



TW-12
(Horizontal Installation)
Installation Guide

TW-12

(Horizontal Install.)
Installation Guide

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General Notes

The attached installation details are intended to be a design aid and do not depict all situations. Modifications are the responsibility of the designer/user and should take into account climate conditions such as wind and snow, governing code requirements, and the actual usage and maintenance of the structure.

Applications:

TW-12 can be utilized as a wall panel installed in the vertical or horizontal orientation. It shall not be utilized for roof applications. TW-12 can be used over solid substrates or over spaced supports. This installation guide depicts clip attached panels installed using flush mounted clips. Details for direct fastened panels or clip attached panels using standoff clips would be similar.

Flashings:

Where possible, flashings should be lapped away from prevailing winds. Certain flashings should be supported if it is likely that equipment (ladder, etc.) will be used against them. Check with AEP Span any time you intend to specify a prefinished flashing in a gauge or finish different than the TW-12. It is good practice to specify that all flashings be of the same material (gauge, color, finish) as the roof panels to ensure long-term durability. Field-painted flashings rarely equal the durability and colorfastness of factory baked-on paint systems. The enclosed details have minimized the use of exposed fasteners where possible. The edges of flashings have also been shown hemmed to strengthen and to minimize the exposure of cut edges.

Flashing design and fabrication is generally the responsibility of the contractor. For convenience, we have provided some typical flashing drawings on our website at <http://www.aepspan.com/roof/prodDetailad08.html?id=35>. Applicable TW-12 flashing part numbers are referenced within this installation guide. Note that flashing shapes and dimensions may vary greatly based on project requirements. Installation details and flashings referenced within are for general design guidance only.

Condensation, Insulation, & Ventilation:

It is the designer's responsibility to determine the need and composition of condensation control materials including insulation and vapor retarders, as well as ventilation requirements. Metal wall products are susceptible to condensation and its control should be carefully considered.

Thermal Movement:

Both panels and flashings must allow for thermal movement (expansion and contraction) of the materials, especially where long lengths are used. Appropriate gaps or provisions must be provided to accommodate thermal movement.

Oil Canning:

Flat metal surfaces often display waviness commonly referred to as 'oil canning'. This can be caused by variations in raw material, processing variations, product handling, or variations in the installation substrate. Oil canning is a characteristic, not a defect, of panels manufactured from light-gauge metal. To reduce potential for oil canning, substrates should not deviate from a flat plane more than 1/4 inch in 20 feet, or 1/8 inch in 5 feet. Oil canning is not a cause for panel rejection. Additional technical information is available upon request.

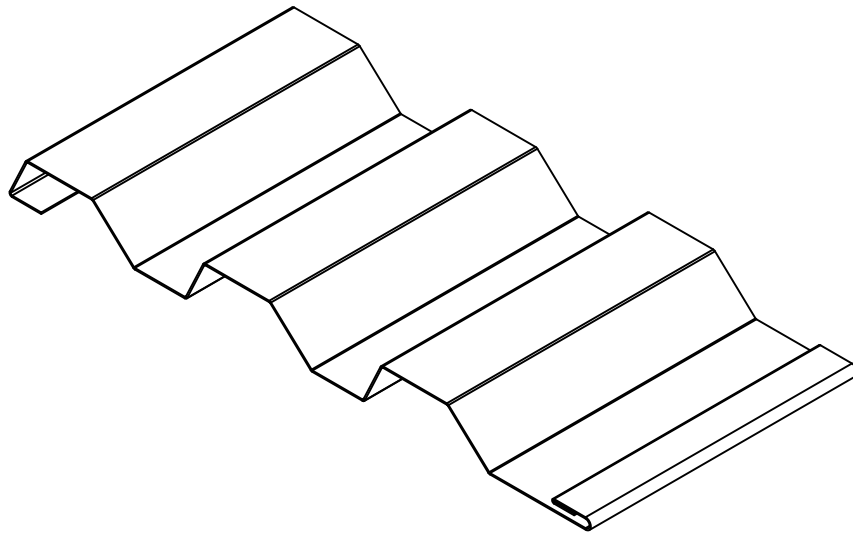
References:

The Sheet Metal and Air Conditioning Contractors' National Association Inc. (SMACNA) manual is an excellent reference for sheet metal contractors. It's guidelines for underlayments, gutter and downspout size requirements, and expansion/contraction of metals and flashing joints should be followed.

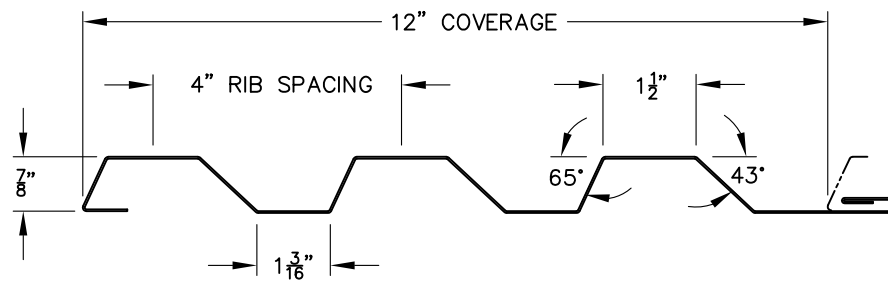
Technical Assistance:

Contact your AEP Span Sales Representative for additional information.





TW-12



PANEL INTERLOCK OPTIONS



DIRECT FASTENED
('D' P/N SUFFIX)



CLIP ATTACHED
('C' P/N SUFFIX)

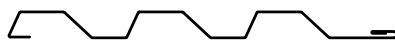
MATERIAL:

STEEL: 22 & 24GA (20GA NON-STD.)

AVAILABLE LENGTHS: 5'-20'



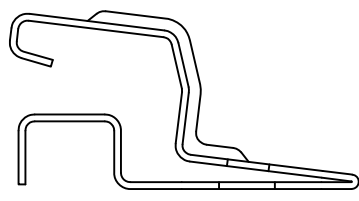
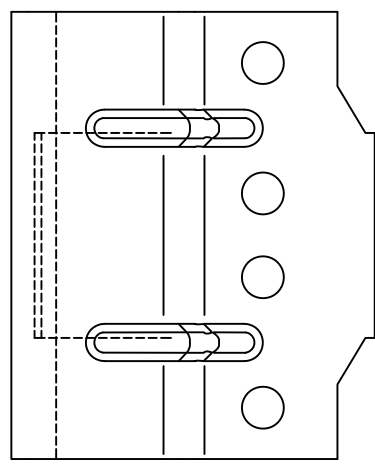
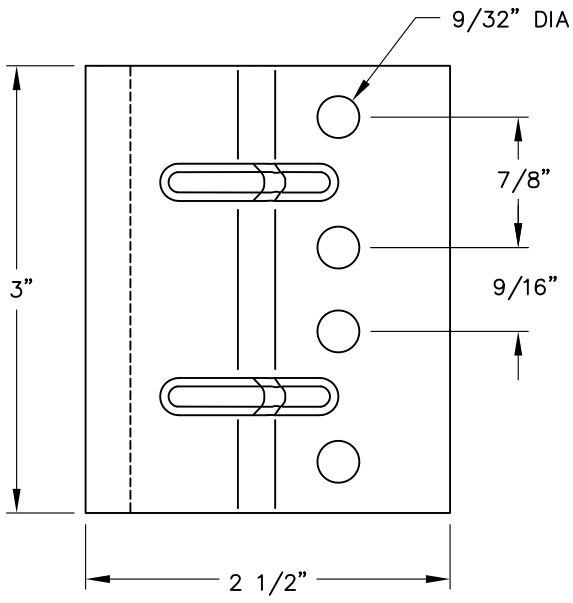
TW-12
HORIZONTAL INSTALL.



PANEL DETAILS

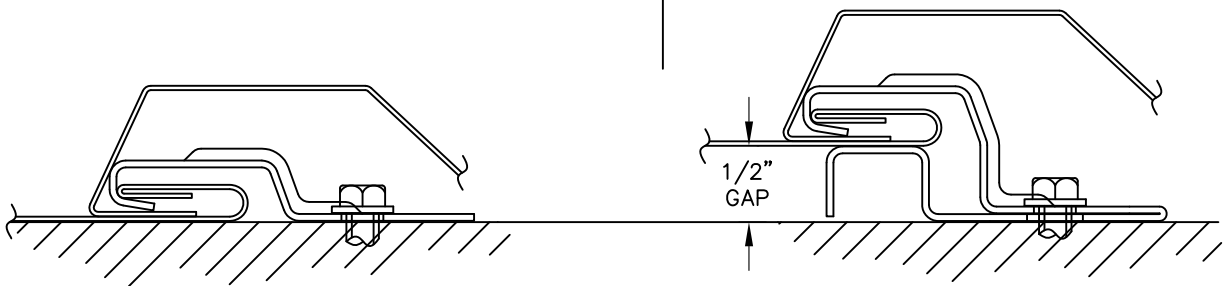


TWH-01



FLUSH CLIP
P/N: #WALLCLP

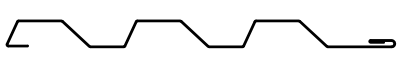
STANDOFF CLIP
P/N: #WALLCLP0.5



INSTALLED POSITION



TW-12
HORIZONTAL INSTALL.

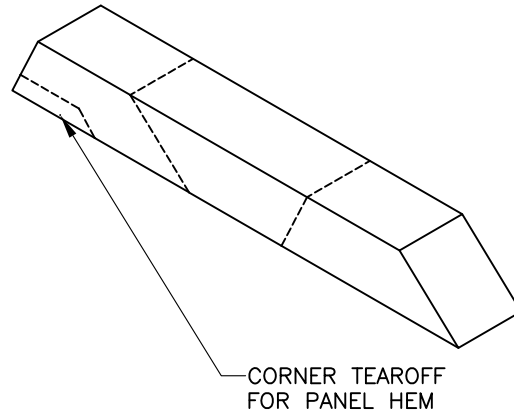


CLIPS



TWH-02

CLTW-12BP

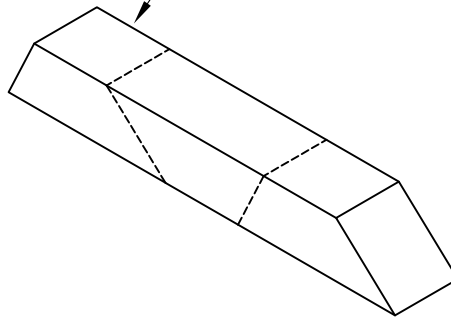


BOTTOM SIDE CLOSURE

CORNER TEAROFF
FOR PANEL HEM

TEAROFF PERFORATED PLUG
SECTIONS TO FILL PANEL
REVEALS AS REQUIRED

CLTW-12TP



TOP SIDE CLOSURE

NOTE: APPLICATIONS UTILIZING STANDOFF CLIP ALSO REQUIRE
UNIVERSAL CLOSURE STRIP (AEP #CLEM1x19.68 OR EQUIV.) TO
SEAL OFF ADDITIONAL 1/2" PANEL-TO-SUBSTRATE GAP.



TW-12
HORIZONTAL INSTALL.

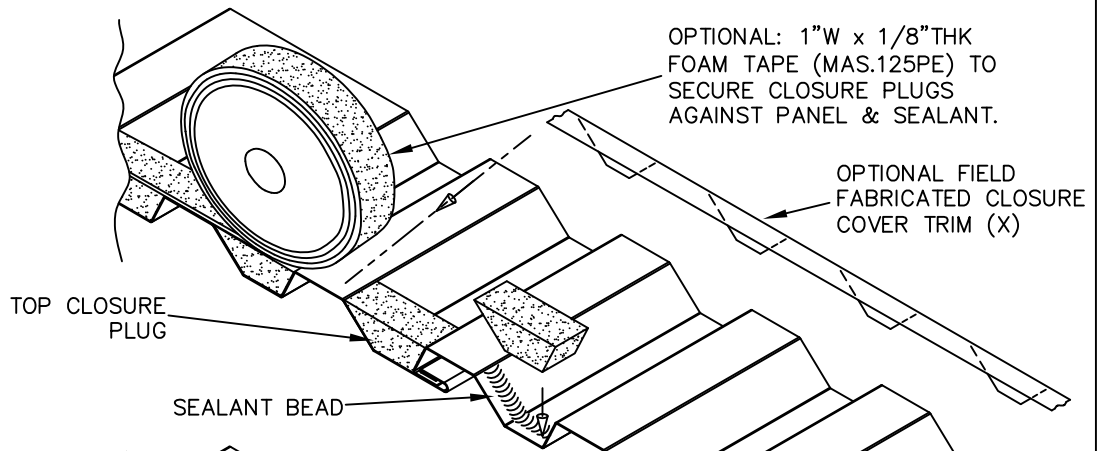


PANEL CLOSURES

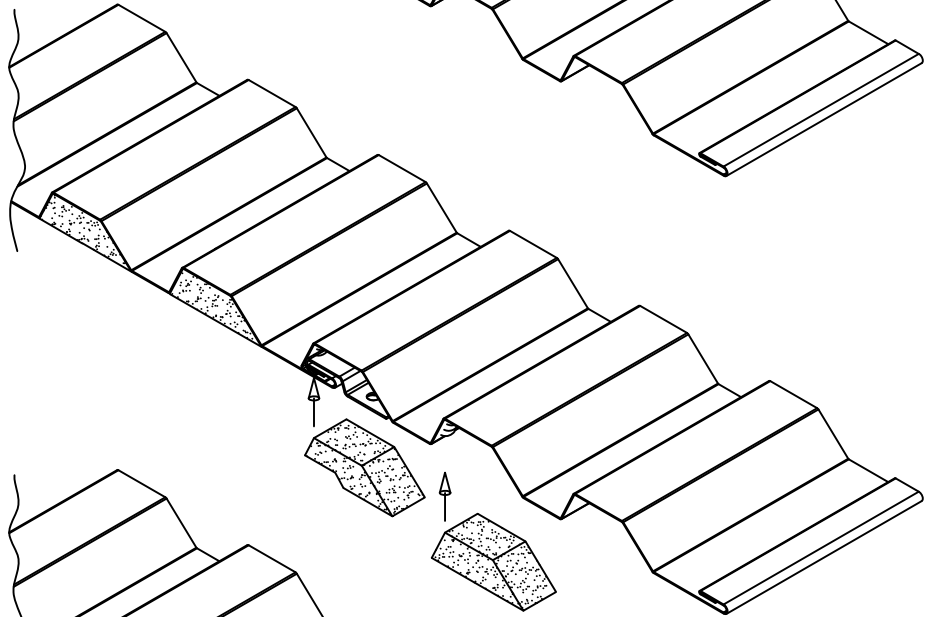


TWH-03

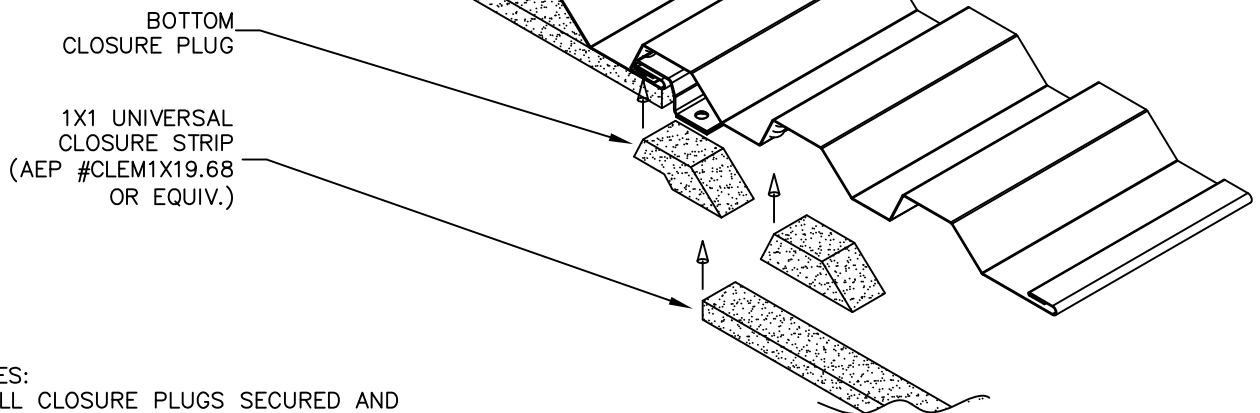
TOP SIDE CLOSURE
INSTALLATION



BOTTOM SIDE CLOSURE
INSTALLATION
(FLUSH MOUNTED PANELS)



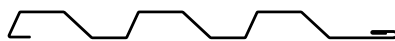
BOTTOM SIDE CLOSURE
INSTALLATION
(PANELS WITH STANDOFF CLIP)



NOTES:
- ALL CLOSURE PLUGS SECURED AND
SEALED WITH POLYURETHANE SEALANT



TW-12
HORIZONTAL INSTALL.



CLOSURE
INSTALLATION

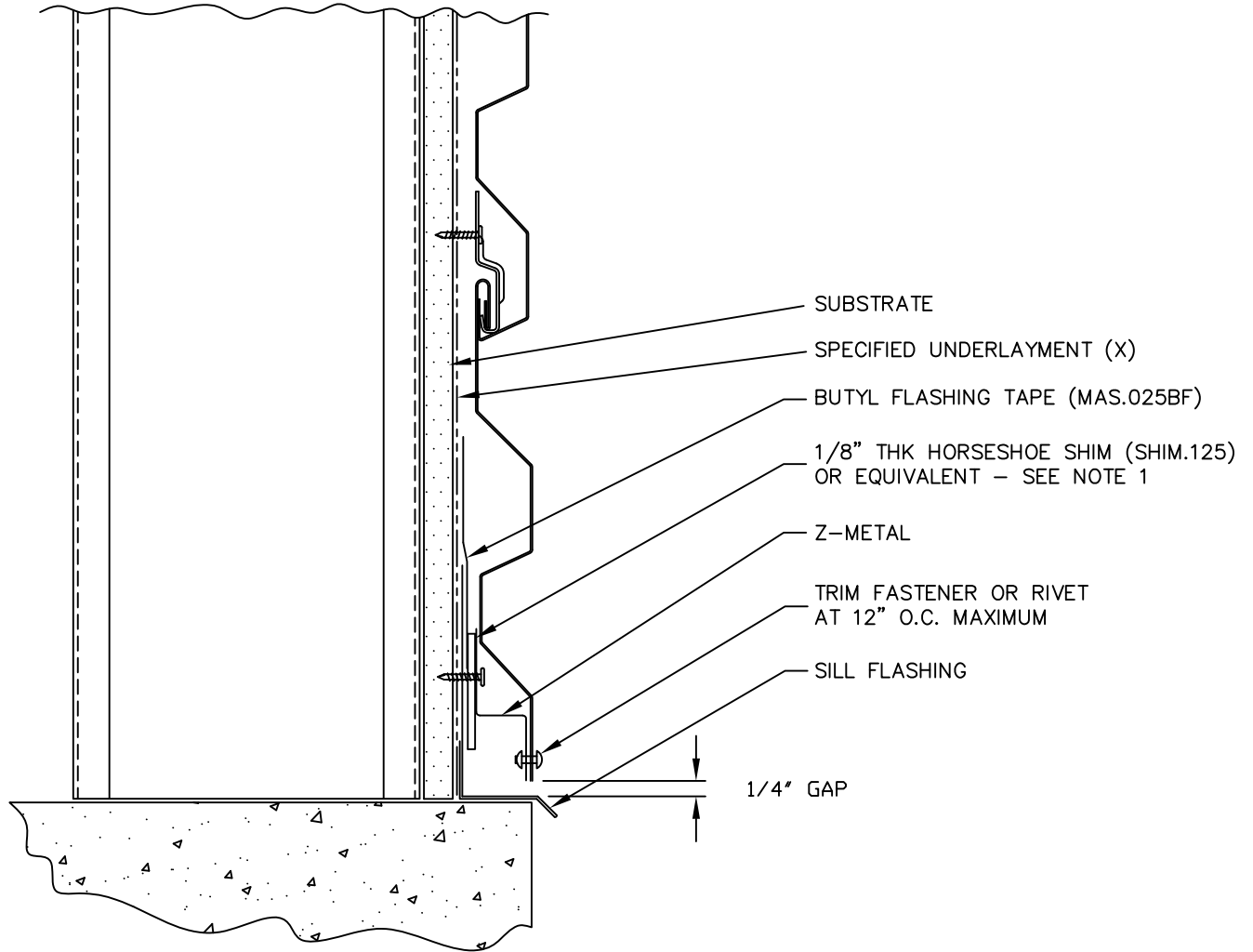


TWH-04

	TRIM	DIM. A	USAGE
1 1/2" A	ZC225	7/8"	FLUSH MOUNT
	ZC228	1 3/8"	W/0.5" STANDOFF

	TRIM	DIM. A	USAGE
4" A	DF026	1 1/4"	FLUSH MOUNT
	DF027	1 3/4"	W/0.5" STANDOFF

1" 1/2" 135°

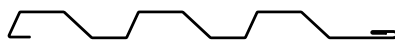


1. SHIM USED FOR MOISTURE CONTROL (DRAINAGE) IN FLUSH MOUNT APPLICATIONS.
(X) - NOT BY AEP SPAN

TW-12 PANELS ARE INSTALLED GROUND TO EAVE.



TW-12
HORIZONTAL INSTALL.

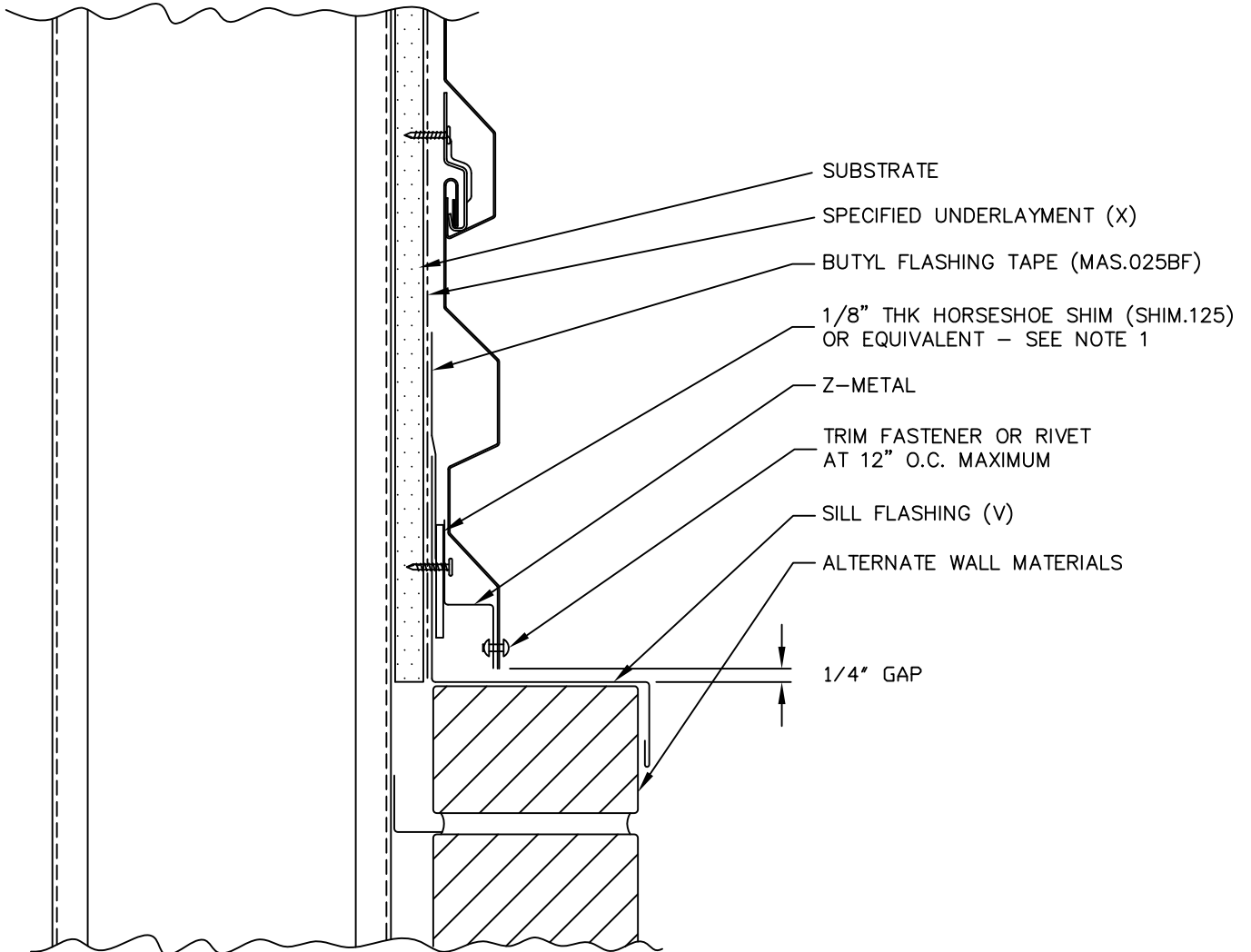


BASE



TWH-05

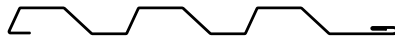
TRIM	DIM. A	USAGE
ZC225	7/8"	FLUSH MOUNT
ZC228	1 3/8"	W/0.5" STANDOFF



1. SHIM USED FOR MOISTURE CONTROL (DRAINAGE) IN FLUSH MOUNT APPLICATIONS.
 (X) - NOT BY AEP SPAN
 (V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS

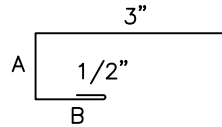


TW-12
 HORIZONTAL INSTALL.

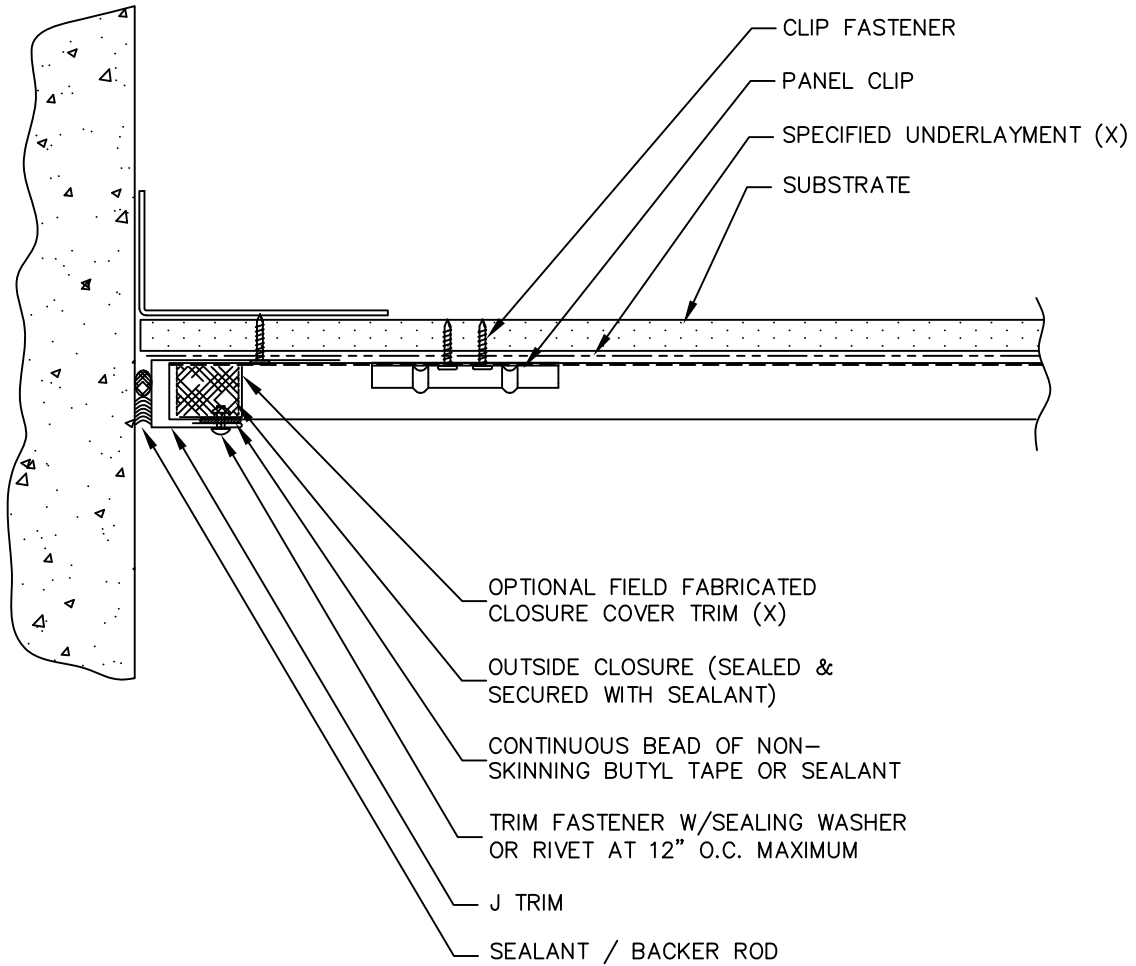


SILL

TWH-06



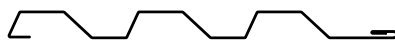
TRIM	DIM A	DIM B	USAGE
JT108	1 1/8"	1 1/8"	FLUSH MOUNT
JT112	1 5/8"	1 1/2"	W/0.5" STANDOFF



(X) - NOT BY AEP SPAN



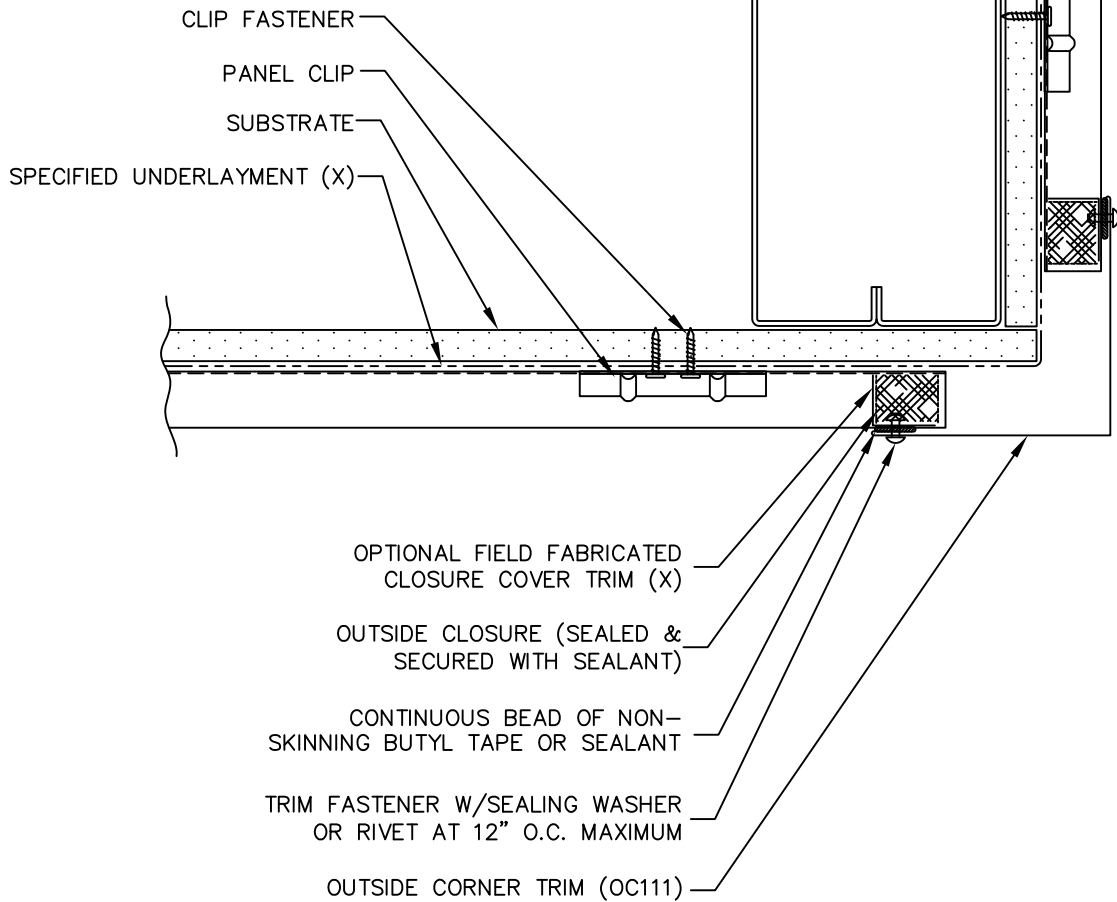
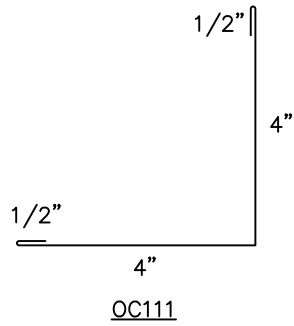
TW-12
HORIZONTAL INSTALL.



END WALL



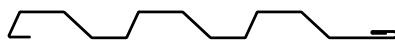
TWH-07



(X) - NOT BY AEP SPAN



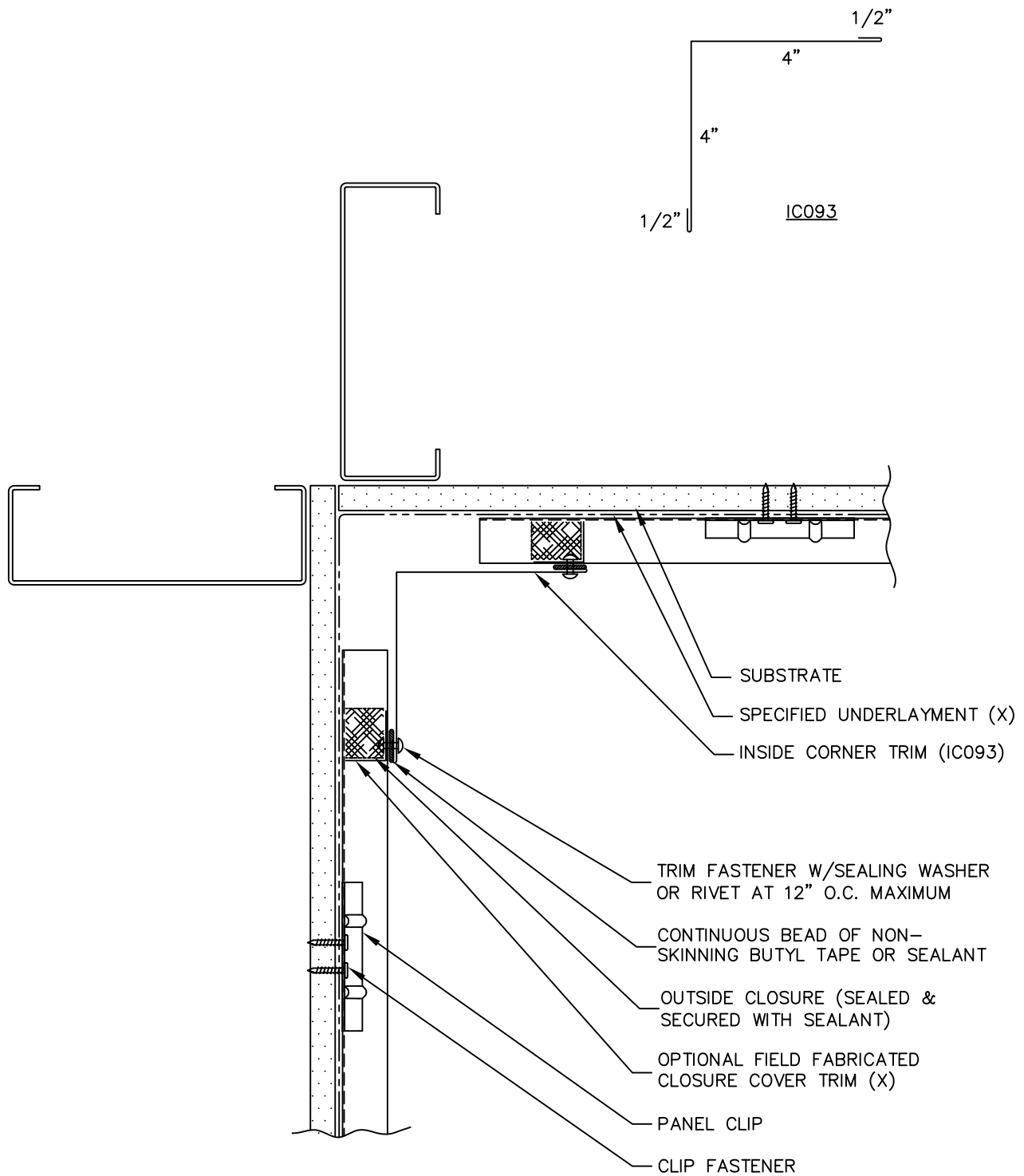
TW-12
HORIZONTAL INSTALL.



OUTSIDE CORNER



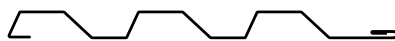
TWH-08



(X) - NOT BY AEP SPAN



TW-12
HORIZONTAL INSTALL.



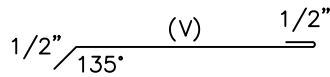
INSIDE CORNER



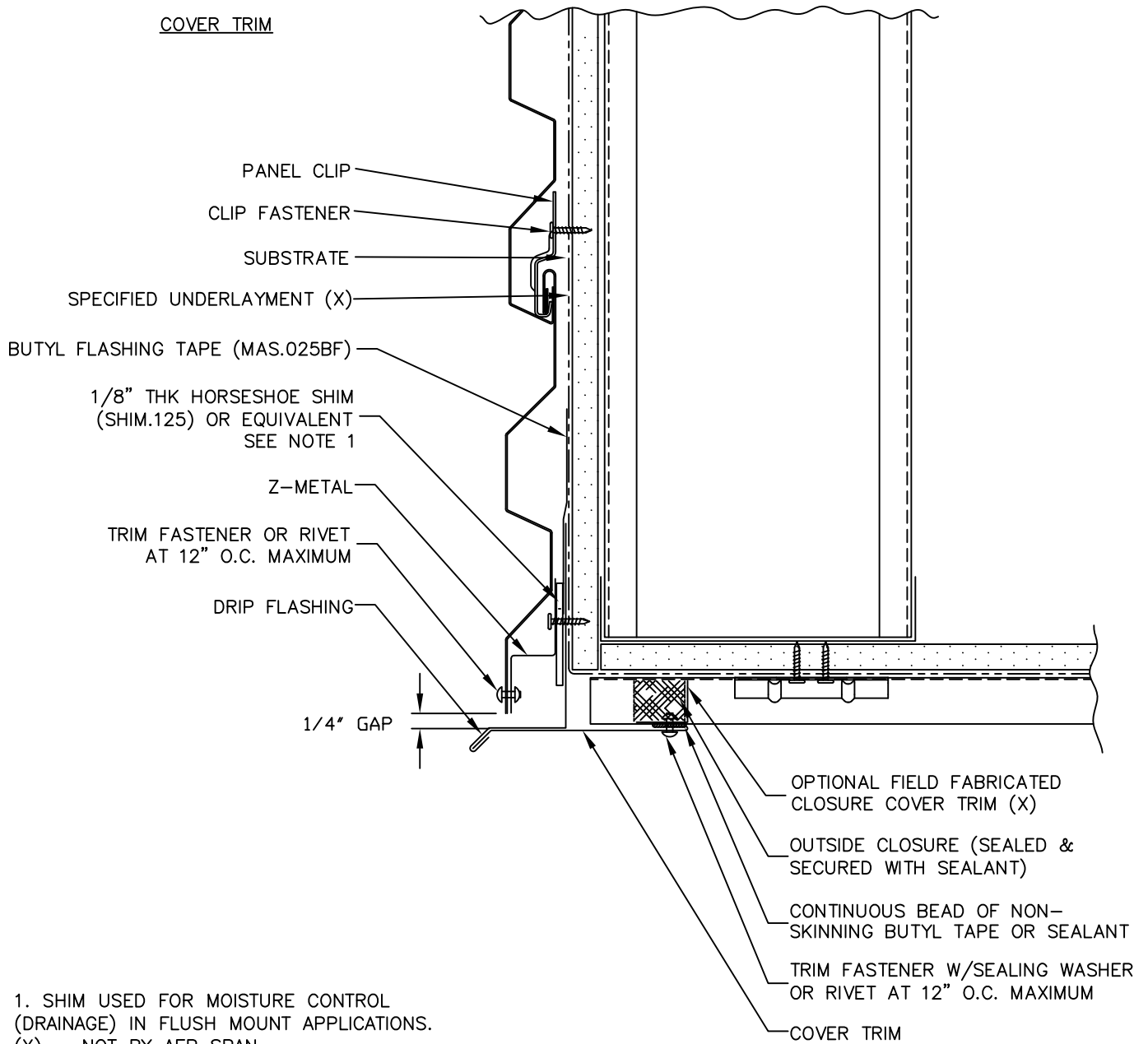
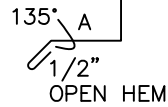
TWH-09

	TRIM	DIM. A	USAGE
1 1/2" A	ZC225	7/8"	FLUSH MOUNT
	ZC228	1 3/8"	W/0.5" STANDOFF

TRIM	DIM. A	USAGE
DF032	1 1/8"	FLUSH MOUNT
DF033	1 5/8"	W/0.5" STANDOFF



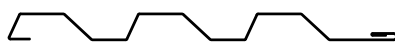
COVER TRIM



1. SHIM USED FOR MOISTURE CONTROL (DRAINAGE) IN FLUSH MOUNT APPLICATIONS.
 (X) - NOT BY AEP SPAN



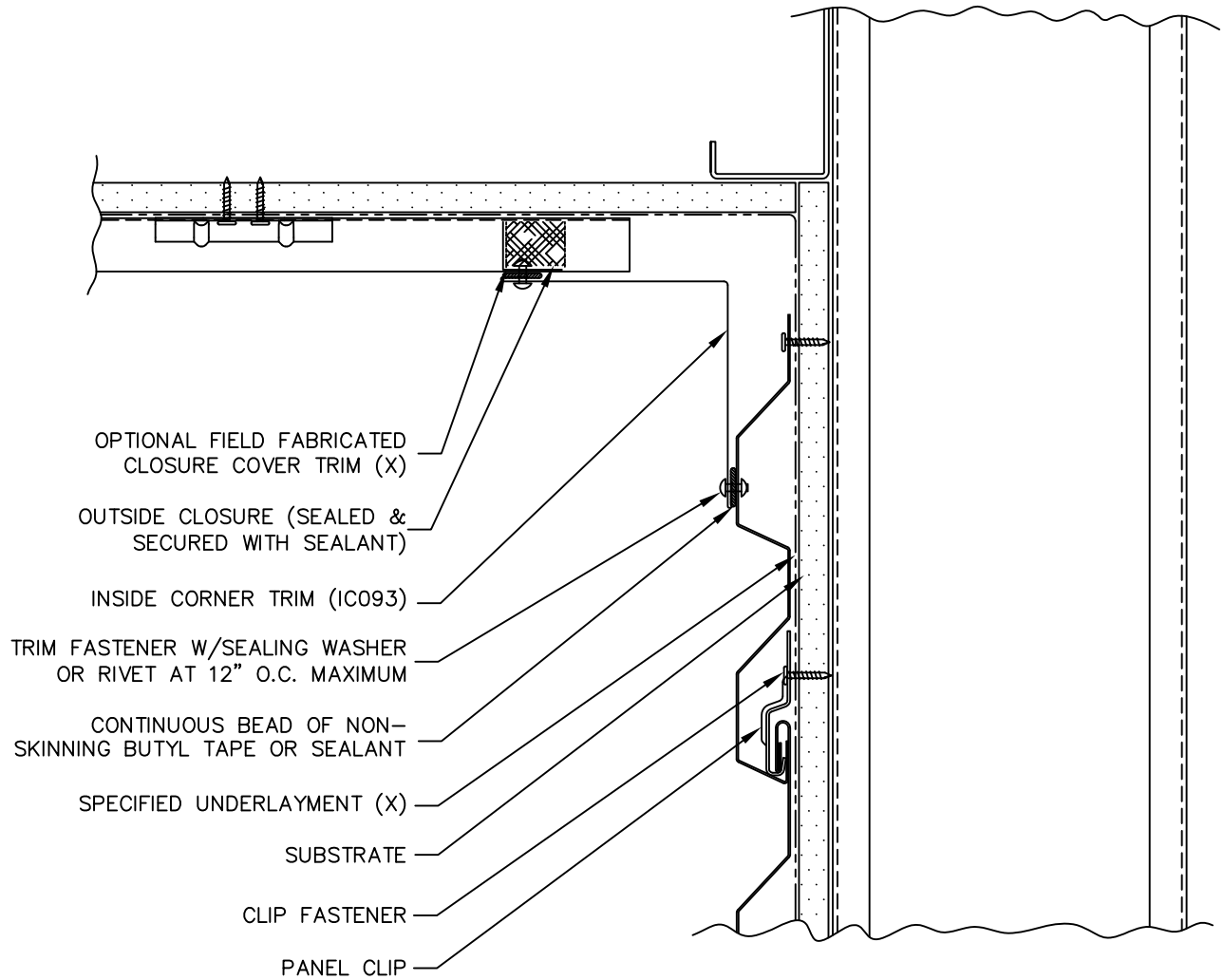
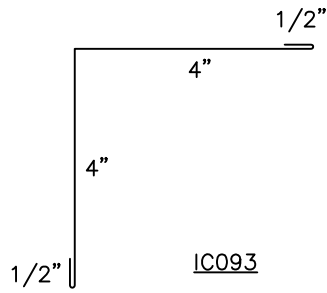
TW-12
 HORIZONTAL INSTALL.



SOFFIT (FRONT)



TWH-10

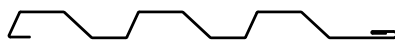


- OPTIONAL FIELD FABRICATED CLOSURE COVER TRIM (X)
- OUTSIDE CLOSURE (SEALED & SECURED WITH SEALANT)
- INSIDE CORNER TRIM (IC093)
- TRIM FASTENER W/SEALING WASHER OR RIVET AT 12" O.C. MAXIMUM
- CONTINUOUS BEAD OF NON-SKINNING BUTYL TAPE OR SEALANT
- SPECIFIED UNDERLAYMENT (X)
- SUBSTRATE
- CLIP FASTENER
- PANEL CLIP

(X) - NOT BY AEP SPAN



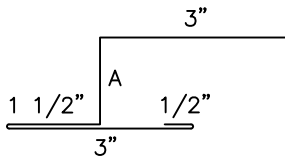
TW-12
HORIZONTAL INSTALL.



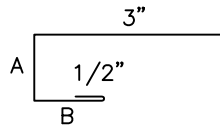
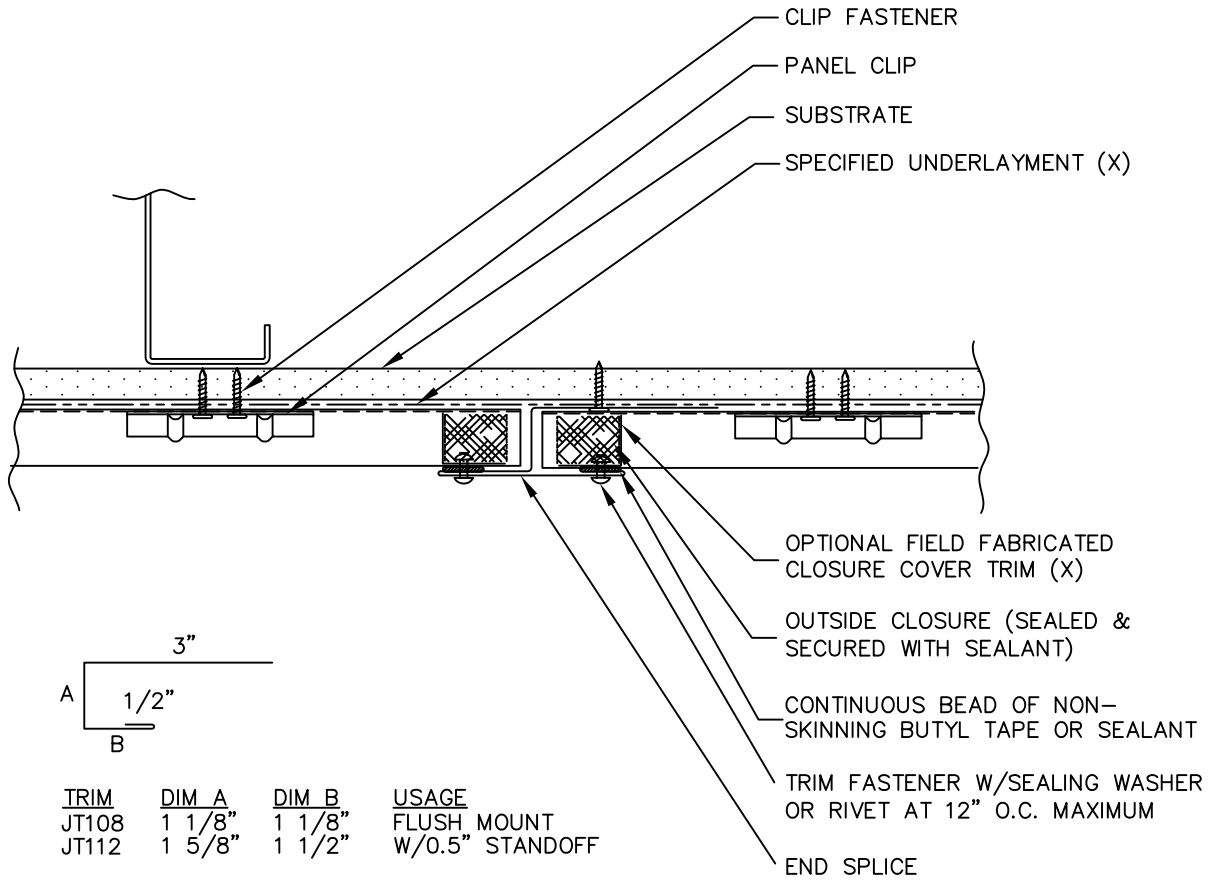
SOFFIT (BACK)



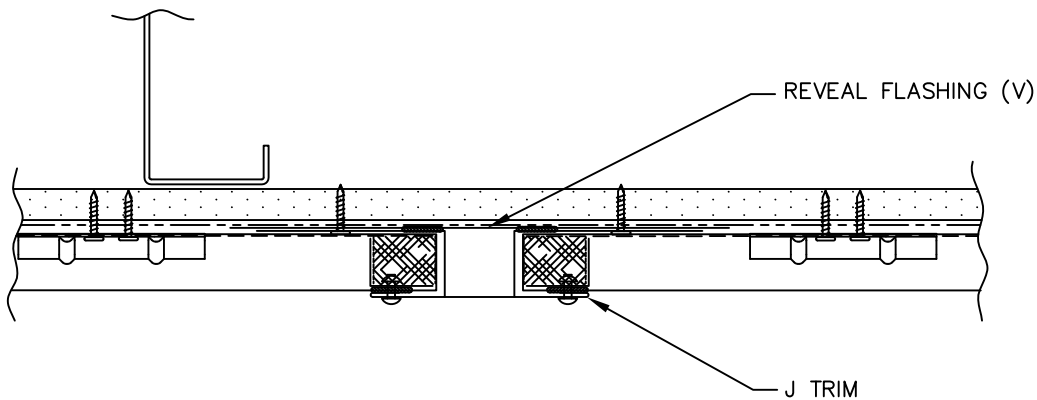
TWH-11



TRIM	DIM A	USAGE
MT110	1 1/8"	FLUSH MOUNT
MT114	1 5/8"	W/0.5" STANDOFF



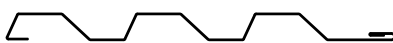
TRIM	DIM A	DIM B	USAGE
JT108	1 1/8"	1 1/8"	FLUSH MOUNT
JT112	1 5/8"	1 1/2"	W/0.5" STANDOFF



(X) - NOT BY AEP SPAN
 (V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS



TW-12
 HORIZONTAL INSTALL.



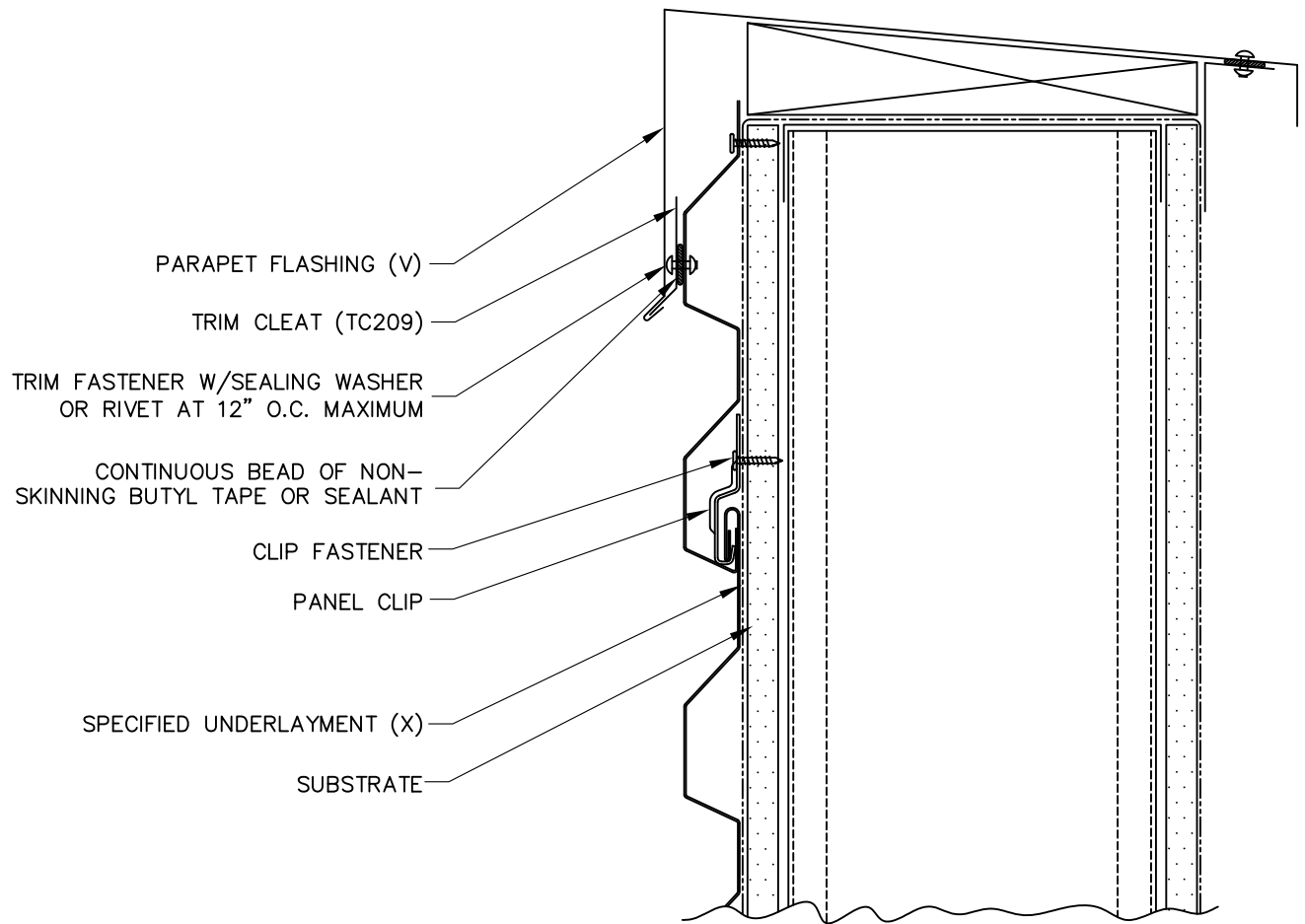
END SPLICE (W/TRIM)



TWH-12

1 1/2"
 135°
 5/8"

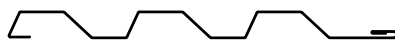
TC209



(X) - NOT BY AEP SPAN
 (V) - DIMENSIONS VARY BASED ON PROJECT CONDITIONS



TW-12
 HORIZONTAL INSTALL.



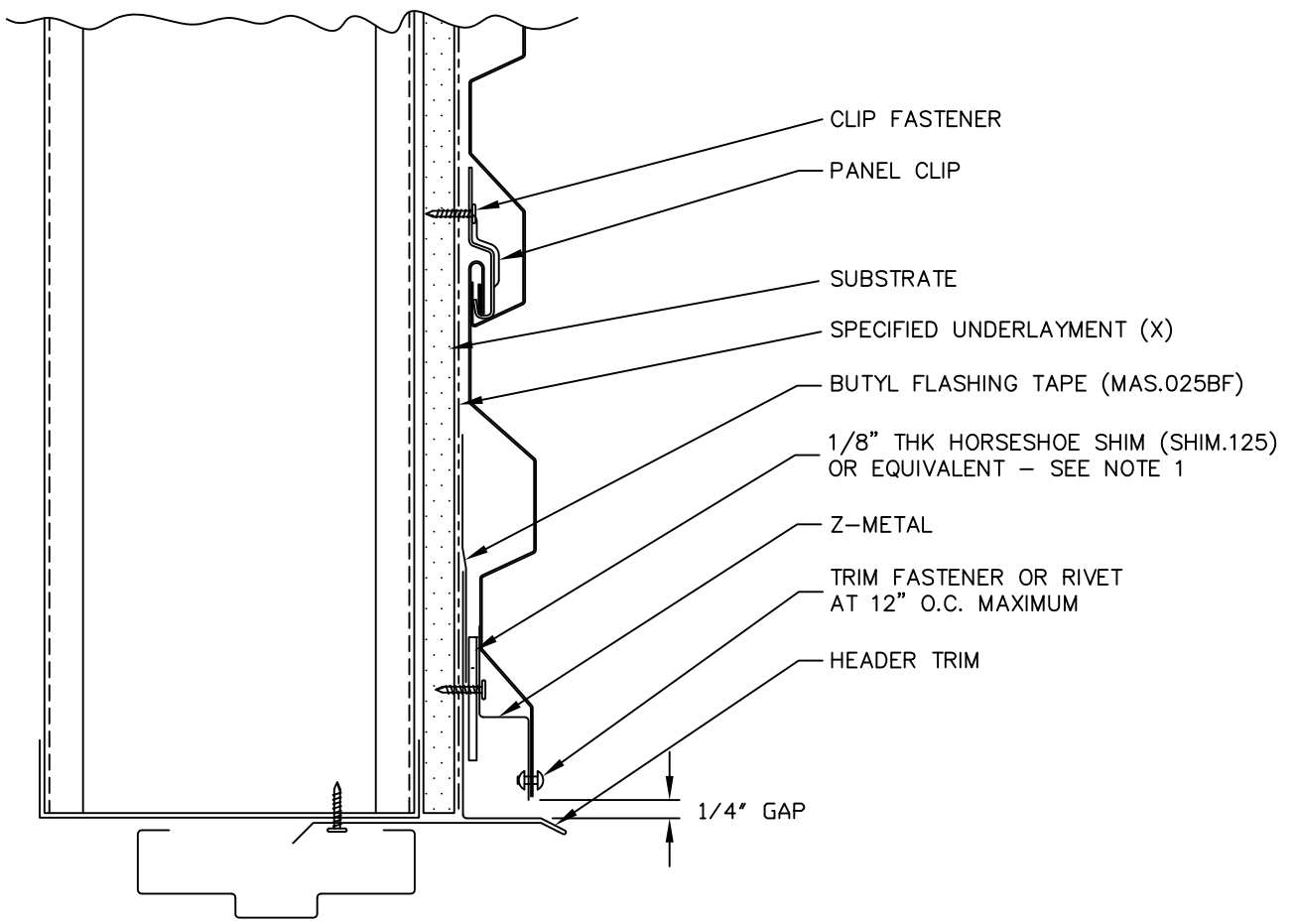
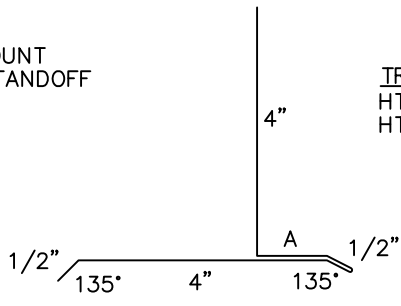
PARAPET



TWH-13

TRIM	DIM_A	USAGE
ZC225	7/8"	FLUSH MOUNT
ZC228	1 3/8"	W/0.5" STANDOFF

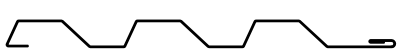
TRIM	DIM_A	USAGE
HT093	1 1/8"	FLUSH MOUNT
HT102	1 5/8"	W/0.5" STANDOFF



1. SHIM USED FOR MOISTURE CONTROL (DRAINAGE) IN FLUSH MOUNT APPLICATIONS.
 (X) – NOT BY AEP SPAN



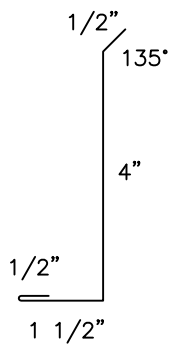
TW-12
 HORIZONTAL INSTALL.



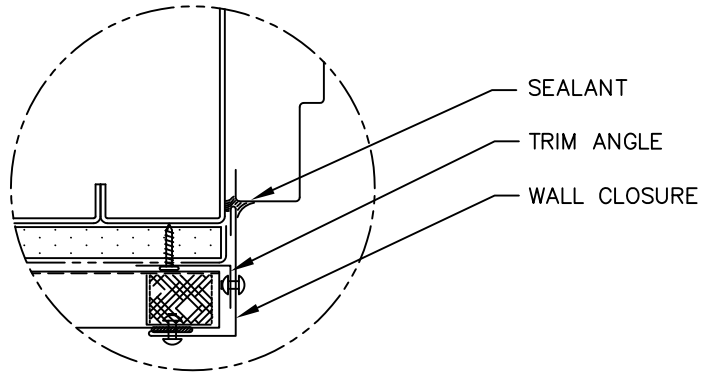
DOOR / WINDOW
 (HEAD)



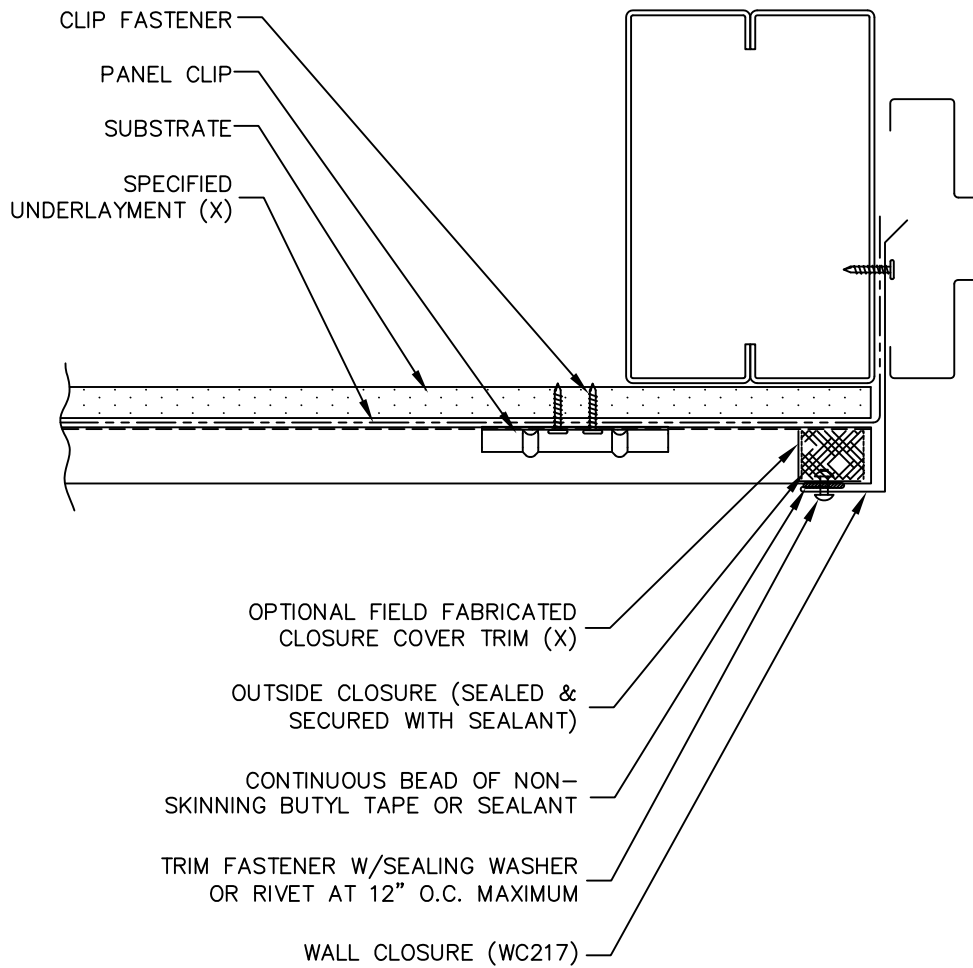
TWH-14



WC217



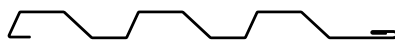
ALTERNATE DETAIL



(X) – NOT BY AEP SPAN



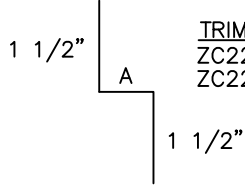
TW-12
HORIZONTAL INSTALL.



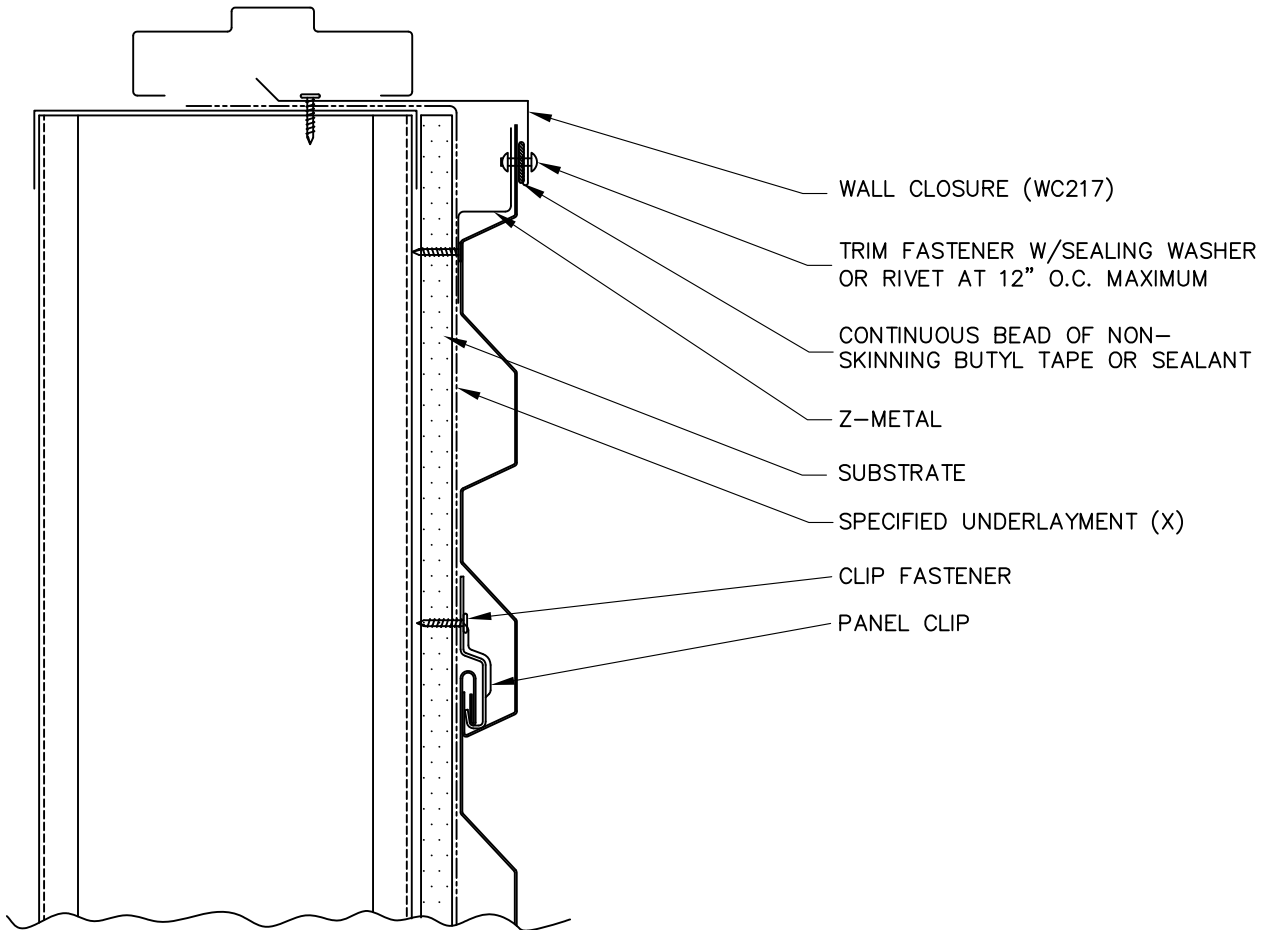
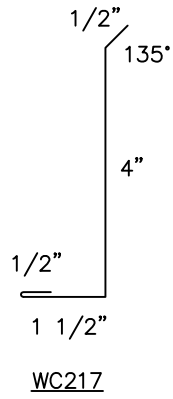
DOOR / WINDOW
(JAMB)



TWH-15



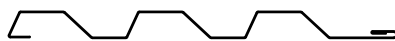
TRIM	DIM. A	USAGE
ZC225	7/8"	FLUSH MOUNT
ZC228	1 3/8"	W/0.5" STANDOFF



(X) - NOT BY AEP SPAN



TW-12
HORIZONTAL INSTALL.



DOOR / WINDOW
(SILL)



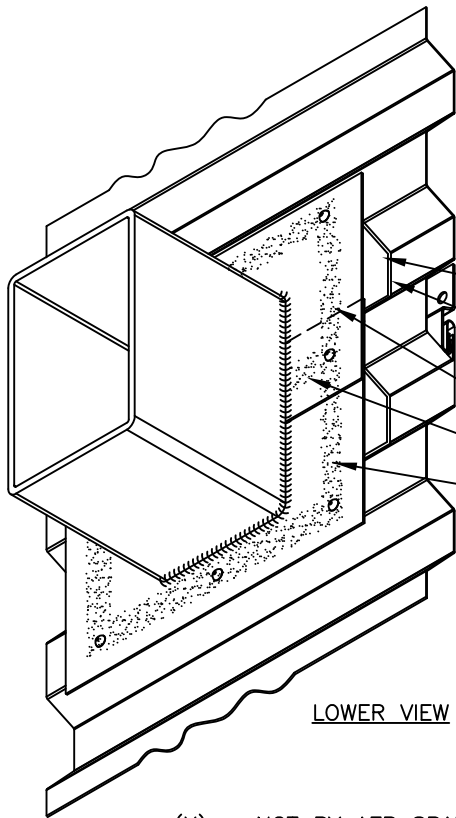
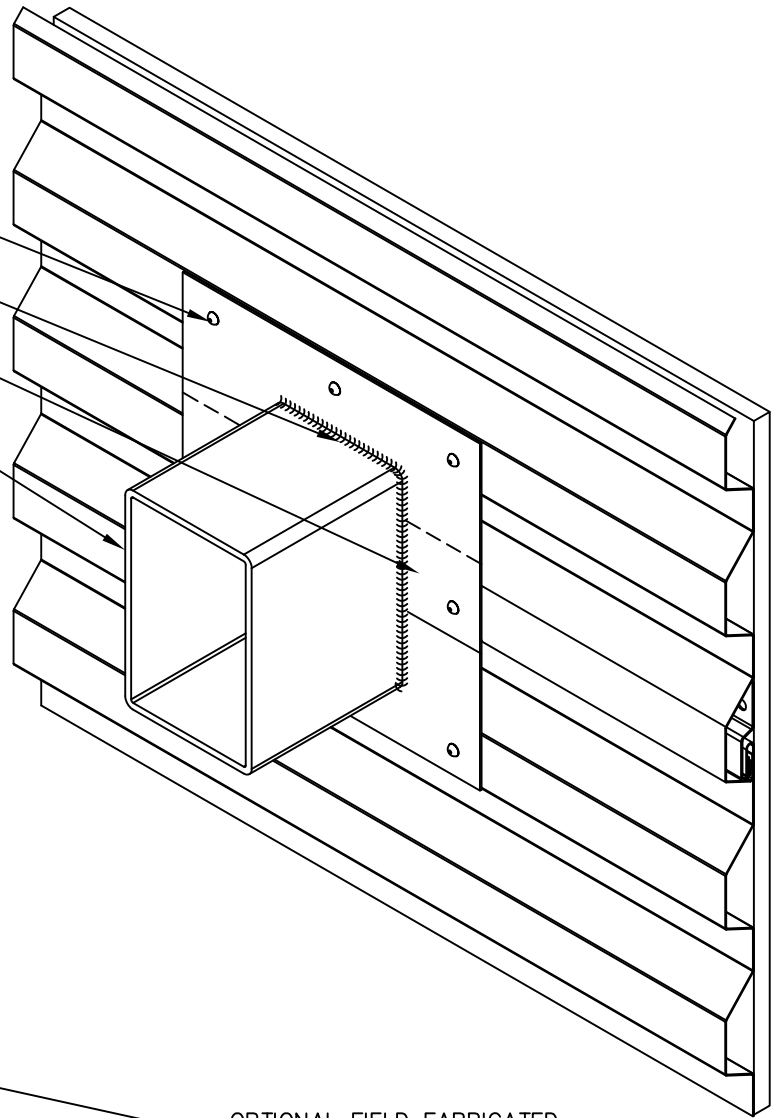
TWH-16

TRIM FASTENER W/SEALING
WASHER, OR RIVET

SEALANT

OVERLAP UPPER/LOWER
FLASHINGS

WALL PENETRATION



LOWER VIEW

OPTIONAL FIELD FABRICATED
CLOSURE COVER TRIM (X)

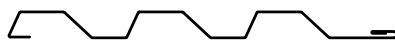
OUTSIDE CLOSURE (SEALED &
SECURED WITH SEALANT)

SEAL PERIMETER OF FLASHINGS AND
ALL TRIM OVERLAPS WITH A
CONTINUOUS BEAD OF NON-
SKINNING BUTYL TAPE OR SEALANT

(X) - NOT BY AEP SPAN



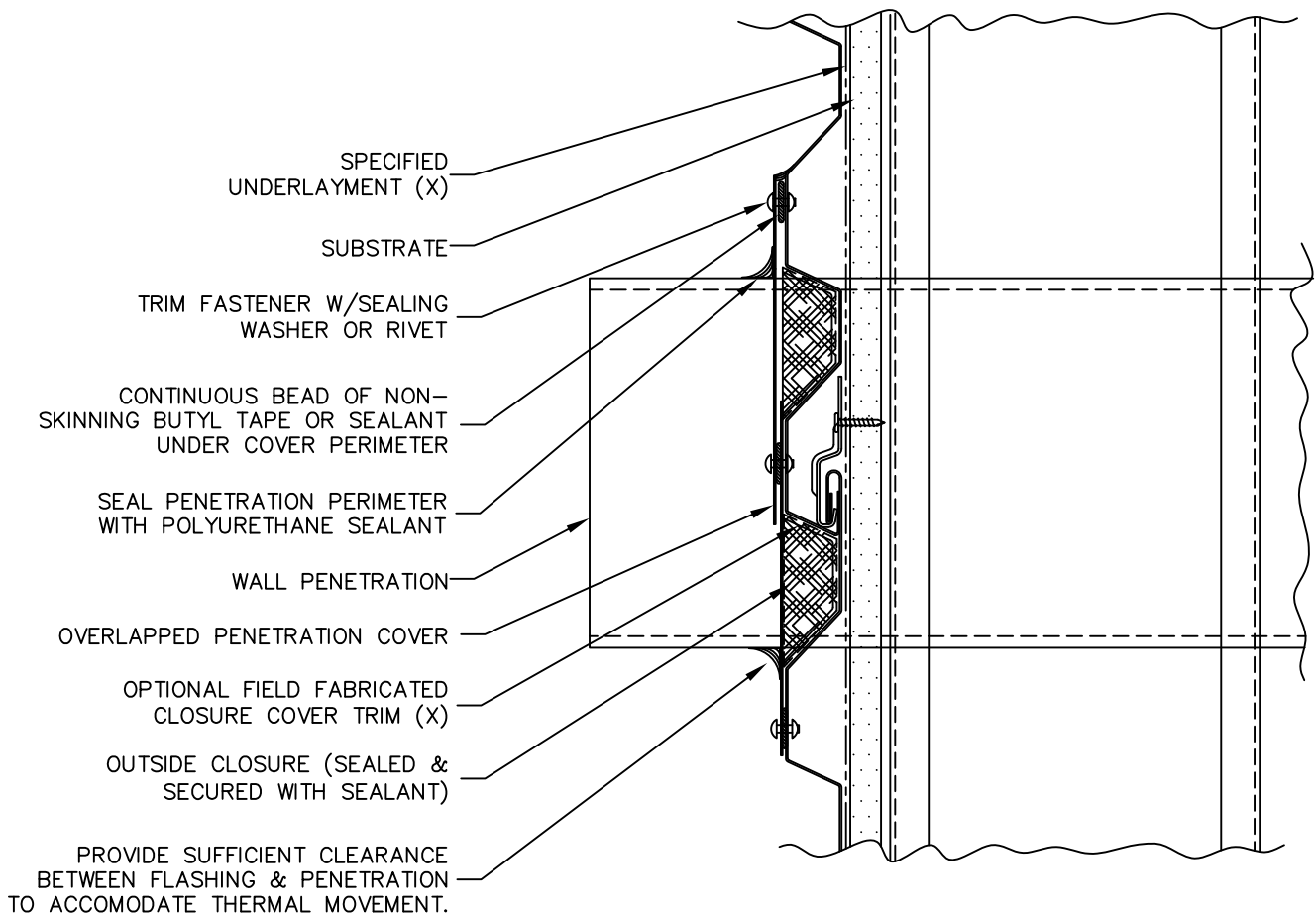
TW-12
HORIZONTAL INSTALL.



WALL PENETRATION (3D)



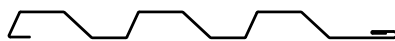
TWH-17



(X) – NOT BY AEP SPAN



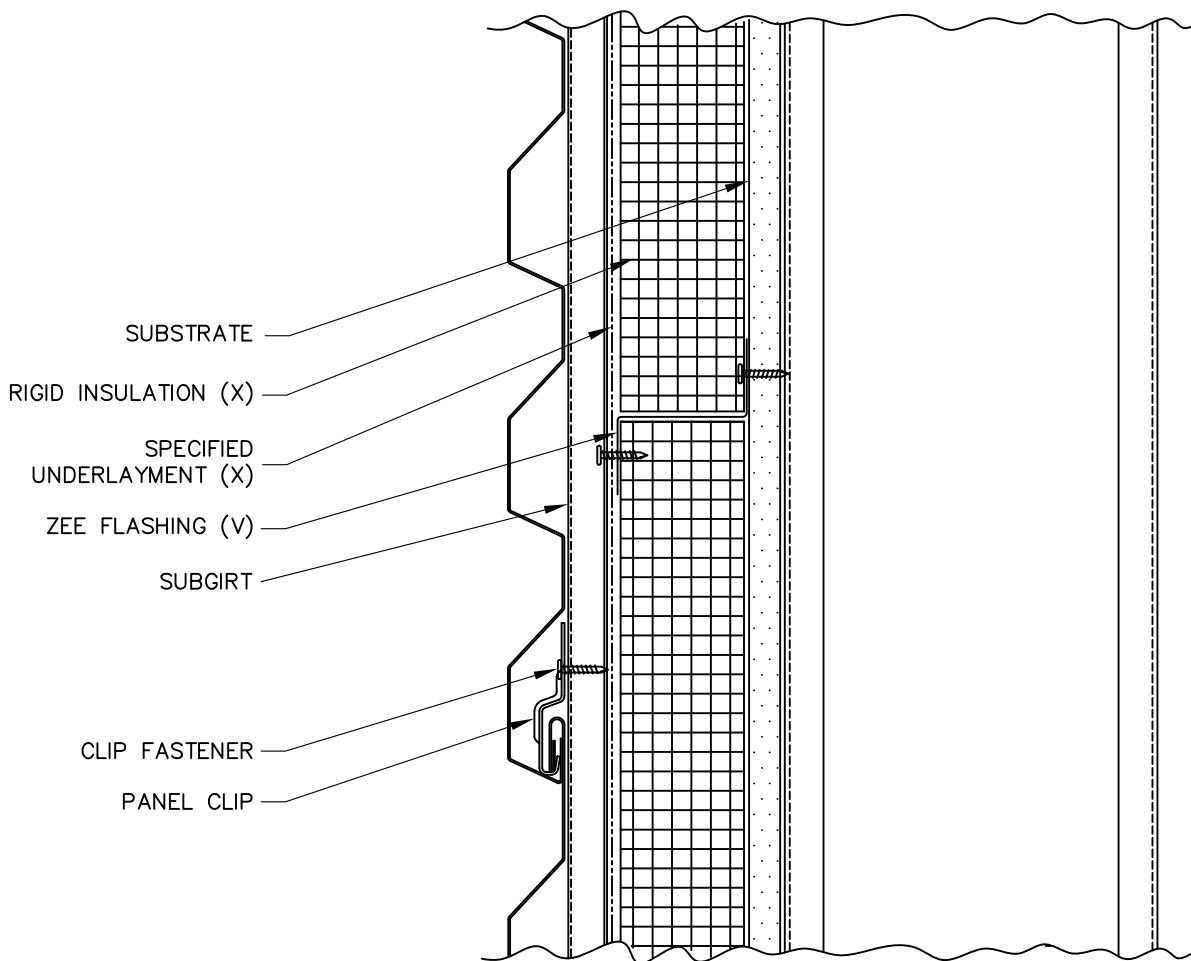
TW-12
HORIZONTAL INSTALL.



WALL PENETRATION



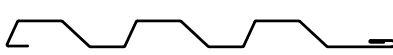
TWH-18



(X) - NOT BY AEP SPAN
 (V) - DIMENSIONS AND GAGE VARY BASED ON PROJECT CONDITIONS



TW-12
 HORIZONTAL INSTALL.



RIGID INSULATION



TWH-19

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