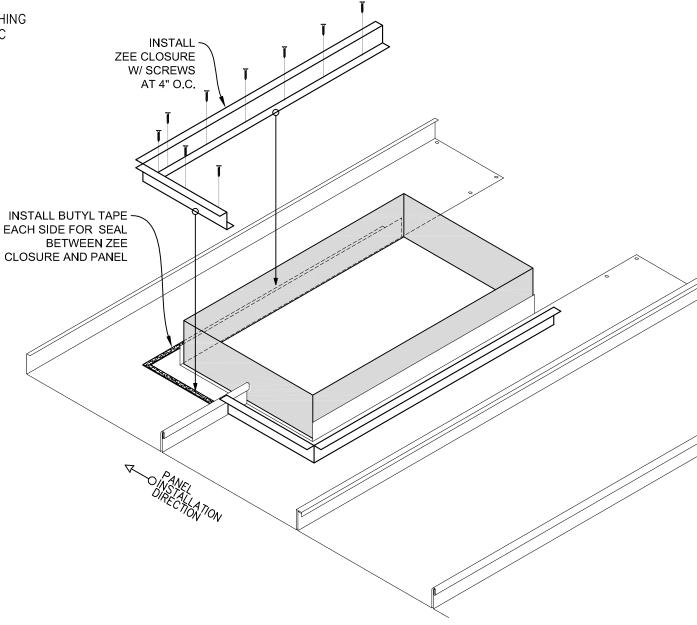
tail No.:

ML150-CRB: 1 of 6

e:

STEP 2

APPLY ZEE CLOSURE FLASHING OVER DOUBLE BEAD MASTIC

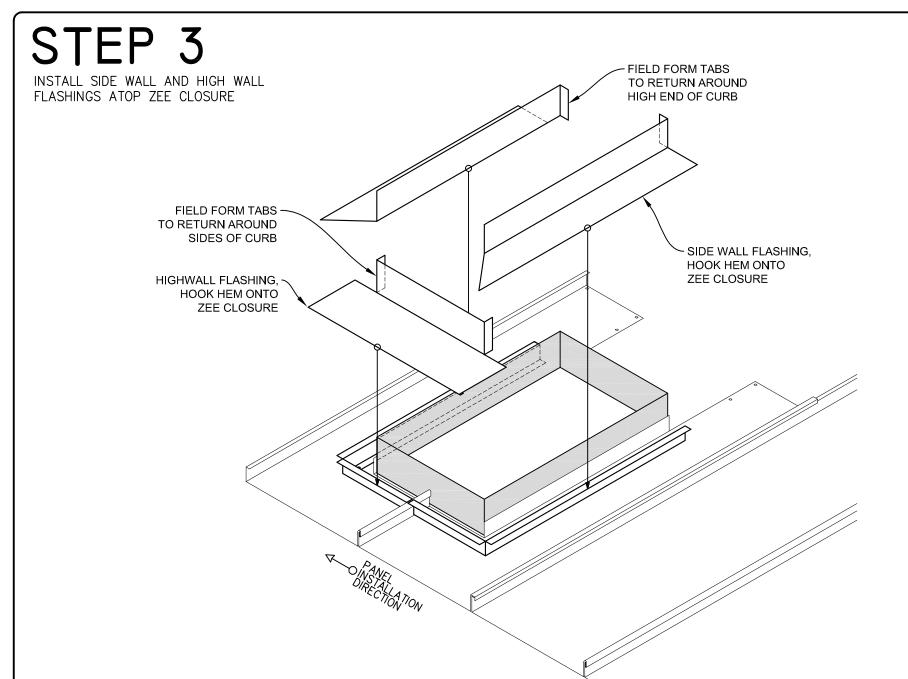




MLI50 CURB DETAILS - STEP 2

ML150-CRB: 2 of 6

Substrate:



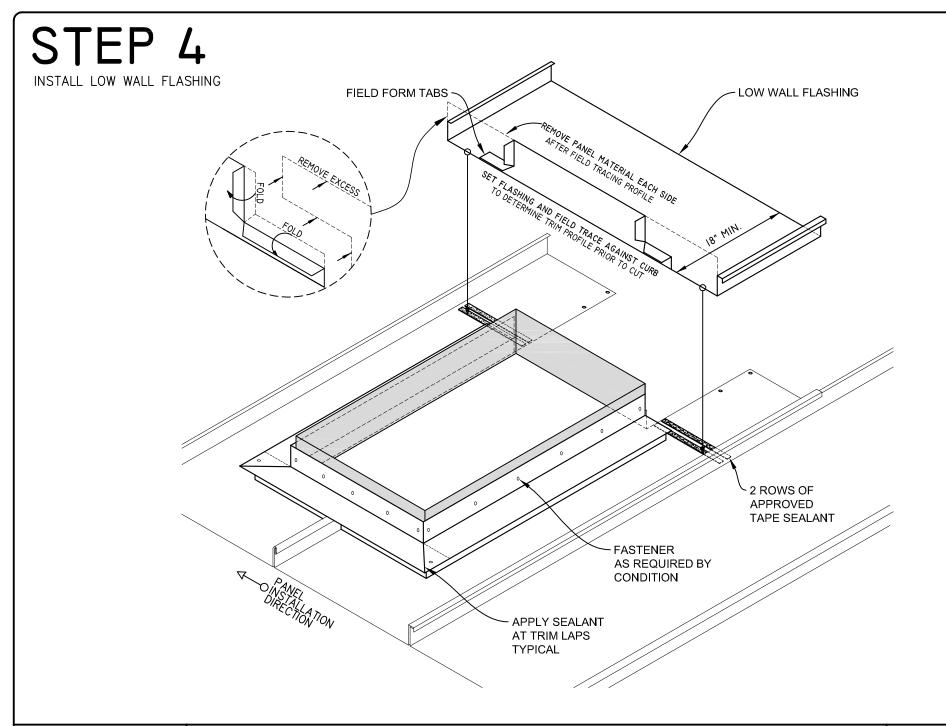


MLI50 CURB DETAILS - STEP 3

Detail No.:

ML150-CRB: 3 of 6

Substrate:





MLI50 CURB DETAILS - STEP 4

Detail No.:

ML150-CRB: 4 of 6

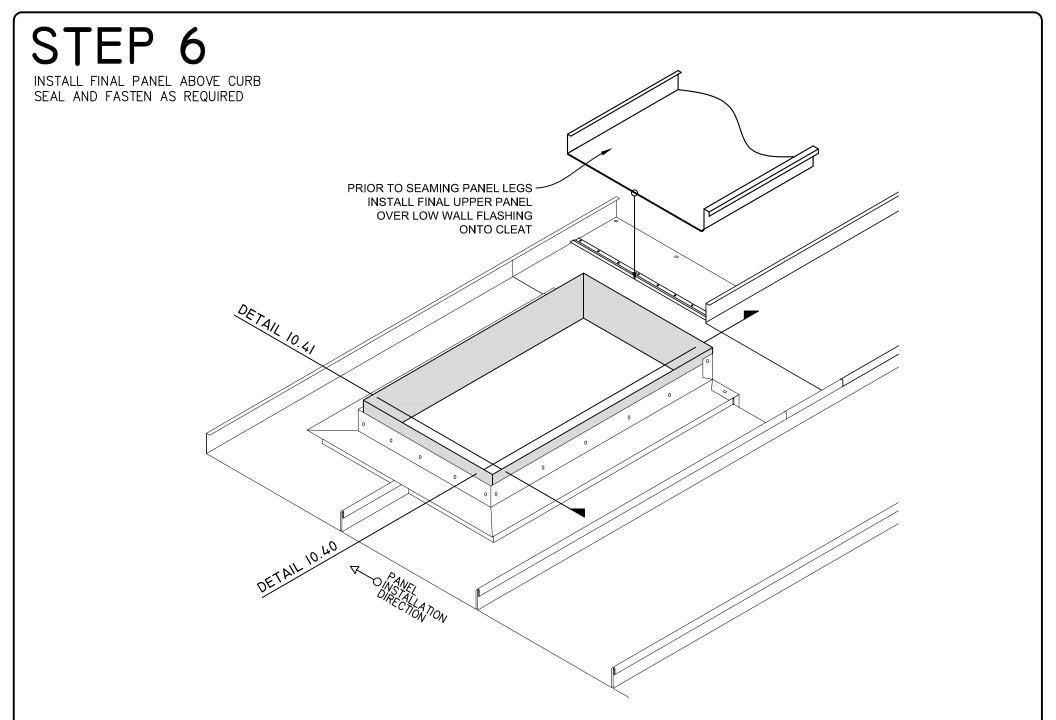
Substrate:

Project Name:

Location:

Description:

STEP 5 INSTALL CLEAT AND PREPARE FOR **NEST PANEL TABS PRIOR** UPPER PANEL INSTALLATION TO SEAMING AS SHOWN INSTALL FIELD HEMMED UPPER PANELS -OVER LOW WALL FLASHING AND ONTO CLEAT PRIOR TO MECHANICALLY SEAMING CONTINUOUS CLEAT SET IN SEALANT FASTEN AT 4" O.C. SEALANT AT ZEE & LOW WALL INTERSECTION **BOTH SIDES OF CURB** Detail No.: Description: MLI50 CURB DETAILS - STEP 5 ML150-CRB: 5 of 6 Substrate: Project Name: Location:





MLI50 CURB DETAILS - STEP 6

Detail No.:

ML150-CRB: 6 of 6

Substrate: Project Name: Location: