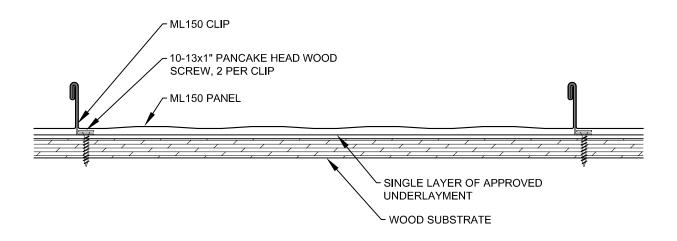


ML150 Standing Seam Wood Substrate Master Details

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-

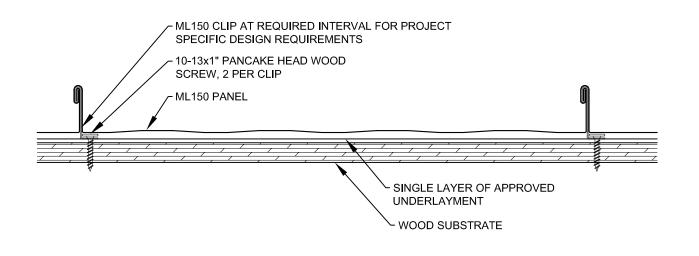
Panel Information	Detail No.
Panel Application	0.10
System Overview - Panel Profiles	
System Overview - Clips	
Thermal Gap Installation Chart - Steel	
Thermal Gap Installation Chart - Steel Thermal Gap Installation Chart - Aluminum	
тета бар тышайы спак - Айттий	0.31
Eave Details	Detail No.
Extended Eave	1 10
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	
Extended Eave with Vertical Standing Seam Panel	
Extended Eave Lap Detail	1.90
Gable Details	Detail No.
Gable - Extended Drip	
Gable - Box	
Gable - Box with Zee Closure	2.30
Box Gable Lap Detail	2.90
Valley Details	Detail No.
	0.40
Valley - Integral Cleat	
Valley - Offset Cleat	
Valley Lap Detail	3.90
Ridge & Hip Details	Detail No.
Standard Ridge & Hip	
Vented Ridge	
Vented Ridge-to-Standard Ridge Transition	
Ridge Termination at Valley	4.40
Ridge & Hip Lap Detail	4.90
Ridge Cap Expansion Detail	
Peak Details	Detail No.
Peak Detail	5.10
Vented Peak Detail	
Peak Detail with Vertical Flush Panel	

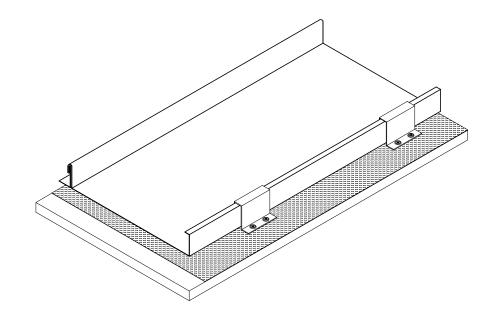




ML150 Standing Seam -Wood Substrate-

High Wall & Low Wall Details	Detail No.
High Woll - Poglot	6.10
High Wall - Reglet Vented High Wall - Reglet	6.11
High Wall - Surface Mount	
High Wall - Vertical Panel with Sill	6.14
High Wall - Parapet	
Valley Wall Lon Detail	
High Wall Lap Detail	6.90
Sidewall Details	Detail No.
O'de all Bartel 'the Orbital' as Assile	7.44
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	g 10
Transition at Membrane Roofing	
Transition at Membrane Nooling	0.20
General Information Details	Detail No.
Panal Hamming	10.10
Panel Hemming	
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	10.41



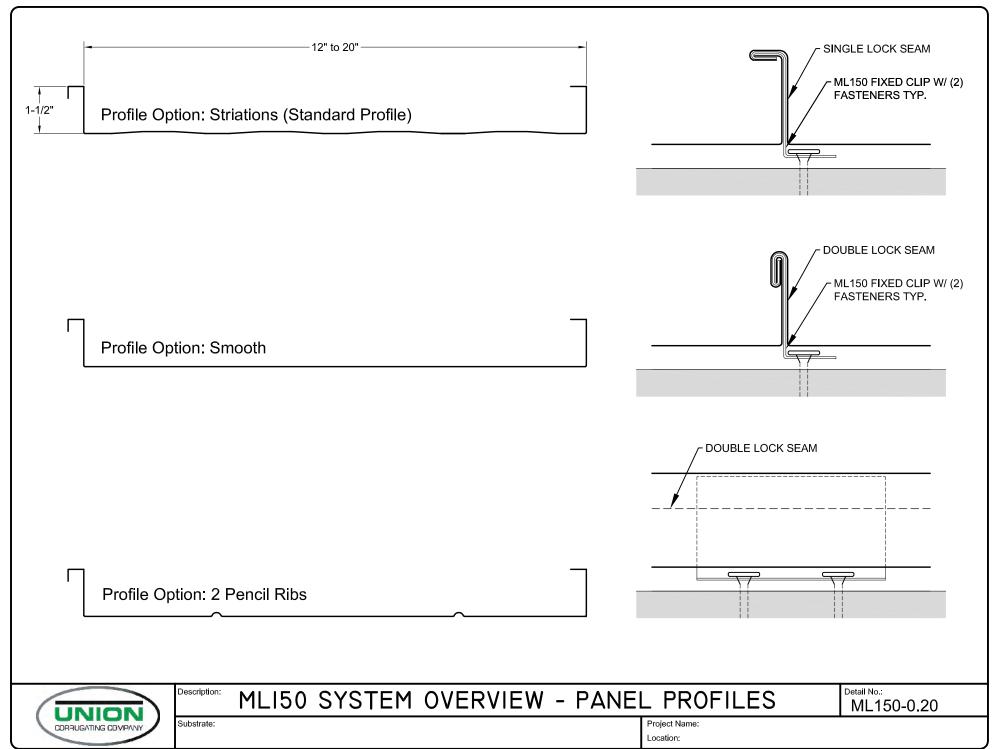


UNION DORRUGATING COMPANY

Description: MLI50 APPLICATION

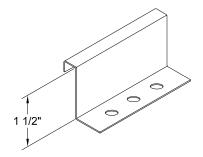
Detail No.: ML150-WS-0.10

Substrate: WOOD SUBSTRATE

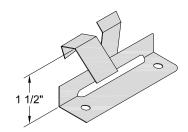


IMPORTANT INSTALLATION NOTE

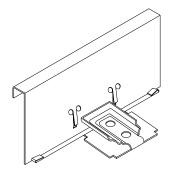
EXPANSION CLIPS ARE RECOMMENDED FOR PANEL LENGTHS GREATER THAN 30'-0".

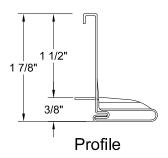


Clip 30 Fixed 26 Ga. Galvanized 1.5" x 3"

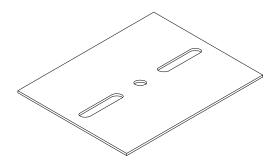


Clip 31 Butterfly Expansion 28 Ga. Stainless Steel 1.5" x 3" Recommended for use with aluminum panels





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



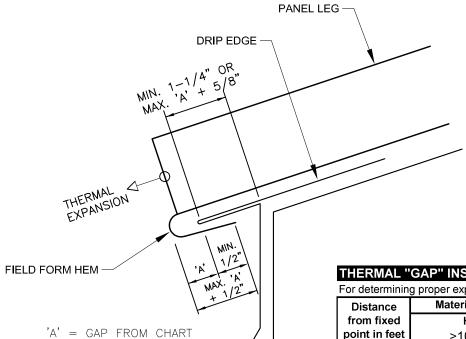
Description:

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		fixed Hot Warm		arm	Cold		
point in feet	>100° F		100° t	: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.:

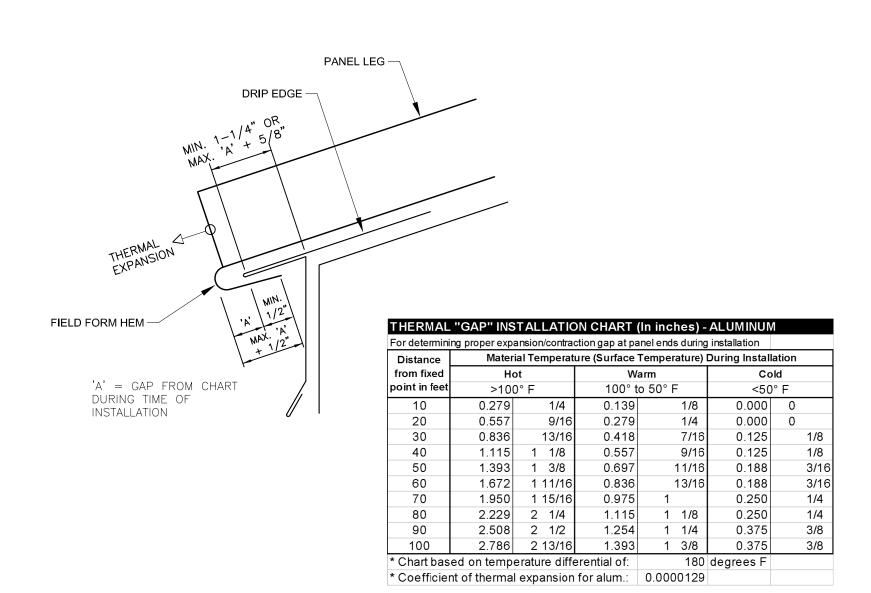
ML150-0.30

Substrate:

Project Name: Location:

DURING TIME OF INSTALLATION

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



. ,	
(UNION)
/	CORRUGATING COMPANY

Description: THERMAL GAP INSTALLATION CHART - ALUMINUM

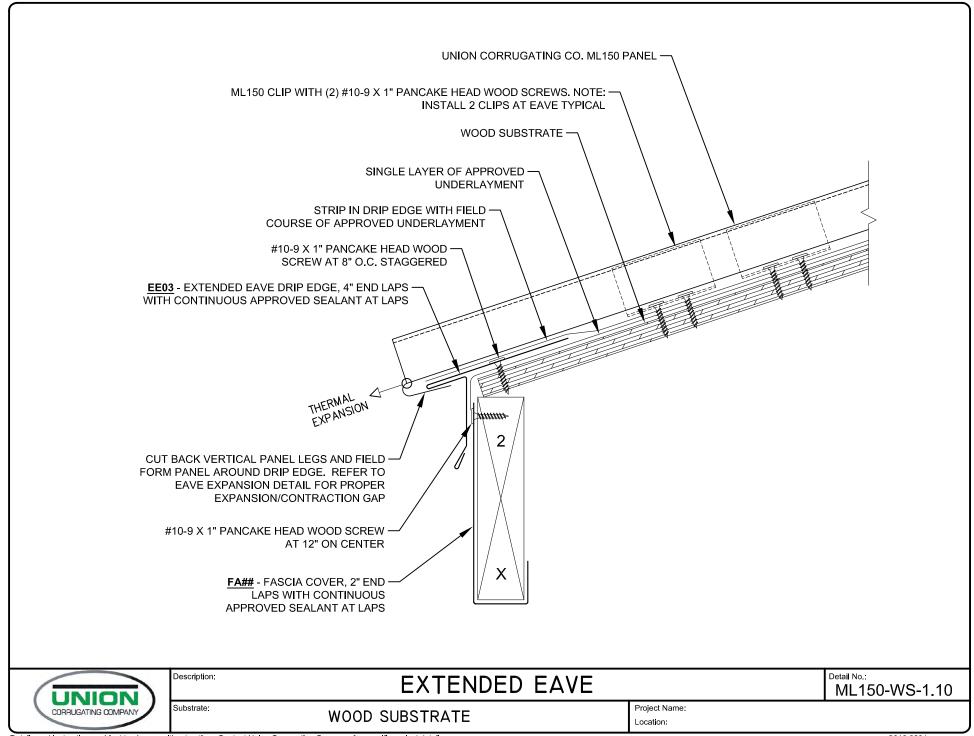
Project Name:

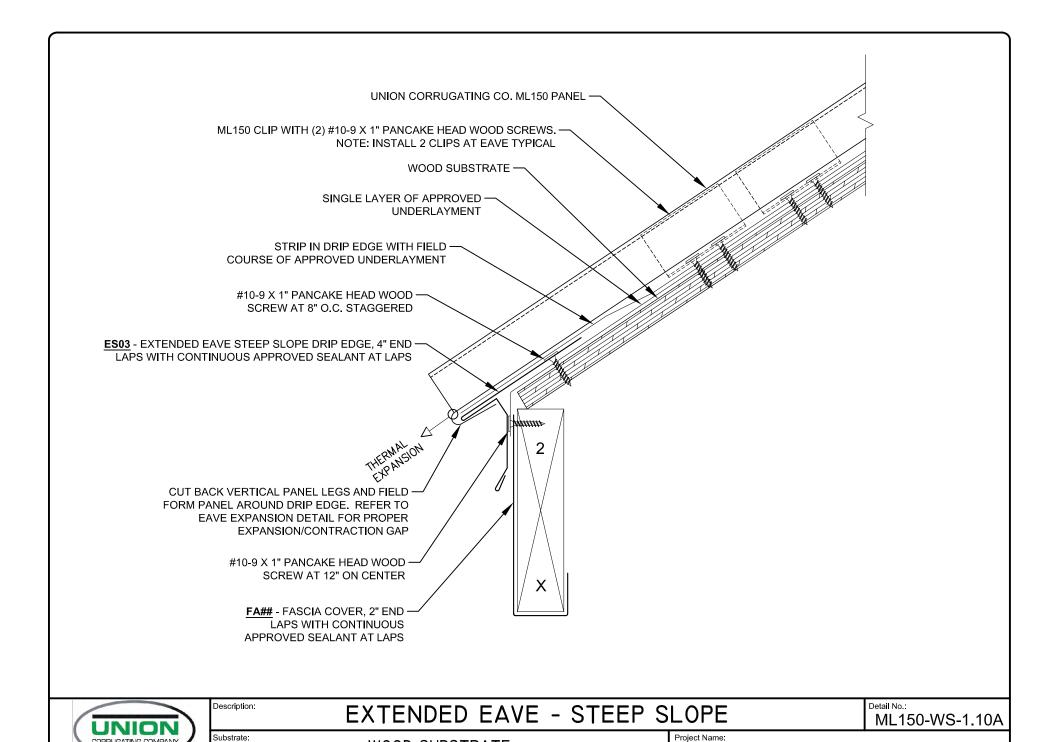
Location:

Substrate:

Detail No.:

ML150-0.31

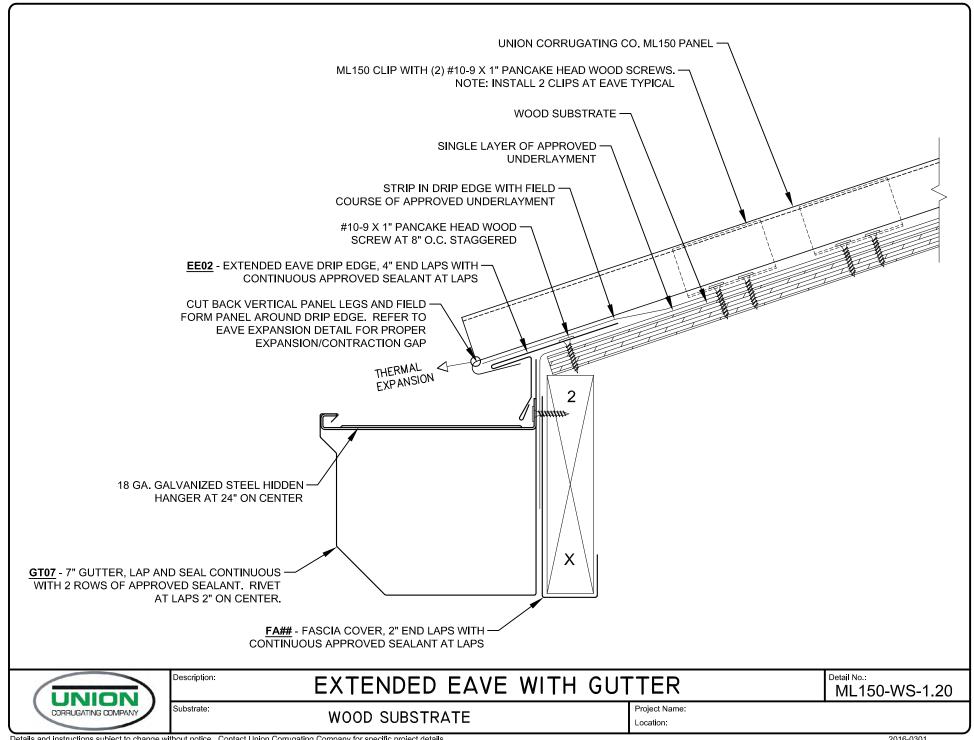


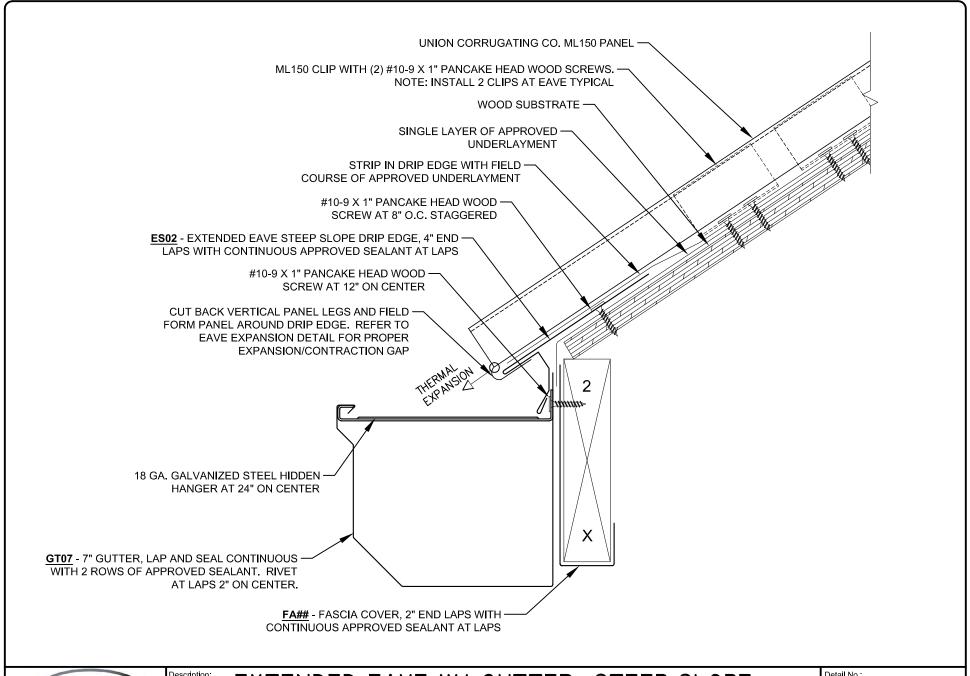


Location:

WOOD SUBSTRATE

CORRUGATING COMPAN







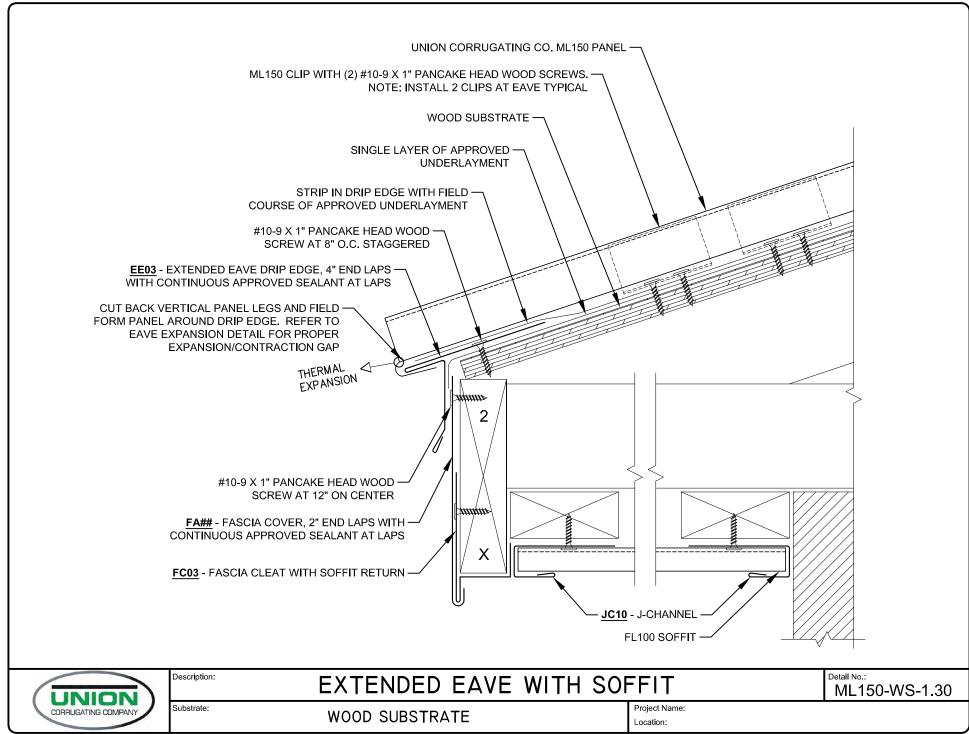
Description: EXTENDED EAVE W/ GUTTER- STEEP SLOPE

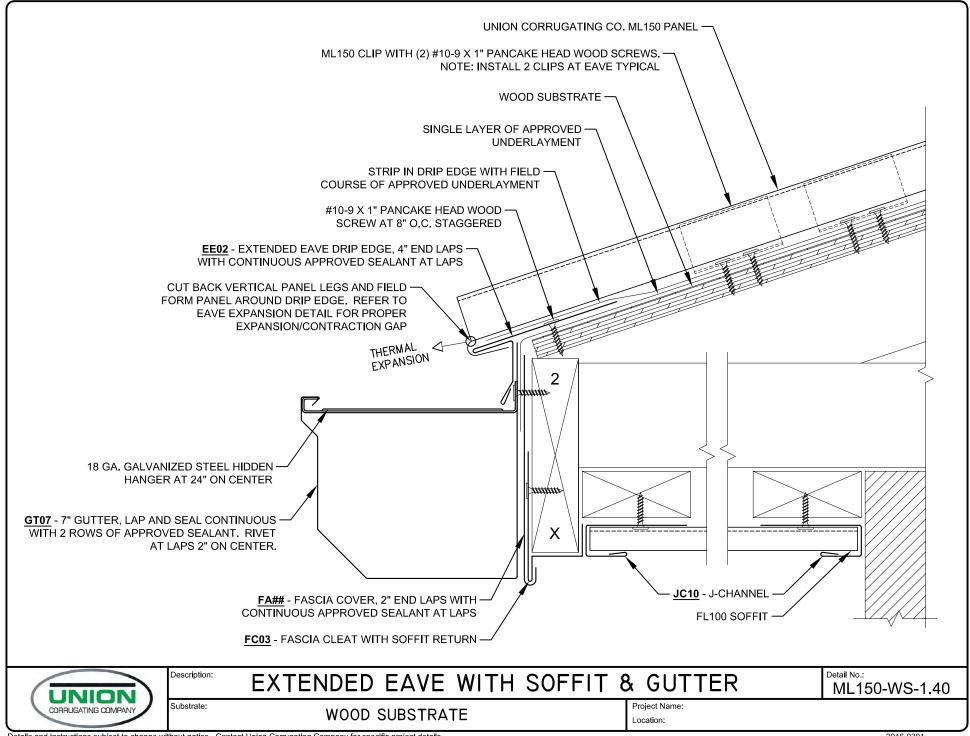
SLUPE | ML150-WS-1.20A

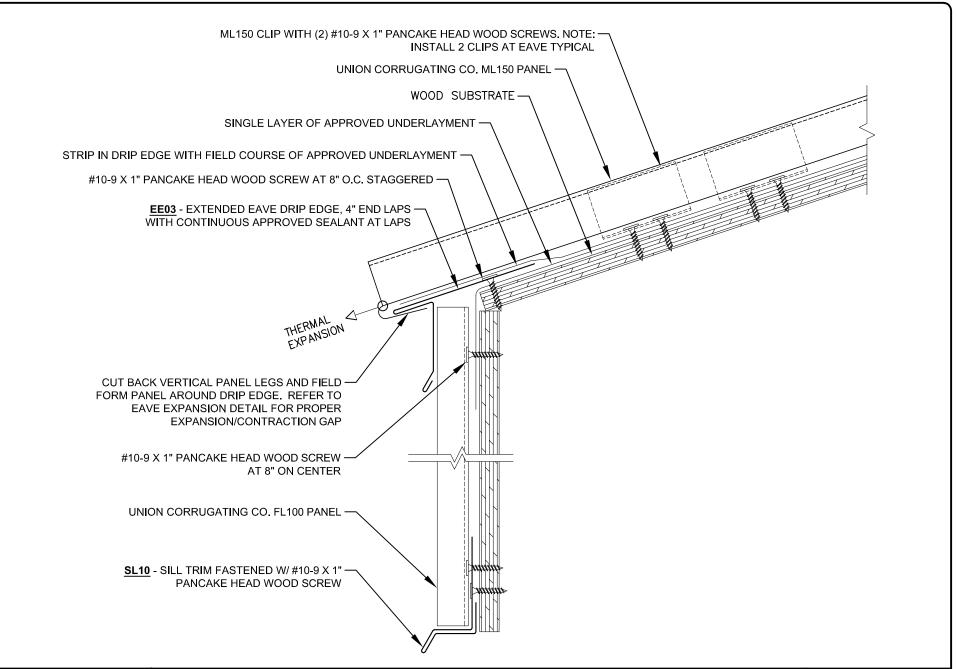
WOOD SUBSTRATE

Project Name: Location:

Substrate:









Description:

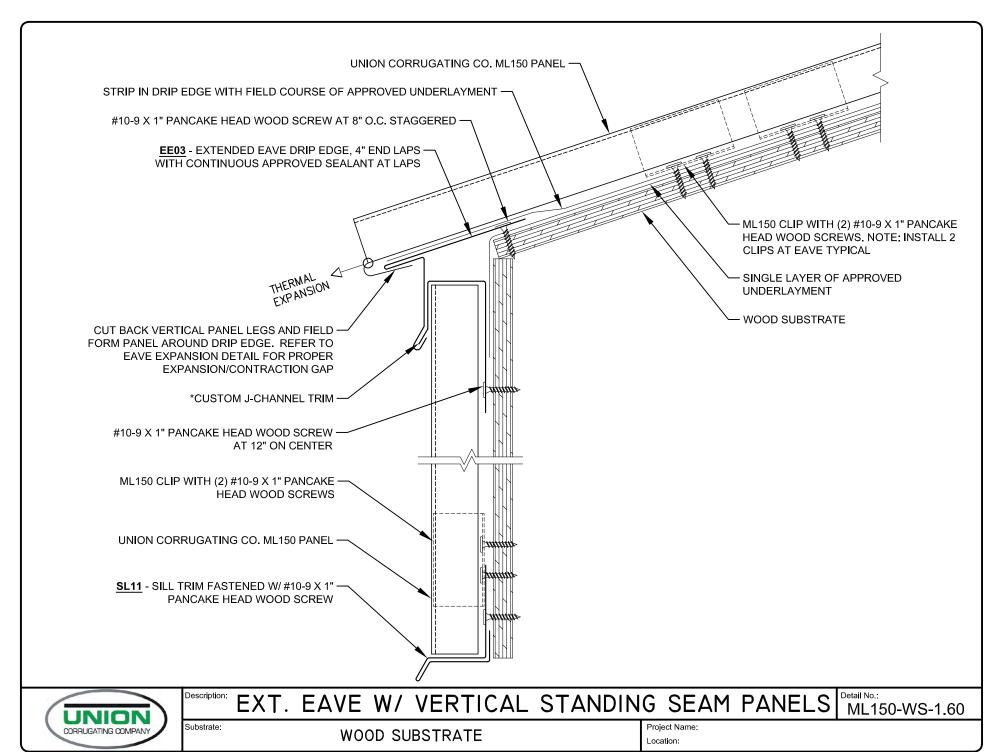
EXTENDED EAVE W/ VERTICAL FLUSH PANEL

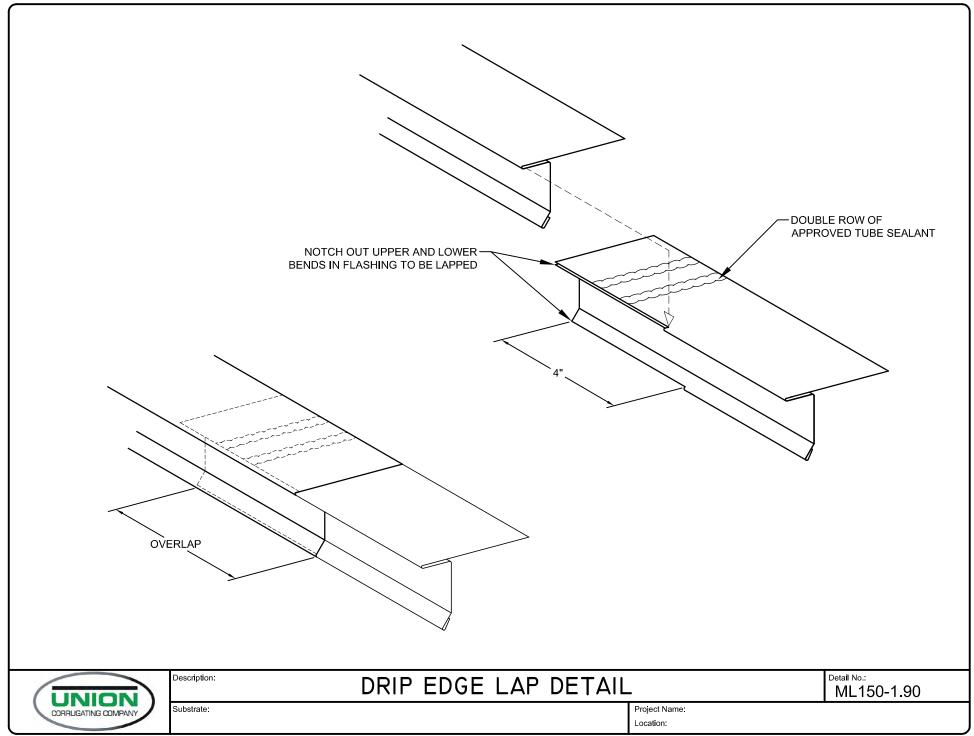
Detail No.:

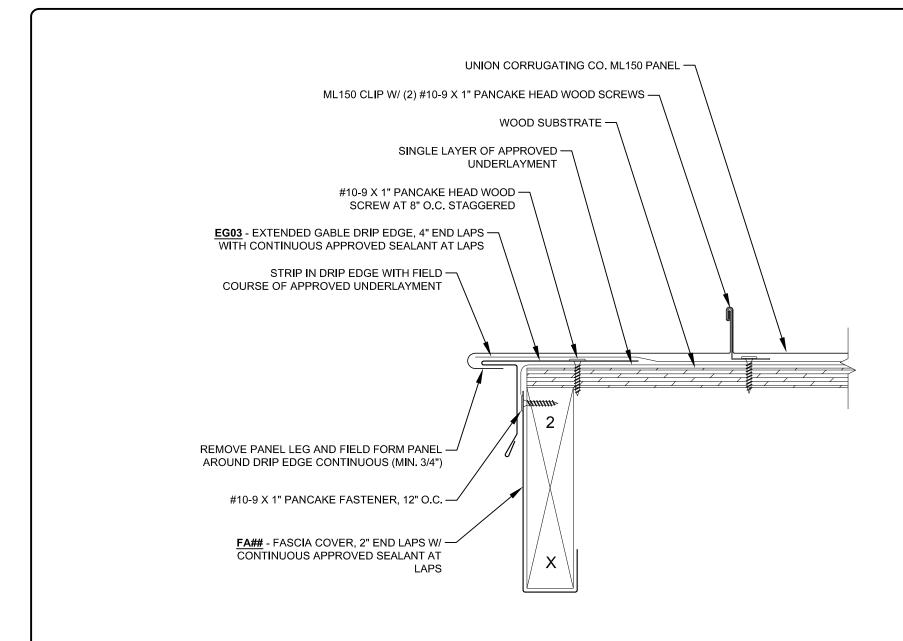
ML150-WS-1.50

Substrate:

WOOD SUBSTRATE





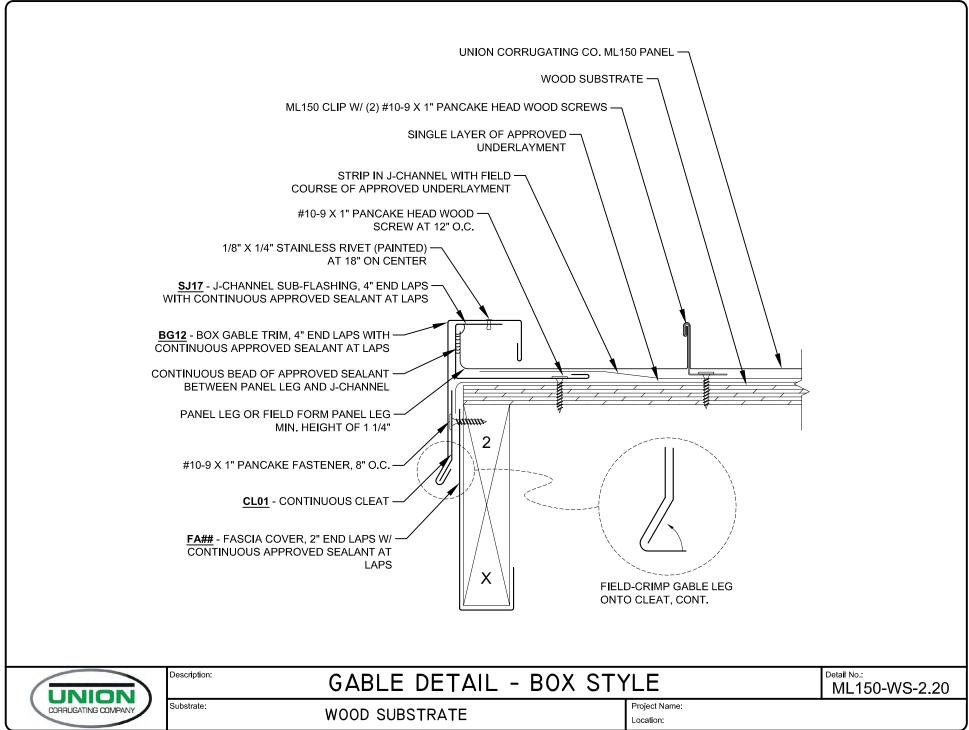


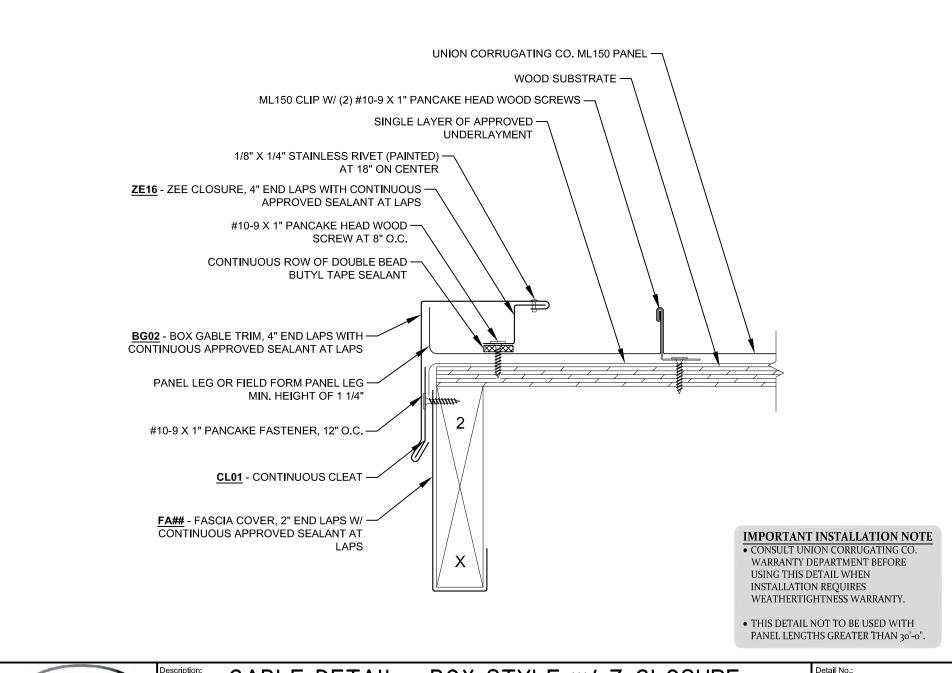


GABLE DETAIL - EXTENDED DRIP STYLE

Detail No.: ML150-WS-2.10

Substrate: WOOD SUBSTRATE



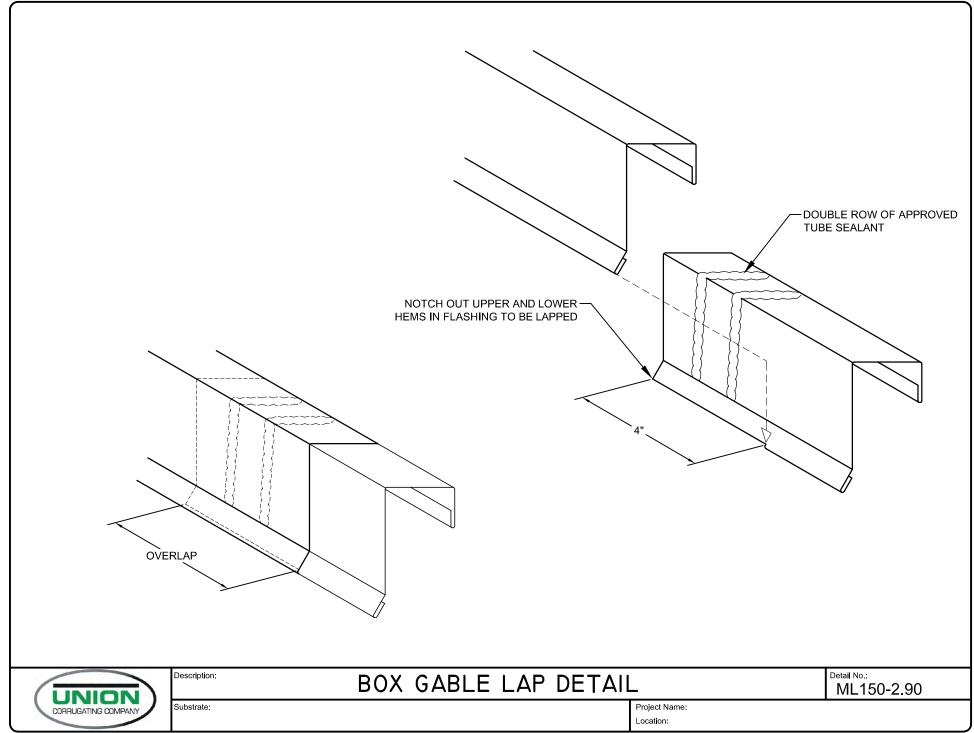


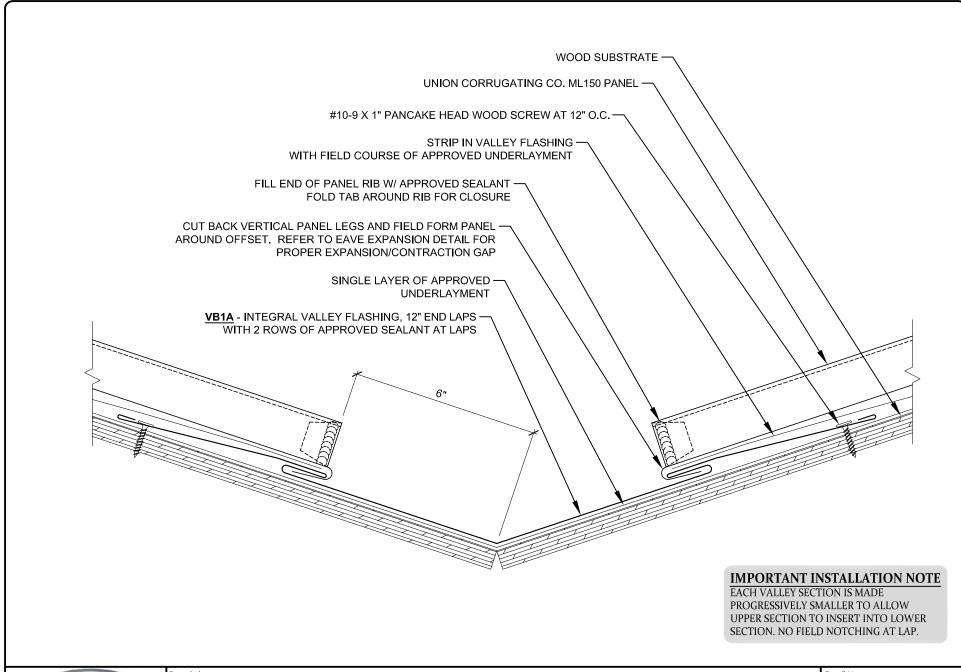


Description: GABLE DETAIL - BOX STYLE w/ Z-CLOSURE

ML150-WS-2.30

Substrate: WOOD SUBSTRATE







VALLEY DETAIL - INTEGRAL CLEAT

Detail No.:

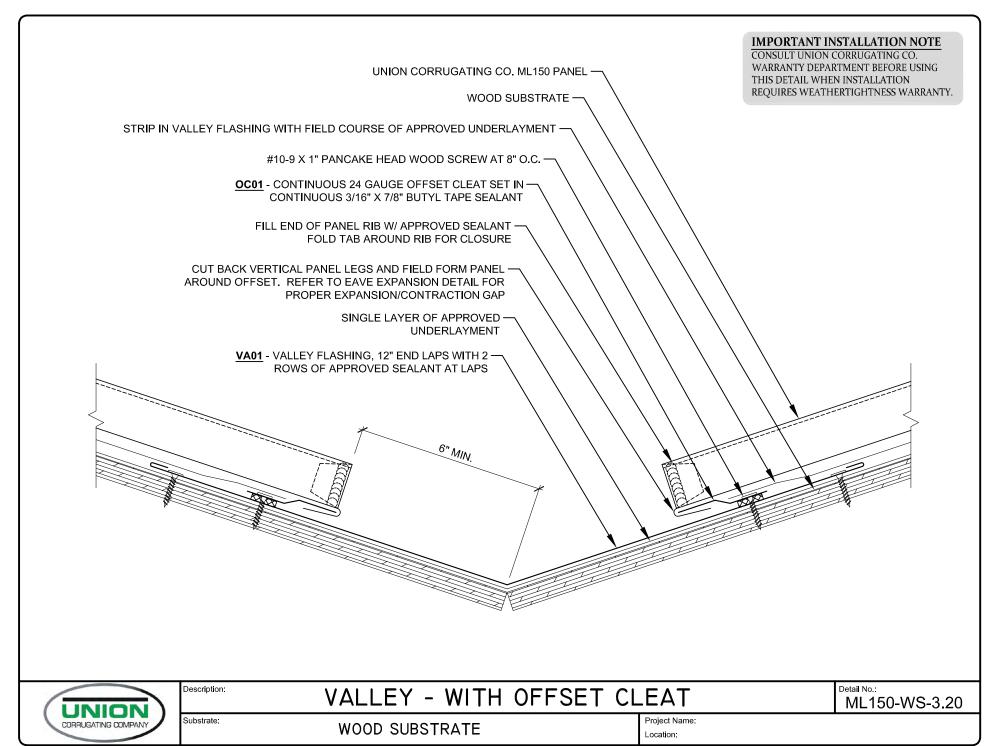
ML150-WS-3.10

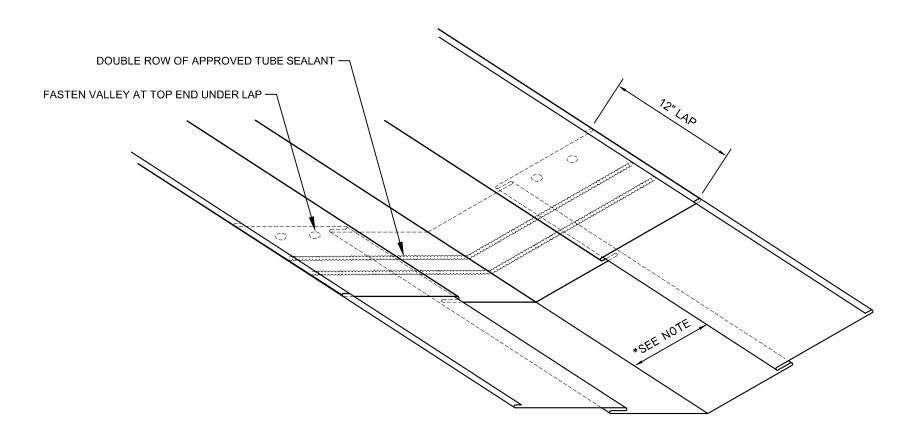
Substrate: WOOD SUBSTRATE

Location:

Project Name:

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





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.

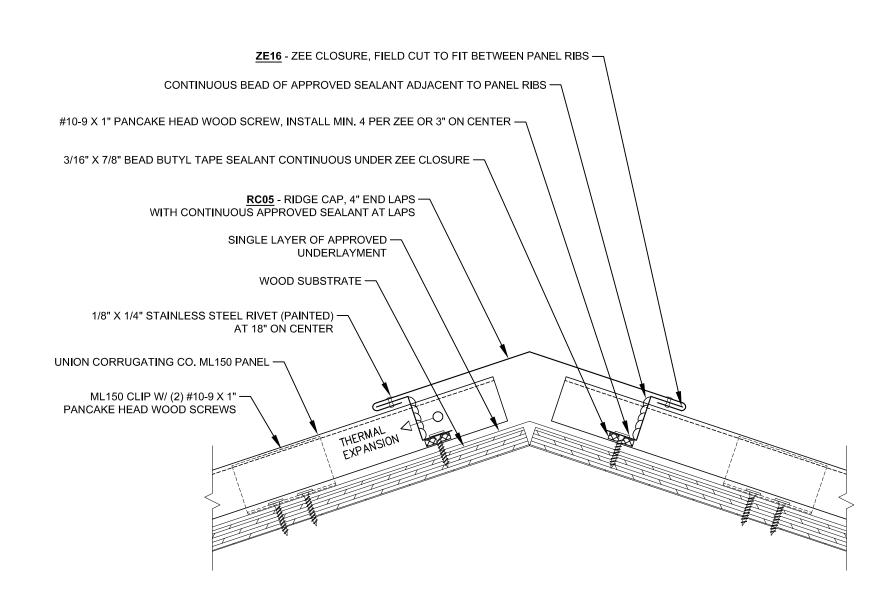
UNION CORRUGATING COMPANY

Description: VALLEY LAP DETAIL

Detail No.:

ML150-3.90

Substrate:

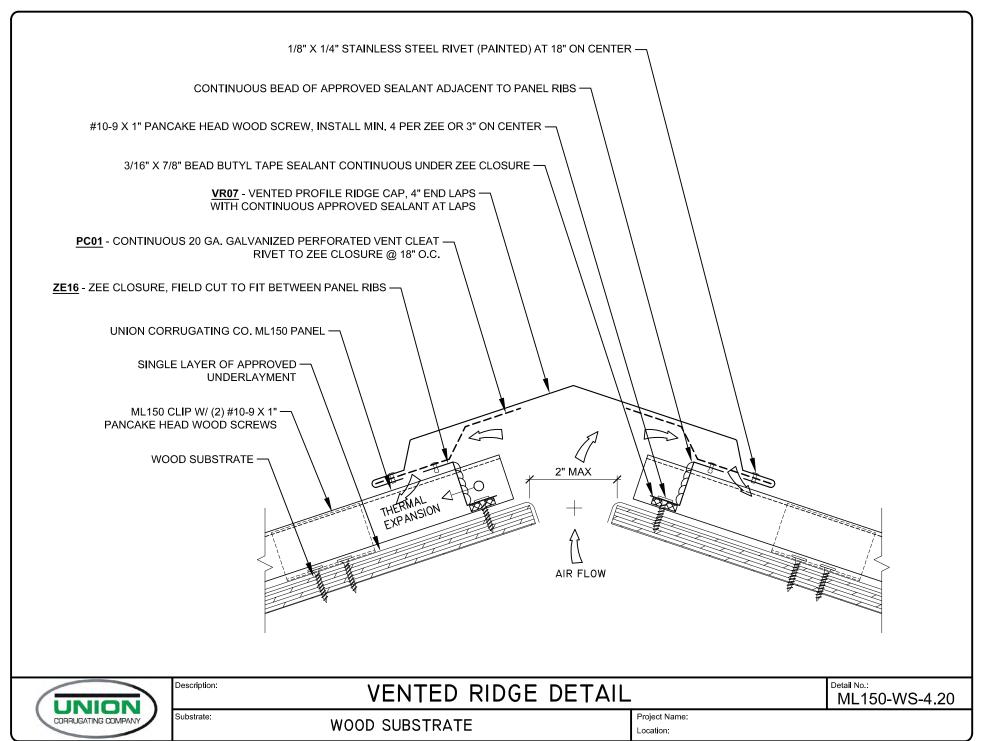


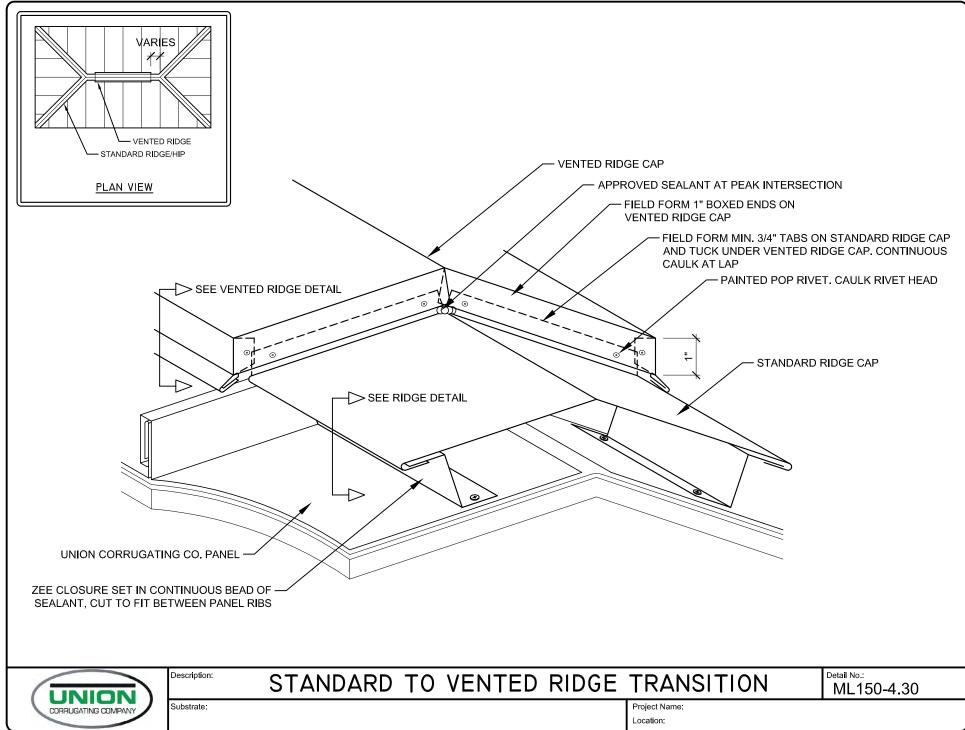


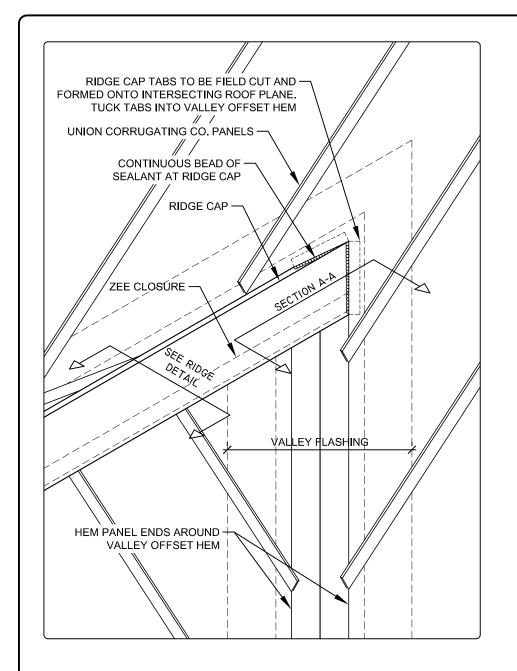
Pescription: HIP AND RIDGE DETAIL

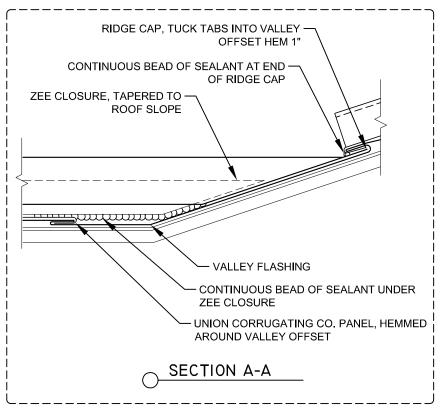
Detail No.: ML150-WS-4.10

WOOD SUBSTRATE











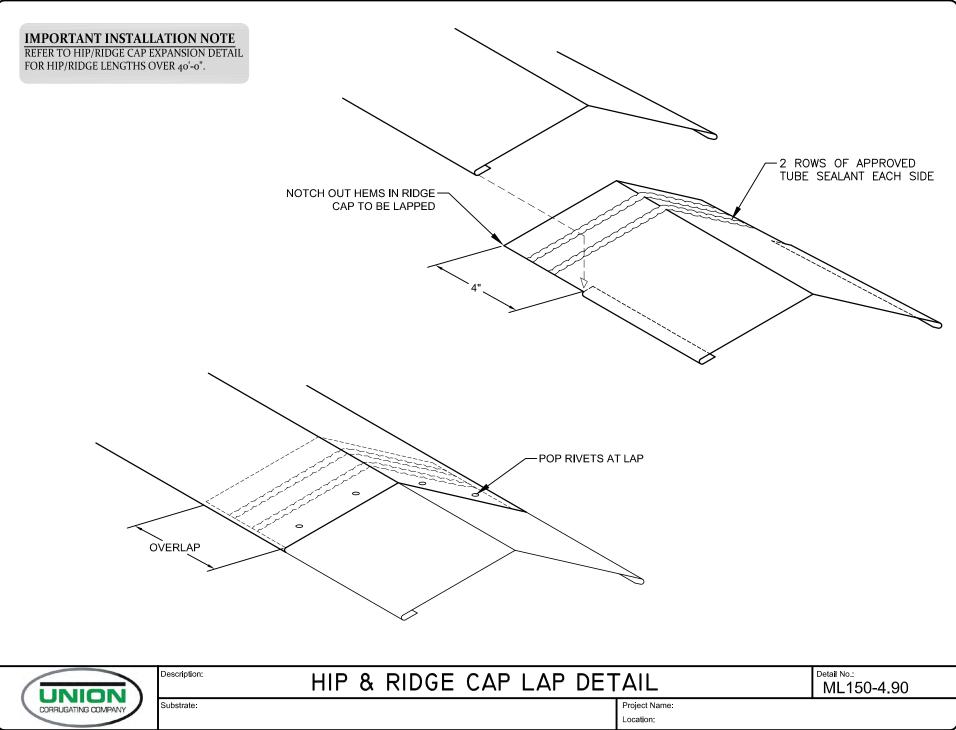
Description:

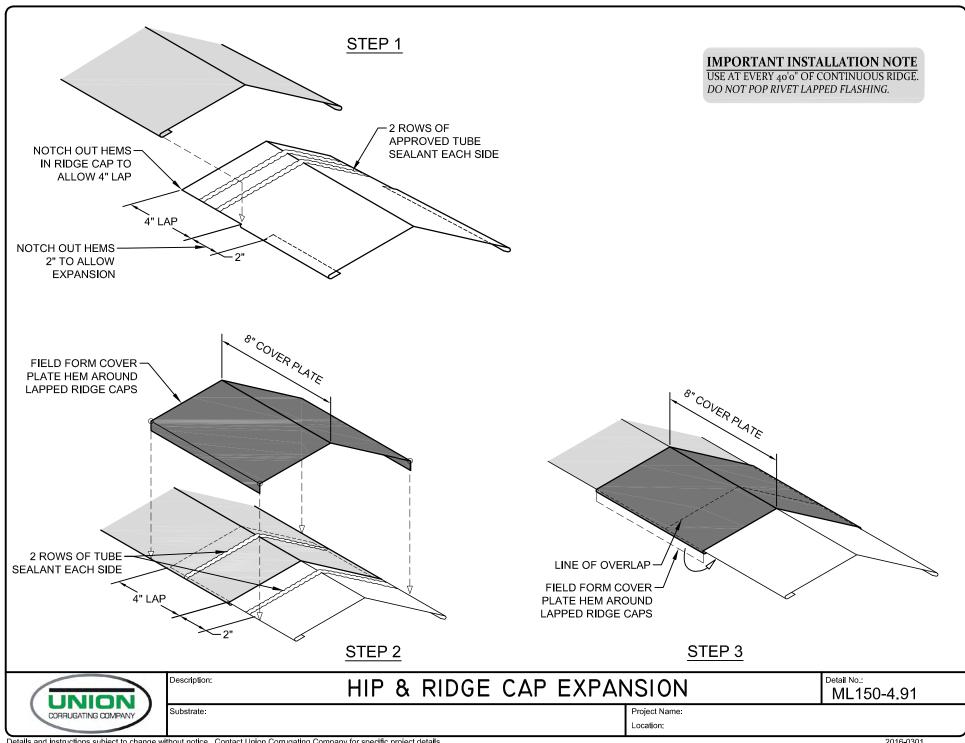
RIDGE TERMINATION @ VALLEY

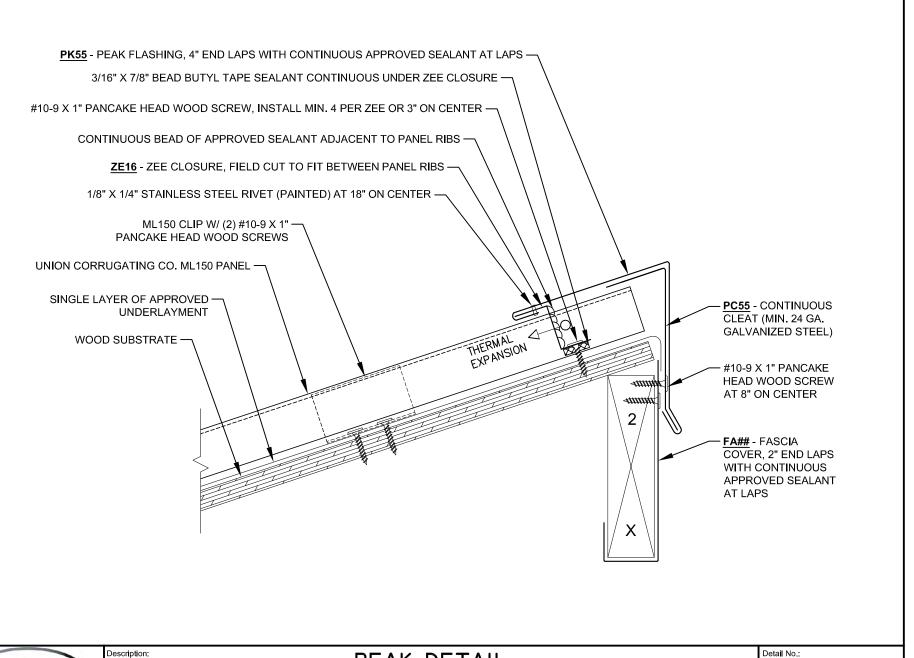
Detail No.:

ML150-4.40

Substrate:





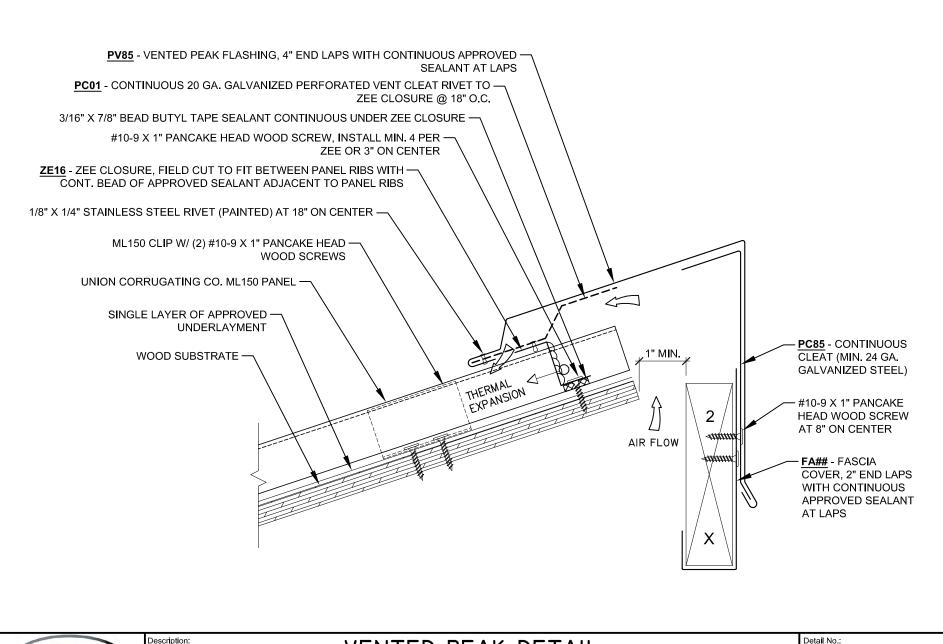




PEAK DETAIL

ML150-WS-5.10

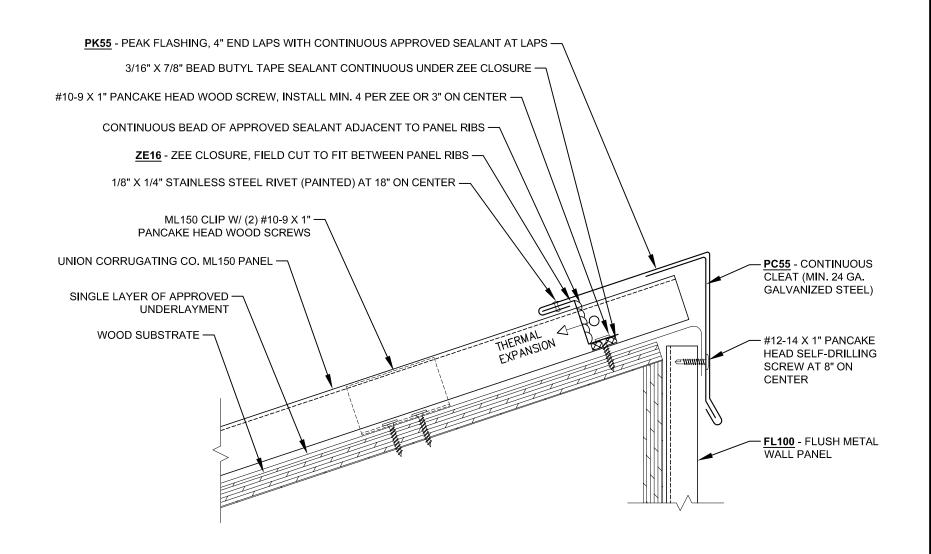
Substrate: WOOD SUBSTRATE



UNION CORRUGATING COMPANY VENTED PEAK DETAIL

Detail No.: ML150-WS-5.20

Substrate: WOOD SUBSTRATE





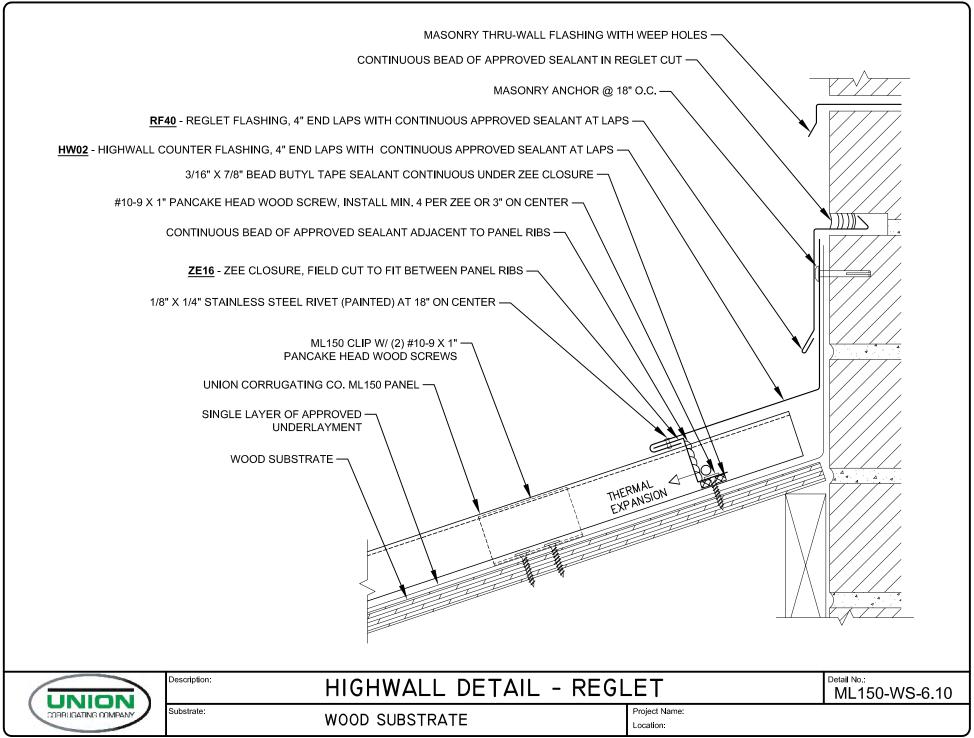
PEAK DETAIL - WITH WALL PANELS

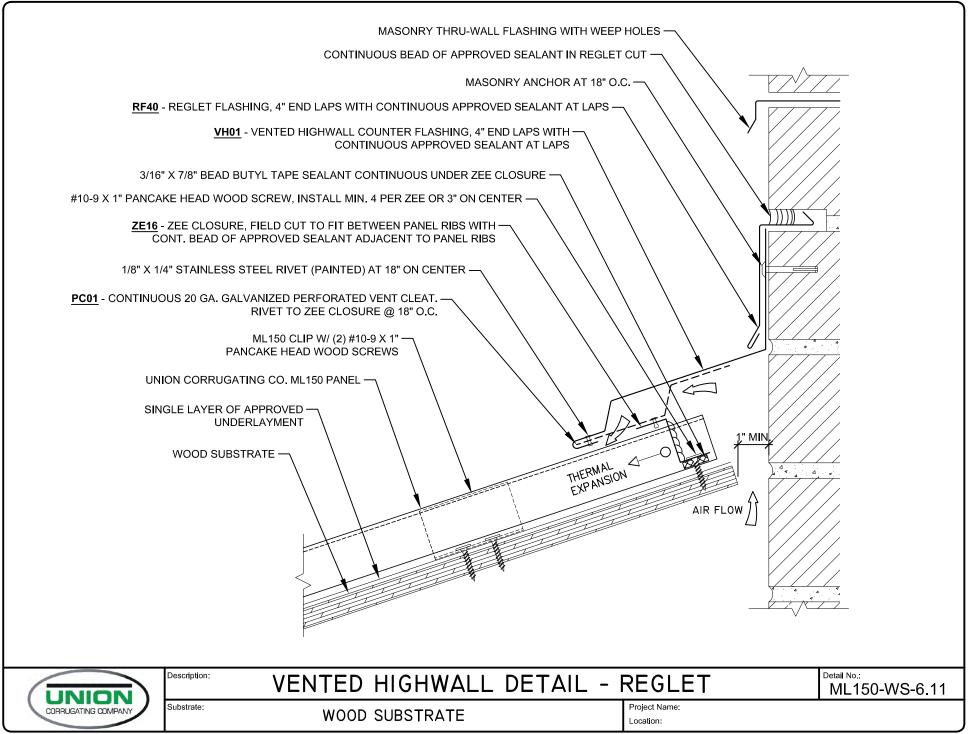
Detail No.: ML150-WS-5.40

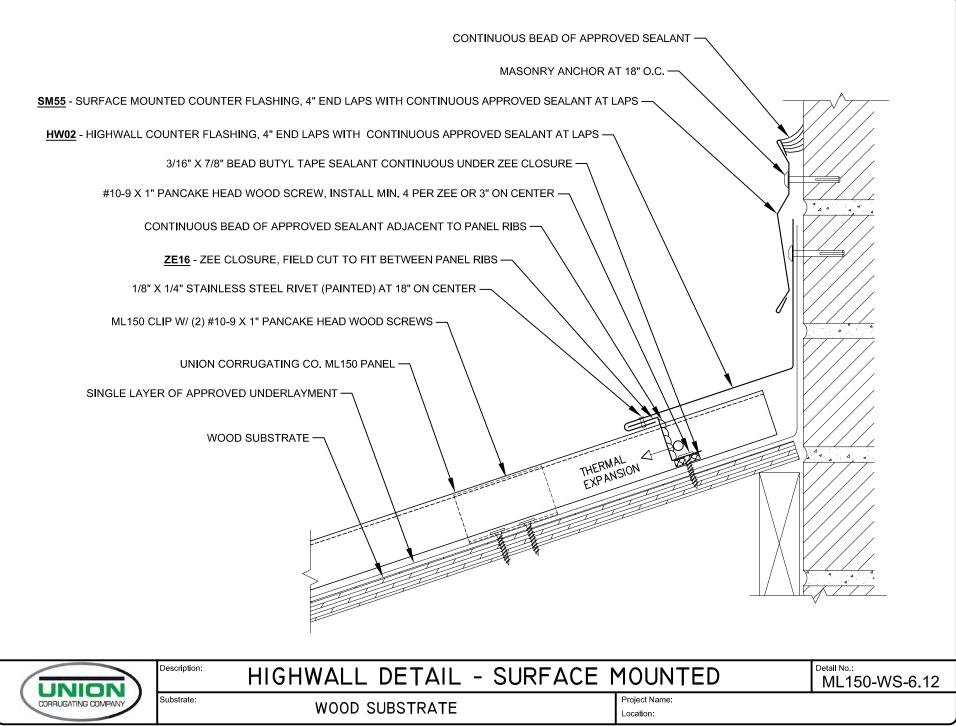
Substrate: WOOD SUBSTRATE

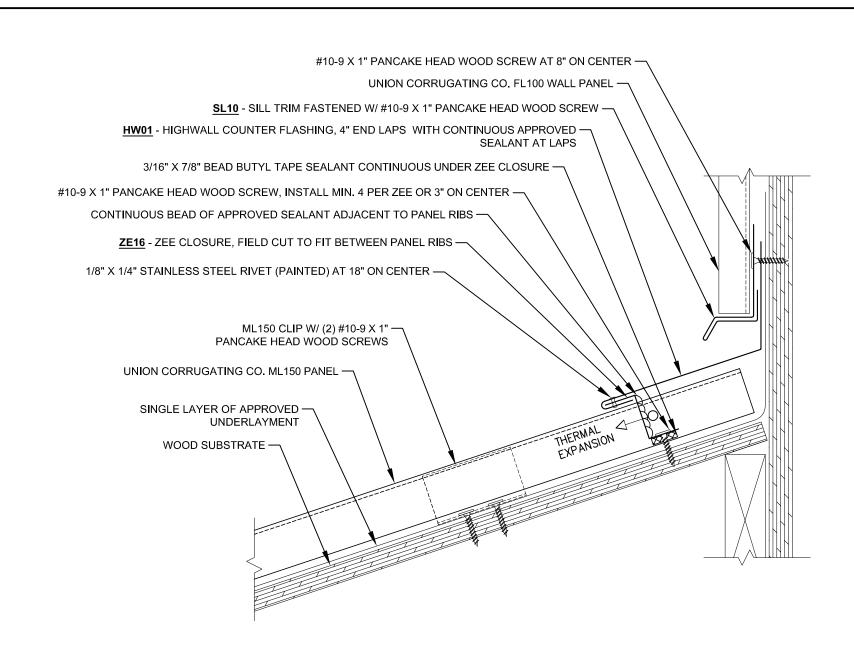
Project Name: Location:

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











Description: HIGHWALL DETAIL - WALL PANEL W/ SILL

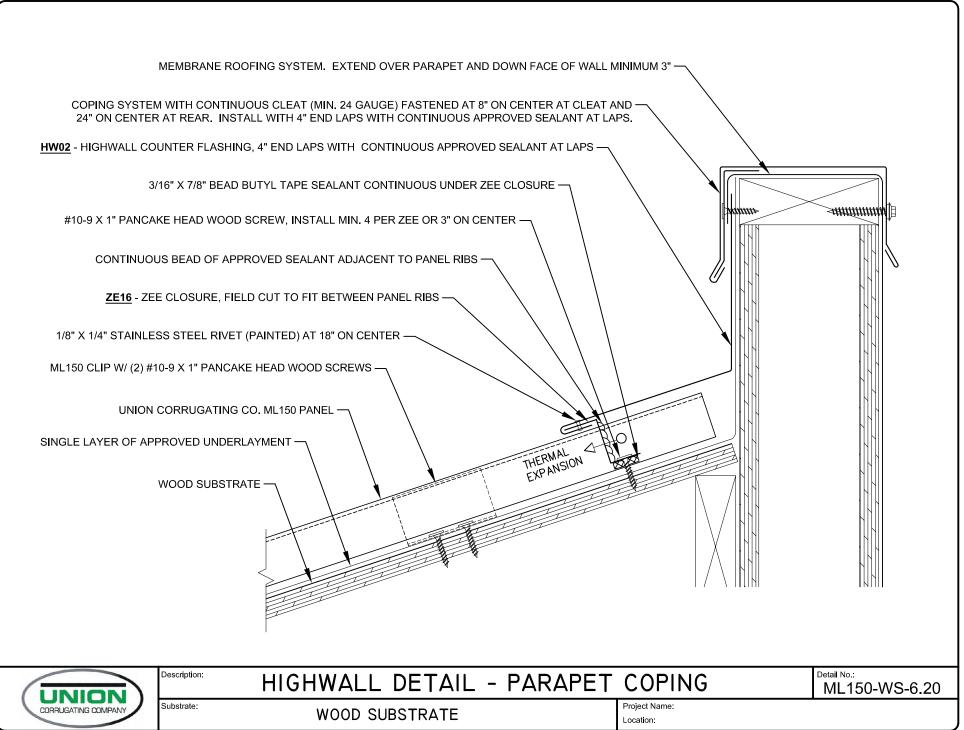
Detail No.: ML150-WS-6.14

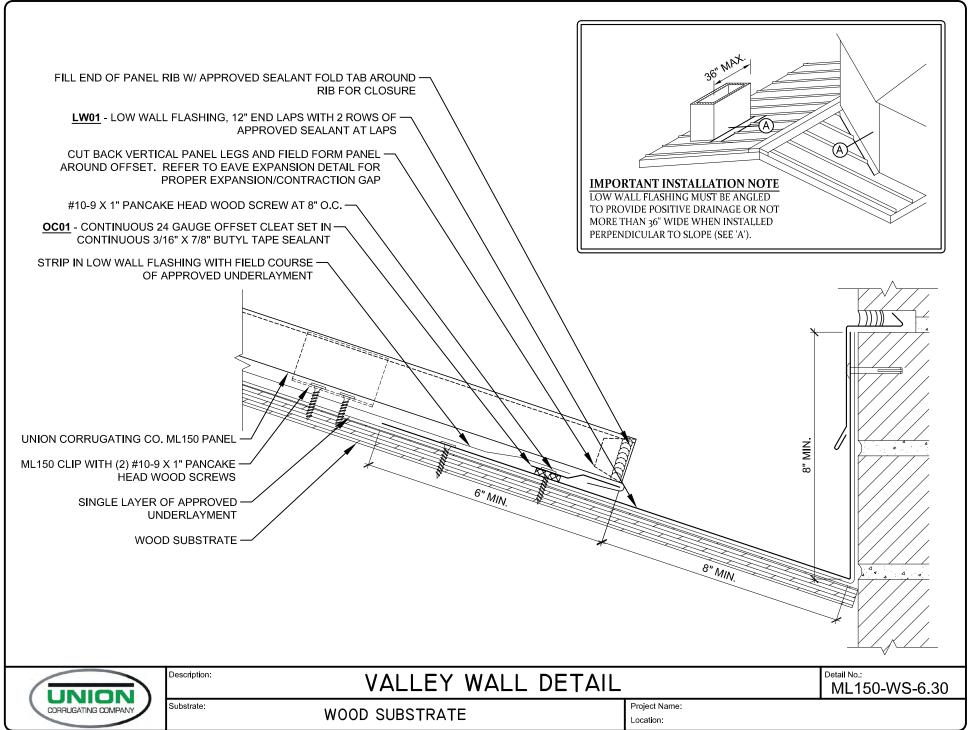
Substrate:

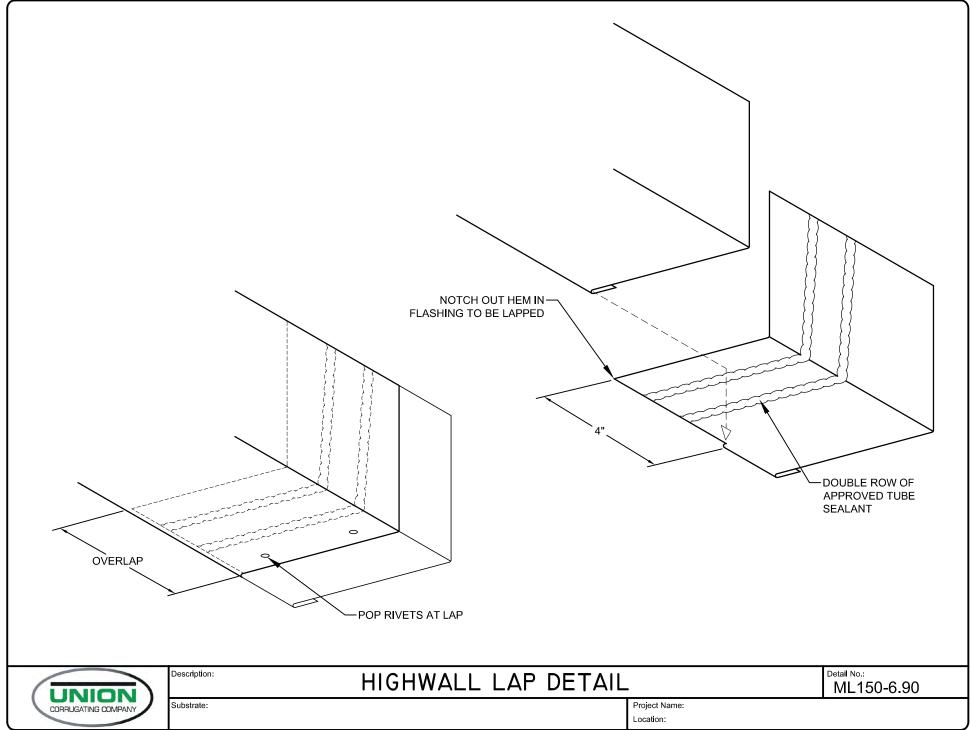
WOOD SUBSTRATE

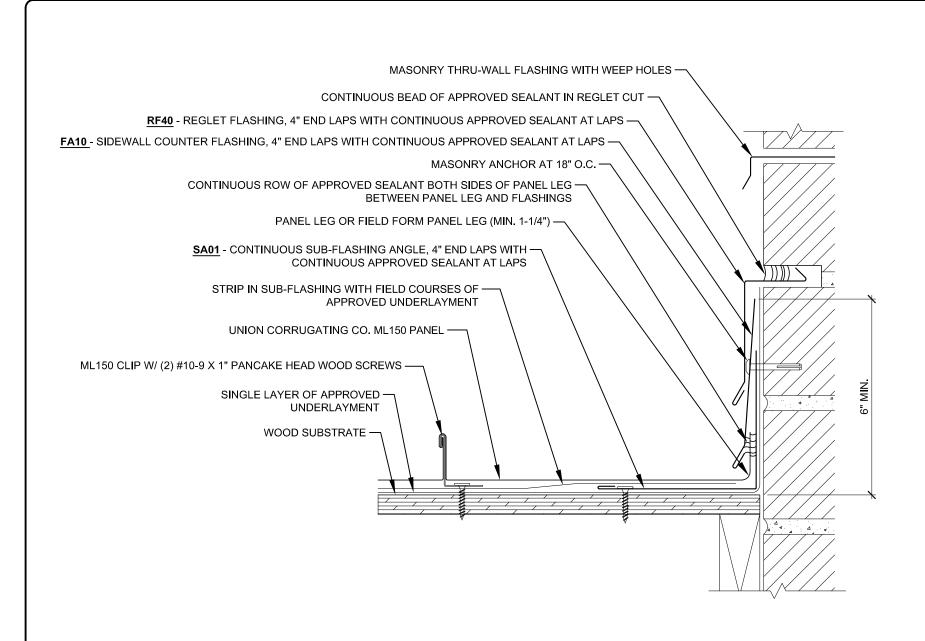
Project Name:

Location:









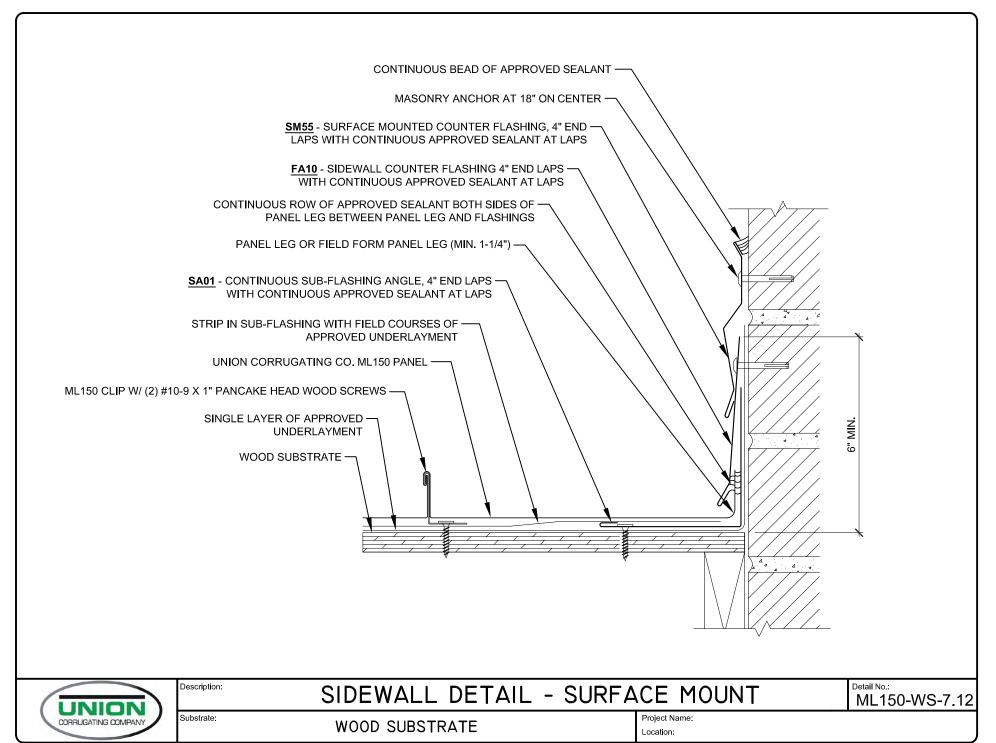
UNION CORRUGATING COMPANY SIDEWALL DETAIL - REGLET

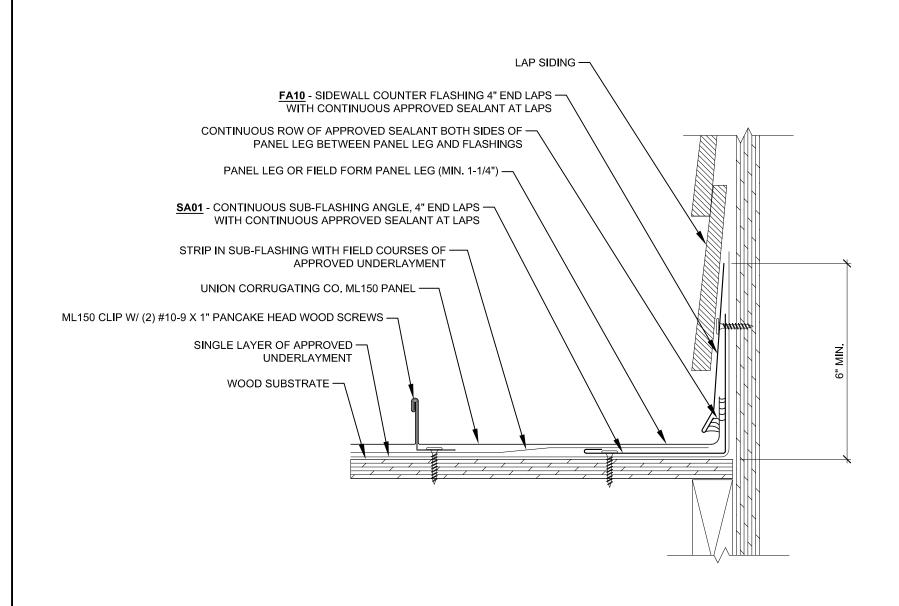
Detail No... ML150-WS-7.11

Substrate: WOOD SUBSTRATE

Project Name: Location:

Description:







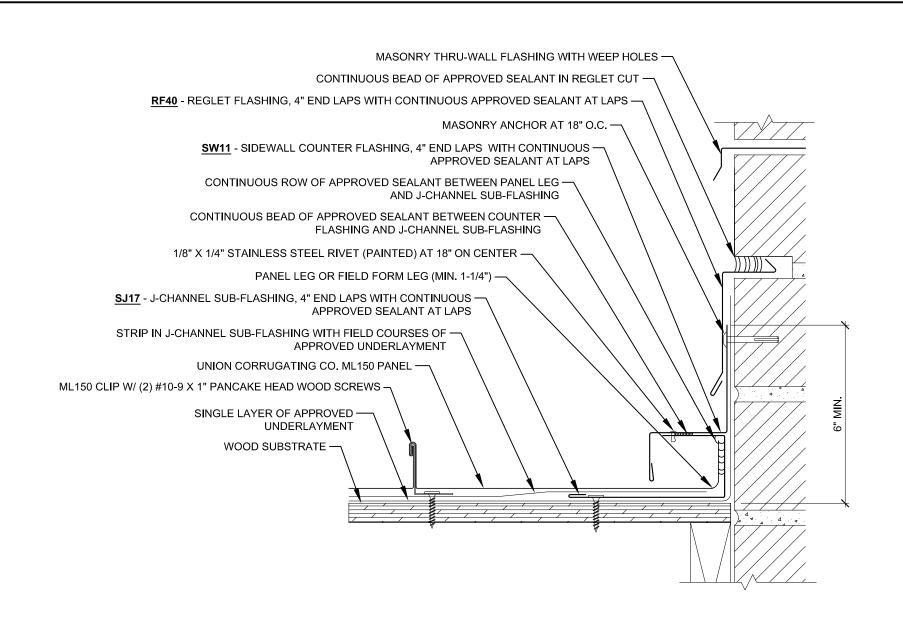
Description: SIDEWALL DETAIL - WOOD FRAMING & SIDING

Detail No.:

ML150-WS-7.13

Substrate:

WOOD SUBSTRATE



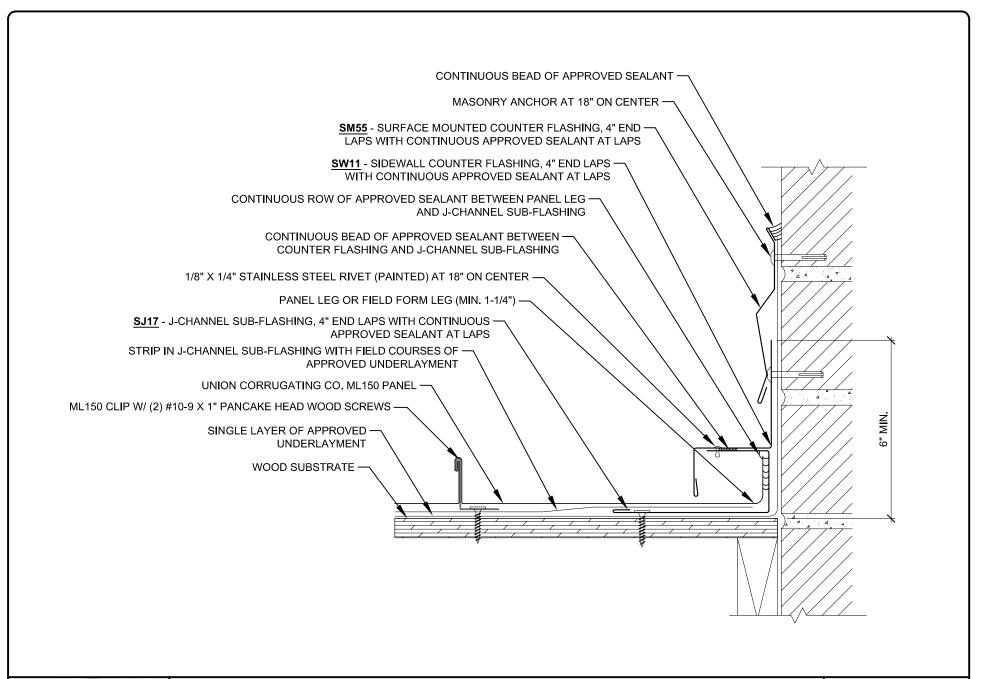


SIDEWALL DETAIL - REGLET

Detail No.: ML150-WS-7.21

Substrate: WOOD SUBSTRATE

Location





SIDEWALL DETAIL - SURFACE MOUNT

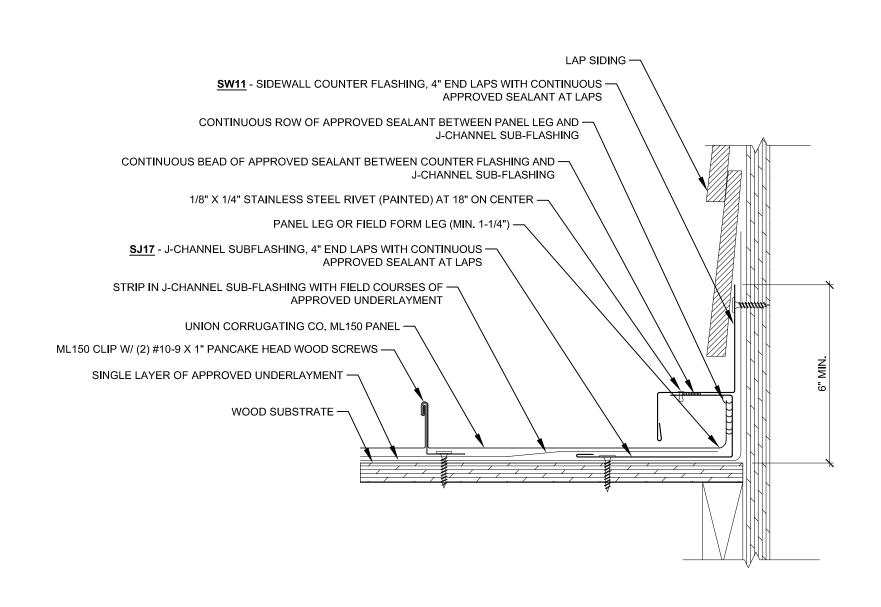
Detail No.: ML150-WS-7.22

Substrate: WOOD SUBSTRATE

Location:

Project Name

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





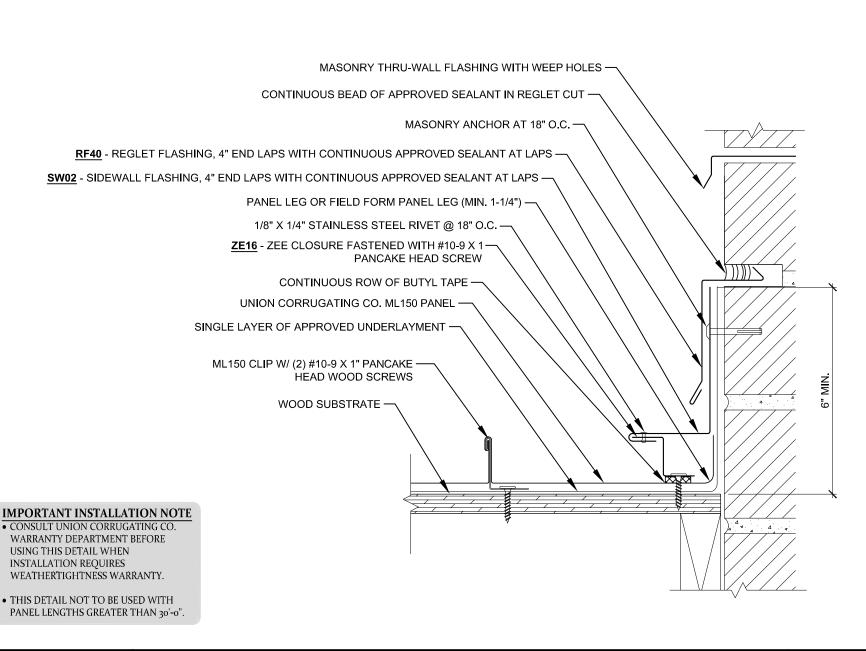
Description: SIDEWALL DETAIL - WOOD FRAMING & SIDING

Detail No.:

ML150-WS-7.23

Substrate:

WOOD SUBSTRATE



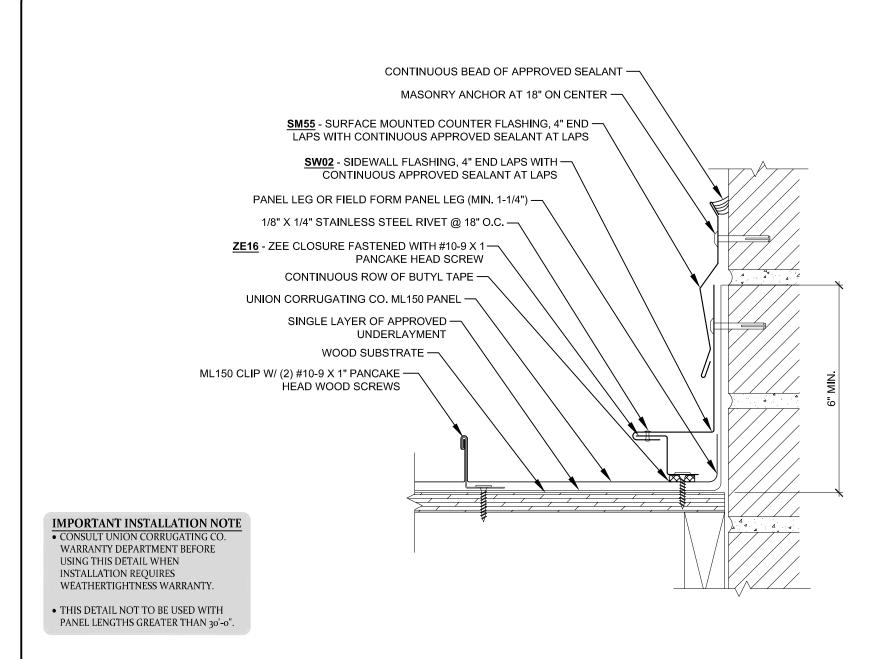


Description:

SIDEWALL W/ ZEE DETAIL - REGLET

Detail No.: ML150-WS-7.31

Substrate: WOOD SUBSTRATE



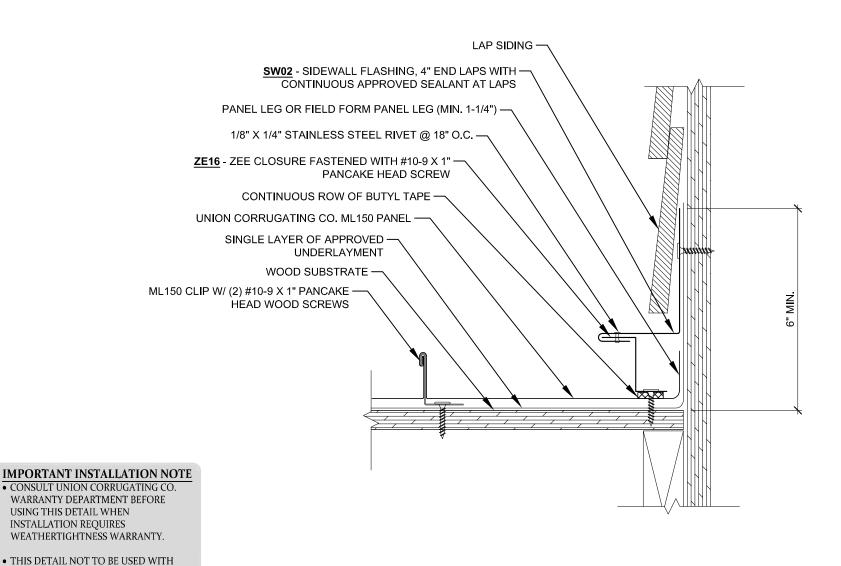


Description:

SIDEWALL W/ ZEE DETAIL - SURFACE MOUNT

ML150-WS-7.32

Substrate: WOOD SUBSTRATE





PANEL LENGTHS GREATER THAN 30'-0".

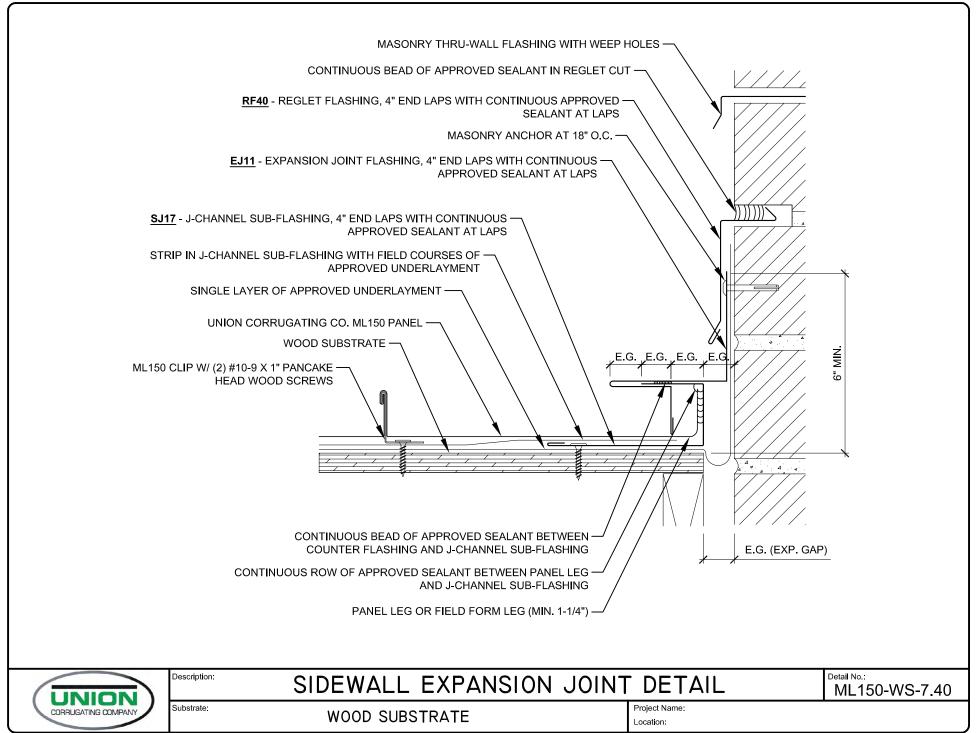
Description: SIDEWALL W/ ZEE - WOOD FRAMING & SIDING

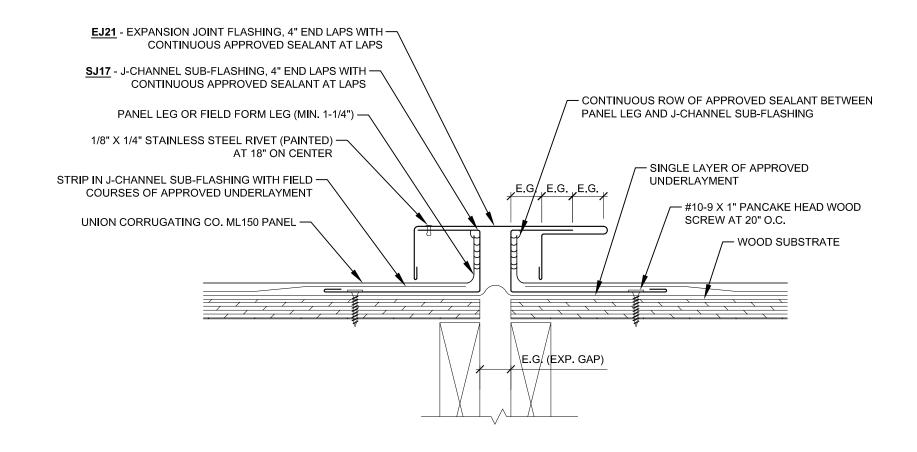
Detail No.: ML150-WS-7.33

Substrate: WOOD SUBSTRATE

Project Name: Location:

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







EXPANSION JOINT (MID-ROOF)

etail No.:

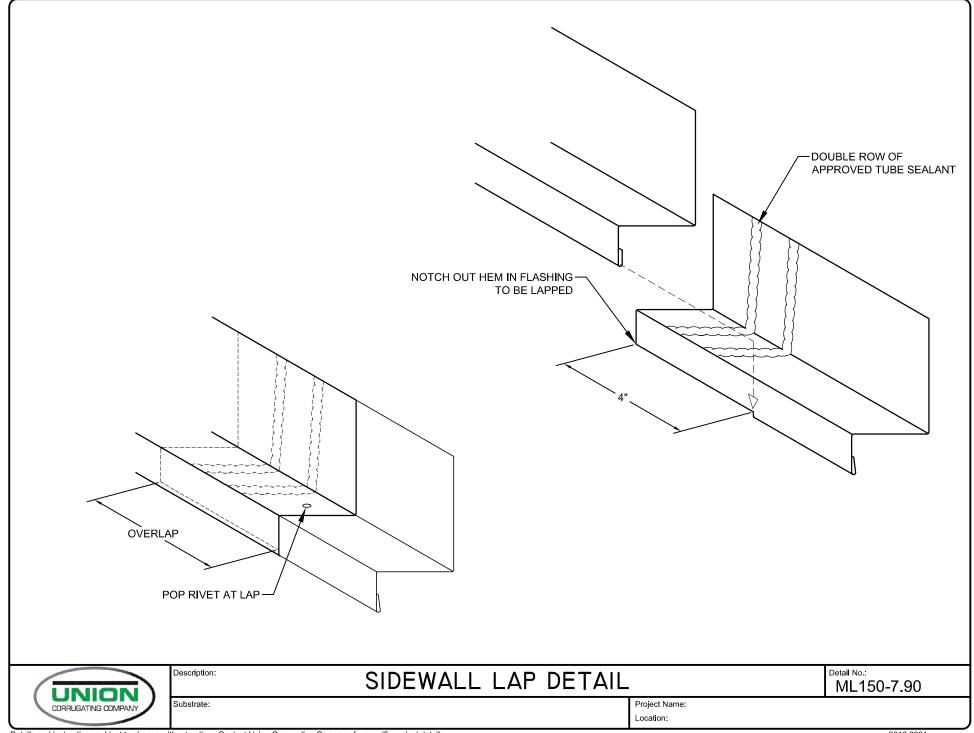
ML150-WS-7.50

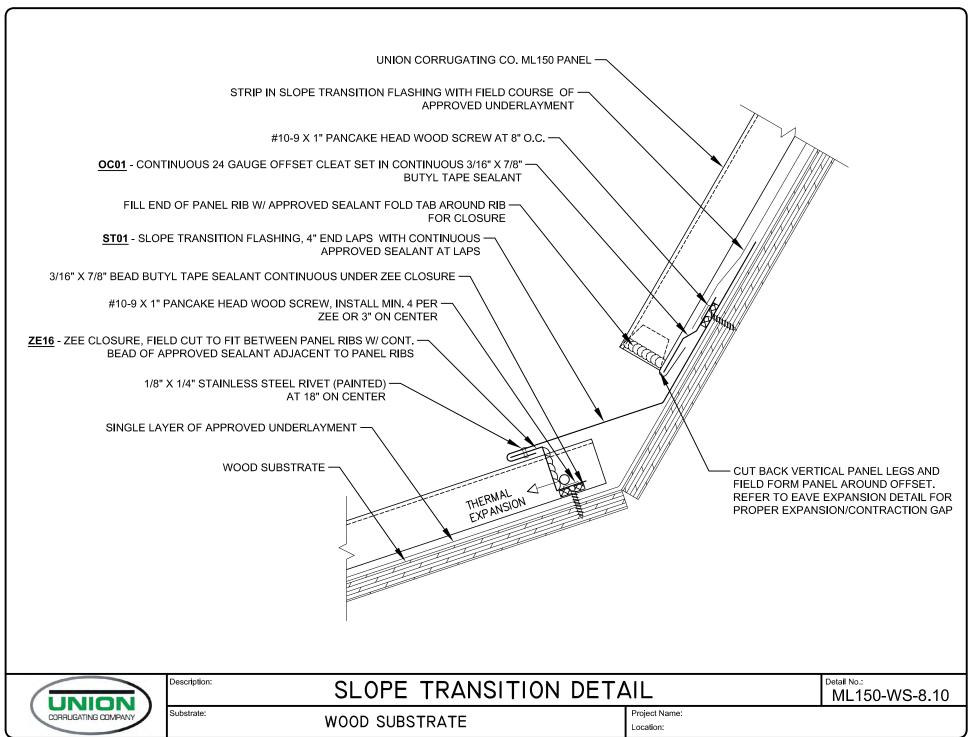
WOOD SUBSTRATE

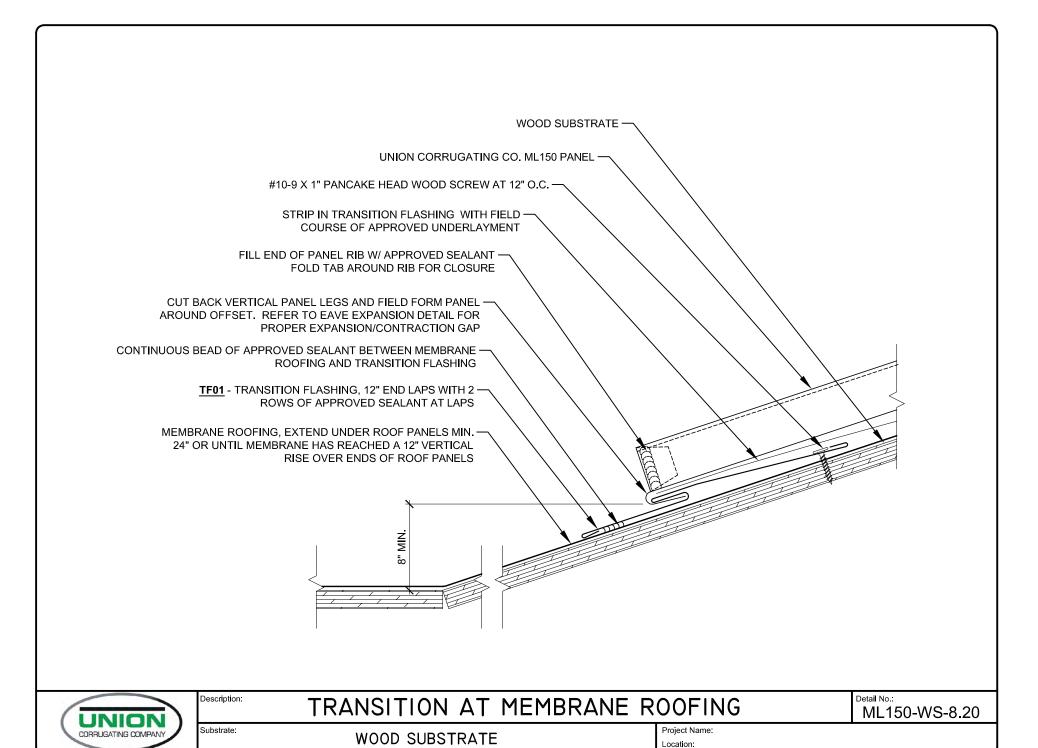
Project Name: Location:

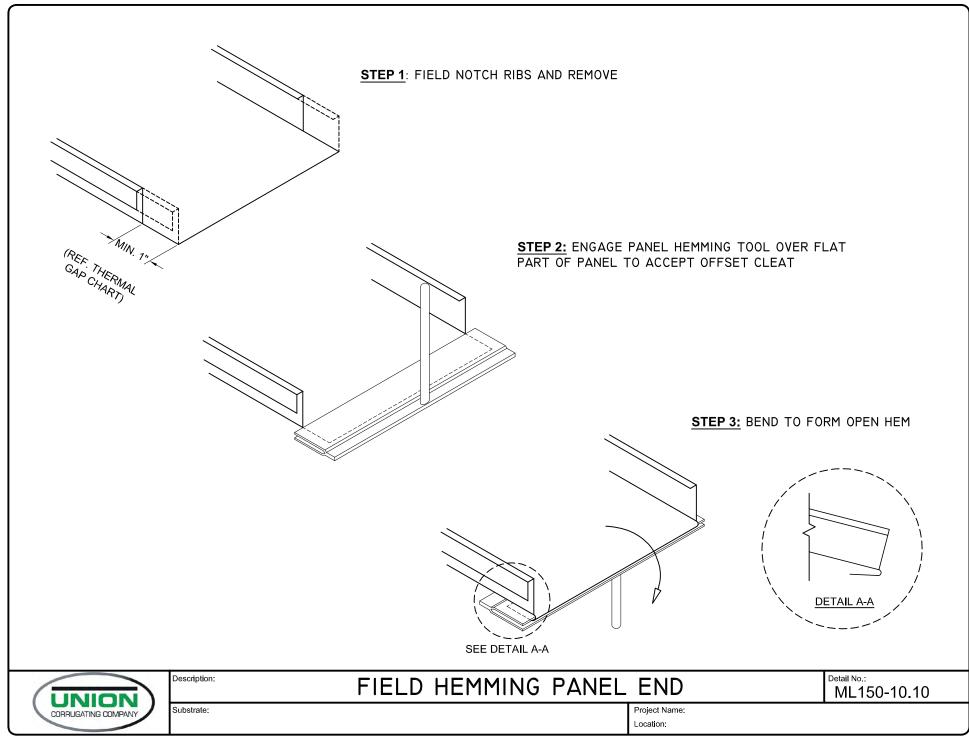
Description:

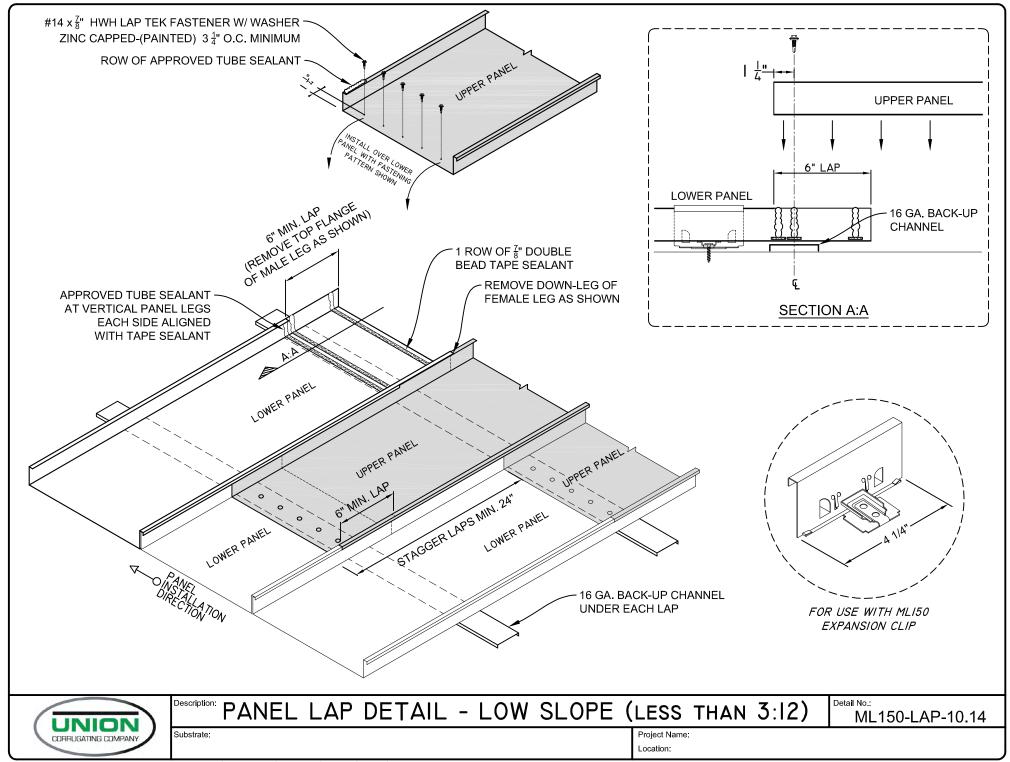
Substrate:

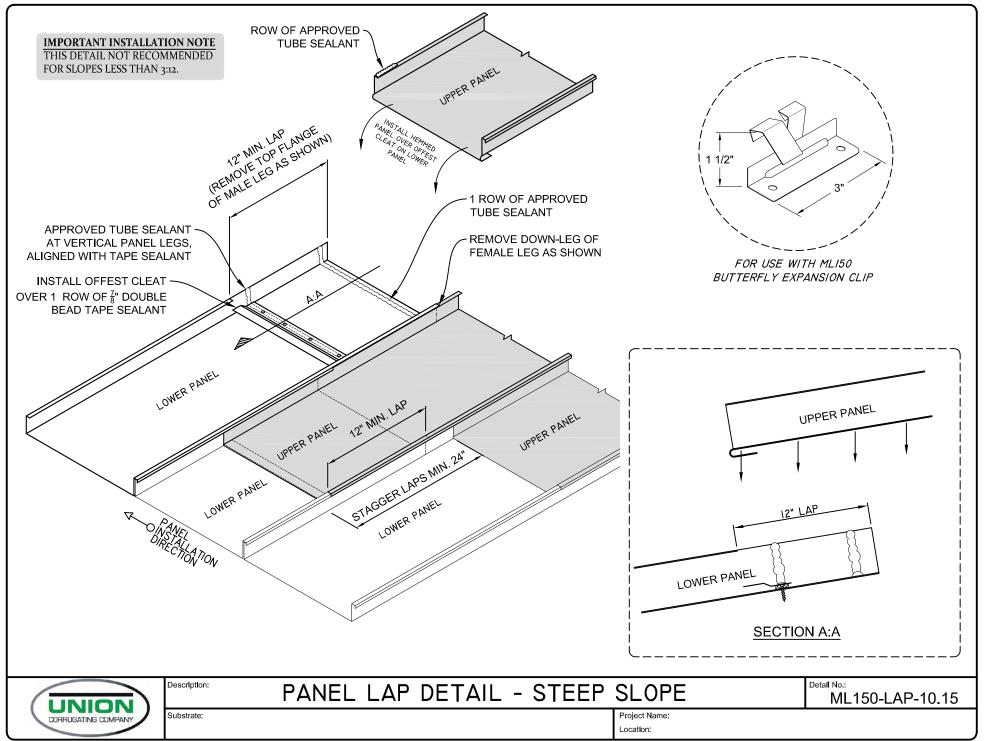


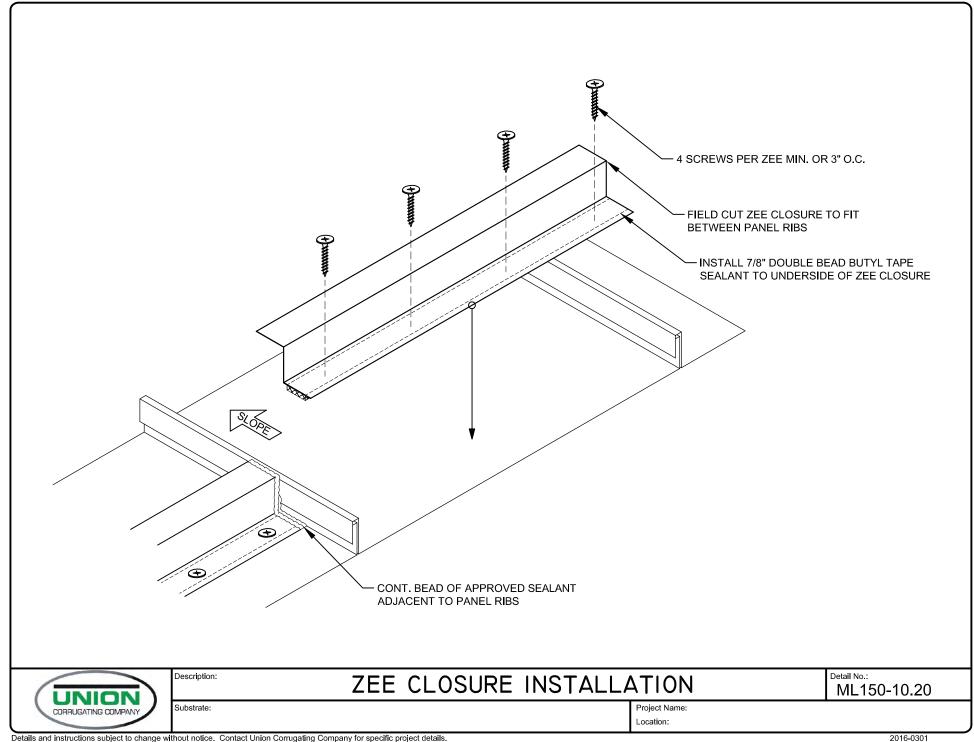


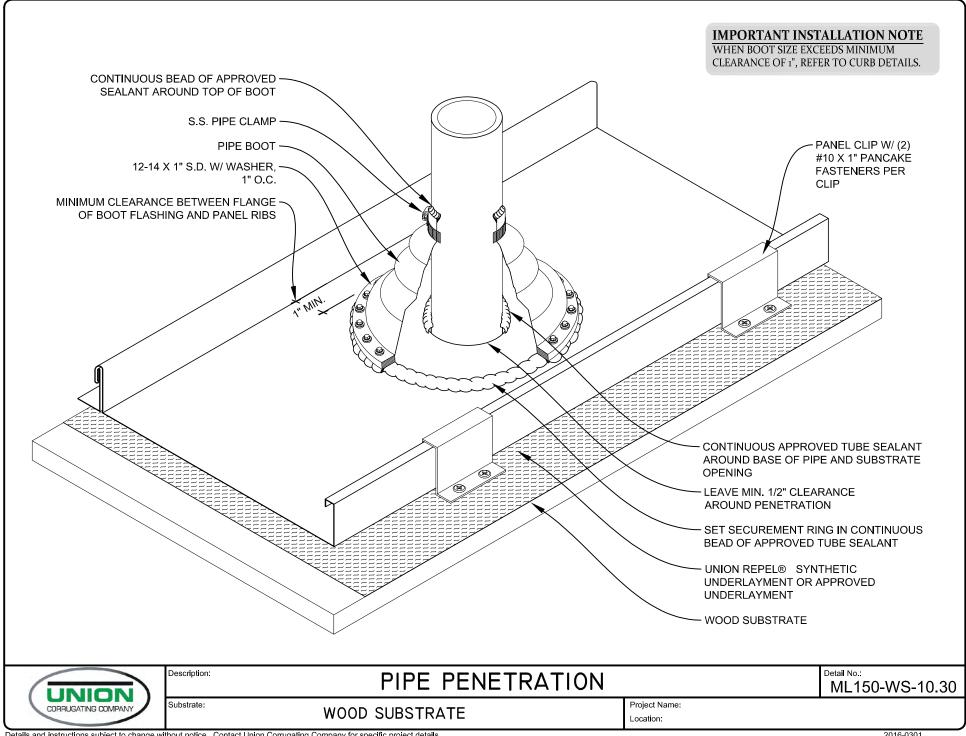


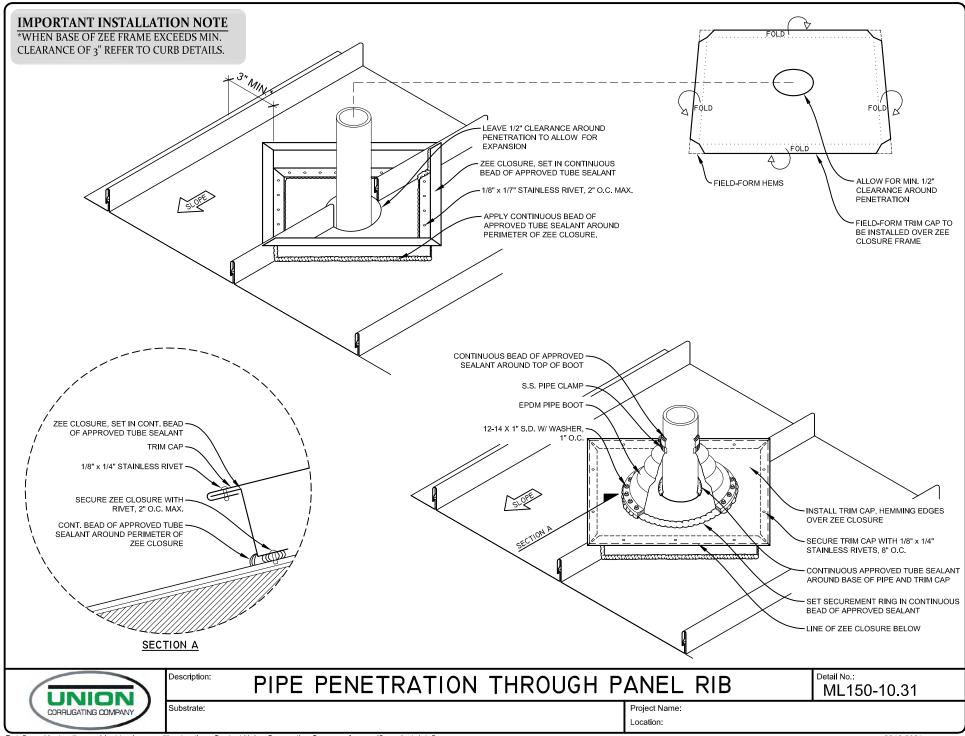


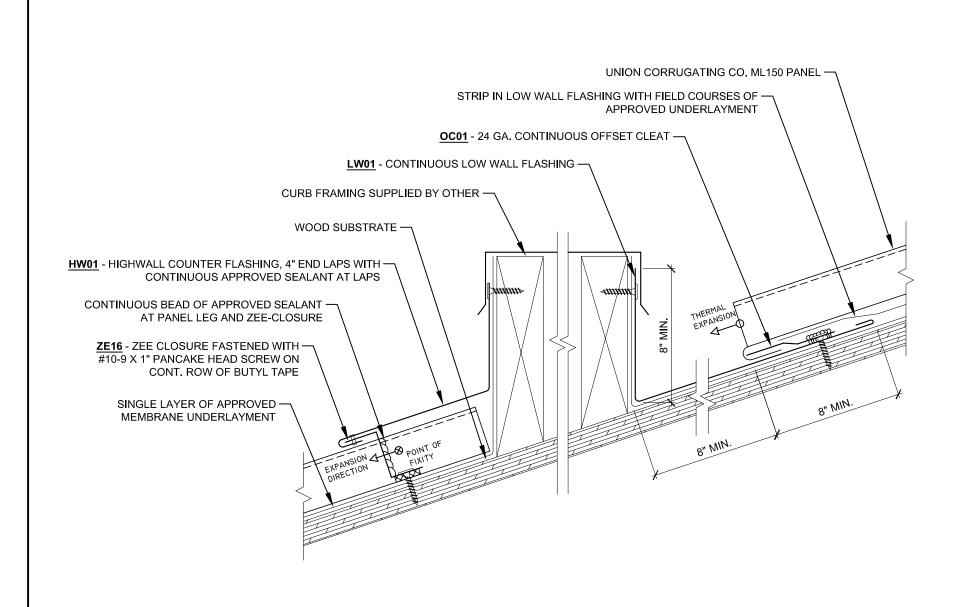












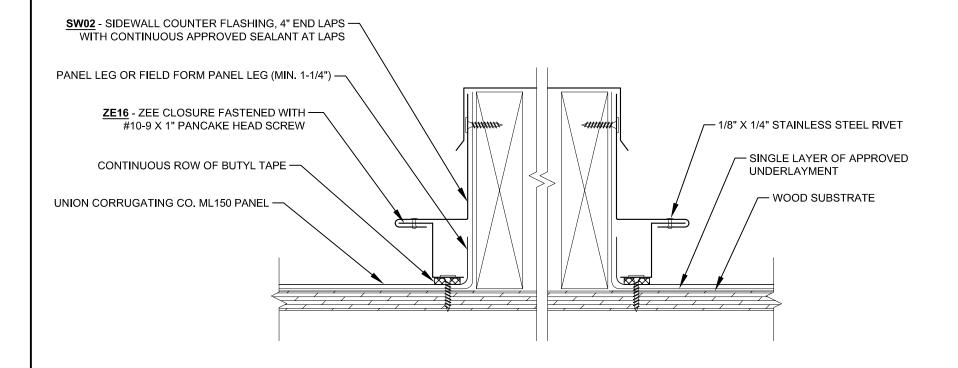


Description: LOW WALL & HIGHWALL @ SQUARE PENETRATION

Detail No.: ML150-WS-10.40

Substrate:

WOOD SUBSTRATE





SIDEWALL @ SQUARE PENETRATION

Detail No.: ML150-WS-10.41

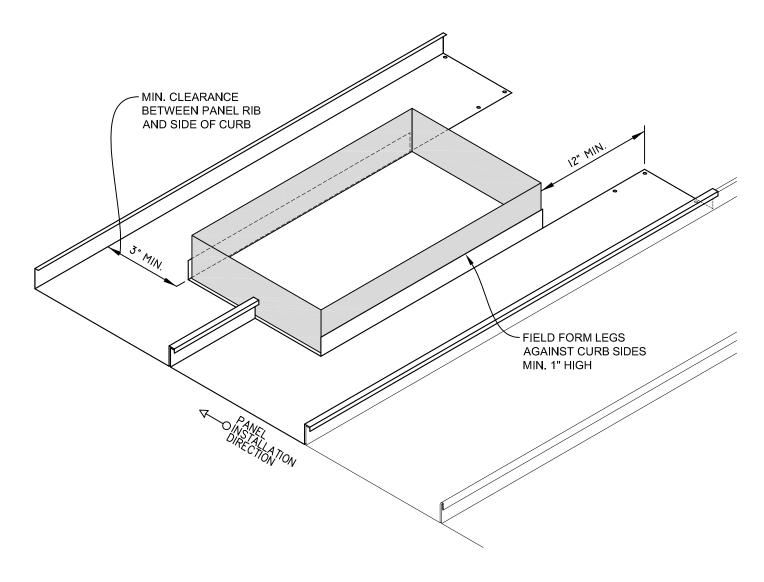
Substrate: WOOD SUBSTRATE

Project Name: Location:

Description:

STEP I

INSTALL PANELS AROUND CURB





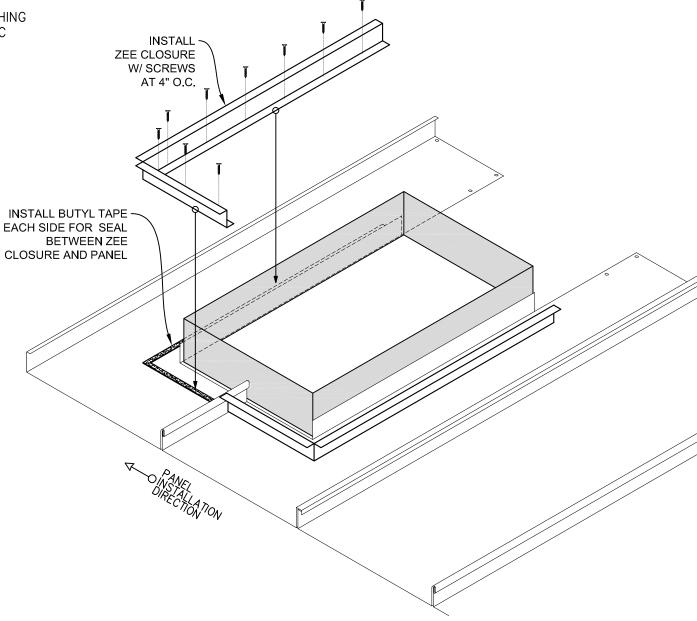
MLI50 CURB DETAILS - STEP I

ML150-CRB: 1 of 6

Substrate:

STEP 2

APPLY ZEE CLOSURE FLASHING OVER DOUBLE BEAD MASTIC





Description: MLI50 CURB DETAILS - STEP 2

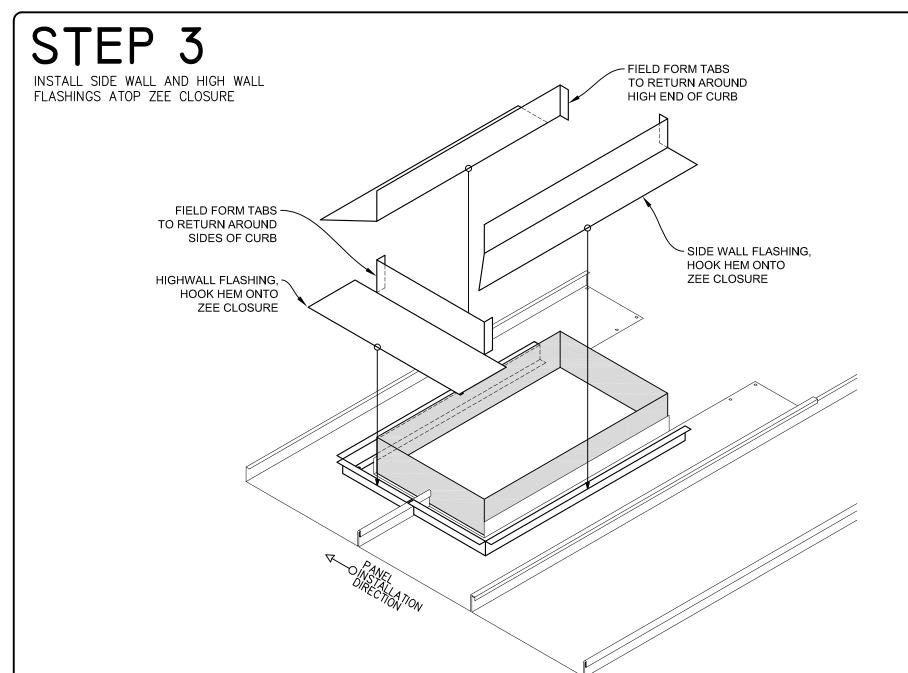
etail No.:

ML150-CRB: 2 of 6

Substrate:

Project Name:

Location:



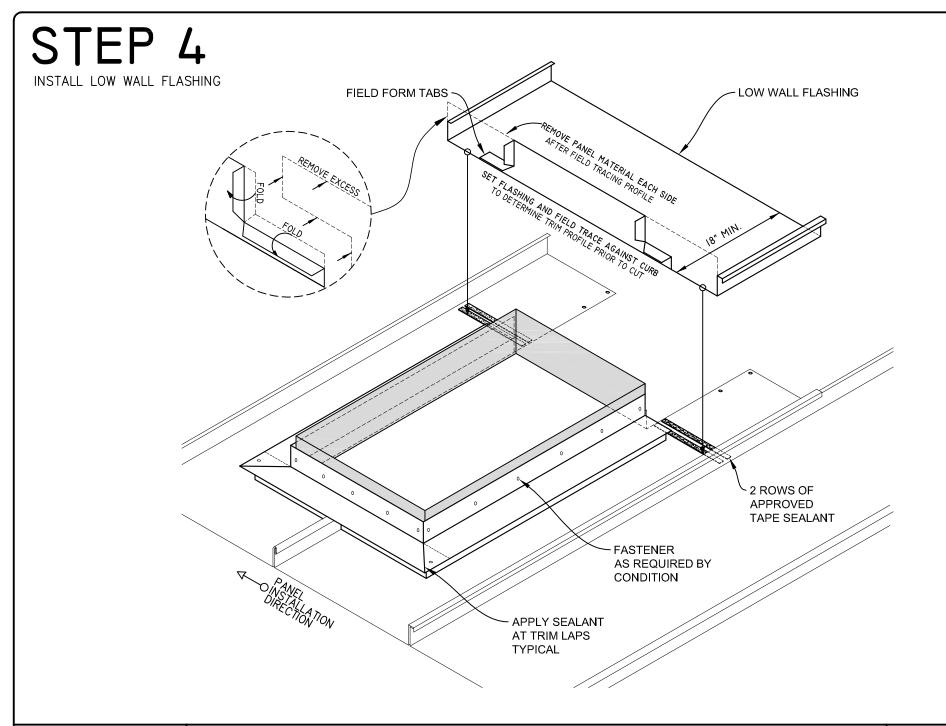


MLI50 CURB DETAILS - STEP 3

Detail No.:

ML150-CRB: 3 of 6

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MLI50 CURB DETAILS - STEP 4

ML150-CRB: 4 of 6

Project Name:

Location:

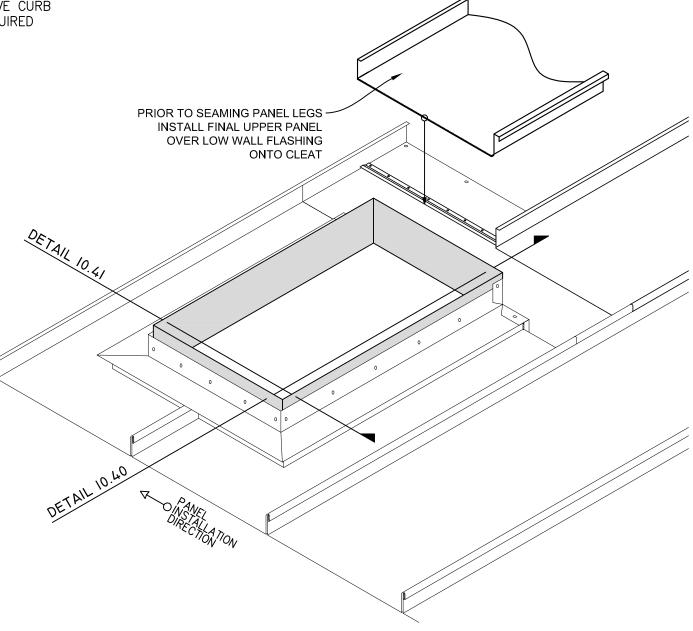
Description:

Substrate:

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:

STEP 6 INSTALL FINAL PANEL ABOVE CURB SEAL AND FASTEN AS REQUIRED





MLI50 CURB DETAILS - STEP 6

Detail No.: ML150-CRB: 6 of 6

Substrate: