APPENDIX

COMPREHENSIVE ON-SITE WEATHER DAMAGE INSPECTION AUDIT INCLUDING ON-SITE PRESENTATION CONFERENCE REPORT ON

AIDEA-FEDEX HANGAR
ANCHORAGE, ALASKA
ANCHORAGE INTERNATIONAL AIRPORT

PREPARED FOR

AMERICAN BUILDINGS COMPANY
EUFAULA, AL
JOB NO. 51-9290
AUGUST 21, 1995

BY
BENNETT & ASSOCIATES SVC. CORP.
1495 HEMBREE RD., SUITE 1400
ROSWELL, GA 30076

(770) 664-5310

STRAND HUNT CONSTRUCTION

August 21, 1995

SENT VIA FACSIMILE

Tommy Heinrich, AIDEA
Nelson Franklin, Franklin & Associates
Henry Balkcom, American Buildings Company
Dick Robertson, Morrison Knudsen
Brian Yandell, Seattle Construction Services
Dan Davidson, Steel Engineering & Erection
Chuck Szopa, Parker Smith & Feek
Jim Loftus, Loftus Engineering
Forrest Braum, ABKJ

Karl Reiche, Locher Interests
Bill Ballard, Ballard & Associates
C. W. Bennett, Bennett & Associates
Lynnwood Kesler, Bennett & Associates
Tony Perley, Northern Adjustors
Kevin Wyckoff, Northern Adjustors
Kay Thorne, Parker Smith and Feek
Mike Gordon, Gordon & Associates
Bob Reupke, Professional Adjustors

RE: Aircraft Line Maintenance Hanger, Federal Express
AIDEA Project No. 92-021
SHC Project No. 92-031

Subj: ABC Standing Seam II Roof Inspection
August 14, 1995 @ 10:00 AM

Gentlemen:

Attached, please find a typed list and attendees sign-in sheet for the above referenced inspection.

Very truly yours,

STRAND HUNT CONSTRUCTION, INC.

Karen M. Middleton
Office Manager

cc: Rollie E. Hunt
Thomas W. Presnell

AIDEA-2 423

12015 115TH AVENUE N.E., SUITE 220, KIRKLAND, WASHINGTON 98034-6925 (206) 823-1954 FAX (206) 823-8635
2441 CINNABAR LOOP ROAD, SUITE 200, ANCHORAGE, ALASKA 99507-3139 (907) 522-1954 FAX (907) 522-2170

STRAND HUNT CONSTRUCTION, INC.

Aircraft Line Maintenance Hangar - Federal Express
AIDEA Project No. 92-031
SHC Project No. 92-031

Roof Damage Inspection

August 14, 1995 @ 10:00 AM

Attendees

NAME	COMPANY	PHONE	REPRESENTING
Tommy Heinrich	AIDEA	561-8050	AIDEA
Karl Reiche	Locher Interests	258-2200	AIDEA
Nelson Franklin	Franklin & Associates	277-1631	Albany Insurance
Bill Ballard	Ballard & Associates	206-575-0323	Albany Insurance
Henry Balkcom	American Bldgs Company	334-687-2000 Ext. 355	American Bldgs. Co.
C. W. Bennett	Bennett & Associates	404-664-5310	American Bldgs. Co.
Lynnwood Kesler	Bennett & Associates	404-664-5310	American Bldgs. Co.
Dick Robertson	Morrison Knudsen	206-386-5607	Gerling America
Brian Yandell	Seattle Construction	206-236-3016	Seattle Construction
Tony Perley	Northern Adjustors	338-7484	St. Paul Insurance
Kevin Wyckoff	Northern Adjustors	376-8550	St. Paul Insurance
Dan Davidson	Steel Engineering	349-7857	Steel Engineering
Chuck Szopa	Parker Smith & Feek	562-2225	Steel Engineering
Kay Thome	Parker Smith & Feek	206-382-7900	Strand Hunt
Thomas Presnell	Strand Hunt	522-1954	Strand Hunt
Jack Dupler	Strand Hunt	522-1954	Strand Hunt
Jim Loftus	Loftus Engineering Assoc.	456-7680	TIG Insurance
Mike Gordon	Gordon & Associates	349-7344	TIG Insurance
Forrest Braum	ABKJ	274-3660	Wausau
Bob Reupke	Professional Adjustors	562-3333	Wausau

- Commitments Exchanged
- Journal Entry
- Thoughts & Ideas
- Agendas (telephone, meetings)
- Conversations

AUGUST 1995

DAILY RECORD OF EVENTS

1 MON
228th Day 13[illegible]
We[illegible]

RE: [illegible] ROOF INSPECTION

	NAME	COMPANY	PHONE
	TOM PRESNELL	SHC	5[illegible]
AIDEA	Tommy [illegible]	AIDEA	561-[illegible]
WAUSAU	[illegible]	Professional Adjusters	562-3333
ST. PAUL	[illegible]	[illegible]	337-[illegible]
ST. PAUL	KEVIN [illegible]	Northern Adjusters	274-[illegible]
ALL. [illegible]	[illegible]	[illegible] Smith & Frank	(206) 332-7900
GEAKLING	DICK ROBERTSON	MORRISON KNUDSEN, REPRESENTING GEARLING AMERICA	(208) 386-5607
ALBANY	[illegible]	[illegible]	[illegible]
ALBANY	NELSON [illegible]	[illegible] & Assoc.	277-1631
SEEI	CHUCK [illegible]	PARKER, SMITH & FEEK	907-562-2225
WAUSAU	FORREST [illegible]	A.H.K.J. INC	274-3660
AIDEA	Karl Reiche	Locher Interests	258-2200
SEEI	[illegible]	SEEI	[illegible]
TIG	Mike Gordon	Gordon & Associates	349-7344
SCS	[illegible]	[illegible] Consulting	(206) 236-3016
TIG	JIM LOFTUS	LOFTUS ENGINEERING ASSO. INC.	456-2686
ABC	HENRY [illegible]	AMERICAN BUILDINGS CO.	334-687-2000 EX 3[illegible]
ABC	C.W. BENNETT	BENNETT & ASSOCIATES	606-[illegible]-5310
ABC	[illegible] KESLER	"	" " "

Post-it® Fax Note 7671 | Date 8-7-95 | pages 2
To Henry Balkcom | From

STRAND HUNT CONSTRUCTION

August 4, 1995

Tommy Heinrich
Alaska Industrial Development & Export Authority

Bob Power
Seattle Construction Services

Henry Balkcom
American Buildings Company

J. Kay Thorne
Parker Smith & Feek

Kari Reiche
Locher Interests Ltd.

Dan Davidson
Steel Engineering and Erection

Rick Beal
Stanislaw Ashbaugh

Bill Ballard
Ballard and Associates

RE: Aircraft Line Maintenance Hanger, Federal Express
AIDEA Project No. 92-021
SHC Project No. 92-031

Subj: ABC Standing Seam II Roof Scheduled Inspection "Re Inspection"

Gentlemen:

This letter is to confirm that on Monday, August 14, 1995, at 10:00 a.m., a roof inspection will be conducted at the Federal Express building located at 5800 Lockheed Road in Anchorage, Alaska. The purpose of this inspection is to establish that the American Buildings Company (ABC) Standing Seam II roof is warrantable as required by the Contract Documents, or to quantify possible physical damage.

Access to the roof is via an access ladder approximately 100' high. Tennis shoes or other non-slip footwear should be worn.

To ensure that the appropriate number of fall protection equipment can be provided, Strand Hunt Construction, Inc. will require confirmation of those attending this inspection. Therefore, please notify our office within the next 48 hours to confirm your attendance.

Very truly yours,

STRAND HUNT CONSTRUCTION, INC.

Thomas W. Presnell
Executive VP/Alaska Branch Manager

TWP:kmm

cc: Rollie E. Hunt

12015 115TH AVENUE N.E., SUITE 220, KIRKLAND, WASHINGTON 98034-6925 (206) 823-1954 FAX (206) 823-8635
2441 CINNABAR LOOP ROAD, SUITE 200, ANCHORAGE, ALASKA 99507-3139 (907) 522-1954 FAX (907) 522-2170

Bennett & Associates Service Corporation
roof consultants

AIDEA-FEDEX HANGAR
BASCO #SP0003-95

RECAP OF TALLY

COLOR PANEL	QTY.	14% CONTG'Y PLUS SKIPS		QTY./SUB. PANEL TOTALS	SUB. L.F.OF COIL STOCK
SSL 28'-11.5"	13	10		23	667
SSL 39'-2.75"	27	12		39	1531
SSL 41'-7"	30	14		44	1848
SSL 38'-2"	13	4		17	650
SSP 17"-3.75"	19	2		21	365
SSP 24'-2"	20	2		22	531
SSR 28-11.5"	40	6		46	1335
SSR 39'-2.75"	31	9		40	1570
SSR 41'-7"	111	16		127	5335
SSR 38'-2"	52	8		60	2290
SSP 41'-7"	---	17		17	715
1.) TOTALS	356	100	=	456	16,837'

2.) TOTAL SQ. FT. OF ROOF COVERAGE
EQUALS (2' TIMES L.F.).....33,674 SQ.FT.

3.) TOTAL COIL STOCK QUANTITY REQUIRED.....
NOTE: TOTAL L.F. DIVIDED BY COIL L.F. THIS ITEM TO BE FILLED IN BY ABC

COLOR-AIDEA

Atlanta Corporate Headquarters
Suite 1400 ■ 1495 Hembree Road ■ Roswell, GA 30076 ■ 770-664-5310 ■ 1-800-527-OARS ■ Fax 770-664-9607

Bemmett & Associates Service Corporation
roof consultants

AIDEA-FEDEX HANGAR
BASCO #SP0003-95

TALLY SHEET
FOR
ORANGE, RED AND GREEN COLOR CODING OF DAMAGED ROOF PANELS
FROM
ROOF SS PANEL LAYOUT DRAWINGS

DRAWING E-38 **8/24/95**

EAST SLOPE-PANEL RUNS AND LAYOUT (LEFT)				L.F. COIL STOCK
1. #1 Sheets S & L (SSL) LEFT		40	TOTAL QTY.	
EAVE (S) Short 28 Ft.	11.5 inch	13	QTY. -	377
(L) Long 39 Ft.	2.75 inch	27	QTY. -	1060
. #2 Sheets S & L (SSL) LEFT		16	TOTAL QTY.	
(S) Short 41 Ft.	7 inch	7	QTY. -	291
(L) Long 41 Ft.	7 inch	9	QTY. -	375
3. #3 Sheets S & L (SSL) LEFT		27	TOTAL QTY.	
(S) Short 38 Ft.	2 inch	13	QTY. -	496
(L) Long 41 Ft.	7 inch	14	QTY. -	583
4. #4 Sheets S & L (SSP)		21	TOTAL QTY.	
RIDGE (S) Short 17 Ft.	3.75 inch	11	QTY. -	191
(L) Long 24 Ft.	2 inch	10	QTY. -	242
QUANTITY TOTALS:		**104**		**3615 L.F.**

NOTE: PROJECT ERECTOR TO MAKE FINAL ADJUSTMENTS AND DESIGNATE THE (R) = RIGHT AND (L) = LEFT PANELS.

COLOR-AIDEA

Atlanta Corporate Headquarters
Suite 1400 ■ 1495 Hembree Road ■ Roswell, GA 30076 ■ 770-664-5310 ■ 1-800-527-OARS ■ Fax 770-664-9607

Bennett & Associates Service Corporation
roof consultants

AIDEA-FEDEX HANGAR
BASCO #SP0003-95

TALLY SHEET
FOR
ORANGE, RED AND GREEN COLOR CODING OF DAMAGED ROOF PANELS
FROM
ROOF SS PANEL LAYOUT DRAWINGS

DRAWING E-39 **8/24/95**

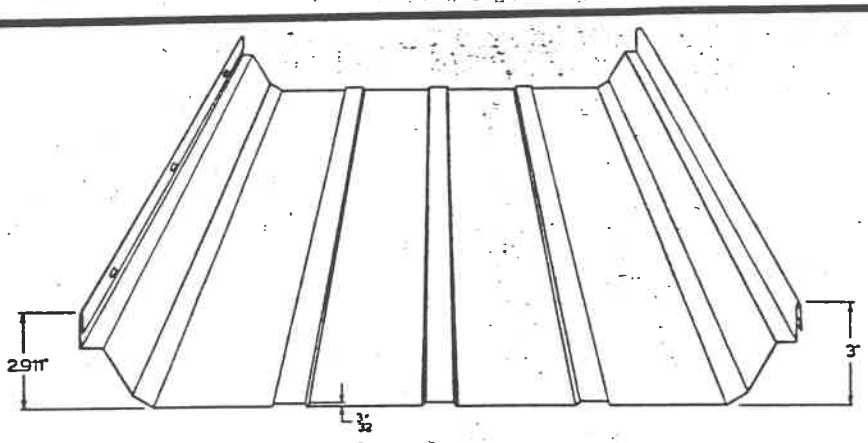
WEST SLOPE-PANEL RUNS AND LAYOUT (RIGHTS)

					L.F. COIL STOCK
1.	#1 Sheets S & L (SSR) RIGHT		71	TOTAL QTY.	
EAVE	(S) Short 28 Ft.	11.5 inch	40	QTY. -	1160
	(L) Long 39 Ft.	2.75 inch	31	QTY. -	1217
2.	#2 Sheets S & L (SSR) RIGHT		60	TOTAL QTY.	
	(S) Short 41 Ft.	7 inch	30	QTY. -	1248
	(L) Long 41 Ft.	7 inch	30	QTY. -	1248
3.	#3 Sheets S & L (SSR) RIGHT		103	TOTAL QTY.	
	(S) Short 38 Ft.	2 inch	52	QTY. -	1985
	(L) Long 41 Ft.	7 inch	51	QTY. -	2121
4.	#4 Sheets S & L (SSP)		18	TOTAL QTY.	
RIDGE	(S) Short 17 Ft.	3.75 inch	8	QTY. -	139
	(L) Long 24 Ft.	2 inch	10	QTY. -	242
	QUANTITY TOTALS:		**252**		**9360 L.F.**

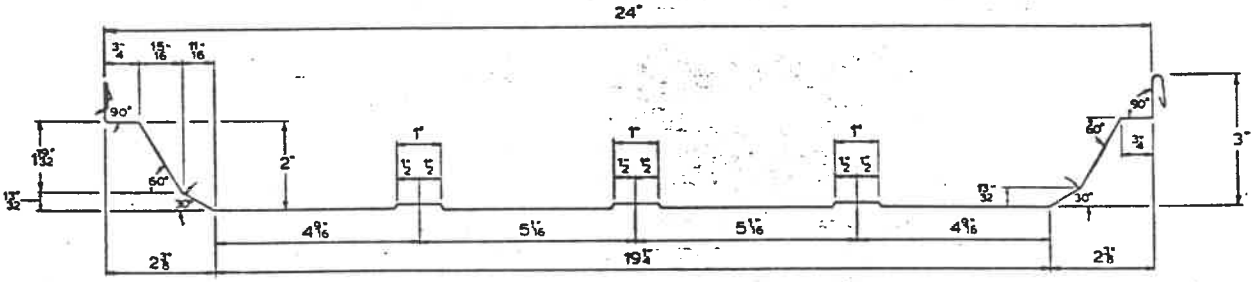
NOTE: PROJECT ERECTOR TO MAKE FINAL ADJUSTMENTS AND DESIGNATE THE (R) = RIGHT AND (L) = LEFT PANELS.

COLOR-AIDEA

Atlanta Corporate Headquarters
Suite 1400 ■ 1495 Hembree Road ■ Roswell, GA 30076 ■ 770-664-5310 ■ 1-800-527-OARS ■ Fax 770-664-9607



PANEL PROFILE



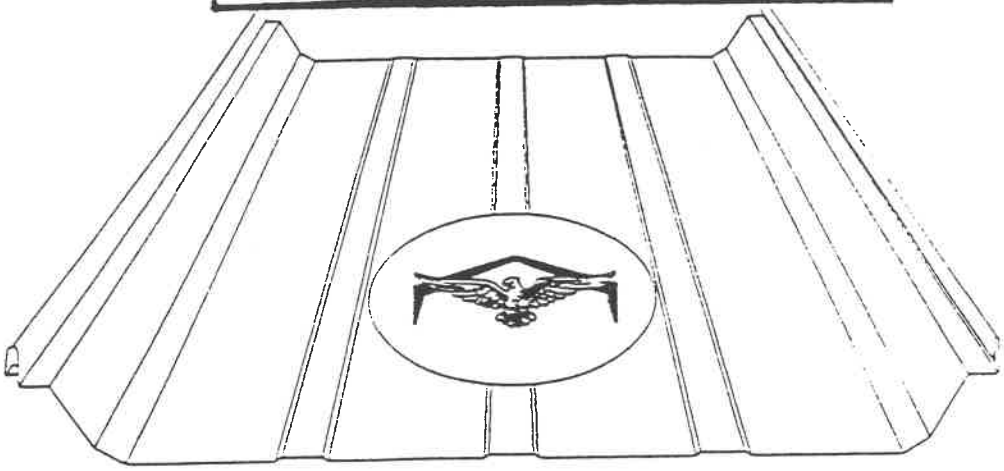
CROSS SECTION

ENGINEERING PROPERTIES OF AMERICAN'S STANDING SEAM PANEL								
	Metal Thk In.	Total Thk In.	Weight Sq.Ft	Top In Compression		Bottom in Compression		Fb ksi
				Ix. In4/ft	Sx. In3/ft	Ix. In4/ft	Sx. In3/ft	
24 Gage	0.024	0.0254	1.42	0.207	0.081	0.091	0.082	30

1. Section properties have been calculated in accordance with the 1986 AISI specifications.
2. Minimum Yield Strength of Steel is 50,000 psi.
3. Panels are Galvanized or Aluminized Steel. The corresponding reduced thickness,shown as " Metal Thickness " was used in determining section properties.

	Number of Spans	Maximum Total live Load in psf.				
		L=3'-0"	L=3'-4"	L=4'-0	L=4'-6"	L=5'-0"
Steel	1	180	146	101	80	65
	2	182	148	103	81	66
	3	228	185	128	101	82
	4	212	172	119	94	76

4. For loads shown,deflections are less than L/150
5. For wind loads the tabulated values can be multiplied by 1.33



STANDING SEAM II ROOF SYSTEM ERECTION MANUAL

AMERICAN BUILDINGS COMPANY
EUFAULA, ALABAMA

with suggested safety precautions

PREFACE

American Buildings Company provides our customers with the best quality roof possible through the highest standard of design and fabrication in the industry. However, these roofs must be properly erected if they are to perform to their designed potential. The erection is particularly critical to overall building performance as well as lasting owner satisfaction.

This manual has been prepared to help guide the erection of an American Standing Seam Roof. It is a summary of the best techniques in use throughout our builder organization and they are recommended by American as good and proper erection practice. Although other procedures and methods can be used, American believes those set forth in this manual will result in the best quality product with more efficiency, lower cost and greatest safety to the workman.

The most critical erection procedures which should be followed without deviation are as follows.

1. All safety precautions referred to throughout this manual, all OSHA safety requirements, or any other appropriate safety requirements, customary or statutory, must be adhered to, to insure maximum workman safety.

2. The alignment of the purlins must be controlled in both the horizontal and vertical directions, with methods such as the wood blocking techniques explained in this manual, to insure that the purlin flanges are straight and in the exact plane of the slope of the roof.

3. The Standing Seam clips must be installed with the correct fasteners and they must be properly seated on the male rib so not to interfere with the engagement of the two seams.

4. The 2' coverage of the panels must be held exactly to insure panel flatness and aid in snapping the seam together.

5. Straightness of panel runs across an endlap must be maintained. Failure to do so could result in faulty closures at the endlaps, eave and ridge.

6. Caulking and closure details are designed to give maximum protection against the elements. These requirements must be strictly adhered to.

7. Use of proper tools is essential. Several special purpose tools have been developed and are described in this manual. The Standing Seam II Roof System must be seamed with the standing seam seaming machine, otherwise the weather tightness warranty shall be void.

8. Absolutely all buttons of the seam must be properly snapped in place.

The builder and/or erector is expected to be thoroughly familiar with the contents of this manual. If the erection crew is not experienced in the proper techniques of the erection of American's Standing Seam Roof, technical assistance is available. American must charge for this service. Contact our Customer Service Department at 205/687-2032 for current rates.

Deviations from the instructions outlined in this manual may void any and all warranties associated with the roofing product.

Deviations from these instructions will void any claims or backcharges should a problem arise.

GENERAL NOTES

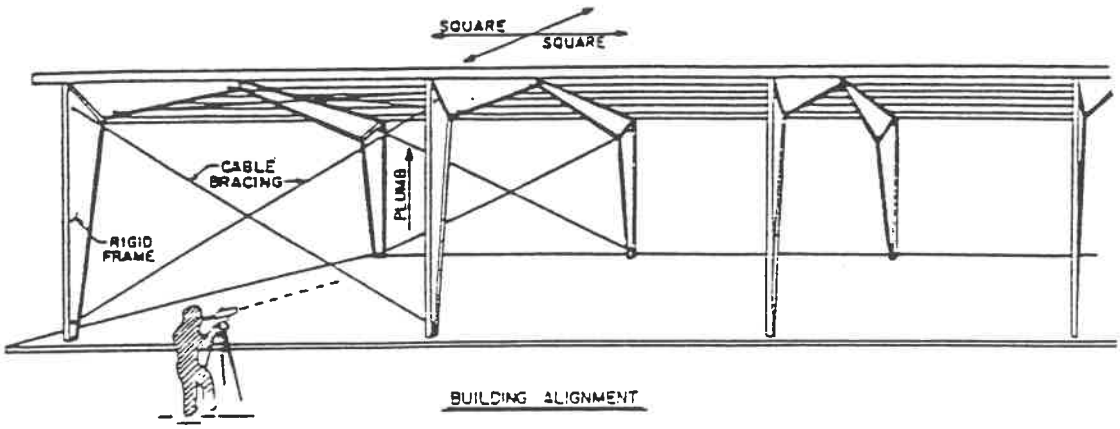
1.) All endlaps and all areas requiring field applied mastic on the Standing Seam panels, should be wiped clean with a mild detergent cleaner, before mastic application. This will improve the sealing surface and the weather tightness of the joint.

2.) The blanket insulation manufacturer recommends that double-sided tape be used to secure insulation to the eave. American Buildings Company is not responsible for the installation or attachment of the insulation.

3.) For eave and rake flashing options and mark numbers, see page 44. For flashing and clip dimensions, see the Appendix.

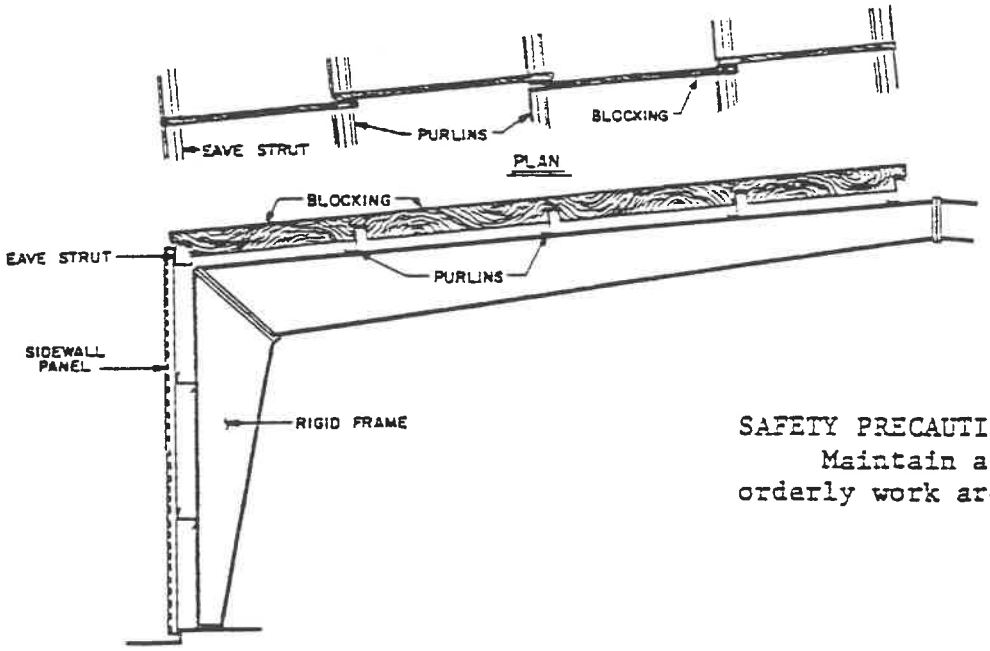
4.) Do not use the dimples in the end of the panels to locate fasteners at the eave. Dimples are for the fasteners at the panel endlaps only.

5.) The clip depicted in any drawing in this manual is intended to represent any of the clips shown on page 10. Refer to the Building Tally for the particular clip applicable to this job.



BUILDING ALIGNMENT

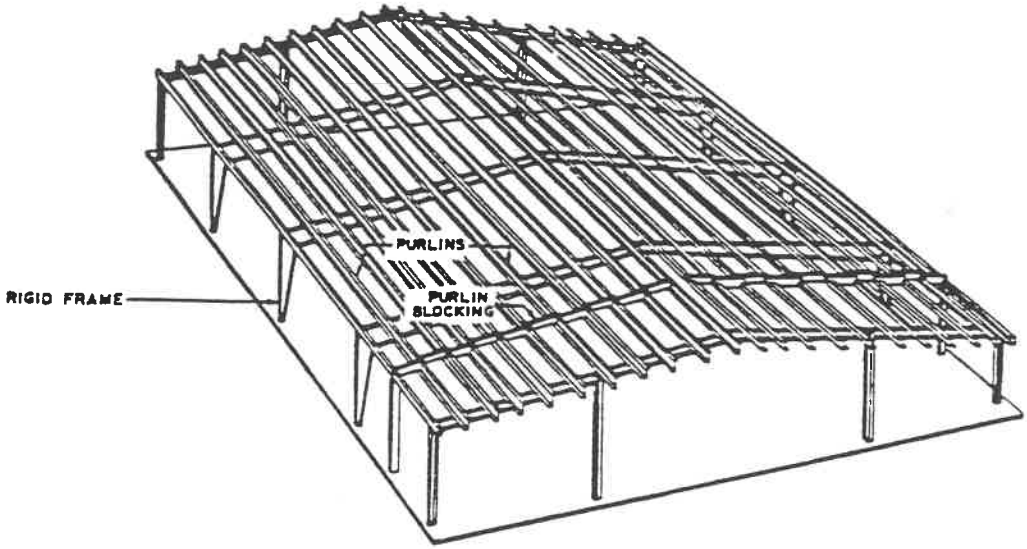
The first step in the successful installation of the Standing Seam II Roof is to have the primary framing plumb and square. For best results, it is recommended that a transit be used when erecting the structural steel.



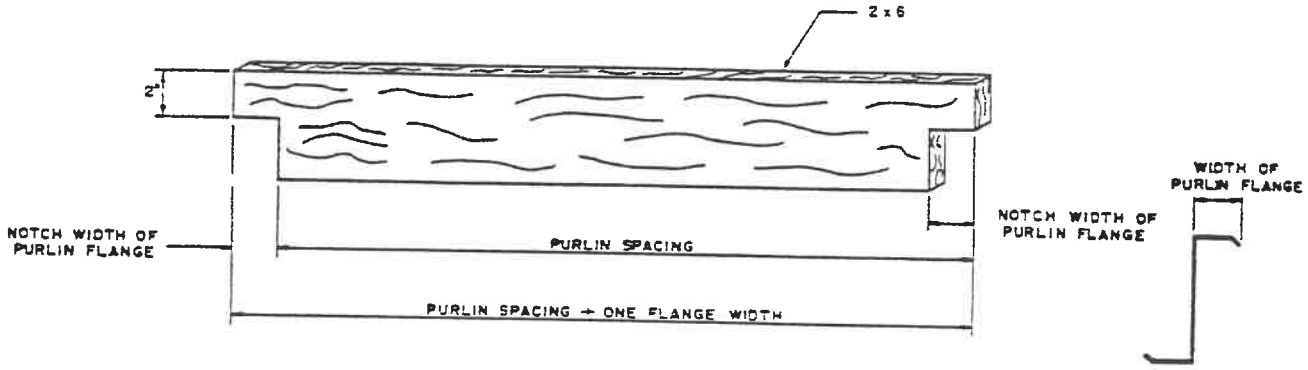
SAFETY PRECAUTION

Maintain a clean and orderly work area.

Straight purlins are also a necessity. Zee sections have a natural tendency to roll out of plane and deflect horizontally. This must be corrected by forcing the purlins into proper plane and spacing. Wood blocking is recommended as one method to accomplish this.



Before sheeting begins in any bay, place blocking in that bay across the full width of the building. At least one row in the center of the bay should always be used. Use additional rows of blocking if needed to maintain straight purlins. Allowing the purlin to rotate or sweep out of plane could prevent the Standing Seam panel from properly engaging the clip and has the effect of lowering the load bearing capacity of these rolled purlins leading to potential purlin failure under maximum design loads.



SAFETY PRECAUTION

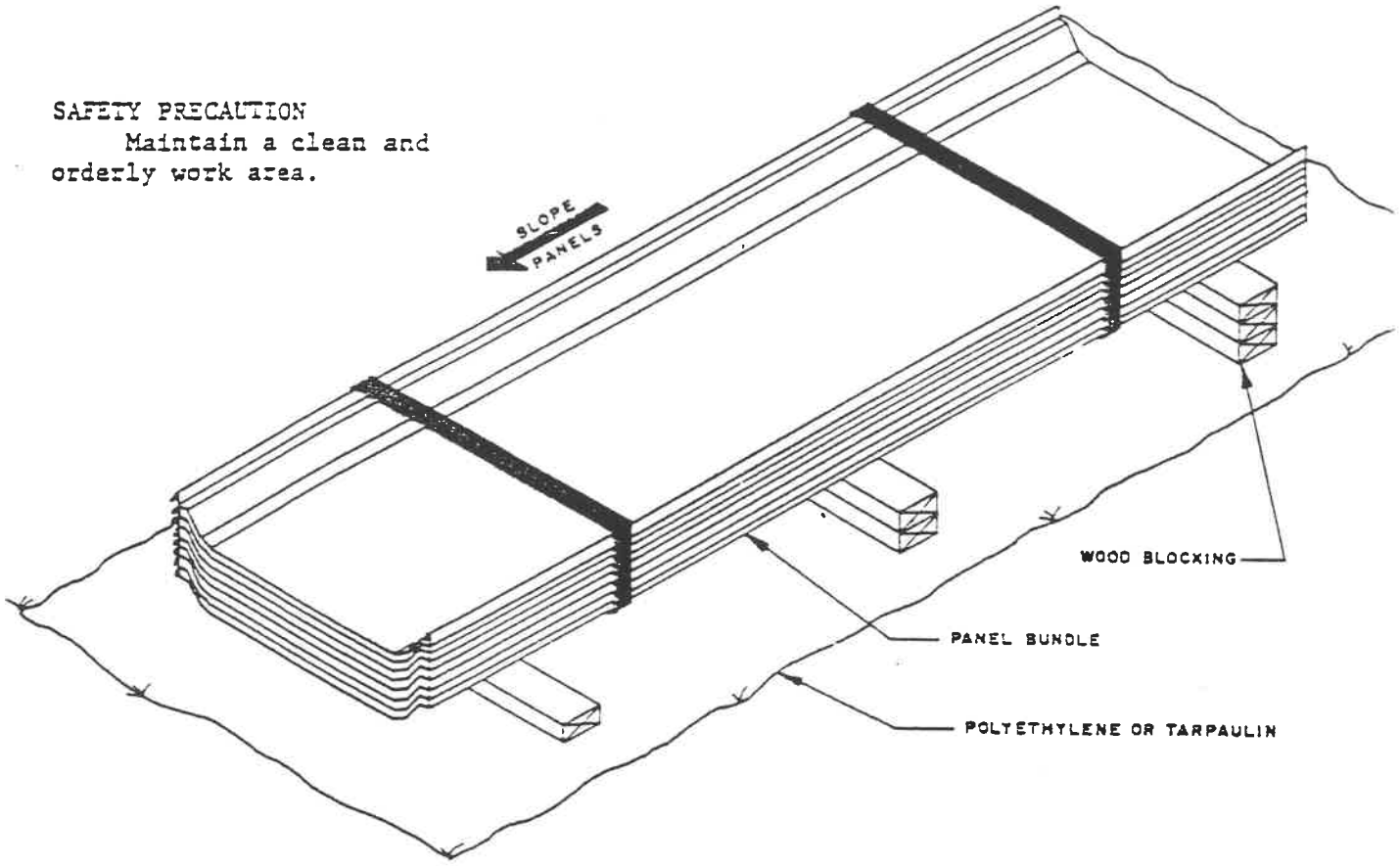
Don't allow blocking to be a falling hazard to those beneath the roof. Workers should wear OSHA approved hard hats.

Typical construction of the wood blocking is shown above. A 2 x 6 minimum board size should be used. Refer to the cross section framing drawings that accompanied the building to determine the purlin size and spacings. Measure the purlin flange and cut notch in board accordingly.

Use wood blocking to elevate and slope the panels in a manner that will allow moisture to drain. Wood blocking placed between panel bundles will provide additional air circulation. Cover the area beneath panels with polyethylene or a tarpaulin to prevent dirt and debris from entering female seam.

SAFETY PRECAUTION

Maintain a clean and orderly work area.



PANEL STORAGE

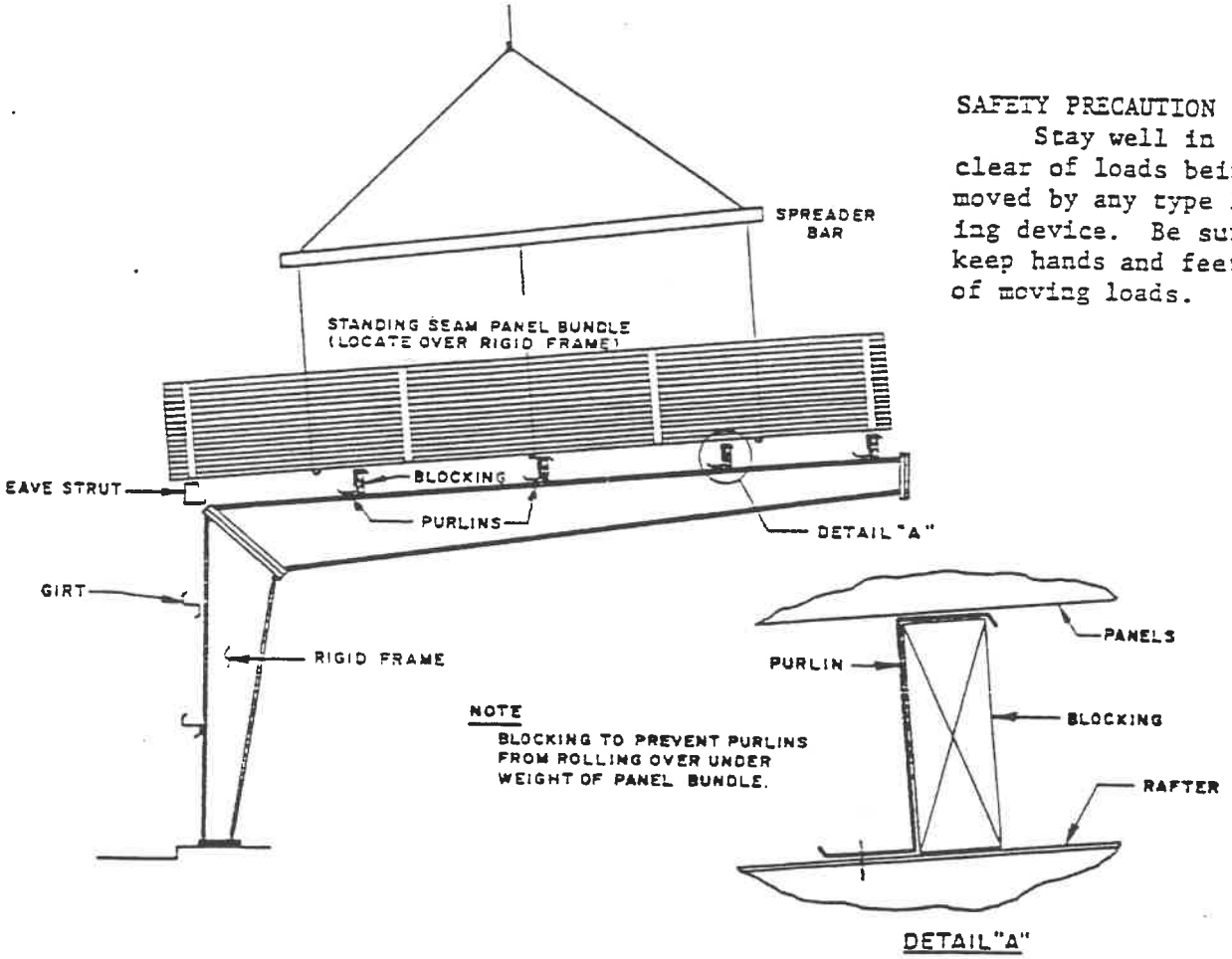
To facilitate the handling of Standing Seam II panels, panel bundles can be lifted and placed on the roof if located at a rigid frame and with blocking in place to prevent the purlins from rolling over.

When lifting bundled sheets, make certain that the bundle is adequately supported. Panels less than 20' in length can normally be lifted with a forklift; however, when lifting panels in excess of 20' it is recommended that a spreader bar and slings be used. As a rule when lifting, no more than 1/3 of the length of the panel should be left unsupported.

Refer to erection drawings for the Standing Seam panel markings and stage bundles accordingly. This will minimize panel handling and speed the erection procedure.

SAFETY PRECAUTION

Stay well in the clear of loads being moved by any type lifting device. Be sure to keep hands and feet clear of moving loads.

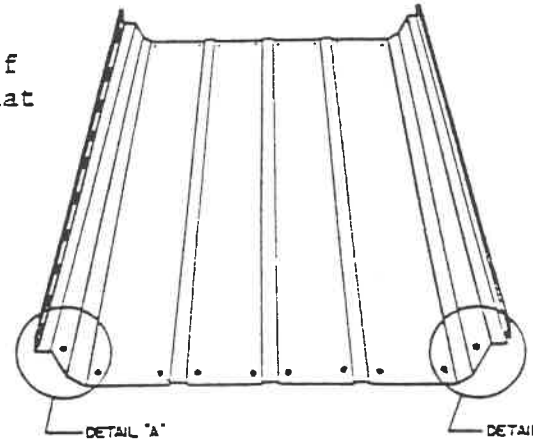


PANEL STORAGE ON ROOF

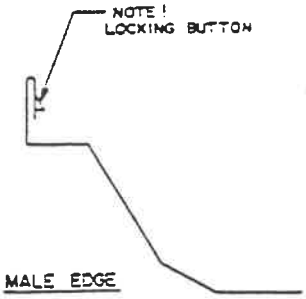
SAFETY PRECAUTION

Do not step on rib of panel. Always step on flat surface.

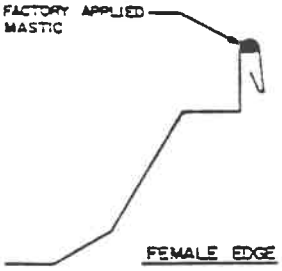
NOTE:
PANELS ARE DIMPLED AT BOTH ENDS. DIMPLES ARE USED FOR FASTENER LOCATIONS AT THE PANEL ENDLAPS ONLY.



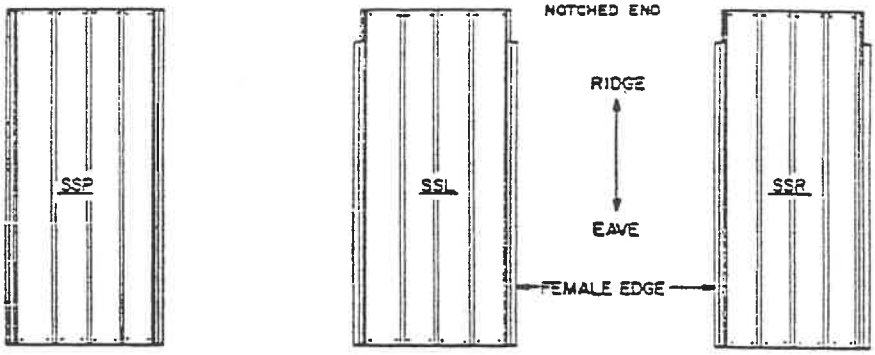
STANDING SEAM ROOF PANEL



DETAIL "A"



DETAIL "B"



TYPES OF STANDING SEAM PANELS

SSR-NOTCHED FOR PANEL LAP, LOCATED ON RIGHT SIDE OF RIDGE
SSL-NOTCHED FOR PANEL LAP, LOCATED ON LEFT SIDE OF RIDGE
SSP-UNNOTCHED, LOCATED ON EITHER SIDE OF RIDGE

STANDING SEAM PANEL IDENTIFICATION MARK NUMBER

EXAMPLE SSR - 30.0

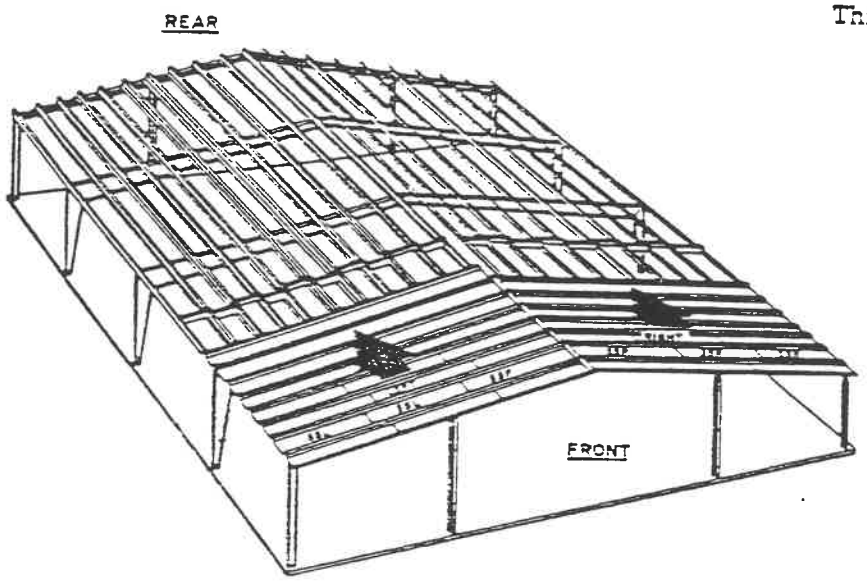
- 30'-0" IN LENGTH
- RIGHT SIDE LOCATION
- STANDING SEAM

The Standing Seam II panels may be delivered with three different marking prefixes. Panels marked as SSP will be void of any notches in the seam and will be the ridge panel of any single or multi-panel run. Panels marked SSL and SSR will be notched for panel endlaps on the upper end, and will be the eave panel or the intermediate panel of multi-panel runs, and will be located on the left and right side of the ridge, respectively.

The Standing Seam II Roof panels have been designed so that both sides of a gable building can be sheeted simultaneously. If the roof of the building is symmetrical about the ridge, the sheeting can begin at either endwall. However, if the building is not symmetrical about the ridge or if the building is single sloped from eave to eave, the sheeting must begin at the endwall indicated on the building erection drawings.

After the direction of sheeting has been determined, panels marked SSL are for installation on the left side of the ridge and panels marked SSR are for installation on the right side of the ridge. Ridge panels are marked SSP and the length of the panel will determine which side of the building the panel is to be installed. The cross-section framing sheet of the building erection drawings shows the panel layout.

SAFETY PRECAUTION
Think safety.



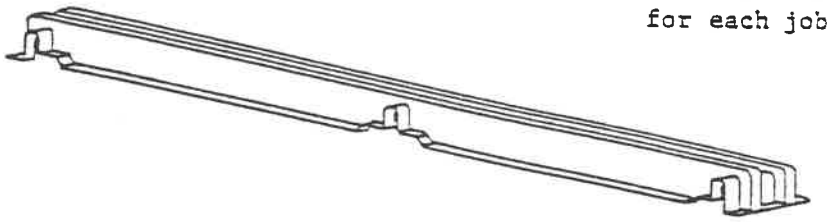
DIRECTION OF ROOF PANEL ERECTION

Endlaps of adjacent panel runs are staggered between two adjacent purlins for better fit. Panel layout prior to installation should be made accordingly.

American's Standing Seam II Roof System has unique sidelap seams which engage the adjacent panel to form a tight penetration free connection. The panel is attached to the support framing by a special Standing Seam Clip which is interlocked within the seam and fastened to the purlin with self-drilling fasteners. The proper installation of the panel will require tools specially designed for this purpose.

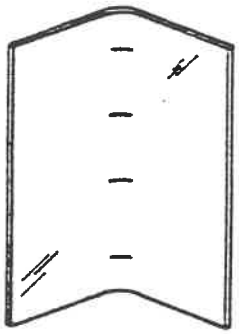
Illustrated below and on the following two pages are the tools, components and fasteners used on a Standing Seam II Roof.

SAFETY PRECAUTION
Use the correct tool for each job.

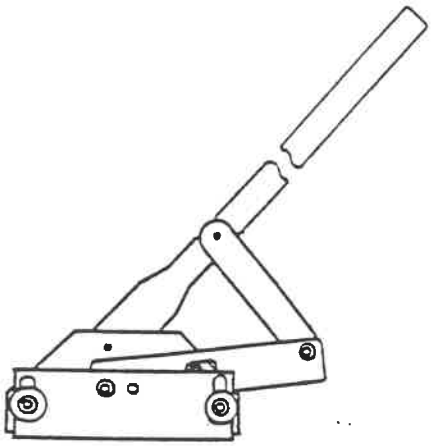


STANDING SEAM PANEL GAUGE

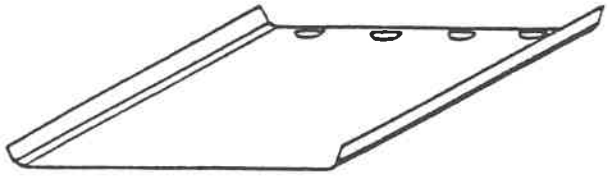
STANDING SEAM PLIERS



STANDING SEAM MIRROR

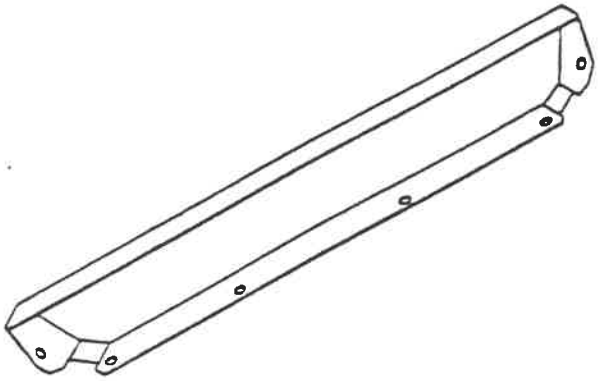


STANDING SEAM SEAMING MACHINE

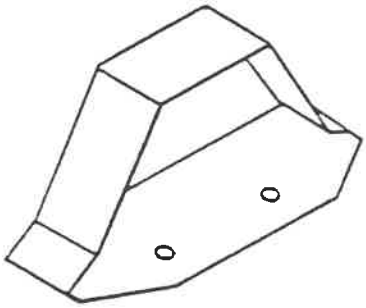


STANDING SEAM II LAP STIFFENER
SSLS-1

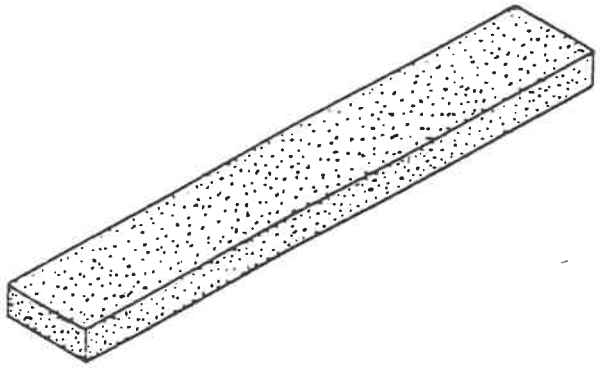
SAFETY PRECAUTION:
Always wear gloves when handling materials.



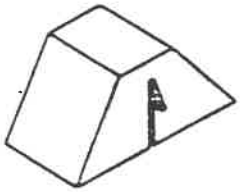
STANDING SEAM METAL OUTSIDE CLOSURE
SSMC-O



STANDING SEAM METAL EAVE CLOSURE
SSMC-I

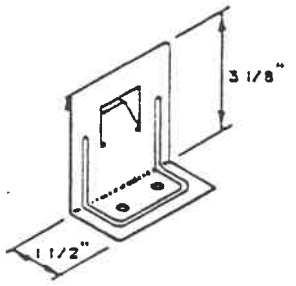


THERMAL SPACER
TB-I

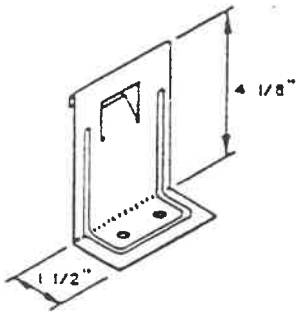


SEAM CLOSURE
SC-O

*12X1 1/4 SDHH



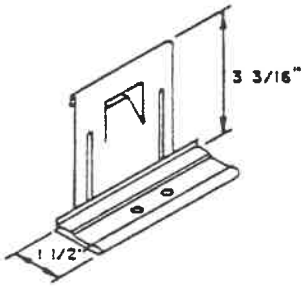
SSC-1



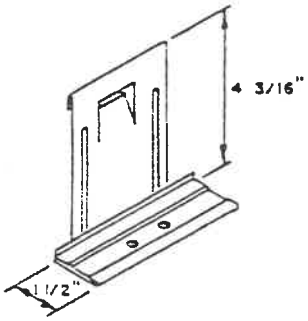
SSC-2
W/THERMAL SPACER

STANDING SEAM FIXED CLIP

*12X1 1/4 SSCF

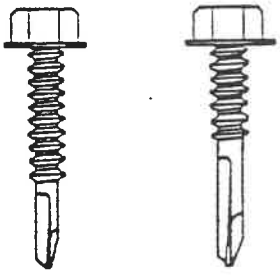


SSEC-1



SSEC-2
W/THERMAL SPACER

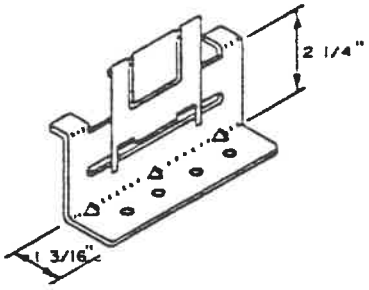
STANDING SEAM EXPANSION CLIP



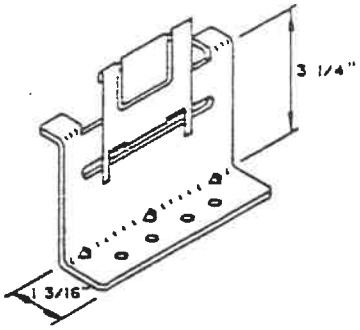
TEK4* TEK5*

*12X1 1/4 SDHHT4

*12X1 1/4 SDHHT5



SSPC-1



SSPC-2
W/THERMAL SPACER

STANDING SEAM EXPANSION CLIP
(BAR JOIST AND SPECIAL APPLICATIONS)

* TEK 4 FASTENERS ARE USED FOR STEEL THICKNESSES GREATER THAN 12 GA. AND UP TO AND INCLUDING 1/4".
TEK 5 FASTENERS ARE USED FOR STEEL THICKNESSES GREATER THAN 1/4" AND UP TO AND INCLUDING 1/2".

DESCRIPTION

#12 X 1 1/4"
PREMIUM SELF DRILLING HEX HEAD FASTENER WITH WASHER
MARK NO. #12X1 1/4 SDRF

APPLICATION

EAVE, PANEL ENDLAPS, AUXILIARY RAKE FLASHING, GUTTER STRAP, GUTTER CLIP AND EXPOSED SHEET TO STRUCTURAL CONNECTIONS.

ALUMINUM-ZINC ALLOY-COATED AND ALL PRE-FINISHED ROOFS.

DESCRIPTION

#12 X 1 1/4"
STANDARD SELF DRILLING HEX WASHER HEAD FASTENER WITH WASHER
MARK NO. #12X1 1/4 SDHHW

APPLICATION

EAVE, PANEL ENDLAPS, AUXILIARY RAKE FLASHING, GUTTER STRAP, GUTTER CLIP AND EXPOSED SHEET TO STRUCTURAL CONNECTIONS.

ALUMINUM-ZINC ALLOY-COATED ROOFS ONLY.

DESCRIPTION

#14 X 7/8"
PREMIUM SELF DRILLING HEX HEAD FASTENER WITH WASHER
MARK NO. #14X7/8 SDRF

APPLICATION

RIDGE FLASHING, RAKE FLASHING, RIDGE FLASHING LAP, GUTTER CLIP TO GUTTER CLIP CONNECTION AND EXPOSED LIGHT GAUGE TO LIGHT GAUGE CONNECTIONS.

ALUMINUM-ZINC ALLOY-COATED AND ALL PRE-FINISHED ROOFS.

DESCRIPTION

#14 X 7/8"
STANDARD SELF DRILLING HEX WASHER HEAD FASTENER WITH WASHER
MARK NO. #14X7/8 SDHHW

APPLICATION

RIDGE FLASHING, RAKE FLASHING, RIDGE FLASHING LAP, GUTTER CLIP TO GUTTER CLIP CONNECTION AND EXPOSED LIGHT GAUGE TO LIGHT GAUGE CONNECTIONS.

ALUMINUM-ZINC ALLOY-COATED ROOFS ONLY.

DESCRIPTION

#12 X 1 1/4"
SELF DRILLING CARBON STEEL HEX HEAD FASTENER WITHOUT WASHER
MARK NO. #12X1 1/4 SDHH

APPLICATION

PANEL CLIPS SSC-1 AND SSC-2, CORRUGATION SUPPORT CUP, GABLE ANGLE, METAL INSIDE CLOSURE, METAL OUTSIDE CLOSURE AT RIDGE AND OTHER SIMILAR NON-EXPOSED CONDITIONS.

DESCRIPTION

#14 X 3/4"
SELF TAPPING CARBON STEEL HEX HEAD FASTENER WITHOUT WASHER
MARK NO. #14X3/4 STHH

APPLICATION

(1/8"ø PILOT & 1/4"ø CLEARANCE HOLE REQUIRED)
METAL OUTSIDE CLOSURE AT RIDGE, AND OTHER SIMILAR NON-EXPOSED CONDITIONS.

DESCRIPTION

#12 X 1 1/4"
SELF DRILLING CARBON STEEL HEX WASHER HEAD SHOULDER FASTENER
MARK NO. #12X1 1/4 SSCF

APPLICATION

PANEL CLIPS SSEC-1 AND SSEC-2 ATTACHMENTS.

DESCRIPTION

#12 X 1 1/4" TEK4
SELF DRILLING CARBON STEEL HEX HEAD FASTENER WITHOUT WASHER
MARK NO. #12X1 1/4 SDHHT4

APPLICATION

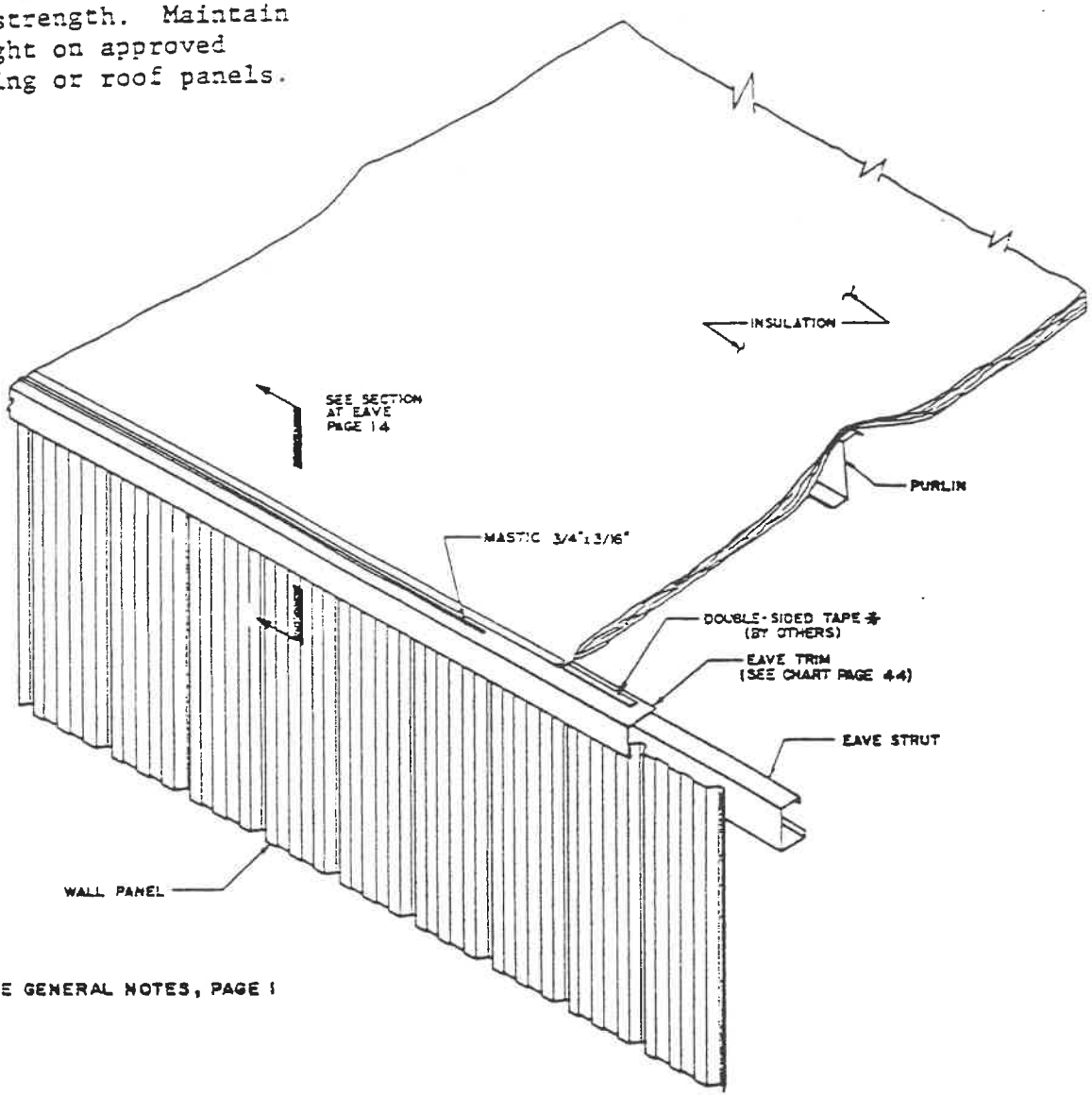
(STEEL THICKNESSES GREATER THAN 12 GA. AND UP TO AND INCLUDING 1/4")
PANEL CLIPS SSPC-1 AND SSPC-2 ATTACHMENTS TO BAR JOISTS.

NOTE

ALL HEAD SIZES SHALL REQUIRE A 5/16" HEX SOCKET UNLESS NOTED.

SAFETY PRECAUTION

Insulation has no load bearing strength. Maintain body weight on approved scaffolding or roof panels.

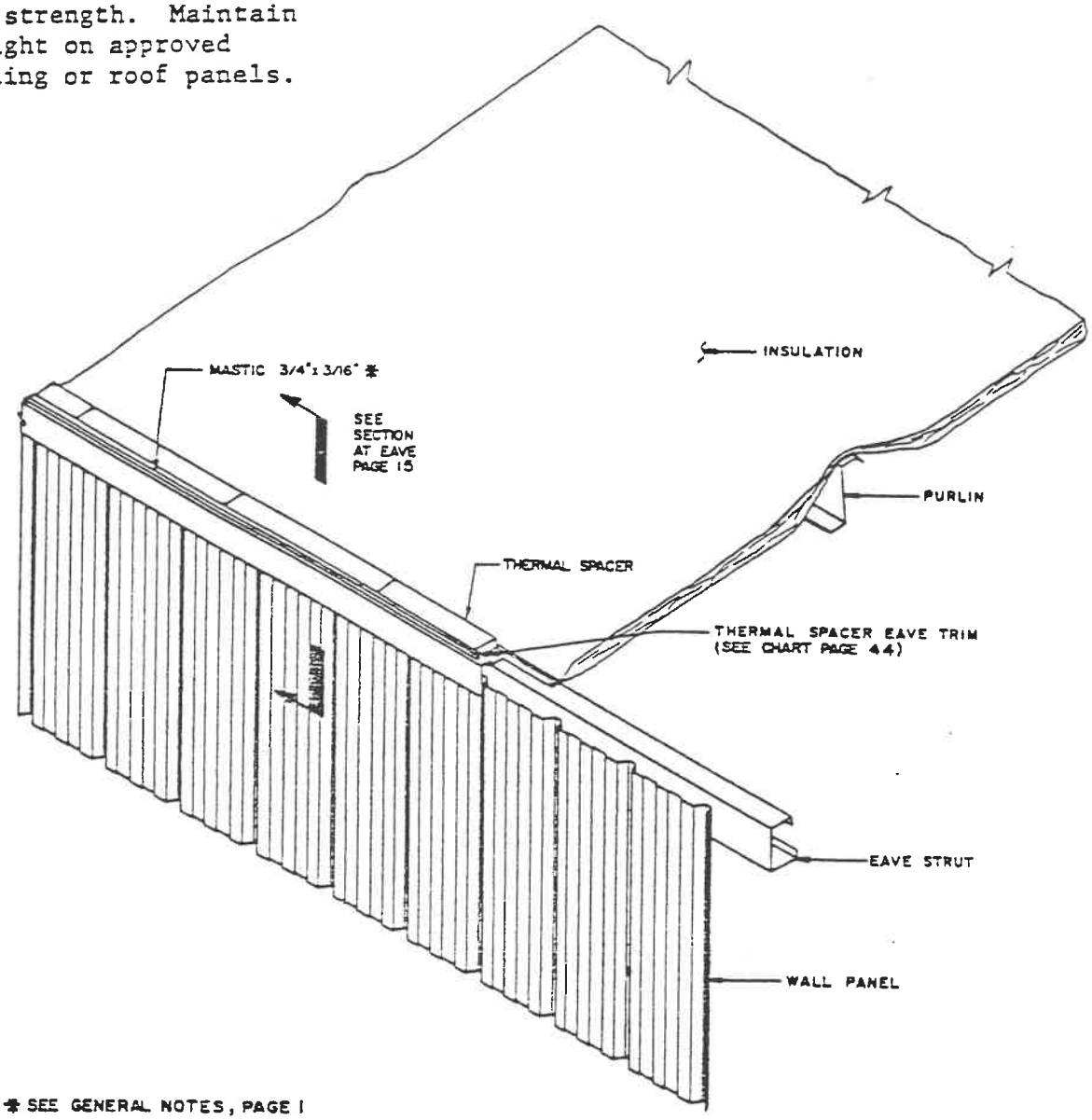


* SEE GENERAL NOTES, PAGE 1

Prior to the installation of the first roof panel, the sidewall and endwall sheeting should have been completed, and the roof insulation started. Start a line of 3/4" x 3/16" tape mastic down the eaves as shown above or as on page 13 as applicable. Leave the paper backing on the tape until the panel is ready to be secured. At this point the eave of the building should be as indicated in the Section at Eave detail on page 14 or in the optional Section at Eave with Thermal Spacer on page 15.

SAFETY PRECAUTION

Insulation has no load bearing strength. Maintain body weight on approved scaffolding or roof panels.

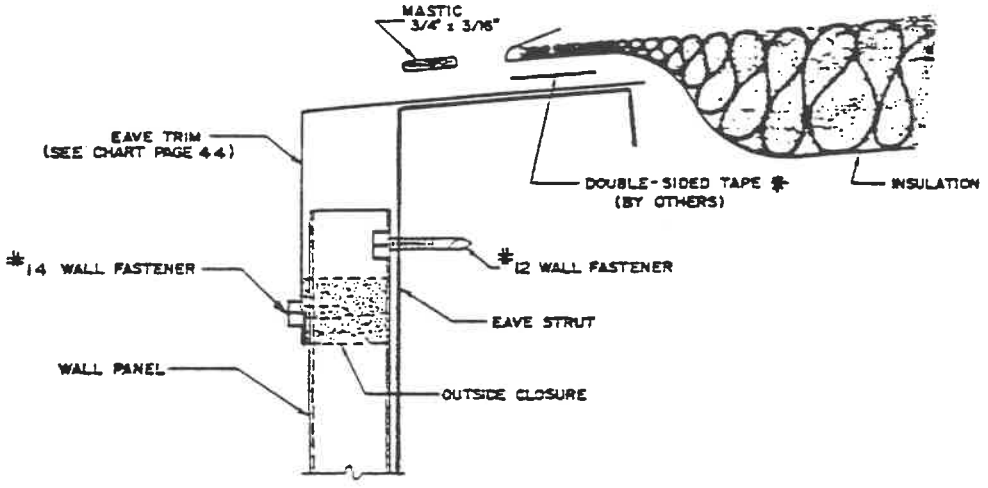


* SEE GENERAL NOTES, PAGE 1

EAVE DETAIL WITH THERMAL SPACER

NOTE:
INSULATION MUST BE FOLDED BACK AT EAVE. DO NOT ALLOW THE INSULATION TO BE EXPOSED TO THE WEATHER.

(NOTE MASTIC LOCATION)



SECTION AT EAVE

Think safety.

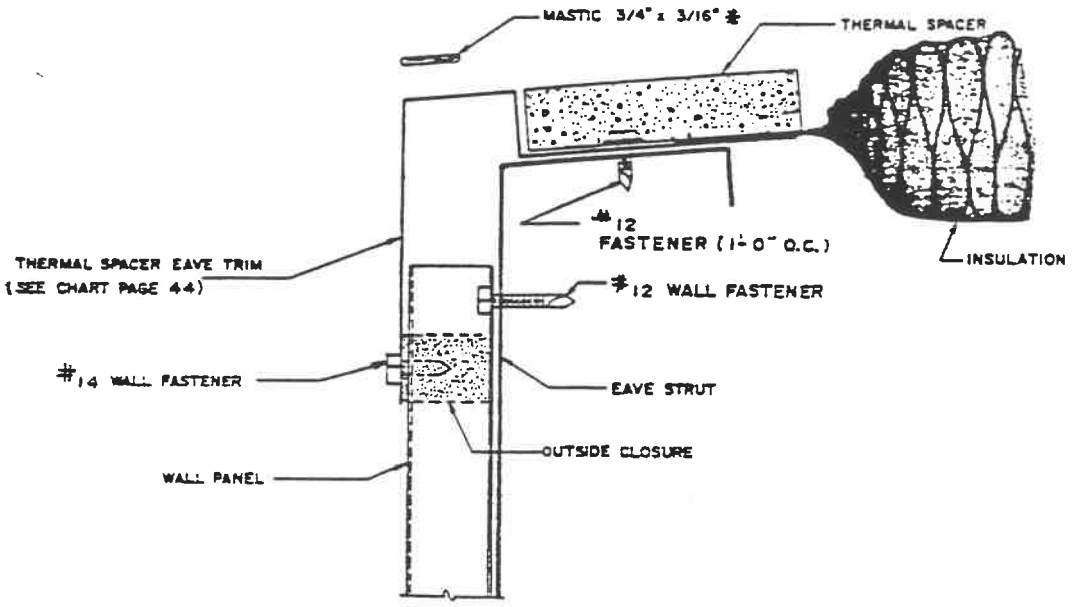
* SEE GENERAL NOTES, PAGE 1

Think safety.

NOTE:
INSULATION MUST NOT BE HANGING OVER THERMAL SPACER EAVE TRIM

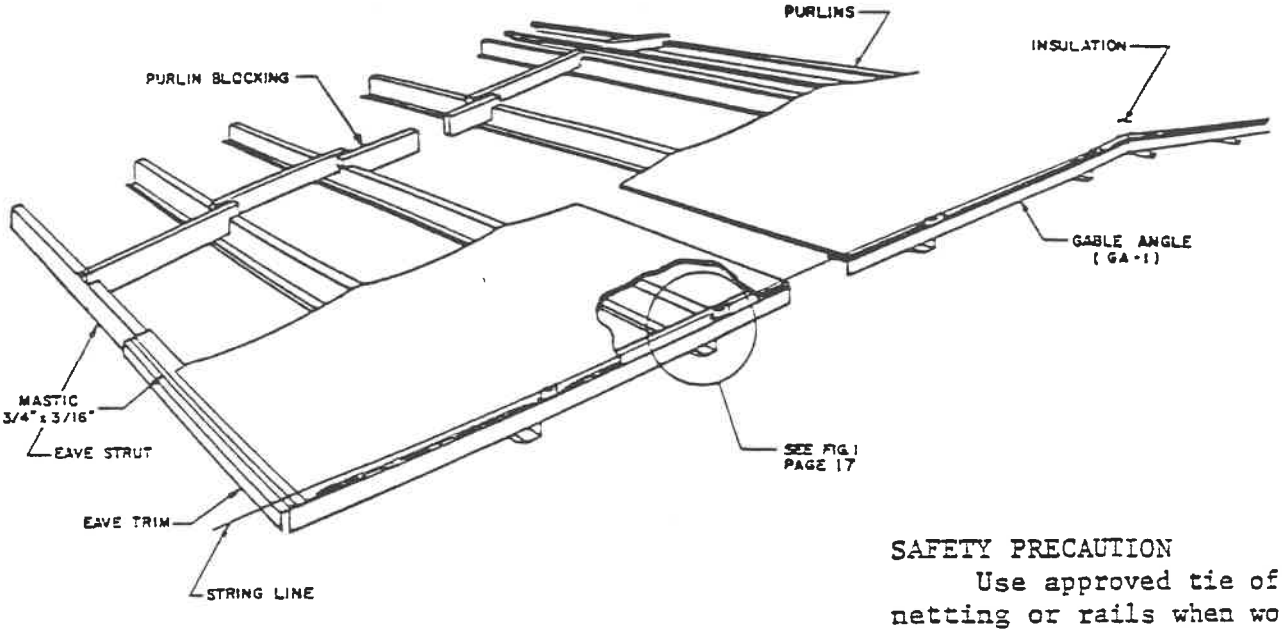
NOTE:
SEE FASTENER CHART, PAGE 11.

(NOTE MASTIC LOCATION)



SECTION AT EAVE WITH THERMAL SPACER

* SEE GENERAL NOTES, PAGE 1



SAFETY PRECAUTION

Use approved tie offs, netting or rails when working on roof surfaces.

Installation of the first panel begins by fastening Standing Seam Panel Clips at each purlin (excluding the eave strut) along the rake. Establish a straight line by pulling a string or thin wire from the eave strut to the ridge along the outside edge of the gable angle on both sides of the building. The line should be as close to the edge of the building as possible without overhanging the edge of the gable angle. Measure the distance of the string line from the centerline of the frame on both sides of the ridge to verify equal distances. Set clips flush to string line and secure to purlin with 2 Standing Seam clip fasteners.

The importance of having a straight and square first panel run must not be overlooked as it will determine the course of future panels.

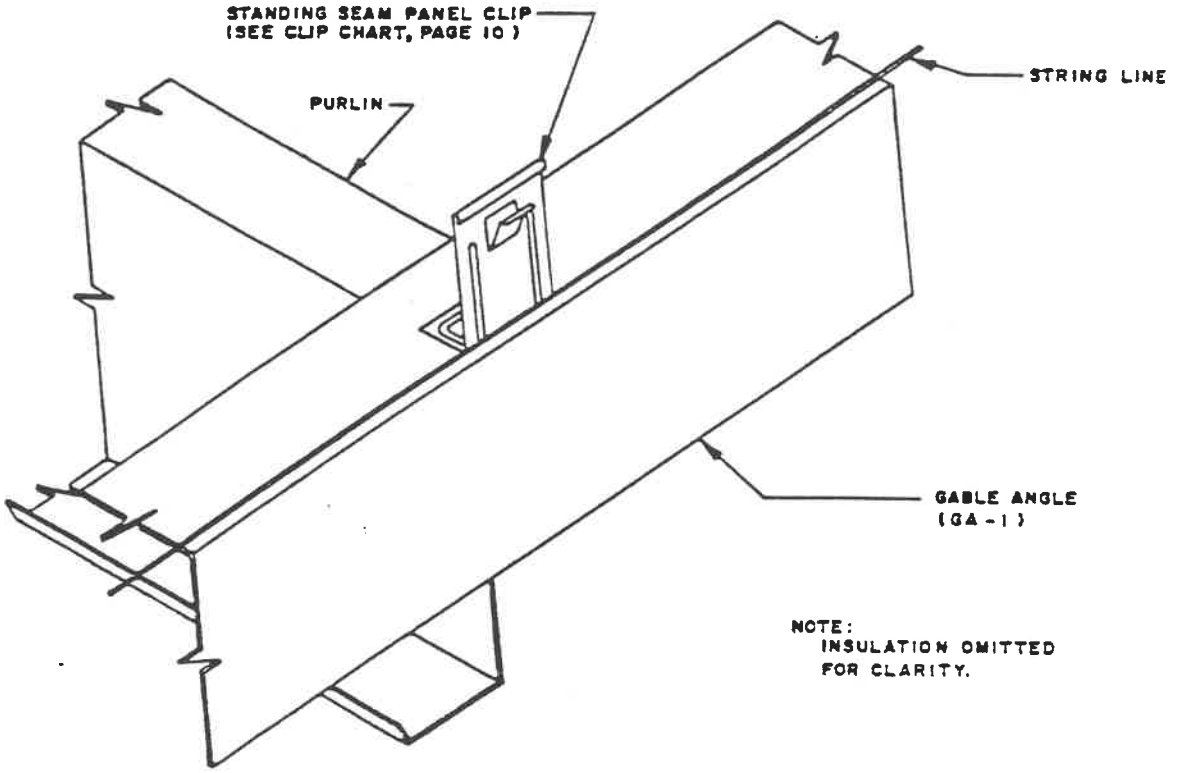
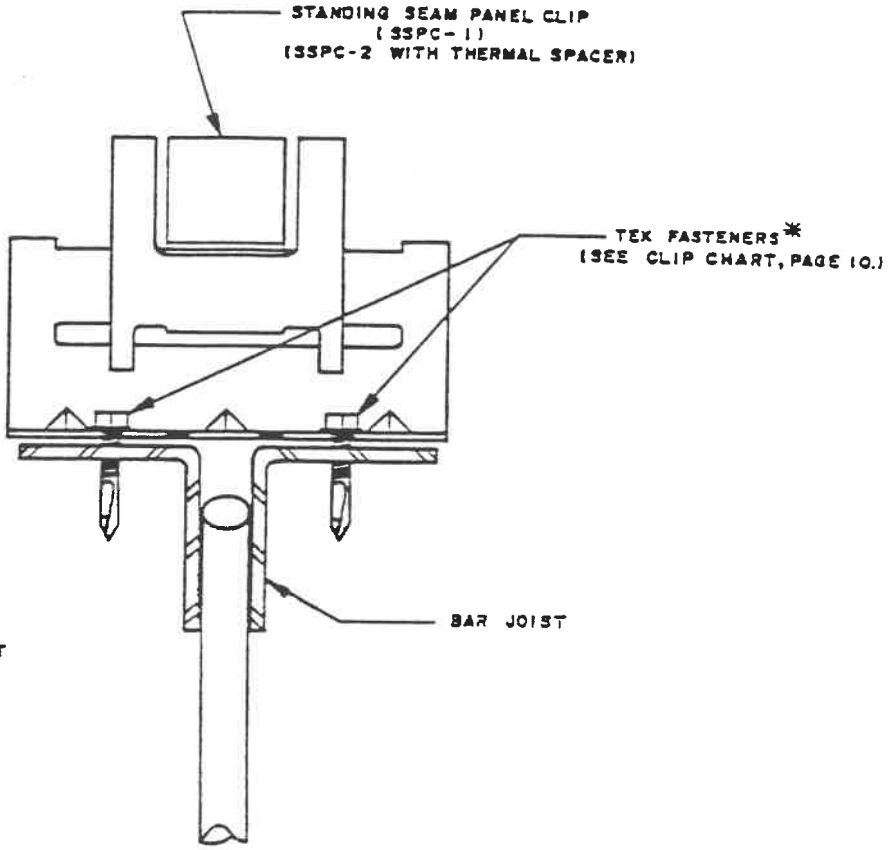


FIG. 1

NOTE:
SEE FASTENER CHART, PAGE 11.



NOTE:
THE SSPC-1 OR 2 CLIP MUST BE USED FOR BAR JOIST INSTALLATIONS. DO NOT USE FIXED CLIPS, SSC-1 OR 2.

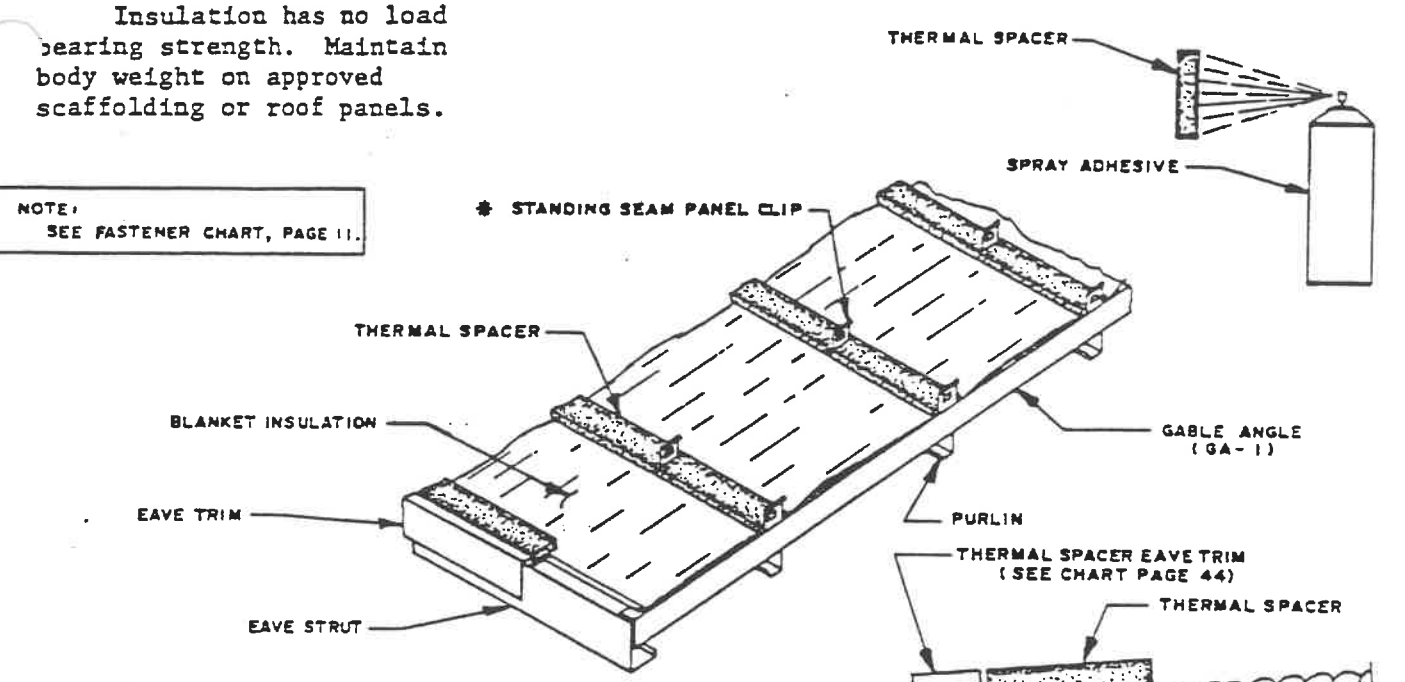
PANEL CLIP CONNECTION TO BAR JOIST

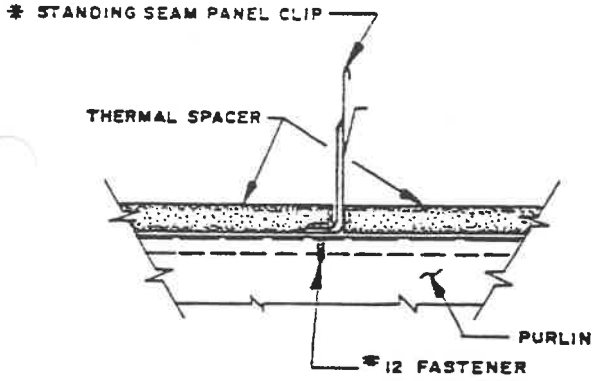
* TEK 4 FASTENERS ARE USED FOR STEEL THICKNESSES GREATER THAN 12 GA. AND UP TO AND INCLUDING 1/4".
TEK 5 FASTENERS ARE USED FOR STEEL THICKNESSES GREATER THAN 1/4" AND UP TO AND INCLUDING 1/2".

SAFETY PRECAUTION

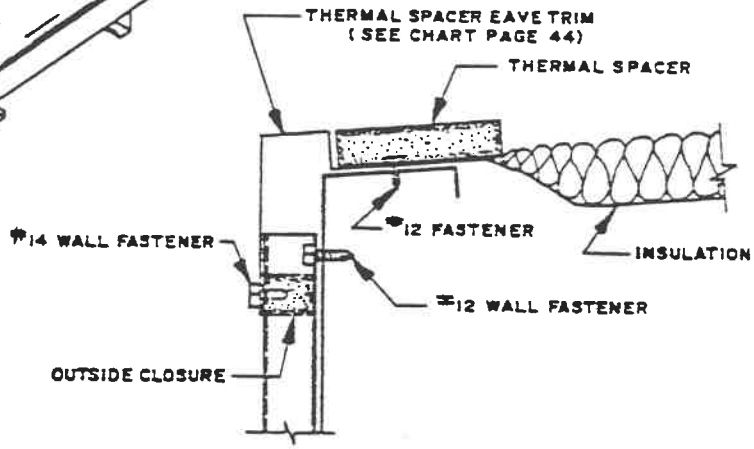
Insulation has no load bearing strength. Maintain body weight on approved scaffolding or roof panels.

NOTE:
SEE FASTENER CHART, PAGE 11.





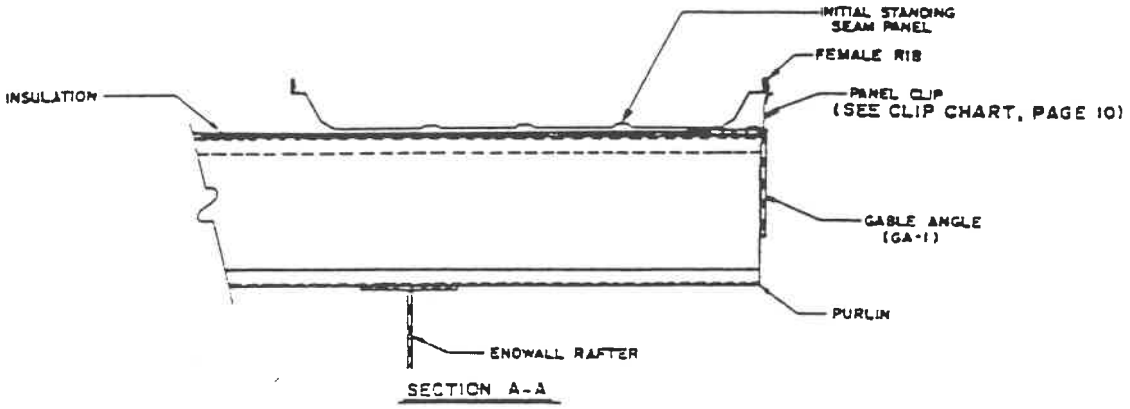
SECTION AT PANEL CLIP



SECTION AT EAVE

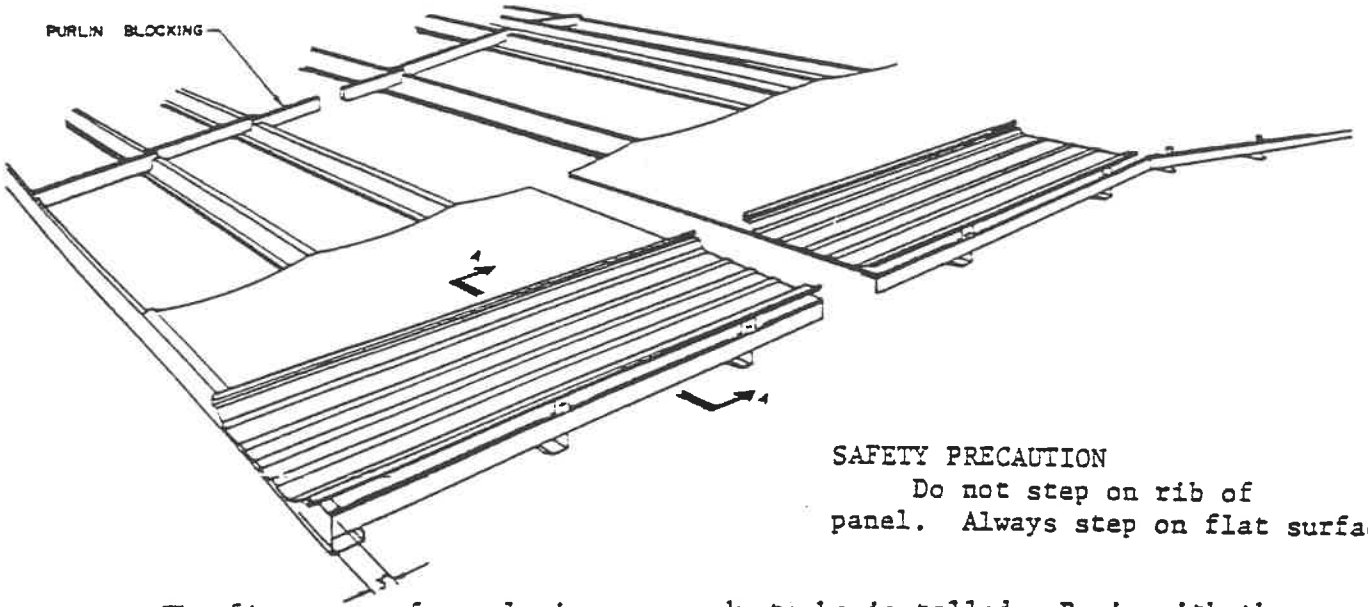
* SEE CLIP CHART, PAGE 10.

An optional accessory for the Standing Seam II Panel is the thermal spacer for better insulating values. It is placed over each purlin and eave strut on top of the blanket insulation. Use the aerosol spray adhesive supplied to hold the spacer in place prior to installing the roof panel. The adhesive may be applied either to the fiberglass blanket or to the face of the spacer.



SECTION A-A

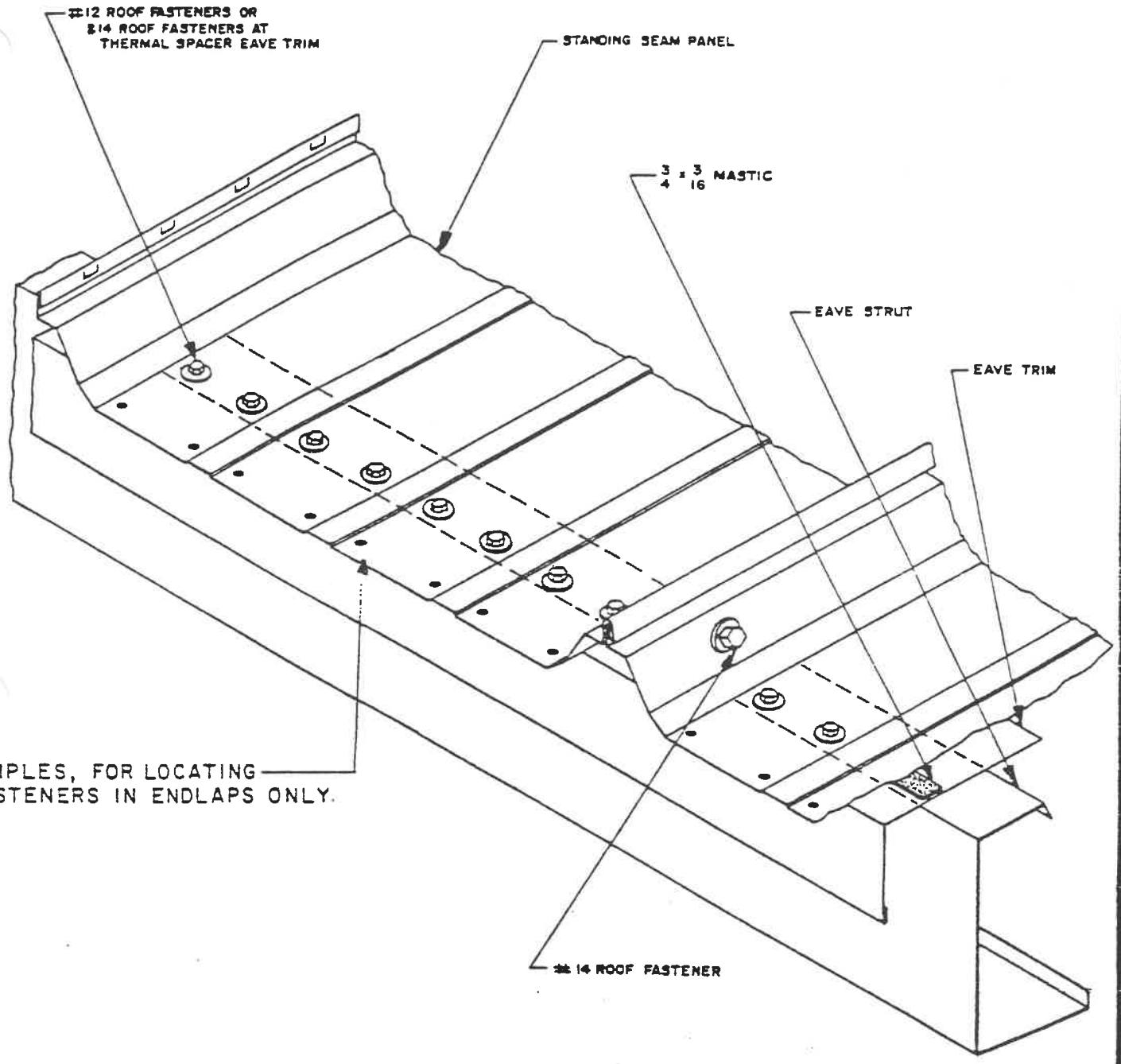
SAFETY PRECAUTION
If oil or other slippery substances are spilled on roof panels, wipe them off immediately to prevent slipping or falling.



SAFETY PRECAUTION
Do not step on rib of panel. Always step on flat surface.

The first run of panels is now ready to be installed. Begin with the eave panel and position the female seam over the line of clips, and unless noted differently on the building erection drawings, extend the lower end 3 inches past the back side of the eave strut (a string line extended out from the eave strut will help keep the line straight). Remove the paper from approximately 2 ft. of the eave mastic and engage the clip within the seam using a slight foot pressure or the Standing Seam pliers.

AIDEA-2 452



FASTENER INSTALLATION AT EAVE STRUT

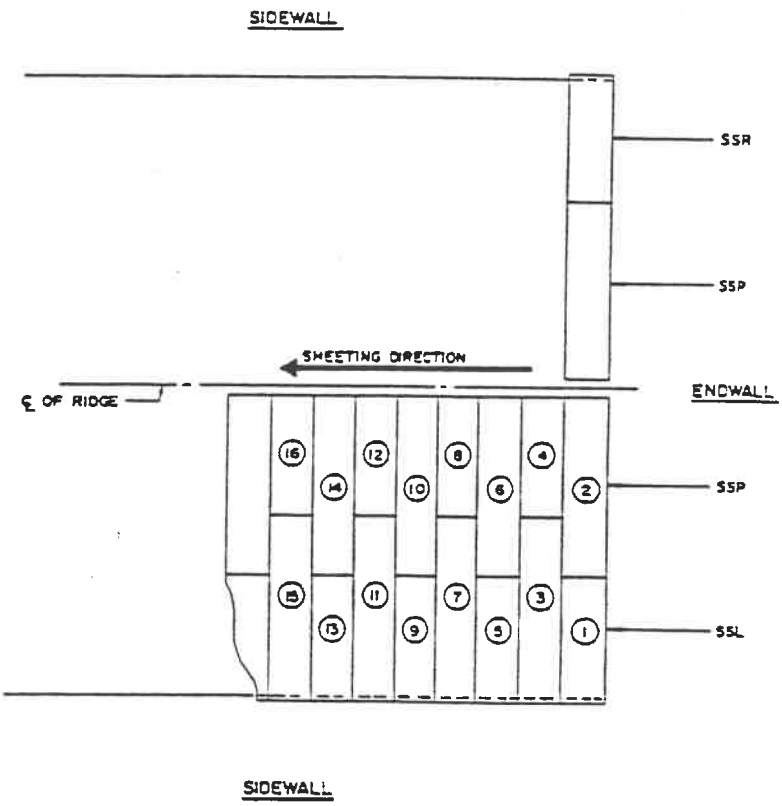
AMERICAN BUILDINGS COMPANY

STANDING SEAM II
ERECTION MANUAL

21

PAGE 2-93

DATE

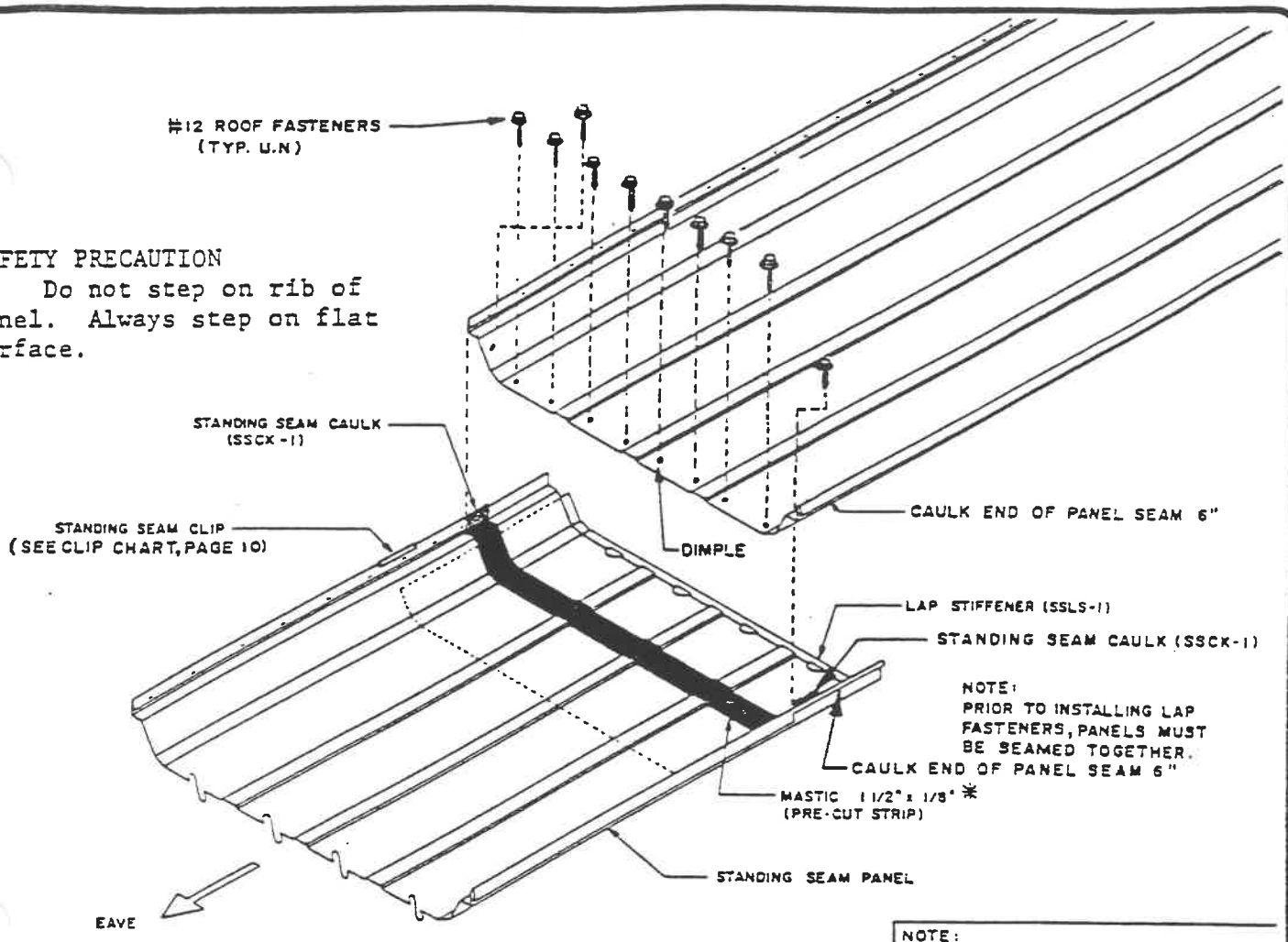


SAFETY PRECAUTION
Think safety.

The sequence for the installation of Standing Seam II panels at an endlap is as indicated above. Slide the lap stiffener, SSLS-1, between the lower panel and the purlin as shown on page 24 and position the upper end of the panel flat under the half-moon grips. Be sure that the mastic and caulk are placed across the panel as shown on page 23. Seam the sidelaps as indicated previously. Install the required fasteners through the dimpled locations in the endlap.

SAFETY PRECAUTION

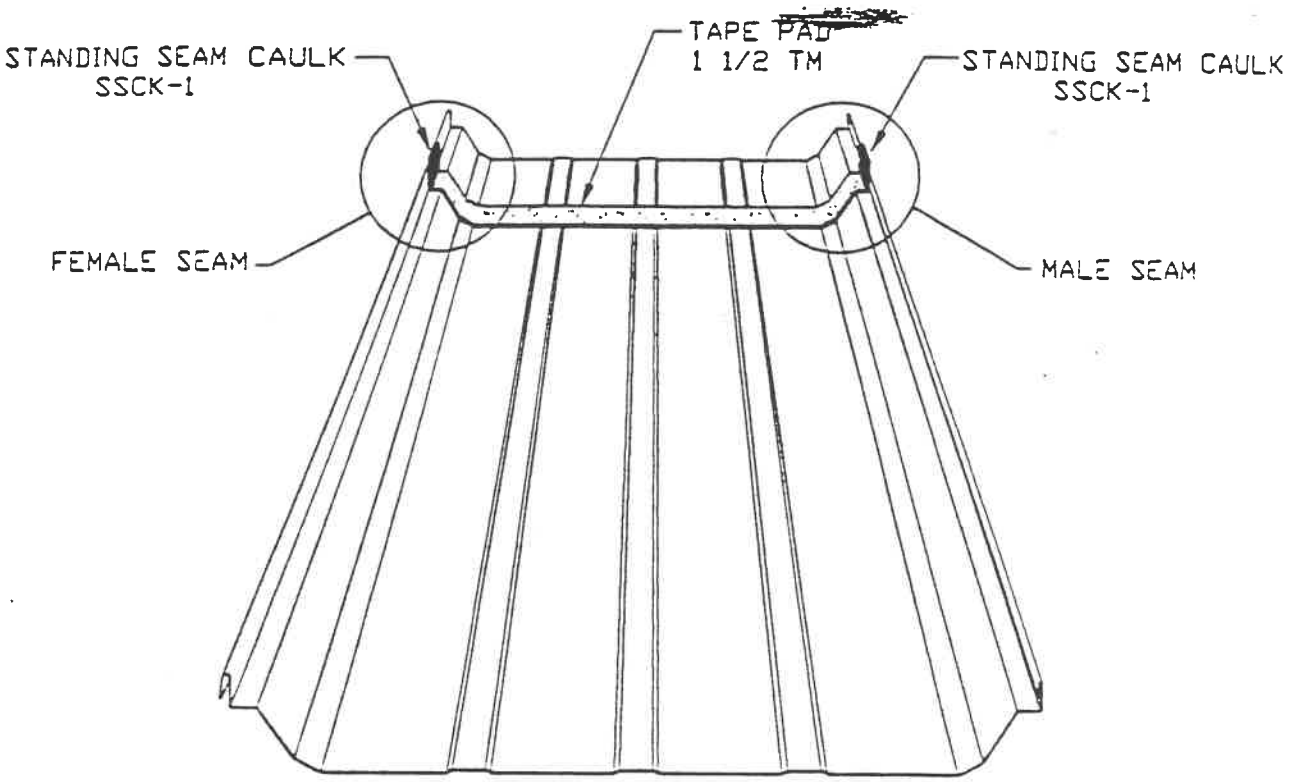
Do not step on rib of panel. Always step on flat surface.



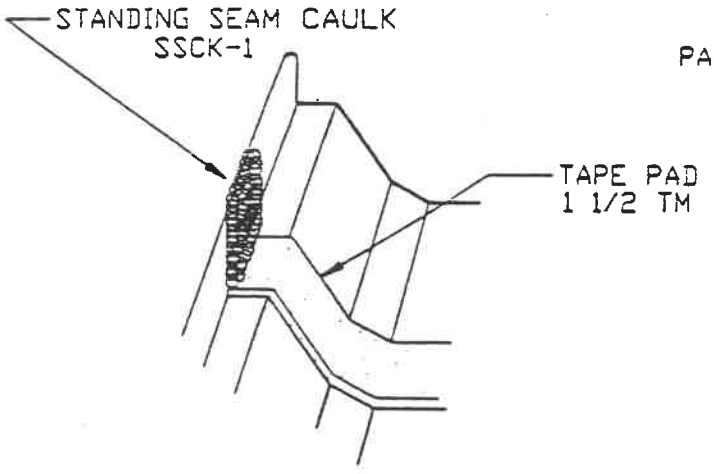
NOTE:
SEE FASTENER CHART, PAGE 11.

* SEE GENERAL NOTES, PAGE 1.

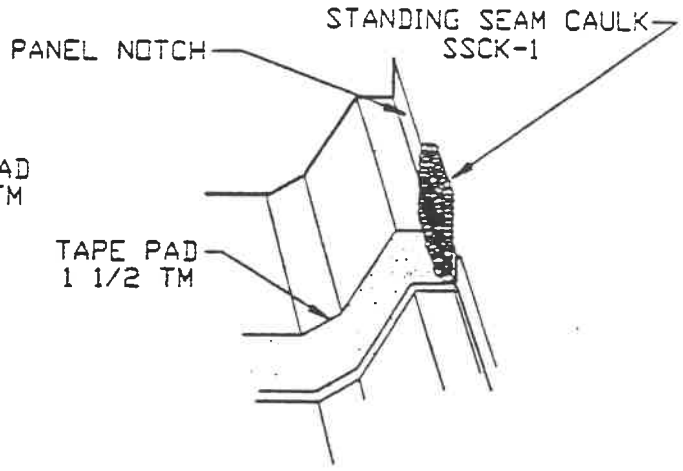
Panel runs exceeding 45 ft. in length must be made with two or more panels. The upper 6 inches of the lower panel seams are notched to accept the upper panel. This lap will occur approximately 12 inches above a purlin. Prior to setting the upper panel, install the lap stiffener, SSLS-1, as shown on page 24. Then place precut length of special 1 1/2" x 1/8" Standing Seam lap mastic across the width of the panel beginning and ending at the vertical seams. Apply Standing Seam lap caulk, SSCK-1, to inner face of both male and female seams, making sure that back edge of male notch is covered. Install the upper panel with its lower edge flush to the back side of the notch in the lower panel. Secure the lap with ten #12 roof fasteners installed at the pre-dimpled locations.



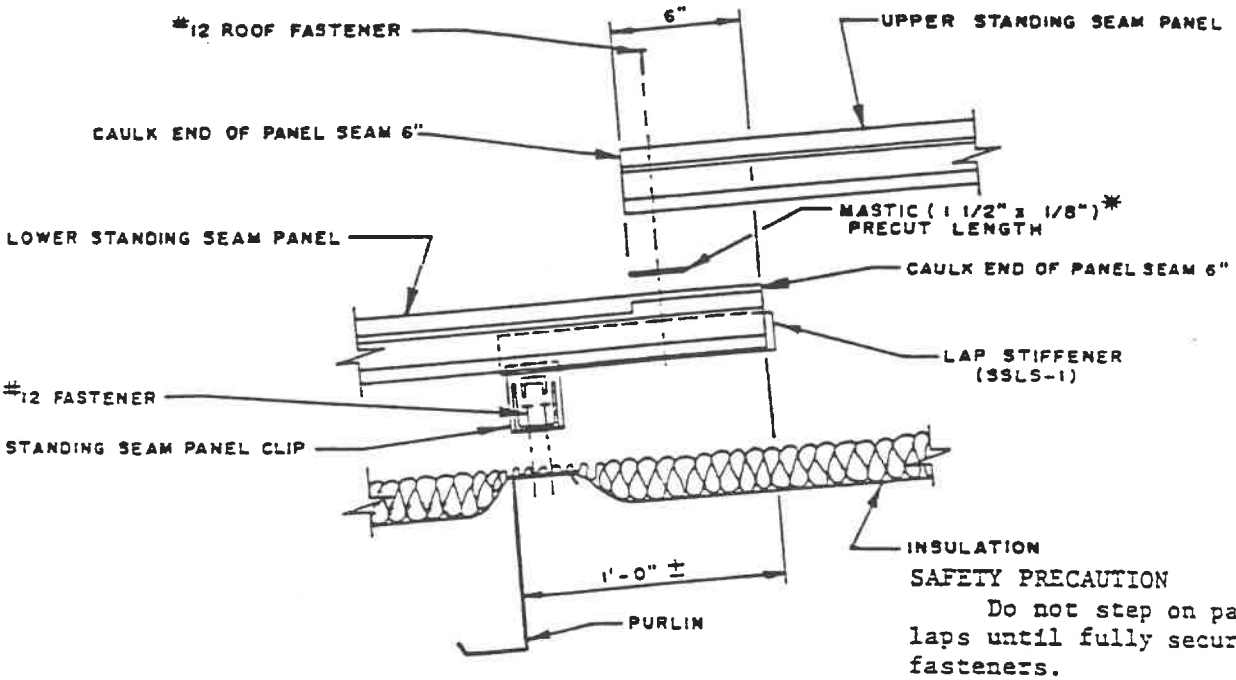
CAULKING DETAIL AT PANEL ENDLAP



FEMALE SEAM



MALE SEAM

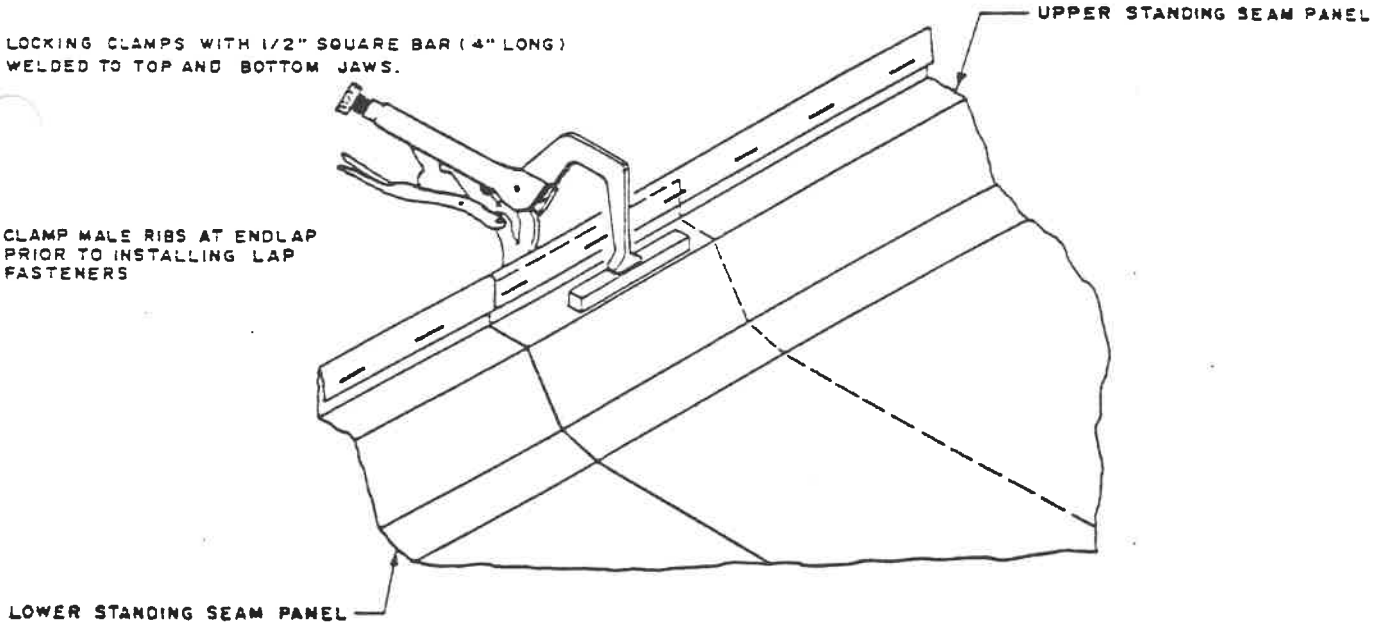


SAFETY PRECAUTION

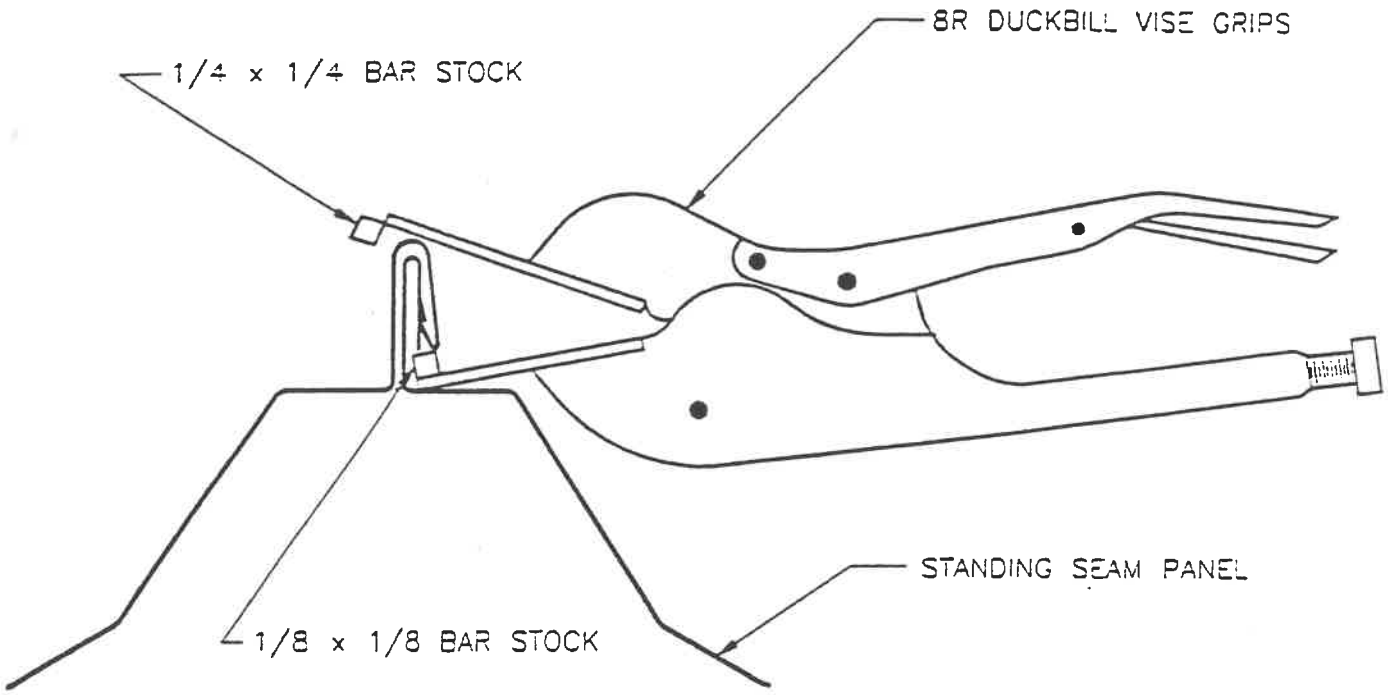
Do not step on panel end-laps until fully secured with fasteners.

* SEE GENERAL NOTES, PAGE 1.

STANDING SEAM PANEL ENDLAP



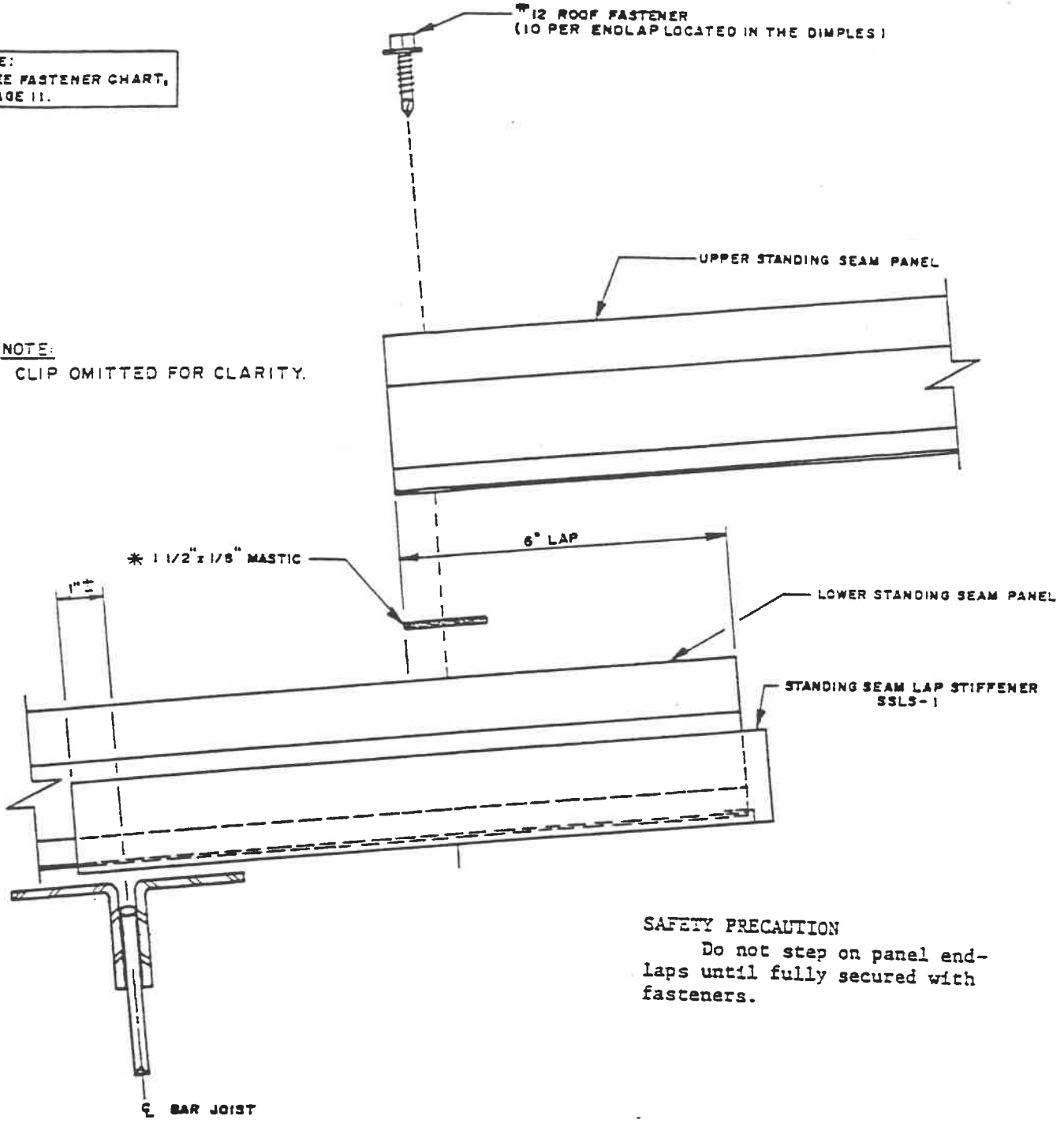
CLAMPING DETAIL AT ENDLAP



1. POSITION VISE GRIPS AS SHOWN.
2. SQUEEZE HANDLES TOGETHER TO SEAM PANEL.
3. TOOL MAY ALSO BE USED AT FEMALE LEG AT ENDLAP DURING PANEL LAP INSTALLATION.
4. POSITION CLAMPS AS SHOWN BEFORE INSTALLING ANY FASTENERS.

SPECIAL SEAM LOCKING VISE GRIPS

NOTE:
SEE FASTENER CHART, PAGE 11.



SAFETY PRECAUTION

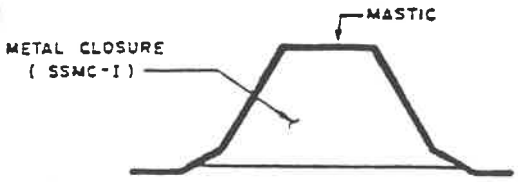
Do not step on panel end-laps until fully secured with fasteners.

ENDLAP DETAIL AT BAR JOIST

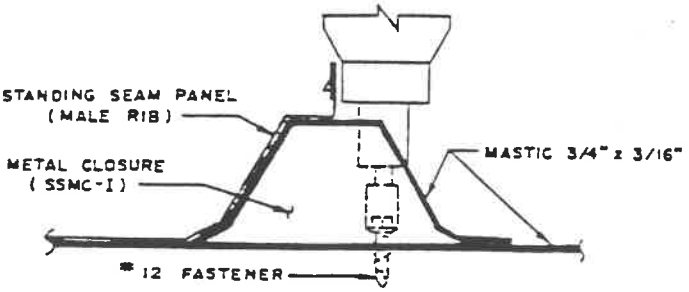
* SEE GENERAL NOTES, PAGE 1.

NOTE:
SEE FASTENER CHART, PAGE 11.

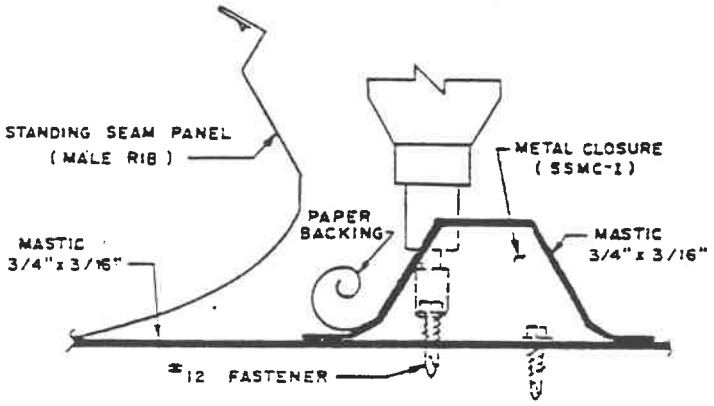
After setting each panel run, install the eave closure and eave fasteners as outlined in the procedures below.



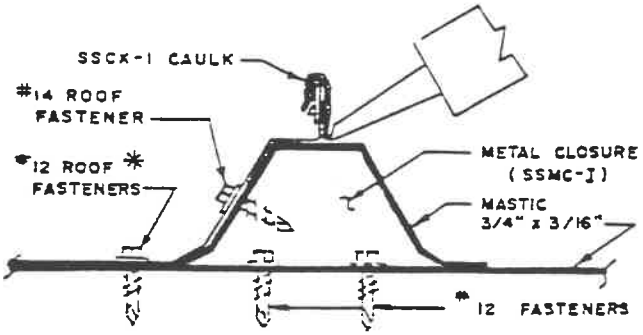
STEP 1. Wrap the metal closure with tape mastic. Do not remove the backing paper.



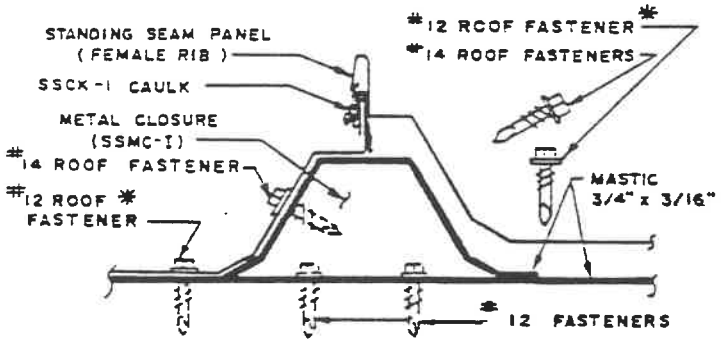
STEP 2. Position closure under male rib and install the outside fastener through the pre-punched hole.



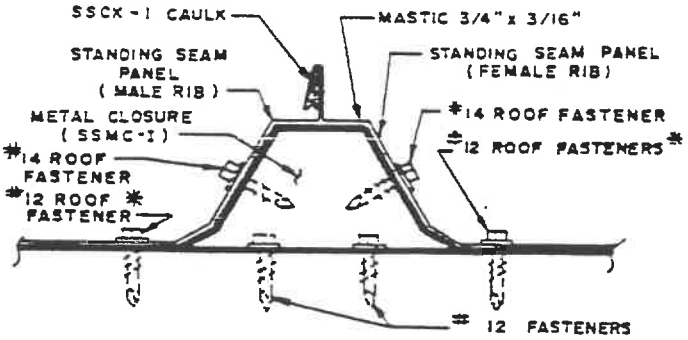
STEP 3. Lift panel and install the inside fastener. Remove the paper from the mastic and press the panel firmly in place.



STEP 4. Install eave fasteners in the flat of the panel in the pattern shown on page 27. Install a fastener through the sides of both ribs as shown above. Apply caulking to the inside face of the seam over the closure.

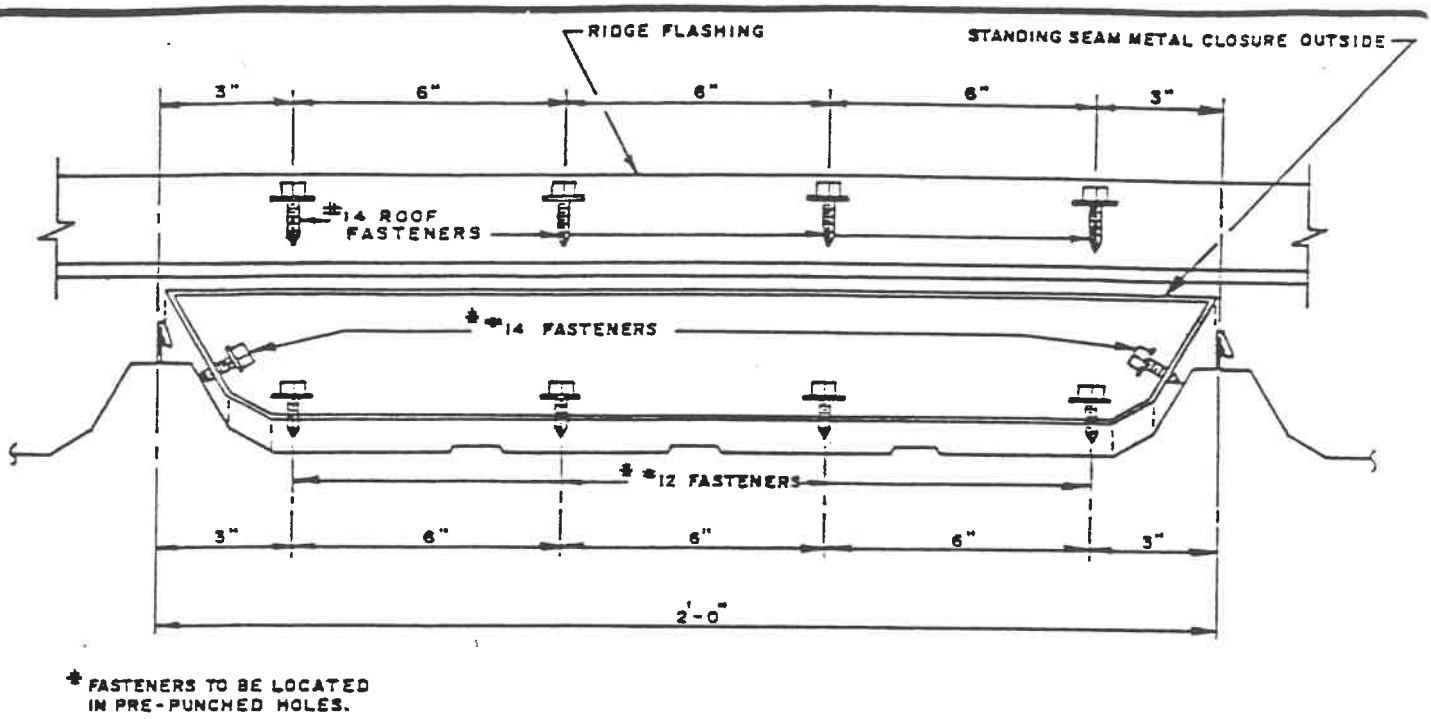


STEP 5. Install the next panel run and repeat Steps 1-4.



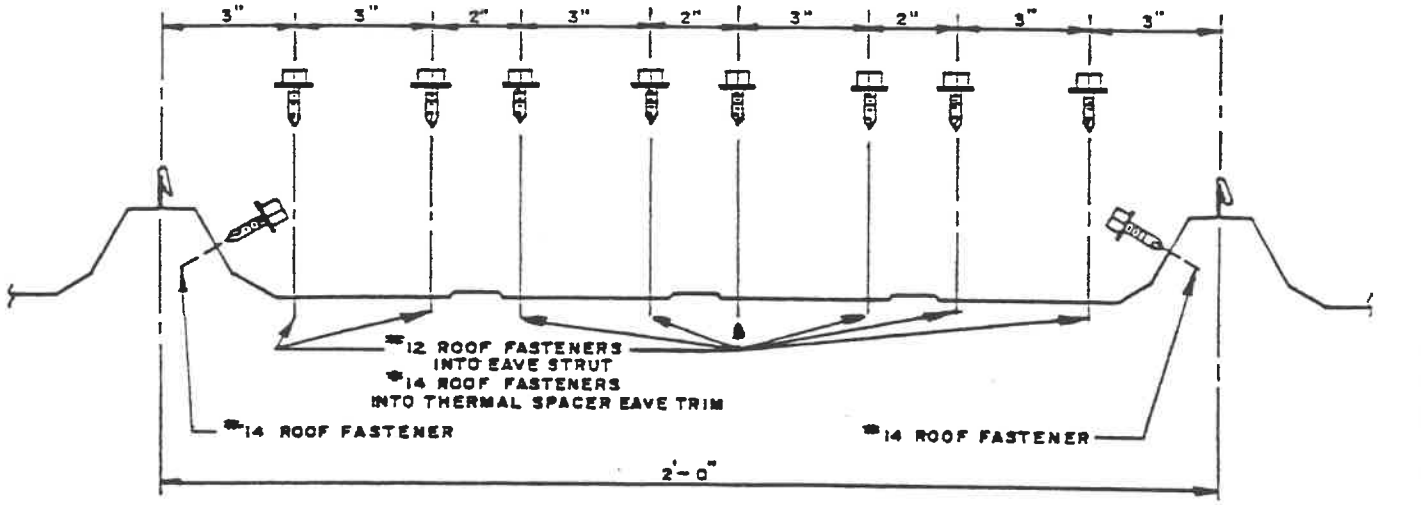
STEP 6. A properly completed rib closure.

* *14 ROOF FASTENER REQUIRED AT THIS LOCATION WHEN USING THERMAL SPACER EAVE TRIM.

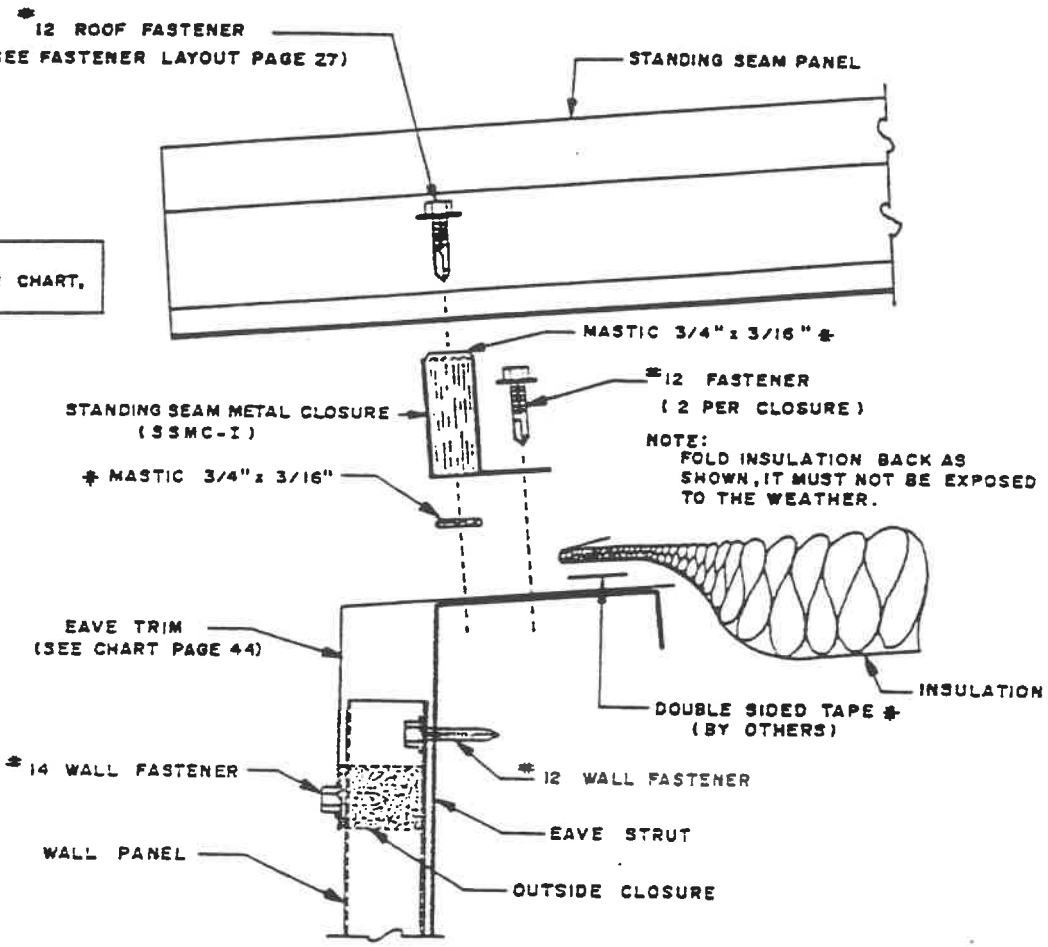


* FASTENERS TO BE LOCATED IN PRE-PUNCHED HOLES.

FASTENER LOCATION AT RIDGE CLOSURE



FASTENER LOCATION AT EAVE STRUT



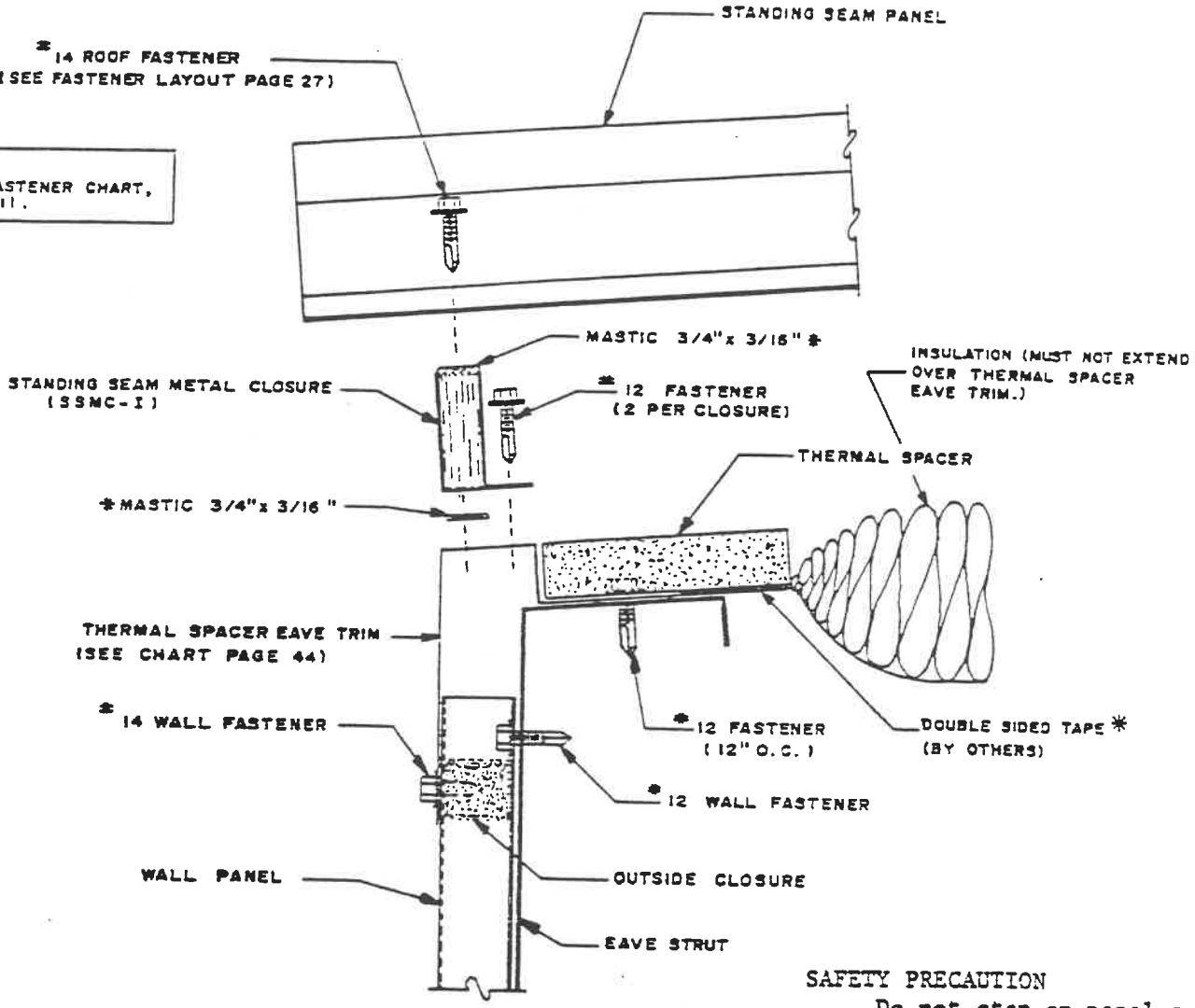
SECTION AT EAVE

SAFETY PRECAUTION

Do not step on panel near the eave until fully secured with fasteners.

* SEE GENERAL NOTES, PAGE 1.

A section through the panel installation at the eave is shown above or, if thermal spacers are required, on the following page. Optional eave treatments are shown on pages 55 through 68. Check the building erection drawings for the applicable detail.



SAFETY PRECAUTION

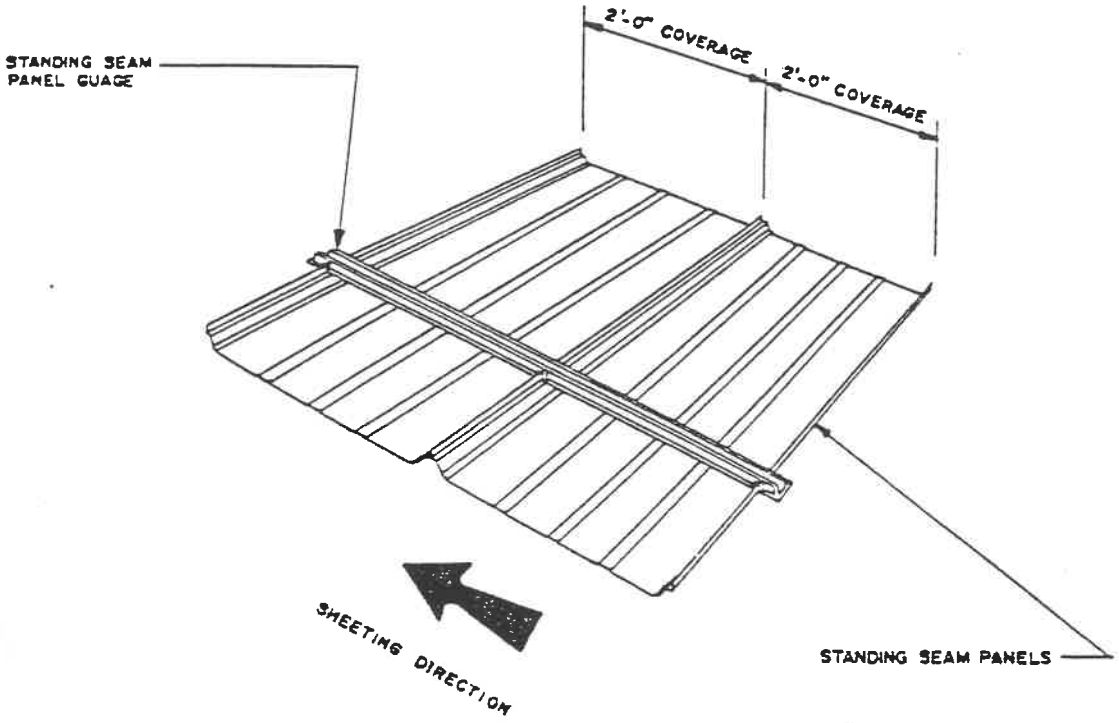
Do not step on panel near the eave until fully secured with fasteners.

SECTION AT EAVE WITH THERMAL SPACER

* SEE GENERAL NOTES, PAGE 1.

SAFETY PRECAUTION

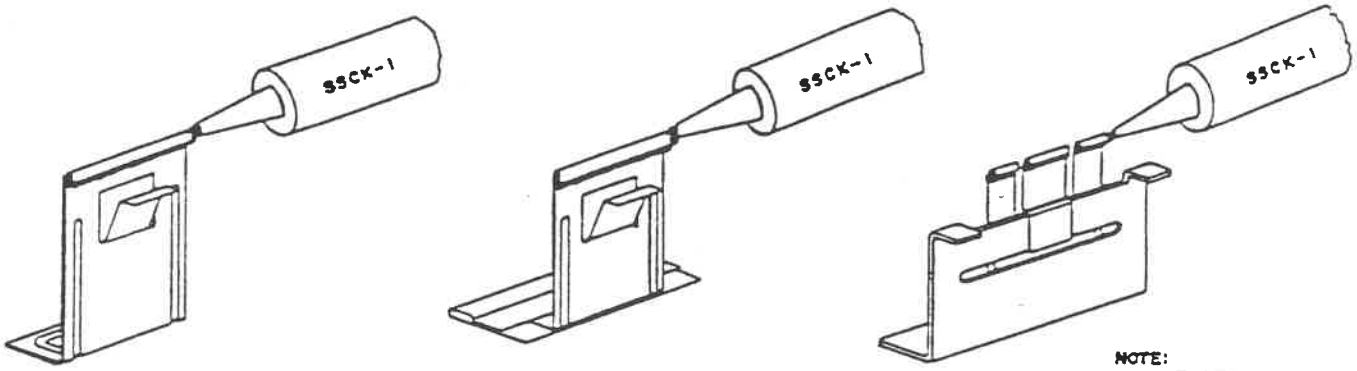
Do not step on rib of panel. Always step on flat surface.



Panel coverage guages such as shown above will help to maintain correct coverage. Place one at each end of the panel, one at the centerline, and if applicable, one above or below the lap.

A string line set at the next rafter line is recommended for taking measurements back to the panels to insure that they ~~are running~~ straight and square.

Installation of succeeding panels begins by placing a small bead of special Standing Seam caulk in the upper folds of the Standing Seam clip as shown in Figure 2.



NOTE:
ALL THREE CLIP FOLDS MUST BE CAULKED AS SHOWN.

NOTE:
BEFORE ATTACHING THE PANEL CLIP TO THE PURLIN MAKE CERTAIN THE SLIDING PORTION OF THE CLIP IS CENTERED ON CLIP BASE.

FIG. 2

The clip is then installed over the leading or male edge of the preceding panel as shown in Figure 3. Make sure that the clip tab is in position to support the rib. Secure the clip to the purlin with two Standing Seam clip fasteners.

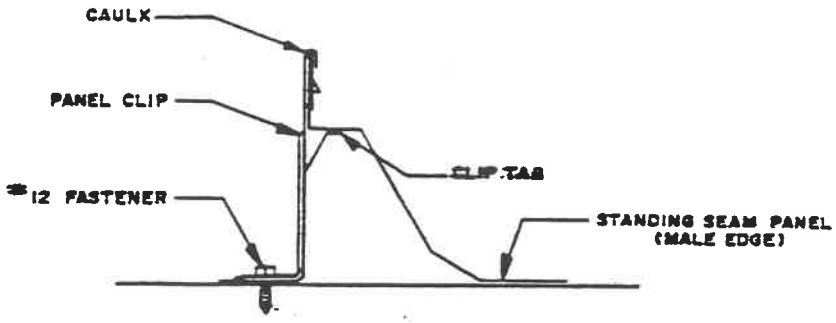


FIG. 3

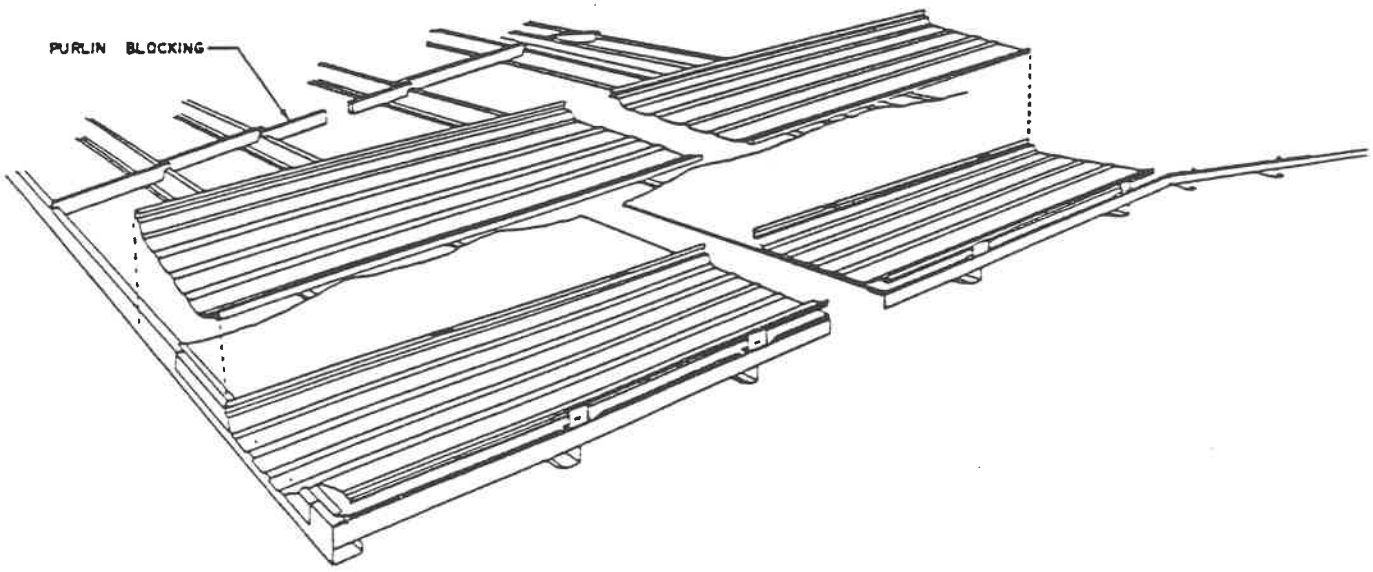


FIG. 4

SAFETY PRECAUTION

Do not step on rib of panel. Always step on flat surface.

Continue the installation by positioning the female seam of the next panel to which the clips were just installed. Work into position for locking as shown in Figure 5 on page 33.

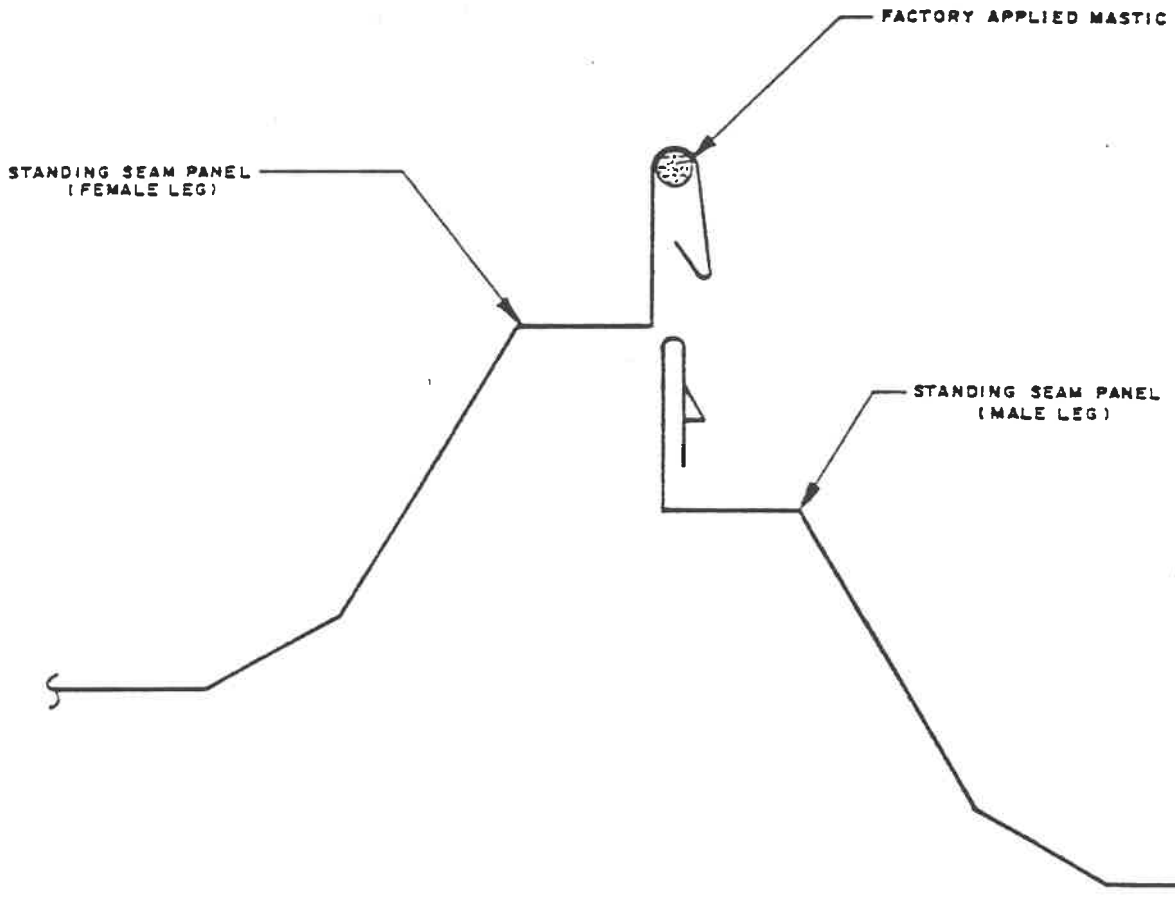
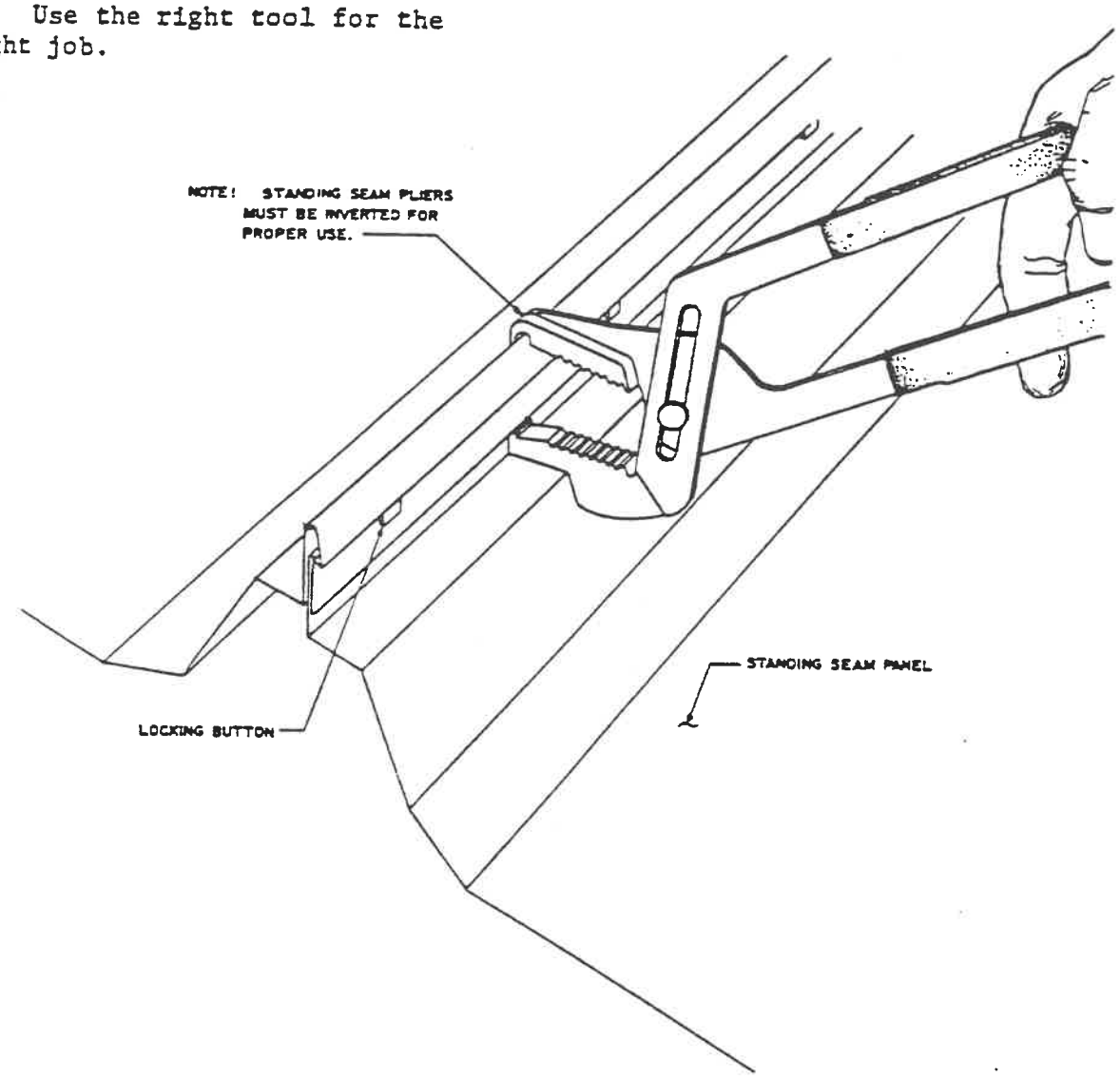


FIG. 5

Think safety.

SAFETY PRECAUTION

Use the right tool for the right job.



Shown above is the application of the Standing Seam pliers. These are convenient to use for locking the ends of the panel together before seaming and for areas adjacent to a parapet wall. They can also be used to secure the starter panel to the first row of clips.

In preparation of the seaming operation, move the seam machine onto the unlocked seam by leaning the handle away from the operator as indicated in Figure 6. Rotate the seamer back into the working position on the seam as shown in Figure 7 with the lifting shoe under the bottom edge of the male seam.

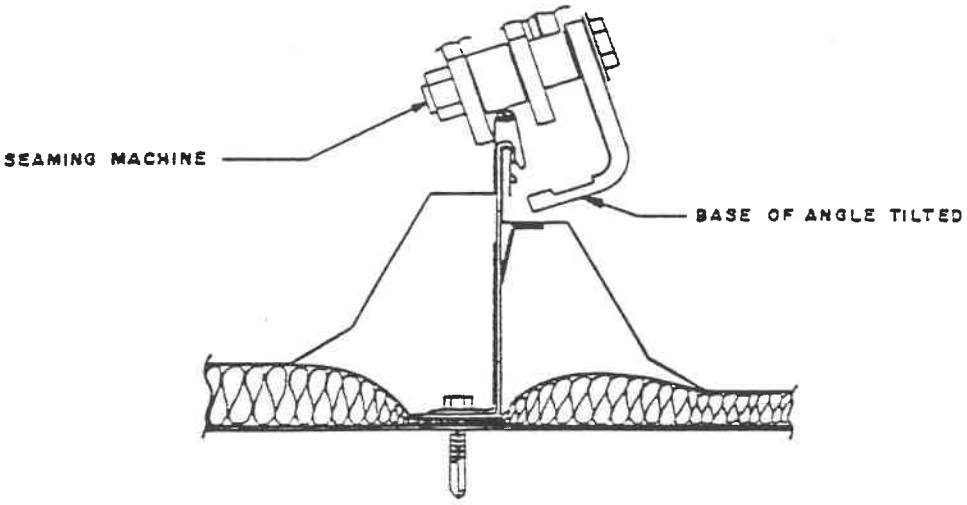


FIG. 6

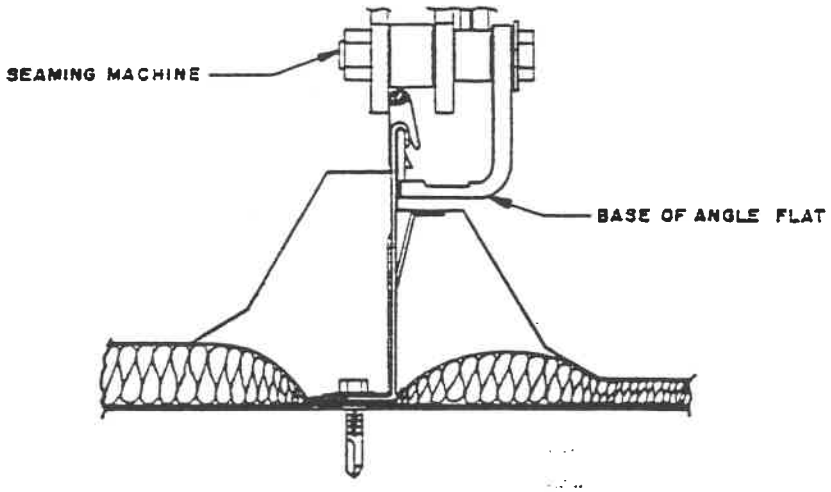
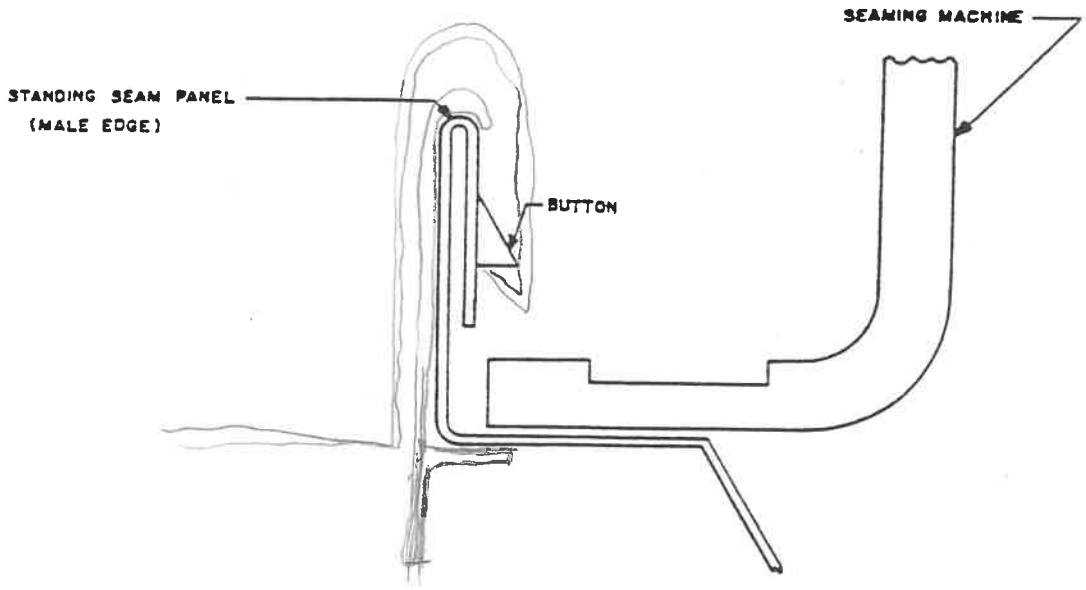
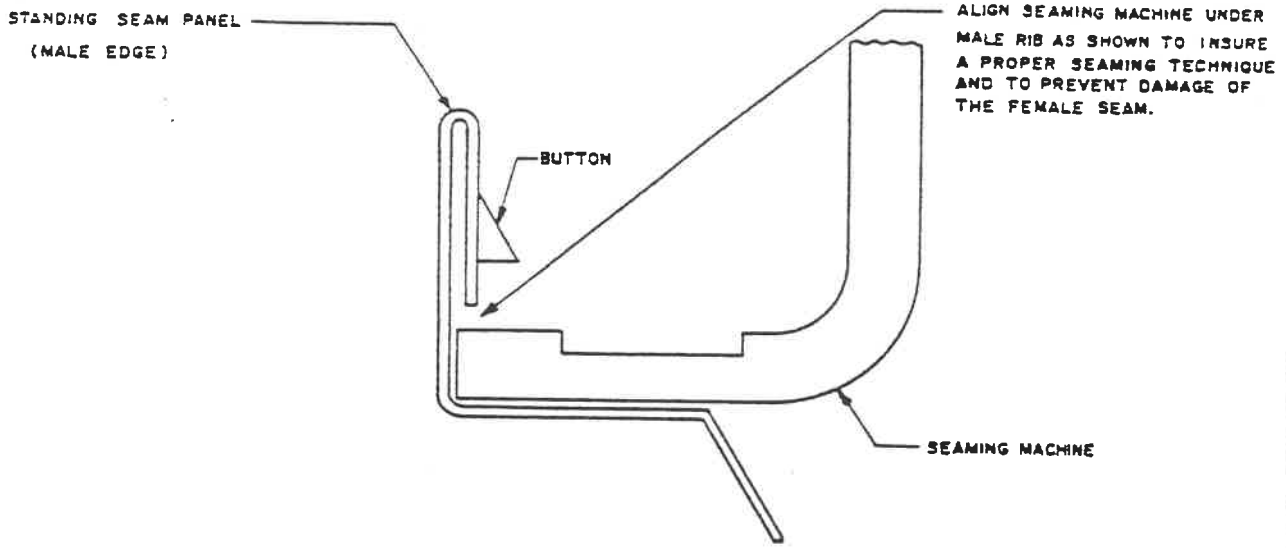


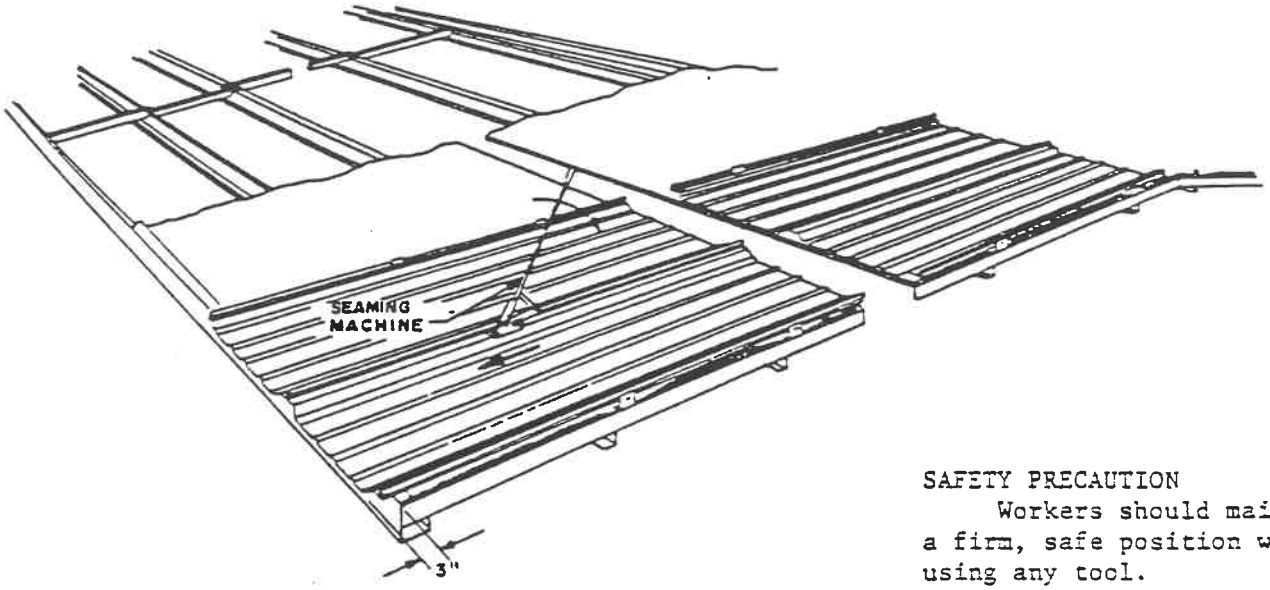
FIG. 7



INCORRECT POSITION

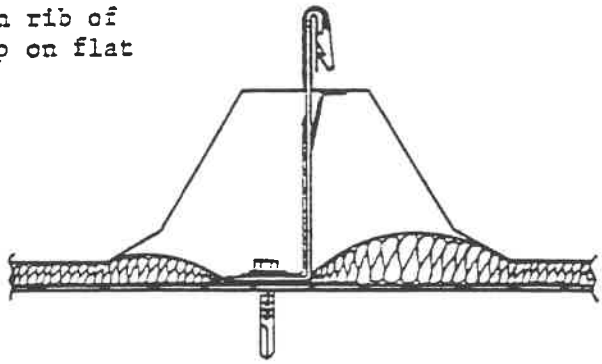


CORRECT POSITION



SAFETY PRECAUTION
Workers should maintain a firm, safe position when using any tool.

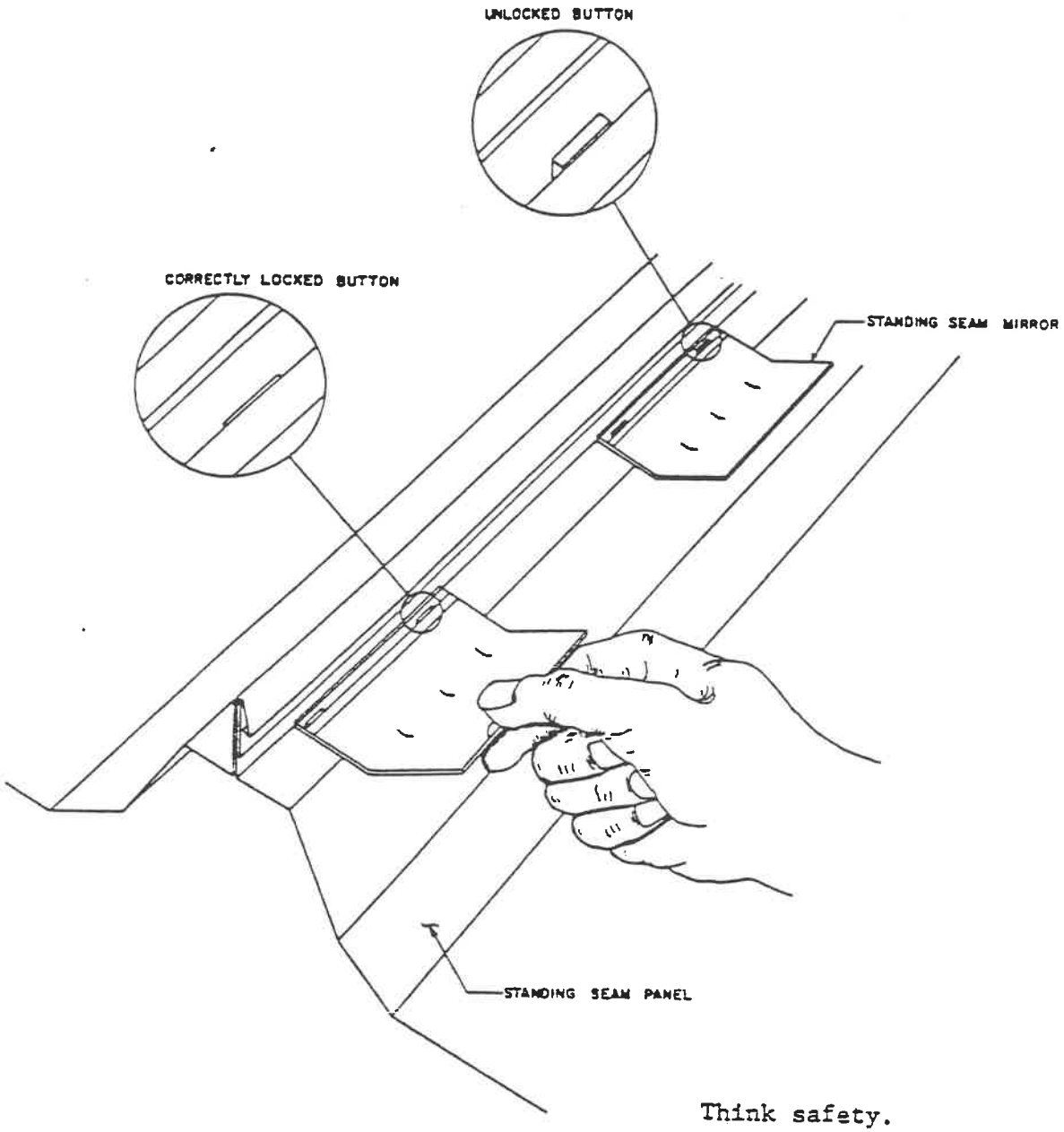
SAFETY PRECAUTION
Do not step on rib of panel. Always step on flat surface.



SAFETY PRECAUTION
Workers should maintain a constant awareness of their location in relation to roof edge when using seaming machine.

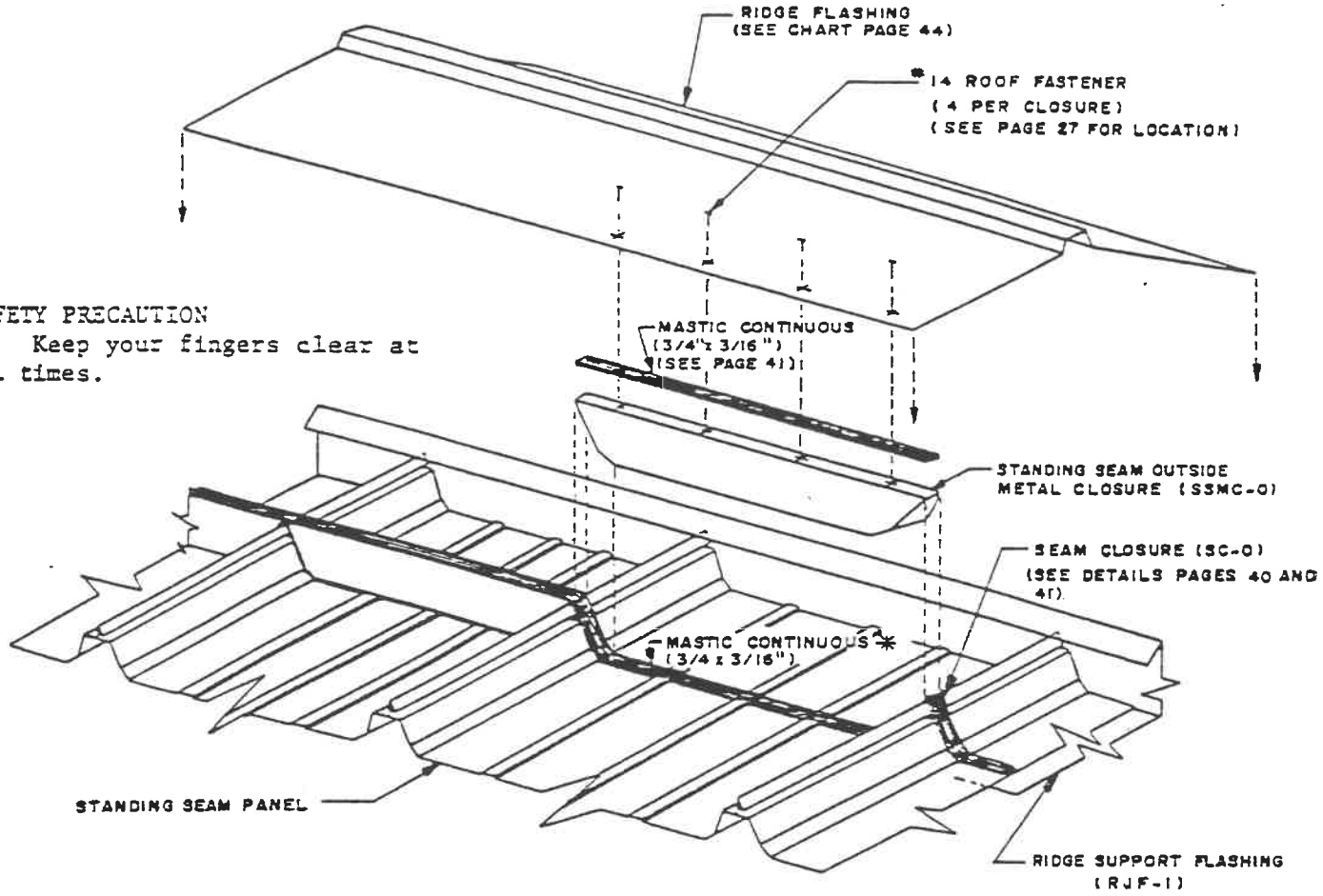
FIG. 8

Seam the two panels together by pusning down on the handle of the Seam Machine until the panels are heard to snap. Move the machine forward approximately 8 to 12 inches and repeat the seaming procedure. Continue the procedure for the full length of the panel. A properly seamed panel is shown in Figure 8.



Think safety.

Use the Standing Seam mirror to verify that the seam has been completely snapped as indicated above. Repeat the installation procedures just described for the remaining panel runs. Be sure to measure straightness of panel runs frequently, especially with lapped panels.



SAFETY PRECAUTION

Keep your fingers clear at all times.

After the installation of the roof panels has been completed, proceed with the ridge closure as shown above. Before any mastic is applied, clean panels of any oil and dirt.

Position ridge support flashing, RJF-1, over the ends of both panels and hold in place with vice grip "C" clamps prior to fastening to end of panels as shown on page 40. Locate and mark the position of the outside closure on the roof panel. Here apply Standing Seam caulking, SSCK-1, to the top of the male rib as indicated in Step 1 on page 41. Install seam closure, SC-0, over mastic making sure all voids are filled (see figure 10, page 40). Lay a strip of 3/4" x 3/16" tape mastic across full width of the panel up and over the closure SC-0, Step 2 page 41. Place outside metal closure into position over mastic as shown above and in Step 3, page 41. Repeat until a sufficient number of closures have been installed to equal a length of ridge flashing.

*SEE GENERAL NOTES, PAGE 1.

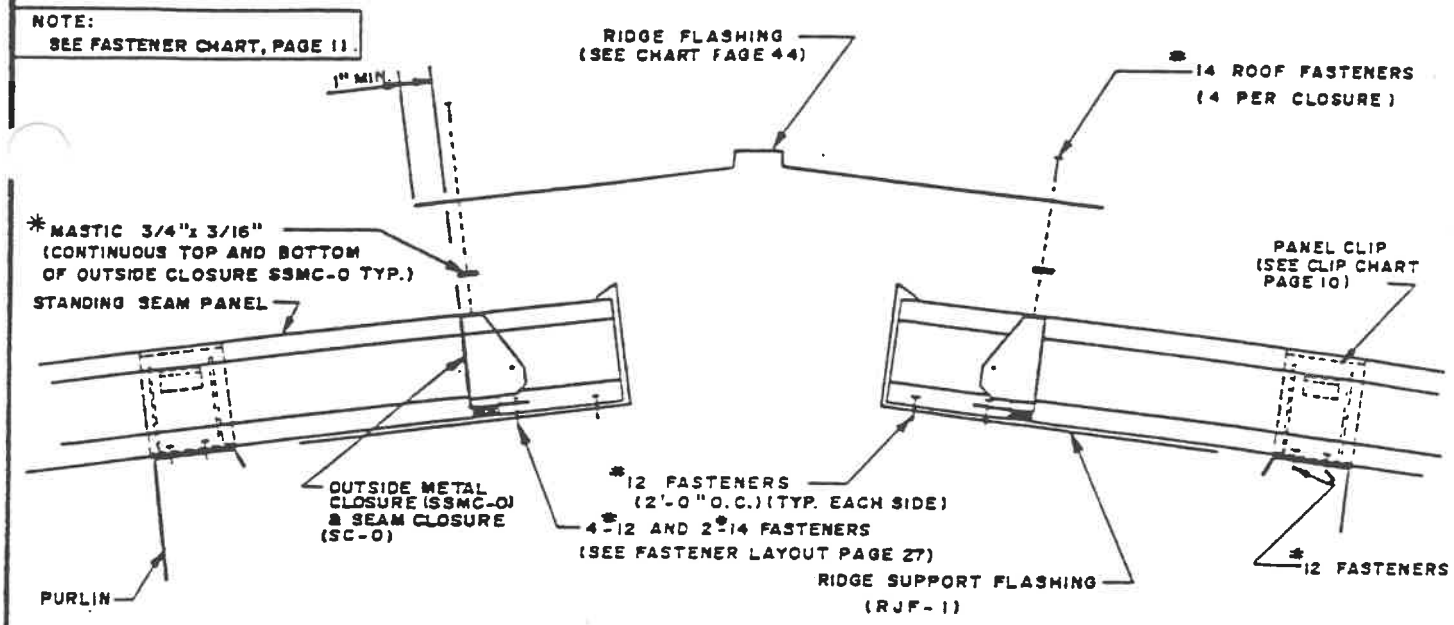


FIG. 9

*SEE GENERAL NOTES, PAGE 1.

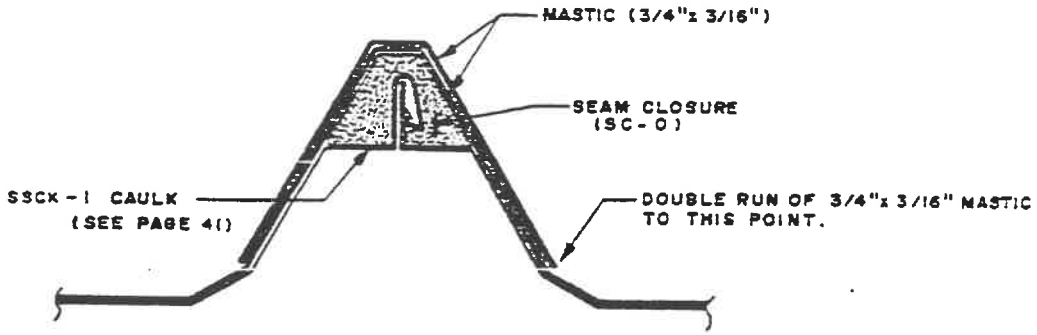
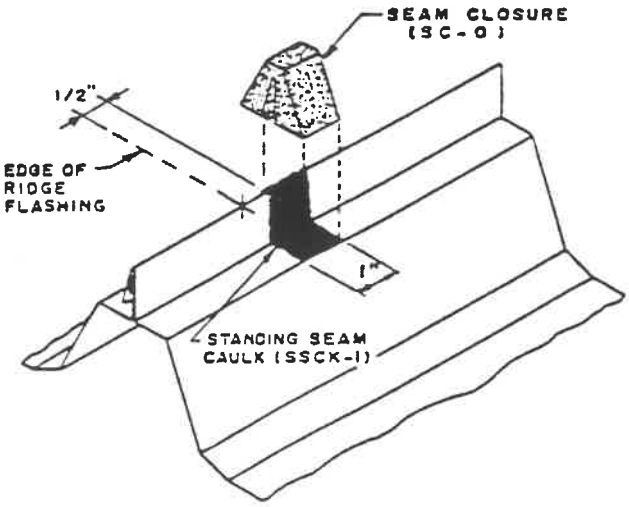
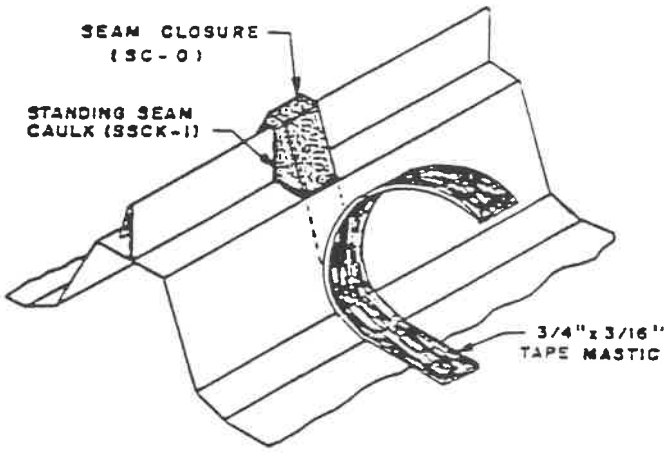


FIG. 10

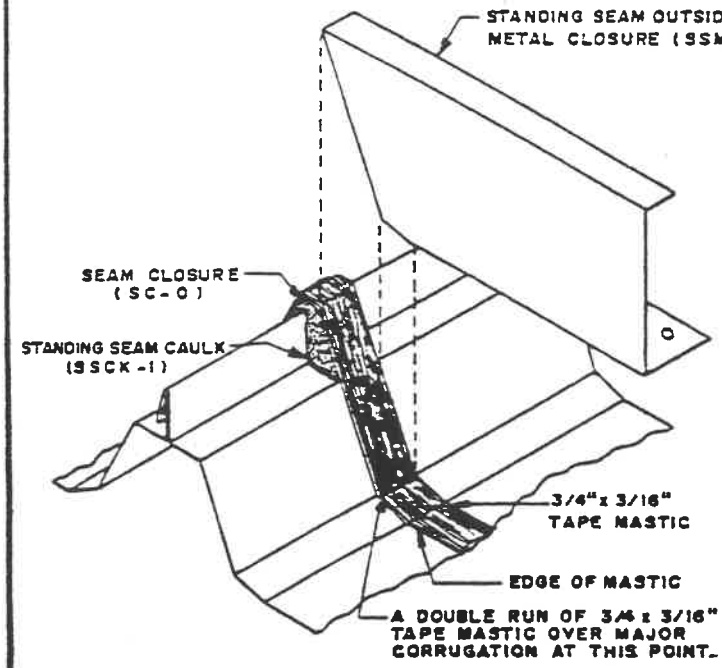
Apply a line of 3/4" x 3/16" tape mastic to top of the ridge closure assembly, taking extra care to seal above the seams. Position a length of ridge flashing and secure to the closures with #14 roof fasteners, 0'-6" on center.



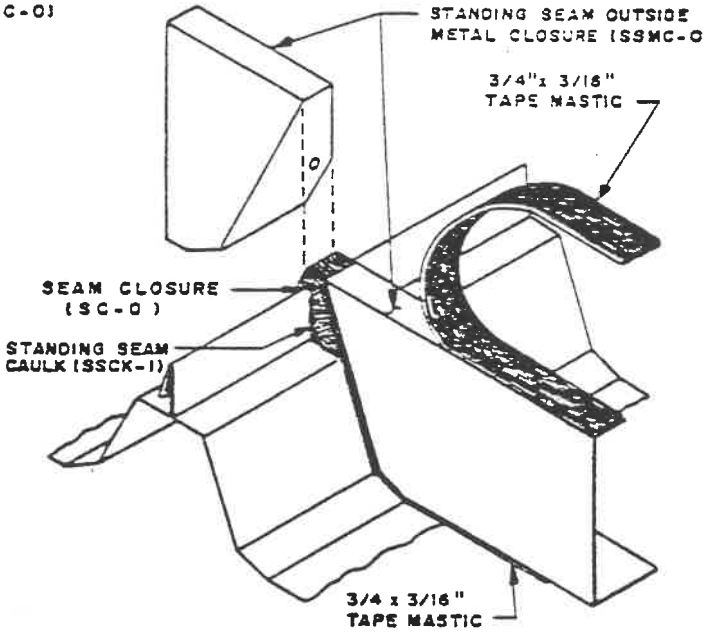
STEP 1. INSTALL CAULK SSCK-1 ON BOTH SIDES OF SEAM AS SHOWN ABOVE. POSITION SEAM CLOSURE SC-0, OVER CAULKED SEAM AND PRESS FIRMLY IN PLACE.



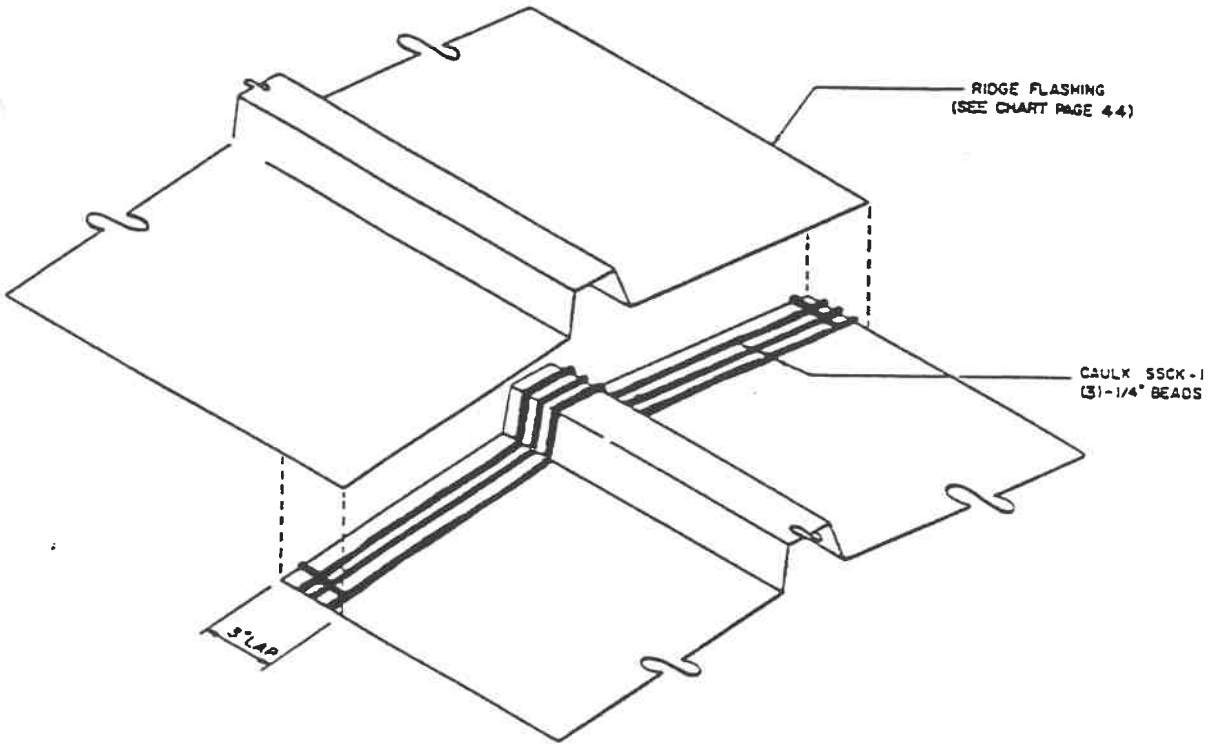
STEP 2. INSTALL 3/4" x 3/16" TAPE MASTIC ACROSS PANEL FLA AND OVER RIB AND CLOSURE. KEEP RUN OF MASTIC INTACT FOR PLACEMENT ON NEXT PANEL.



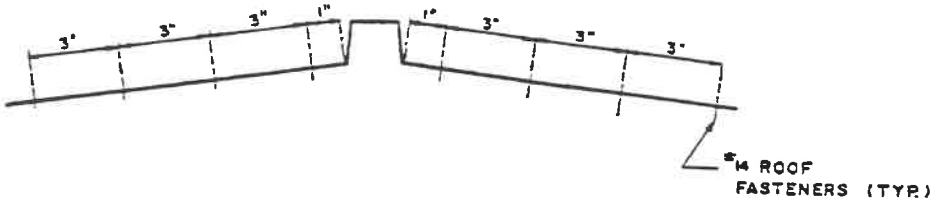
STEP 3. INSTALL METAL OUTSIDE CLOSURE FLUSH WITH EDGE OF MASTIC. SECURE IN PLACE WITH 4-12 AND 2-14 FASTENERS IN PREPUNCHED HOLES AS SHOWN ON PAGE 27.



STEP 4. REPEAT WITH ADDITIONAL CLOSURES FOR FULL LENGTH OF FLASHING INSTALLATION. COMPLETE THE INSTALLATION BY RUNNING 3/4" x 3/16" TAPE MASTIC ALONG TOP EDGE OF CLOSURE.



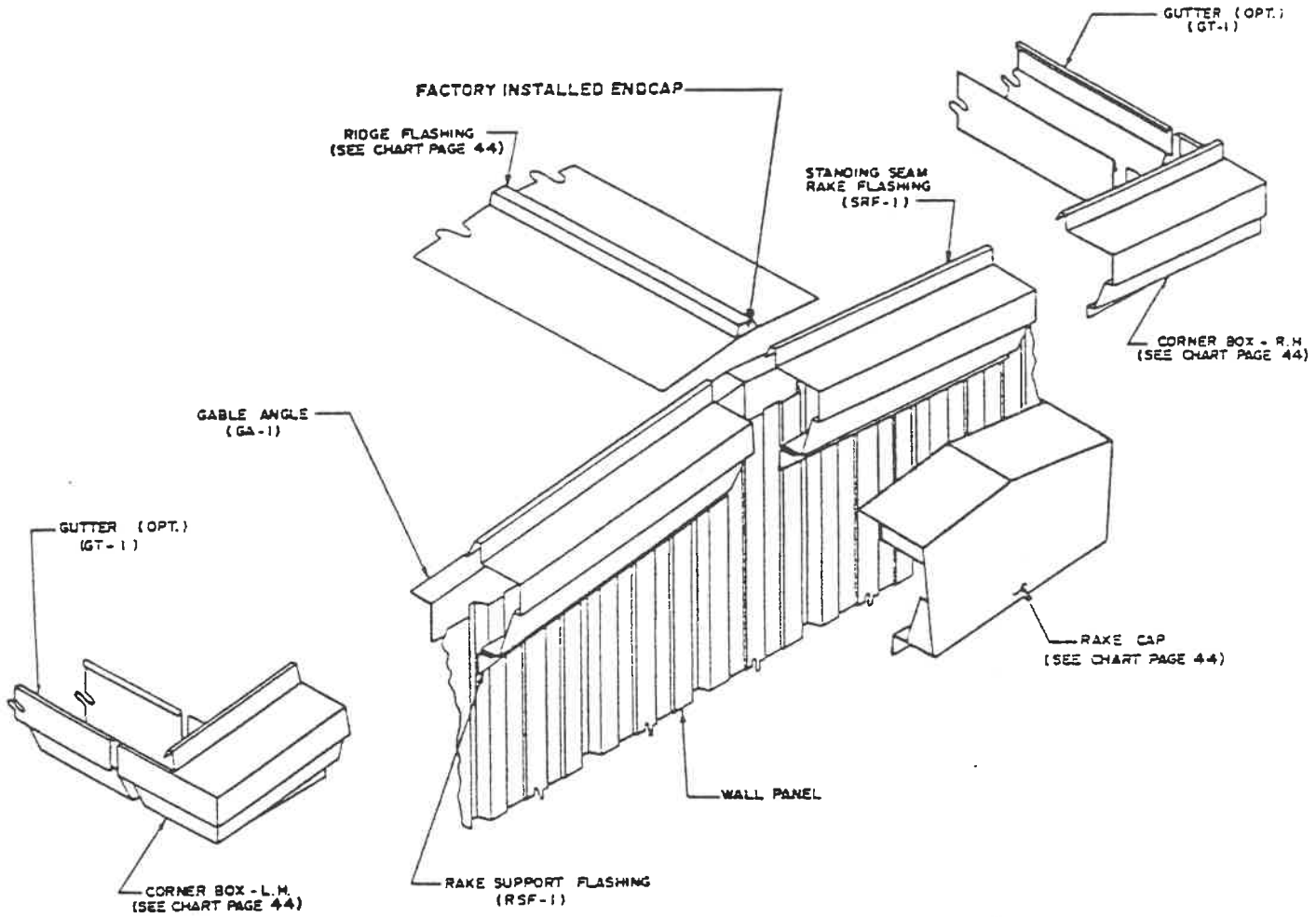
Think safety.



FASTENER LAYOUT

NOTE:
SEE FASTENER CHART, PAGE 11.

Successive lengths of ridge flashing are lapped three inches at their ends as shown above. Apply three 1/4" beads of Standing Seam Caulk across the width of the lower piece of flashing with a bead returning along both sides to the forward end. Join the two ends with #14 roof fasteners in between the three lines of caulking, according to the layout above.

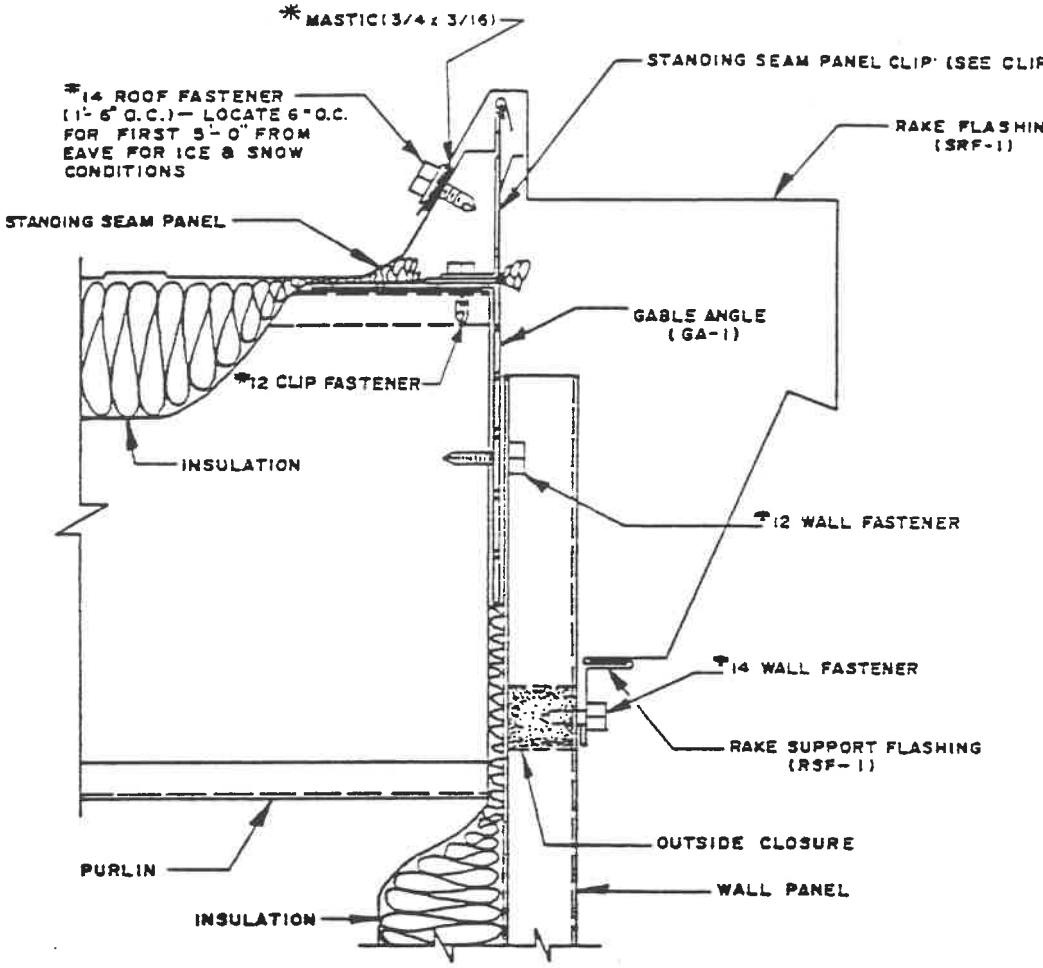


Think safety.

BUILDING SLOPE	STANDARD EAVE FLASHING				DELUXE EAVE FLASHING			
	WITHOUT THERMAL SPACER		WITH THERMAL SPACER		WITHOUT THERMAL SPACER		WITH THERMAL SPACER	
	WALL PANELS		WALL PANELS		WALL PANELS		WALL PANELS	
	LSP AND A2P	HFP	LSP AND A2P	HFP	LSP AND A2P	HFP	LSP AND A2P	HFP
1/4 TO 12	FEC-1	SPEC-1	TSET-1	TSET-1	ED-1	SPET-1	ED-1	SPET-1
1/2 TO 12	FEC-1	SPEC-1	TSET-1	TSET-1	ED-1	SPET-1	ED-1	SPET-1
1 TO 12	FEC-1	SPEC-1	TSET-1	TSET-1	ED-1	SPET-1	ED-1	SPET-1
4 TO 12	FEC-4	SPEC-4	TSET-4	TSET-4	ED-4	SPET-4	ED-4	SPET-4

BUILDING SLOPE	RAKE FLASHING		RAKE CORNER BOX		RAKE CAP		RIDGE FLASHING	
	WALL PANELS		WALL PANELS		WALL PANELS		WITHOUT ENDCAP	WITH ENDCAP
	LSP AND A2P	HFP	LSP AND A2P	HFP	LSP AND A2P	HFP		
1/4 TO 12	SRF-1 RSF-1	SPRF-1 RSF-1	CCB-1 L/R CCD-1 L/R HSCS-1 L/R	CCB-1 L/R CCD-1 L/R HSCSH-1 L/R	SRC-1	SPRC-1	RFE-1	RFE-1E
1/2 TO 12	SRF-1 RSF-1	SPRF-1 RSF-1	CCB-1 L/R CCD-1 L/R HSCS-1 L/R	CCB-1 L/R CCD-1 L/R HSCSH-1 L/R	SRC-1	SPRC-1	RFE-1	RFE-1E
1 TO 12	SRF-1 RSF-1	SPRF-1 RSF-1	CCB-1 L/R CCD-1 L/R HSCS-1 L/R	CCB-1 L/R CCD-1 L/R HSCSH-1 L/R	SRC-1	SPRC-1	RFE-1	RFE-1E
4 TO 12	SRF-1 RSF-1	SPRF-1 RSF-1	CCB-4 L/R CCD-4 L/R HSCS-4 L/R	CCB-4 L/R CCD-4 L/R HSCSH-4 L/R	SRC-4	SPRC-4	RFE-4	RFE-4E

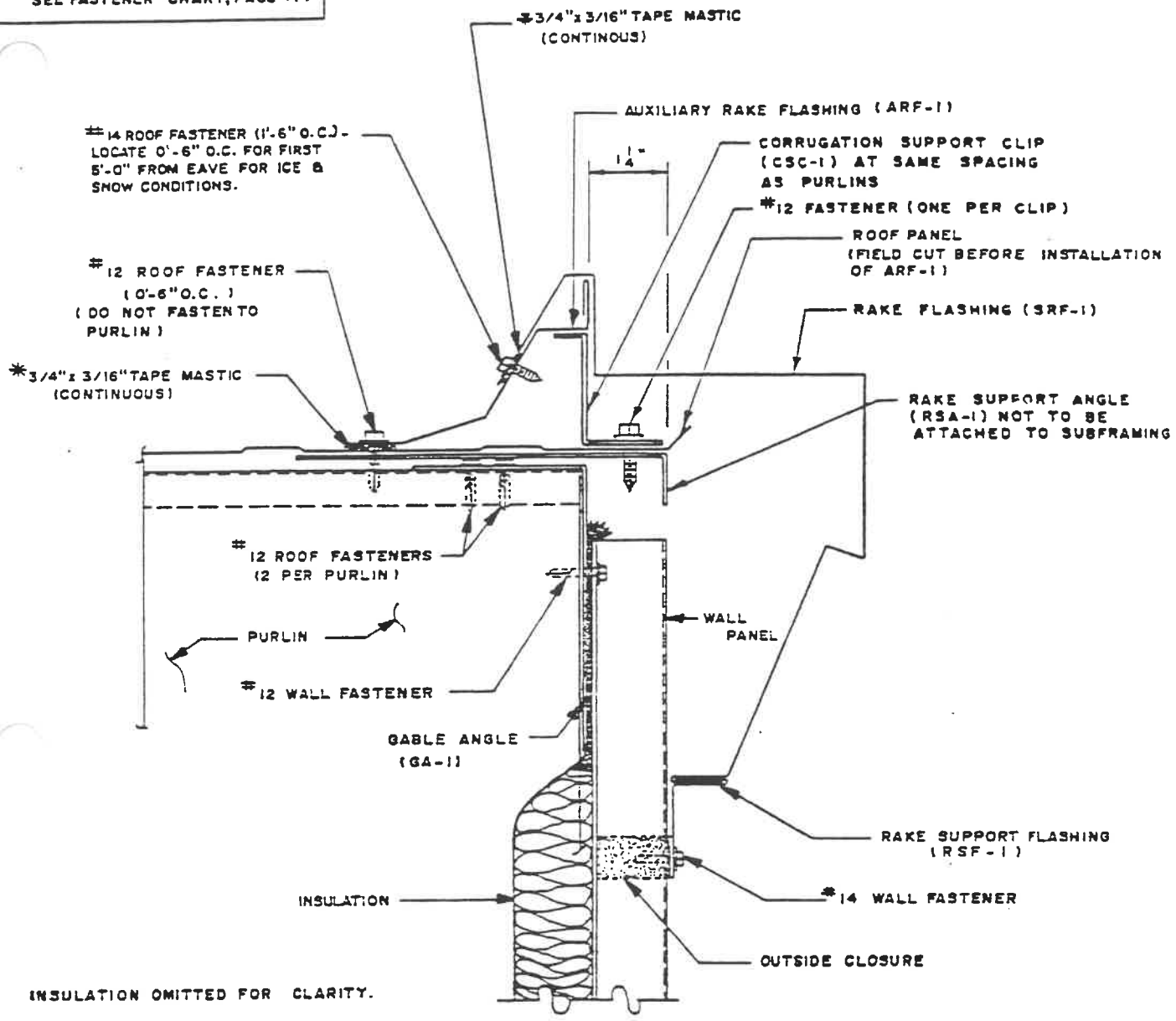
NOTE:
SEE FASTENER CHART, PAGE 11.



RAKE DETAIL AT STARTING ENDWALL

*SEE GENERAL NOTES, PAGE 1.

NOTE
SEE FASTENER CHART, PAGE 11.

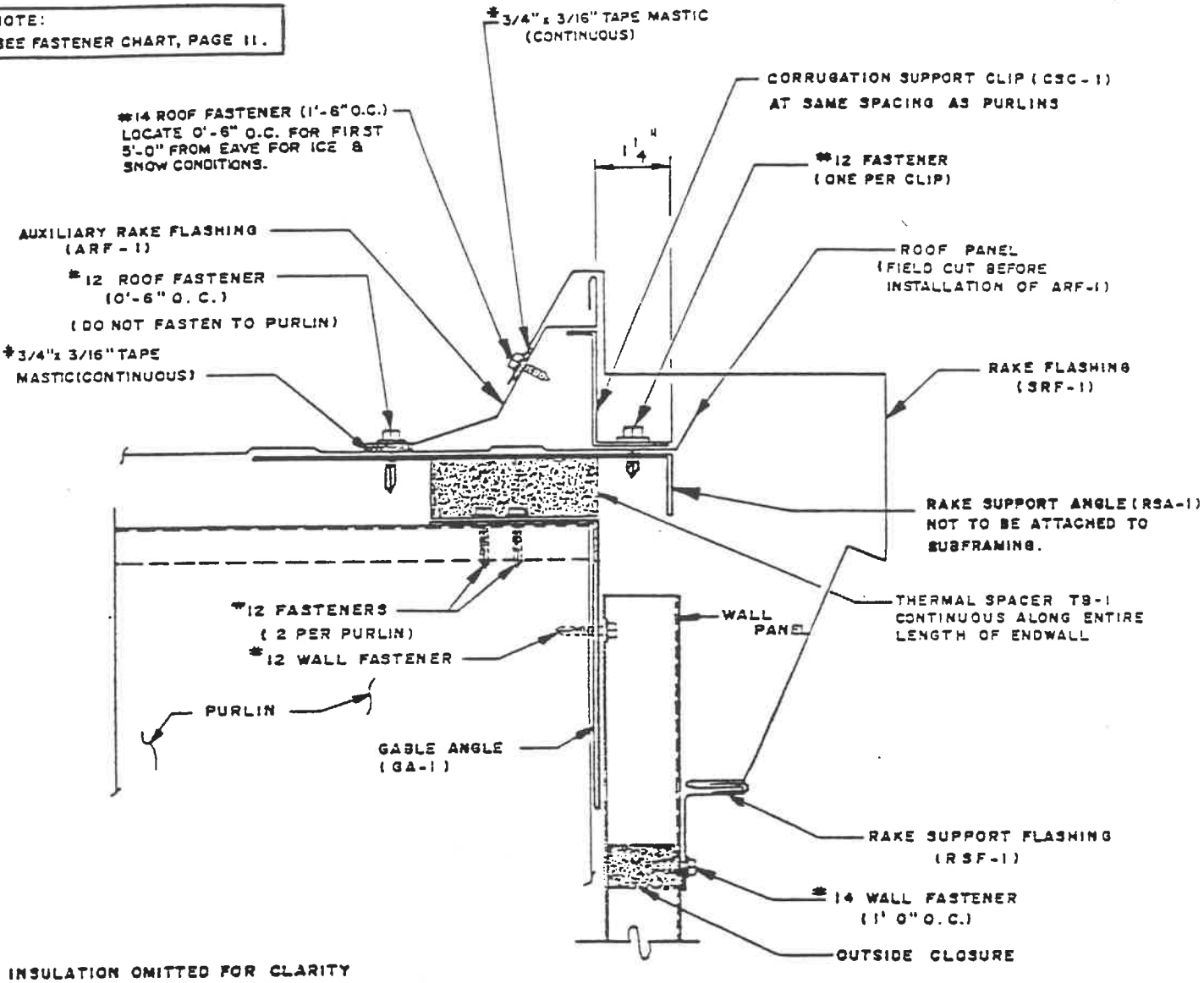


Think safety.

AUXILIARY RAKE SECTION

*SEE GENERAL NOTES, PAGE 1.

NOTE:
SEE FASTENER CHART, PAGE 11.

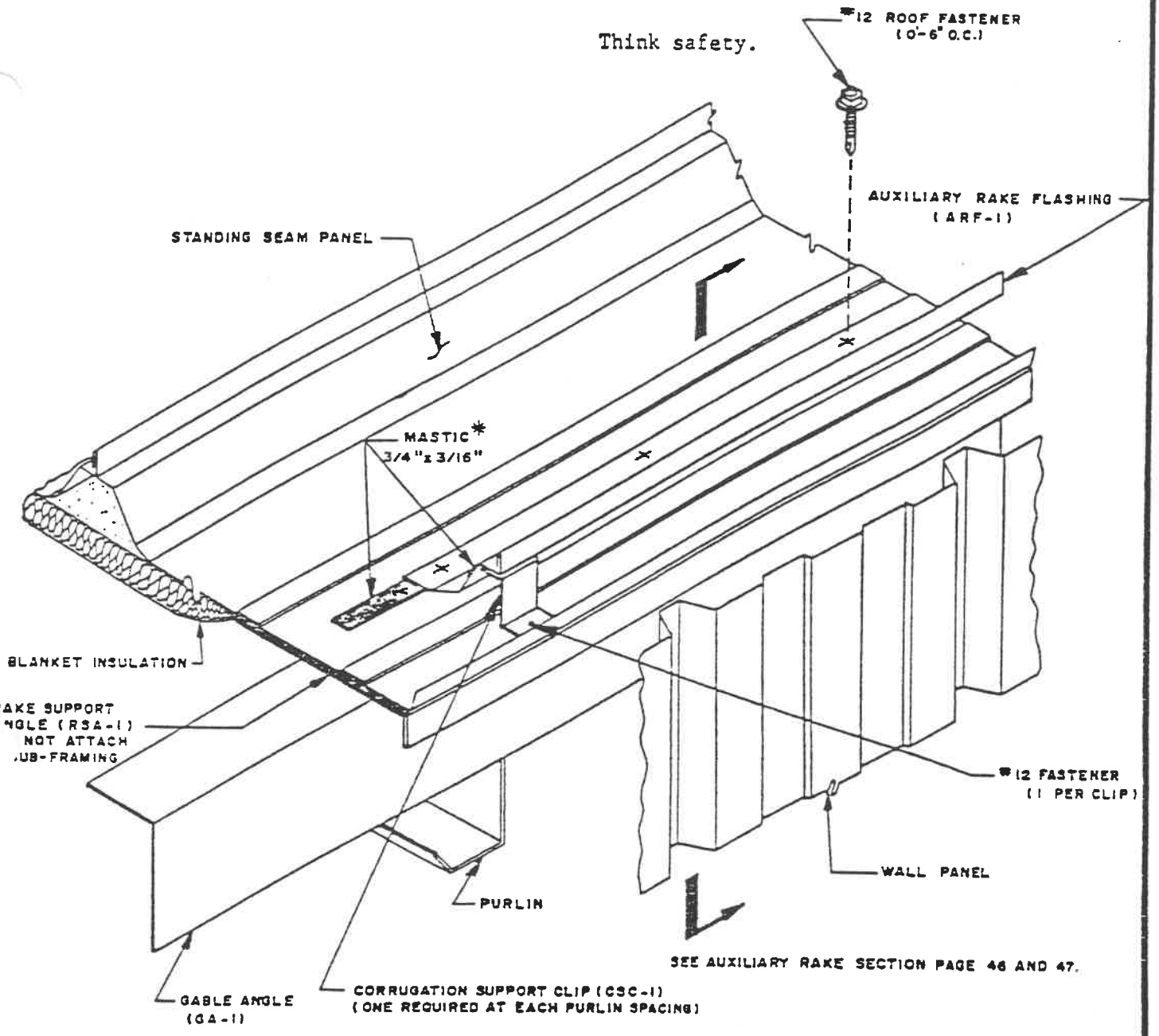


INSULATION OMITTED FOR CLARITY

*SEE GENERAL NOTES, PAGE 1.

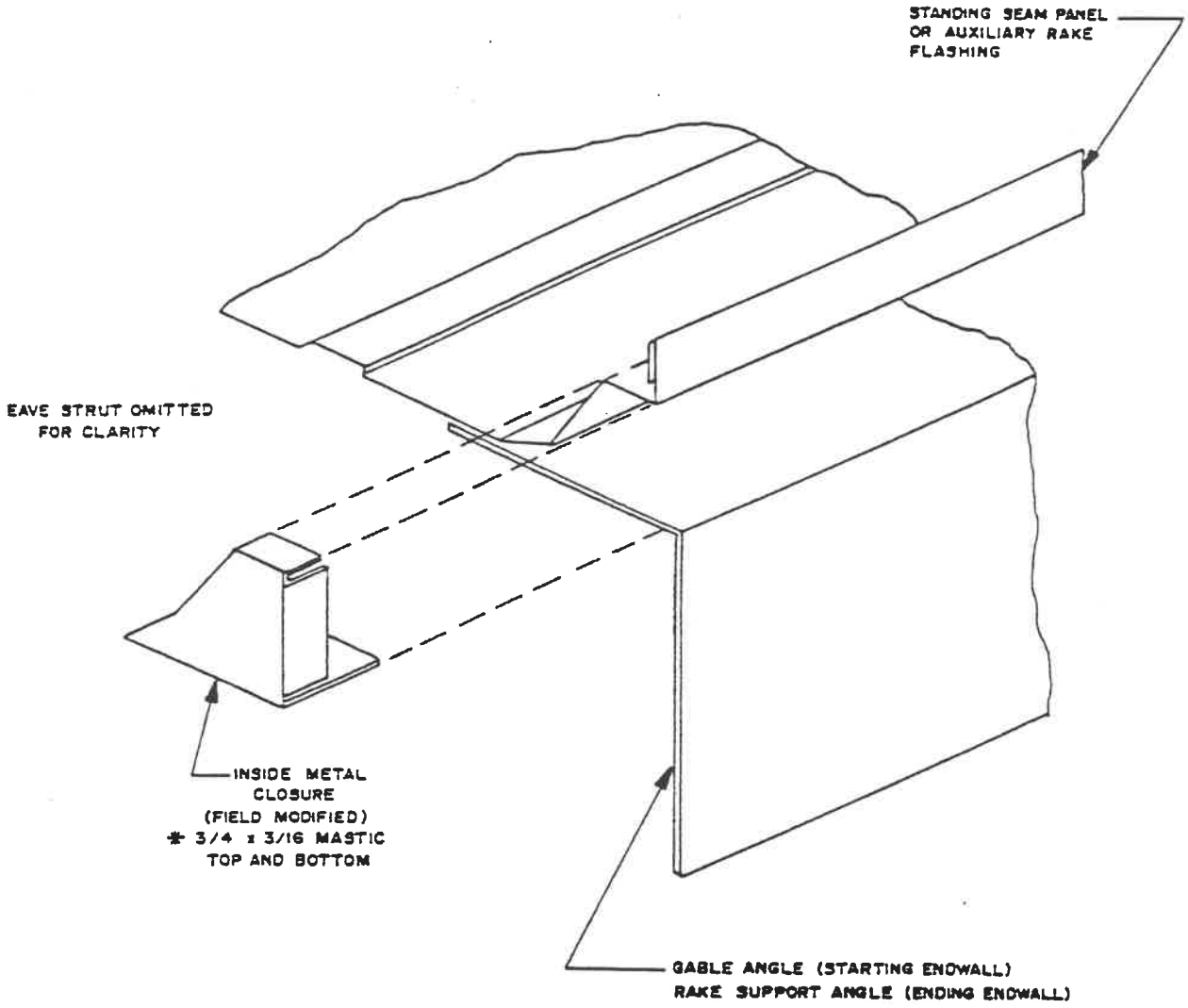
AUXILIARY RAKE SECTION WITH THERMAL SPACER

Think safety.



* SEE GENERAL NOTES, PAGE 1.

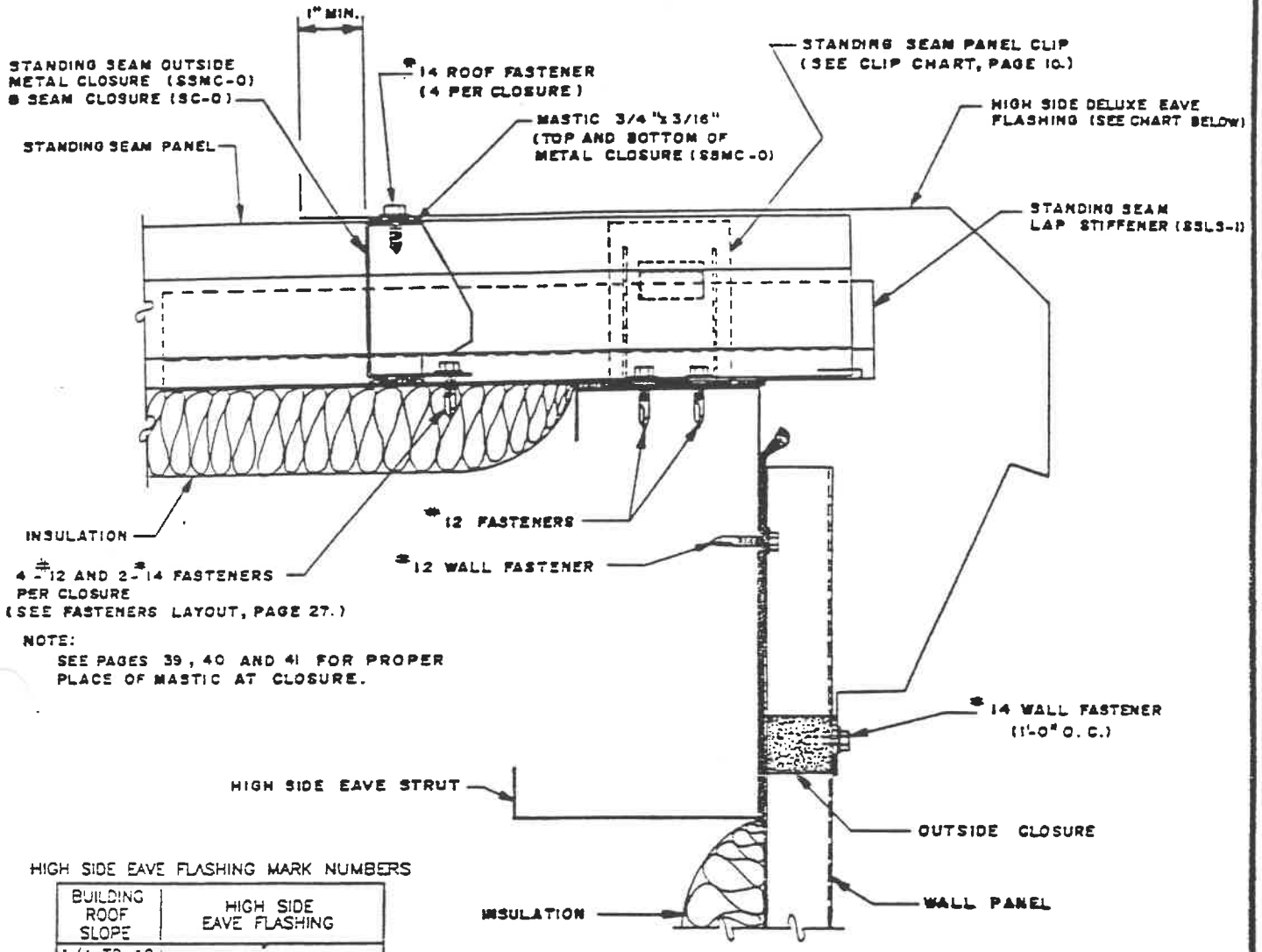
AUXILIARY RAKE FLASHING INSTALLATION



PANEL CLOSURE AT RAKE

* SEE GENERAL NOTES, PAGE 1.

NOTE:
SEE FASTENER CHART, PAGE 11.



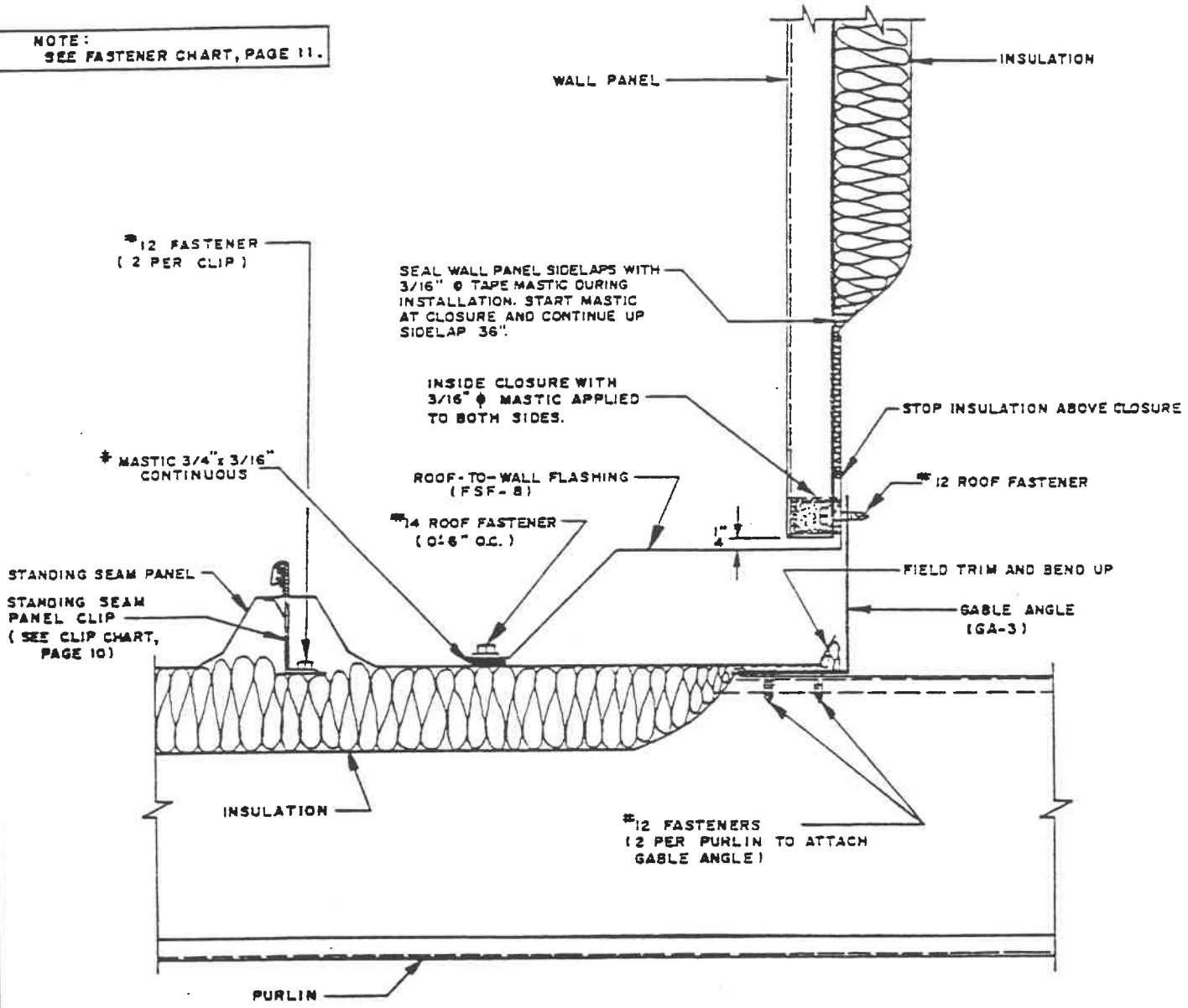
NOTE:
SEE PAGES 39, 40 AND 41 FOR PROPER PLACE OF MASTIC AT CLOSURE.

HIGH SIDE EAVE FLASHING MARK NUMBERS

BUILDING ROOF SLOPE	HIGH SIDE EAVE FLASHING
1/4 TO 12	HSES-1
1/2 TO 12	
1 TO 12	
4 TO 12	HSES-4

EAVE DETAIL AT HIGH SIDE
(SINGLE SLOPE BUILDINGS)

NOTE:
SEE FASTENER CHART, PAGE 11.



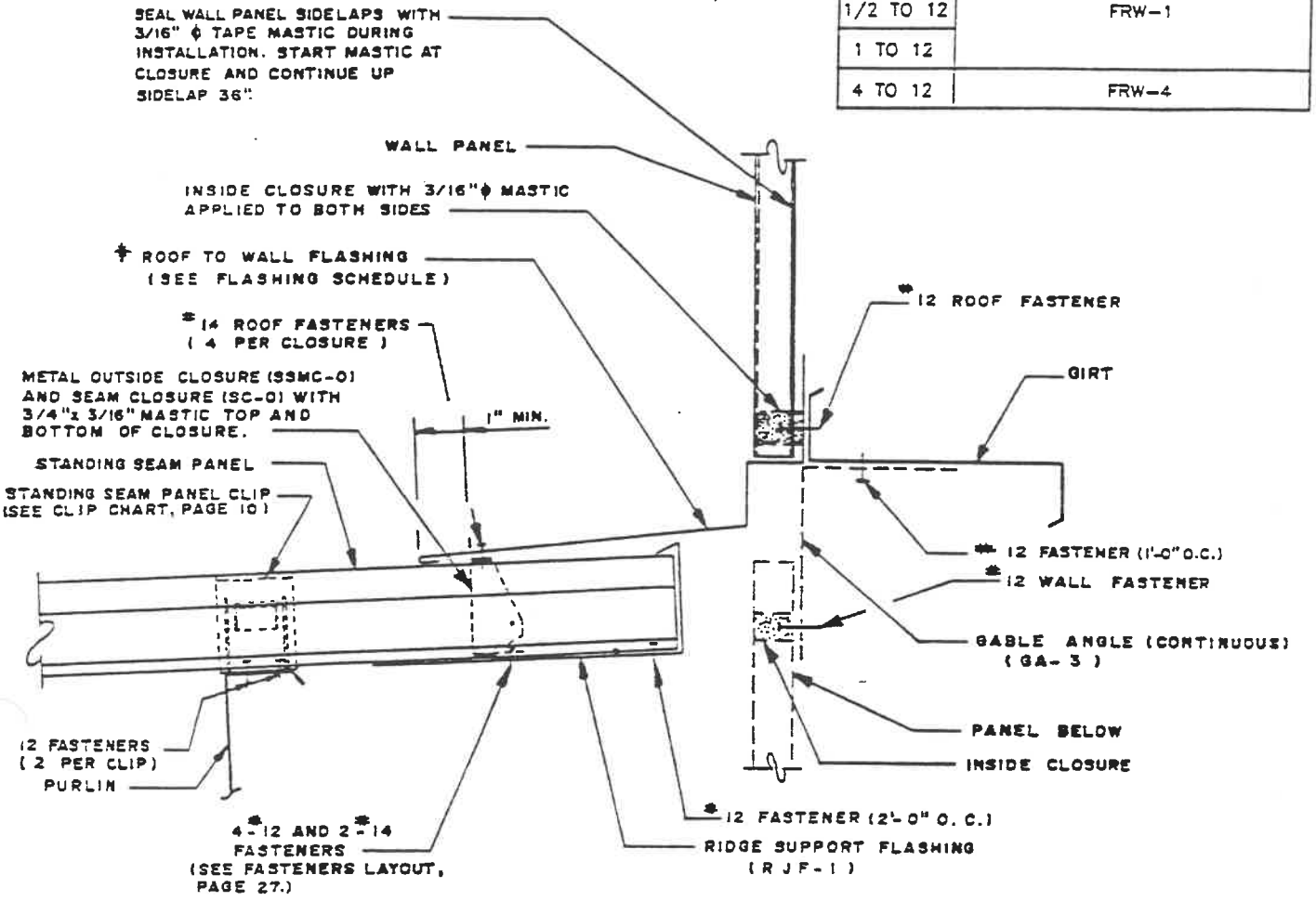
ROOF TO WALL DETAIL

* SEE GENERAL NOTES, PAGE 1.

NOTE:
SEE FASTENER CHART PAGE 11.

HIGH SIDE EAVE FLASHING MARK NUMBERS

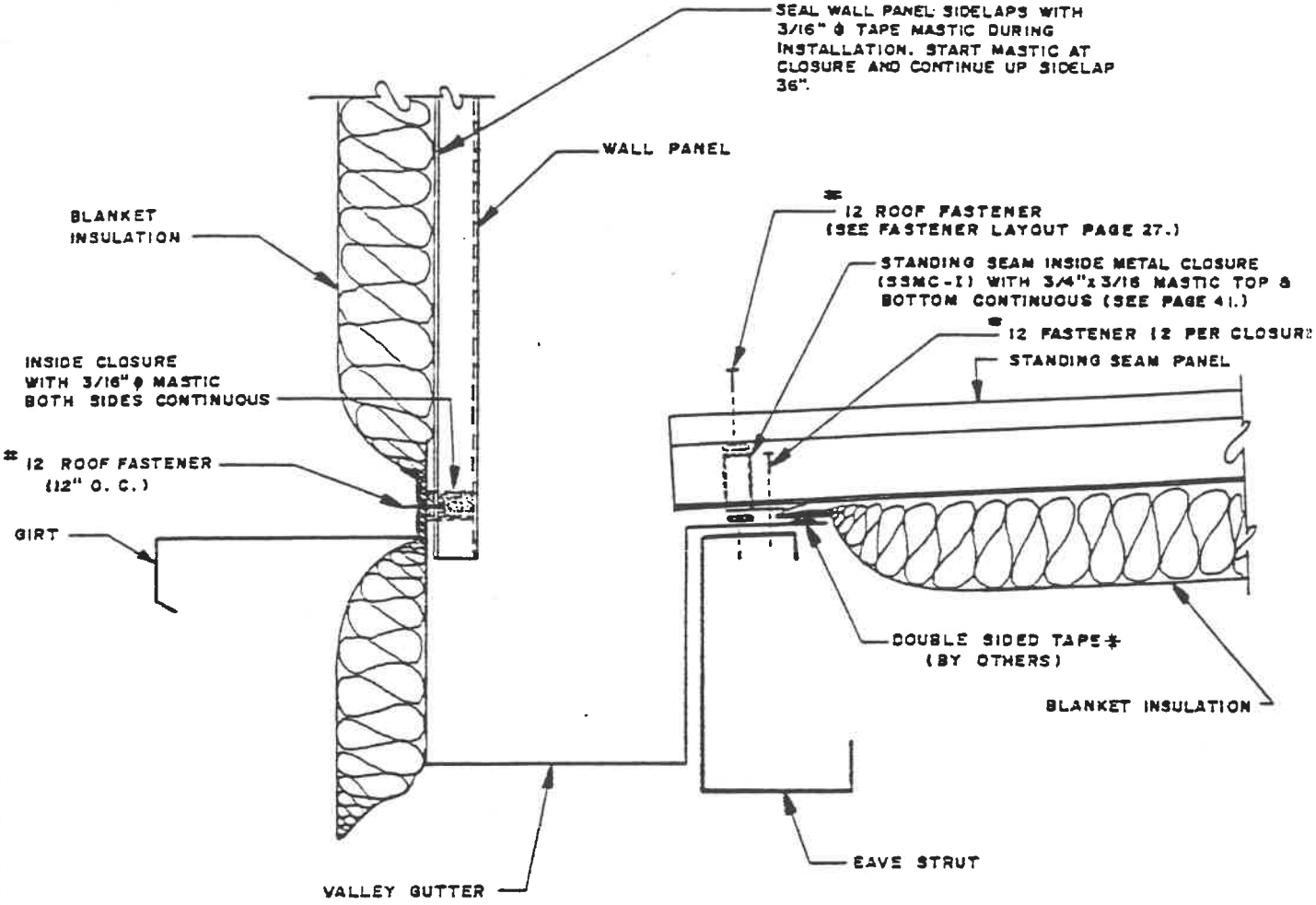
BUILDING ROOF SLOPE	ROOF TO WALL FLASHING
1/4 TO 12	FRW-1
1/2 TO 12	
1 TO 12	
4 TO 12	FRW-4



* LAP JOINTS SEALED WITH GUTTER SEAL, WITH FASTENERS 0'-2" ON CENTER

STANDING SEAM ROOF TO WALL DETAIL AT HIGH SIDE

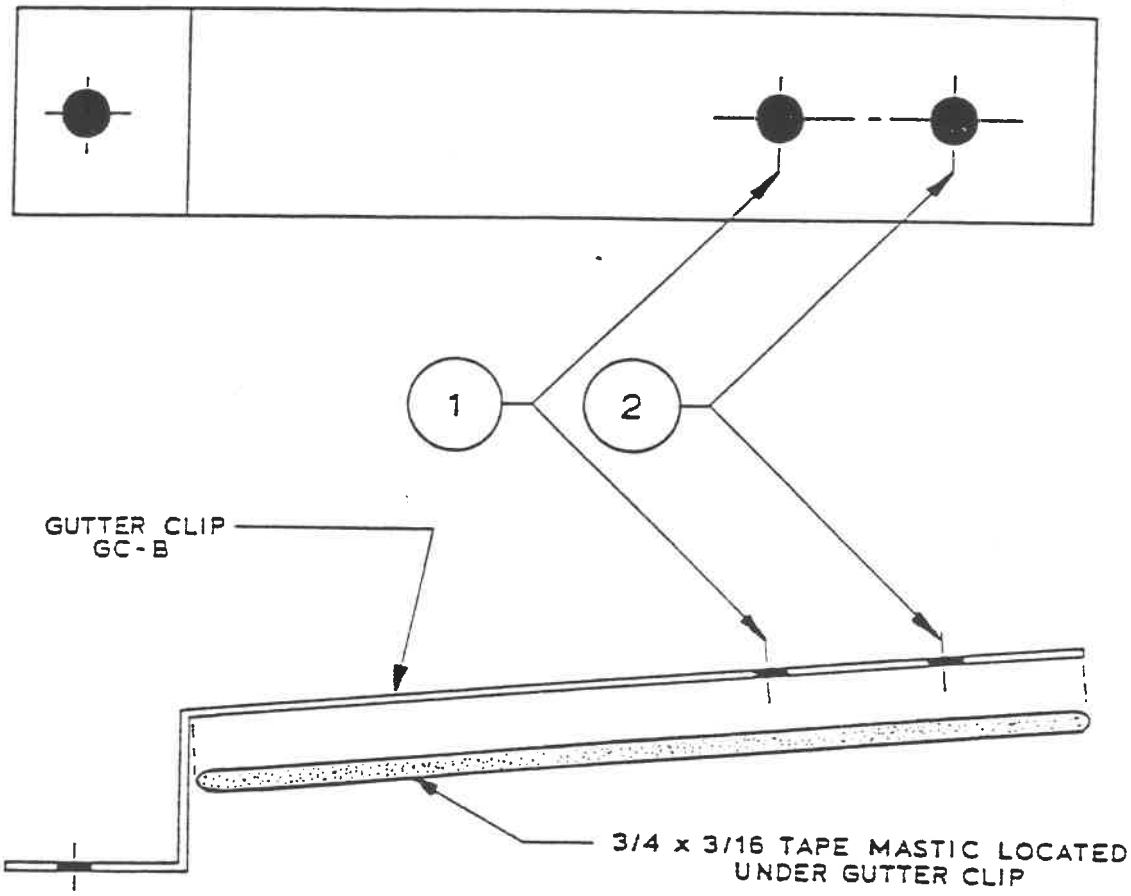
NOTE:
SEE FASTENER CHART, PAGE 11.



VALLEY GUTTER DETAIL

* SEE GENERAL NOTES, PAGE 1

TOP VIEW



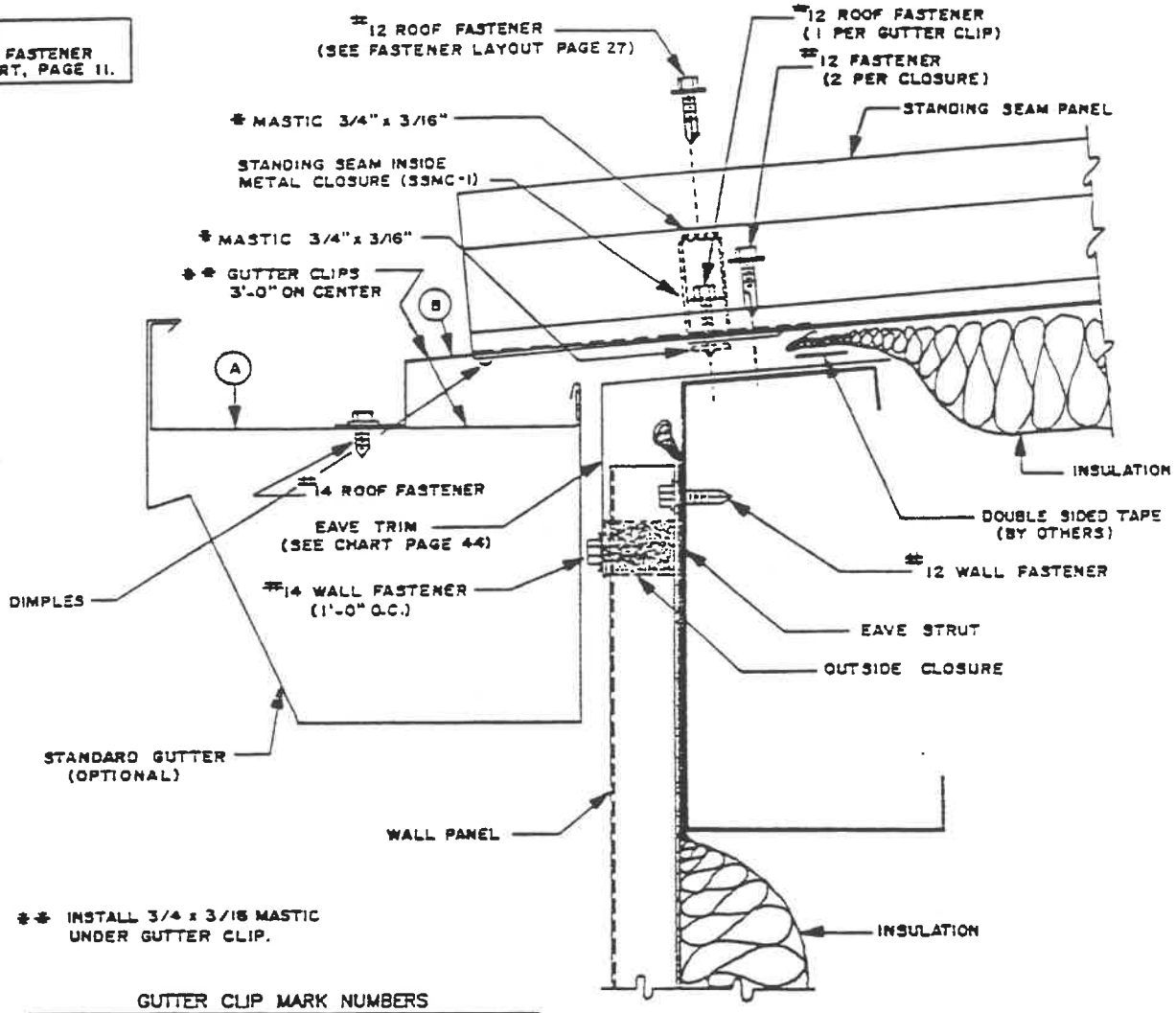
(1) WHEN THERMAL SPACER EAVE TRIM IS REQUIRED, USE THIS HOLE TO ATTACH GUTTER CLIP.

(2) WHEN THERMAL SPACER EAVE TRIM IS NOT REQUIRED, USE THIS HOLE TO ATTACH GUTTER CLIP.

GUTTER CLIP HOLE DESCRIPTION

(GC-B ONLY)

NOTE:
SEE FASTENER CHART, PAGE 11.



** INSTALL 3/4 x 3/16 MASTIC UNDER GUTTER CLIP.

GUTTER CLIP MARK NUMBERS

BUILDING ROOF SLOPE	PART B WALL PANELS		PART A
	LSP & A2P	HFP	
1/4 TO 12	GC-B1	SPGC-B1	GC-A
1/2 TO 12			
1 TO 12			
4 TO 12	GC-B4	SPGC-B4	

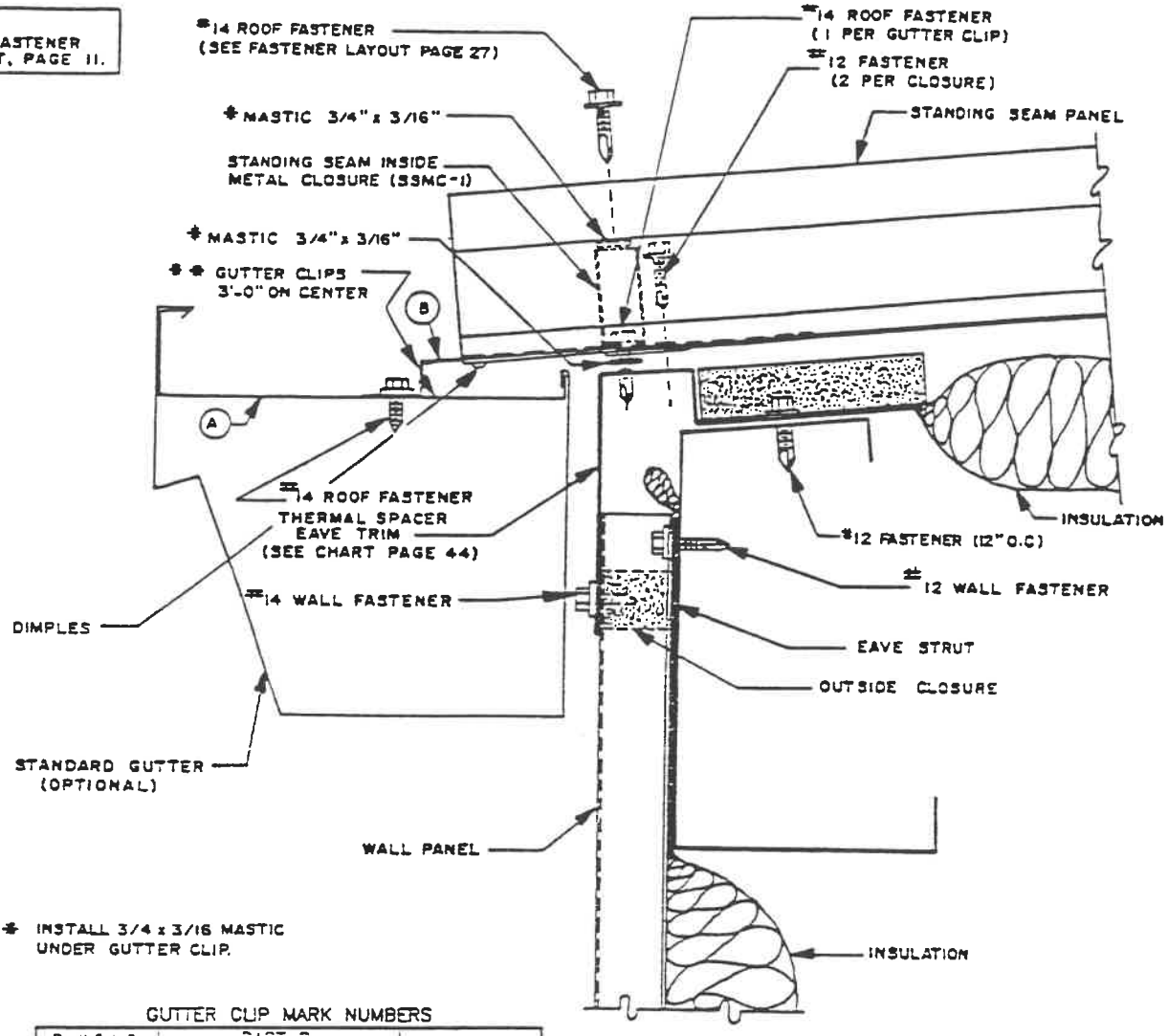
NOTE: SEE PAGE 54 FOR GUTTER CLIP DETAIL

NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENDLAPS ONLY.

EAVE DETAIL WITH STANDARD GUTTER

* SEE GENERAL NOTES, PAGE 1.

NOTE:
SEE FASTENER CHART, PAGE 11.



* * INSTALL 3/4 x 3/16 MASTIC UNDER GUTTER CLIP.

GUTTER CLIP MARK NUMBERS

BUILDING ROOF SLOPE	PART B WALL PANELS LSP & A2P	PART B WALL PANELS HFP	PART A
1/4 TO 12	GC-B1	SPGC-B1	GC-A
1/2 TO 12			
1 TO 12			
4 TO 12	GC-B4	SPGC-B4	

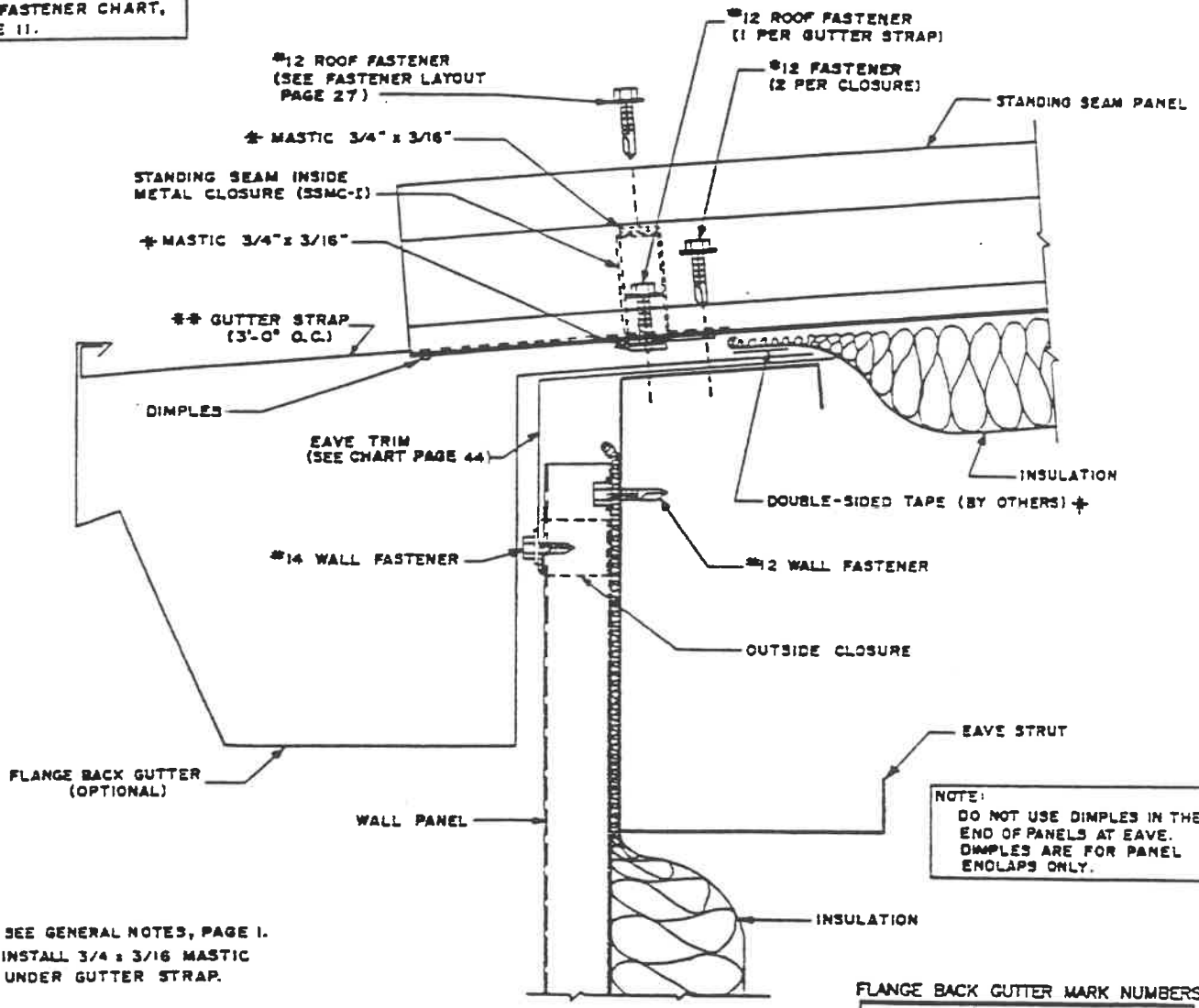
NOTE: SEE PAGE 54 FOR GUTTER CLIP DETAIL

NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENDLAPS ONLY.

EAVE DETAIL WITH STANDARD GUTTER AND THERMAL SPACER

* SEE GENERAL NOTES, PAGE 1.

NOTE:
SEE FASTENER CHART, PAGE 11.



NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENDLAPS ONLY.

✱ SEE GENERAL NOTES, PAGE 1.
✱✱ INSTALL 3/4 x 3/16 MASTIC UNDER GUTTER STRAP.

GUTTER STRAP MARK NUMBERS

BUILDING ROOF SLOPE	WALL PANELS	
	LSP & A2P	HFP
1/4 TO 12	GS-1	SPGS-1
1/2 TO 12		
1 TO 12		
4 TO 12	GS-4	SPGS-4

NOTE: SEE PAGE 54 FOR GUTTER CLIP DETAIL

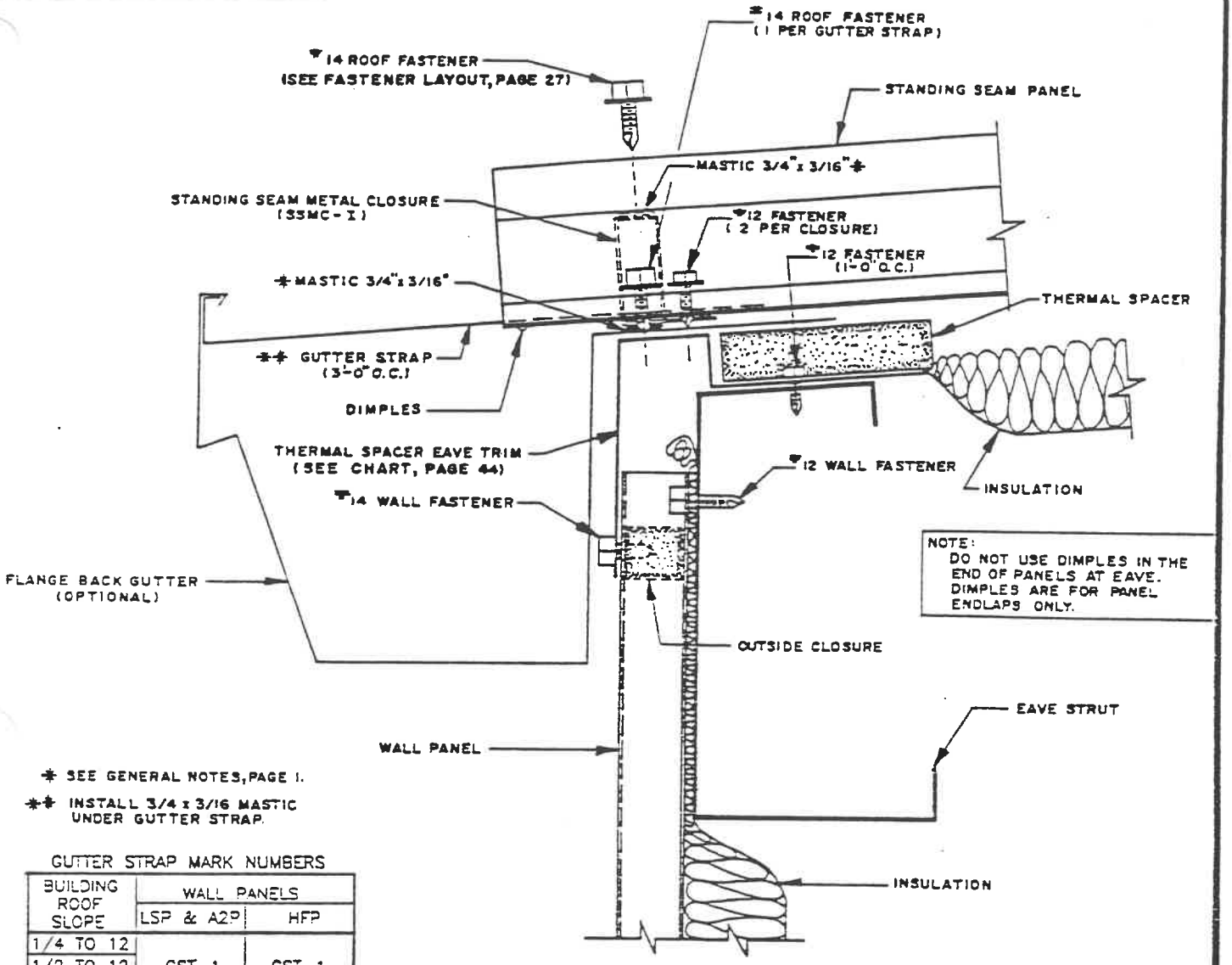
Think safety.

FLANGE BACK GUTTER MARK NUMBERS

BUILDING ROOF SLOPE	WALL PANELS	
	LSP & A2P	HFP
1/4 TO 12	BG-1	SPFBG-1
1/2 TO 12		
1 TO 12		
4 TO 12	BG-4	SPFBG-4

EAVE DETAIL WITH FLANGE BACK GUTTER

NOTE:
SEE FASTENER CHART, PAGE 11.



SEE GENERAL NOTES, PAGE 1.

INSTALL 3/4 x 3/16 MASTIC UNDER GUTTER STRAP.

GUTTER STRAP MARK NUMBERS

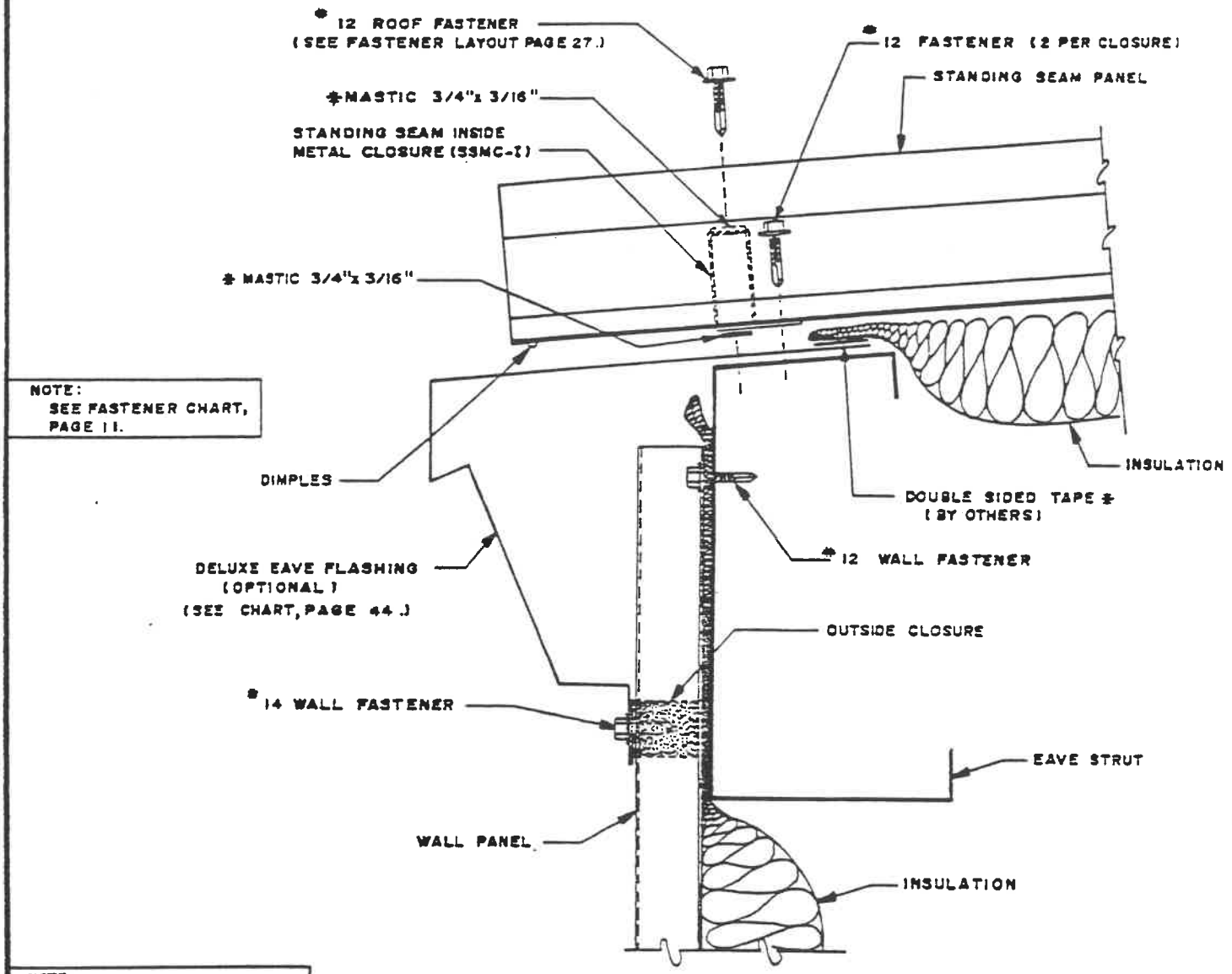
BUILDING ROOF SLOPE	WALL PANELS	
	LSP & A2P	HFP
1/4 TO 12	GST-1	GST-1
1/2 TO 12		
1 TO 12		
4 TO 12	GST-4	GST-4

NOTE: SEE PAGE 54 FOR GUTTER CLIP DETAIL

FLANGE BACK GUTTER MARK NUMBERS

BUILDING ROOF SLOPE	WALL PANELS	
	LSP & A2P	HFP
1/4 TO 12	BG-1	SPFBG-1
1/2 TO 12		
1 TO 12		
4 TO 12	BG-4	SPFBG-4

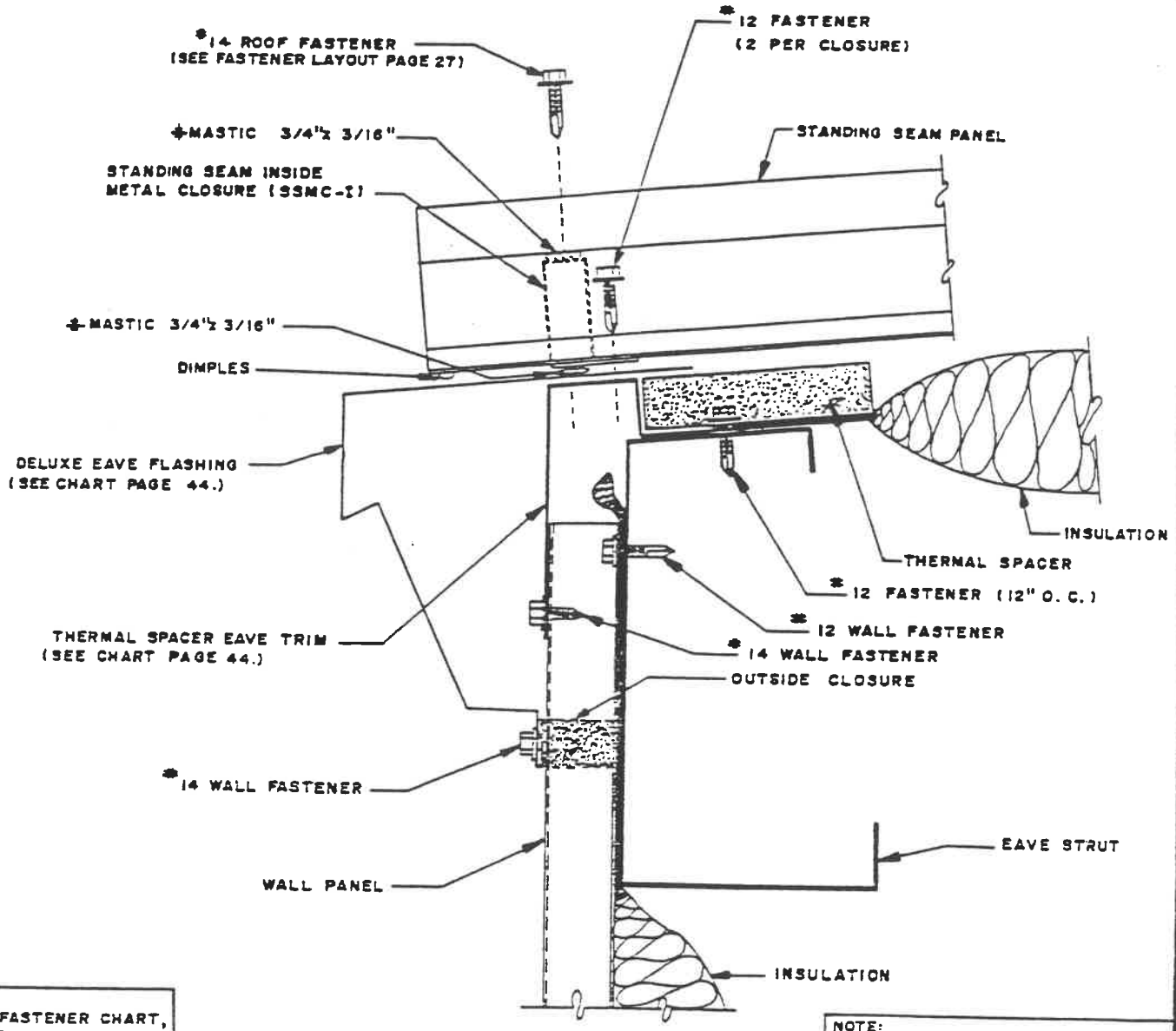
EAVE DETAIL WITH FLANGE BACK GUTTER AND THERMAL SPACER



Think safety.

EAVE DETAIL WITH DELUXE EAVE FLASHING

* SEE GENERAL NOTES, PAGE 1.



NOTE:
SEE FASTENER CHART, PAGE 11.

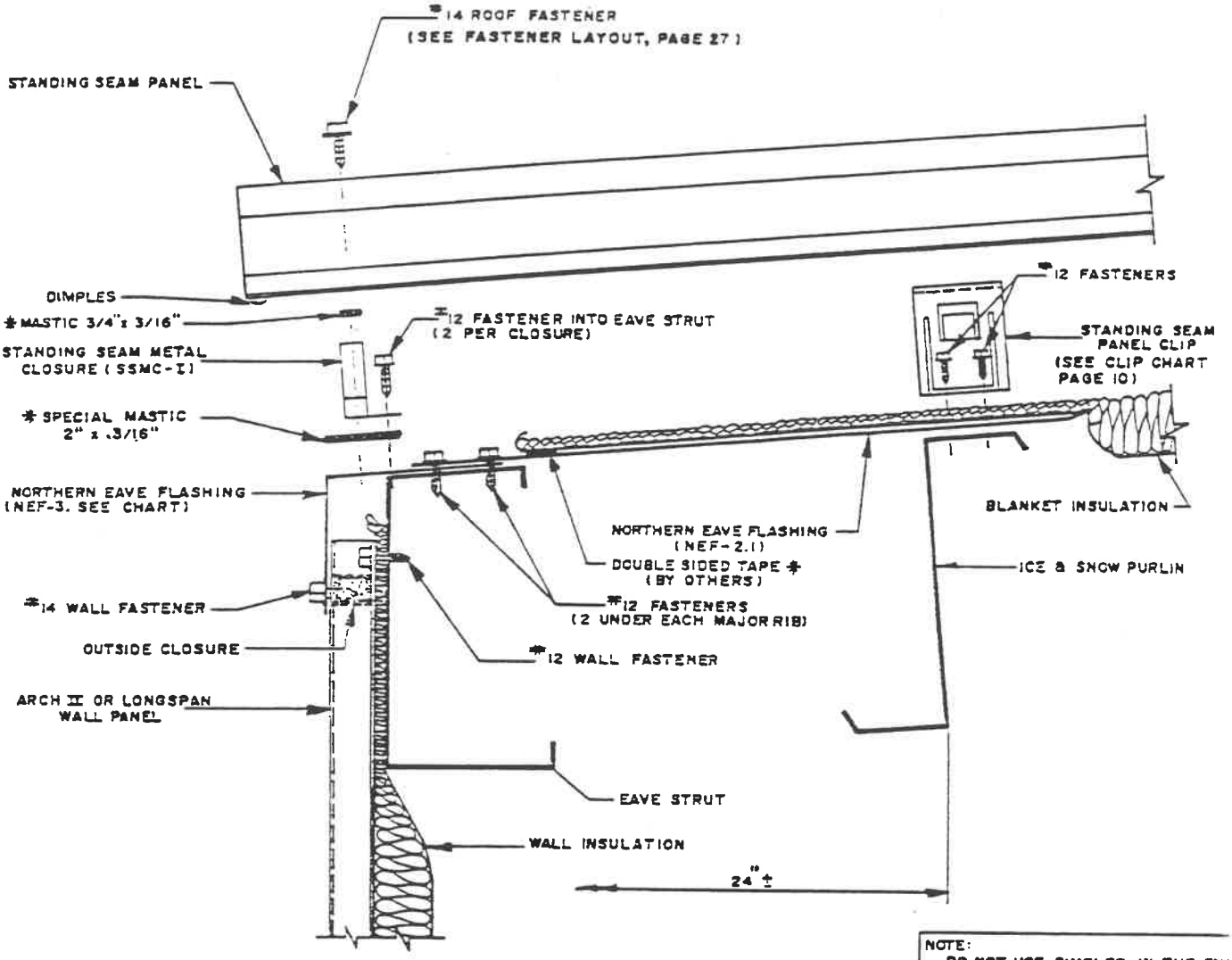
NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENDLAPS ONLY.

Think safety.

EAVE DETAIL WITH DELUXE EAVE FLASHING AND THERMAL SPACER

* SEE GENERAL NOTES, PAGE 1.

NOTE:
SEE FASTENER CHART, PAGE 11.



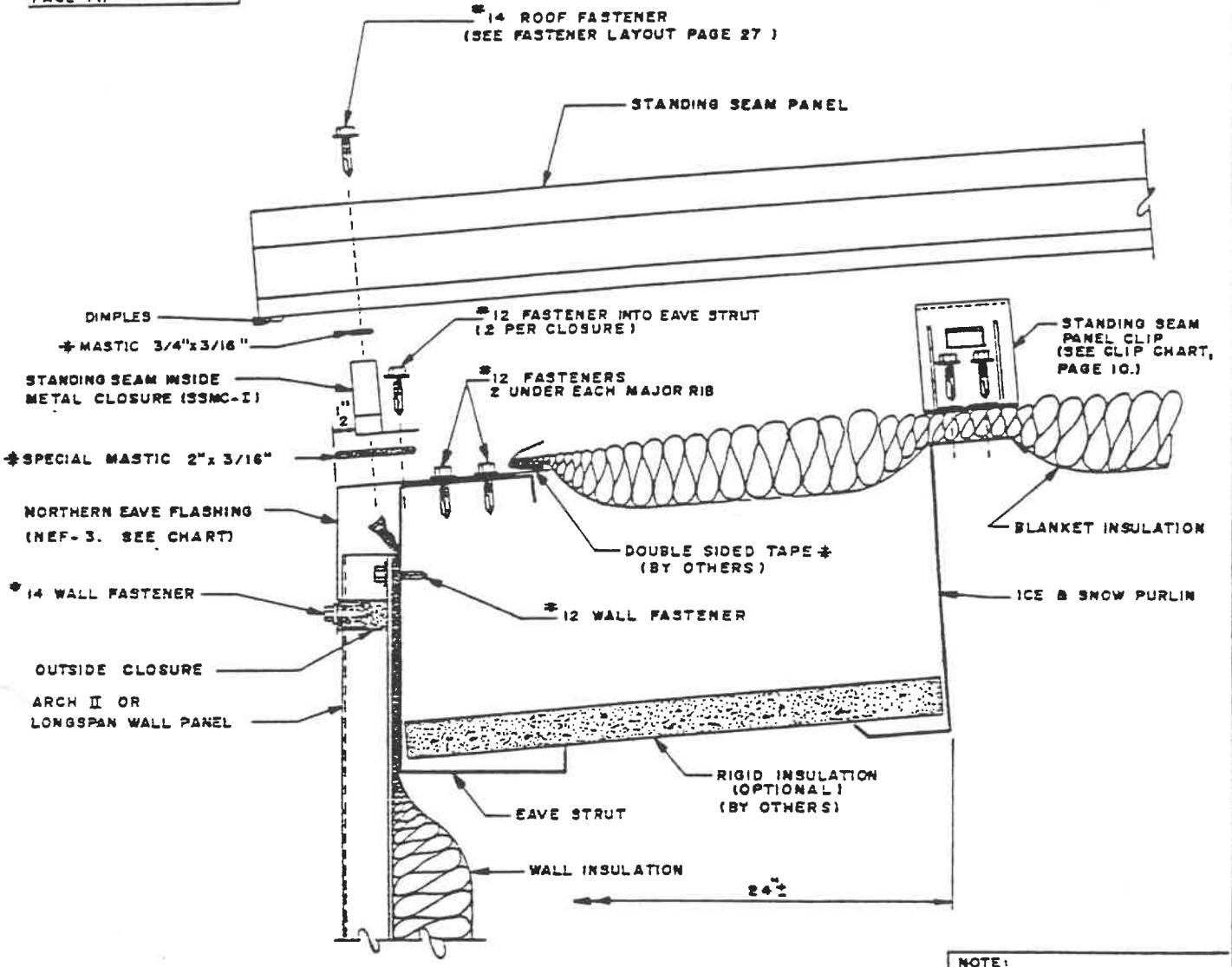
NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENDLAPS ONLY

ICE AND SNOW CONDITION # 1

BUILDING ROOF SLOPE	NORTHERN EAVE FLASHING
1/4 TO 12	NEF-3.1
1/2 TO 12	
1 TO 12	
4 TO 12	NEF-3.4

* SEE GENERAL NOTES, PAGE 1

NOTE:
SEE FASTENER CHART, PAGE 11.



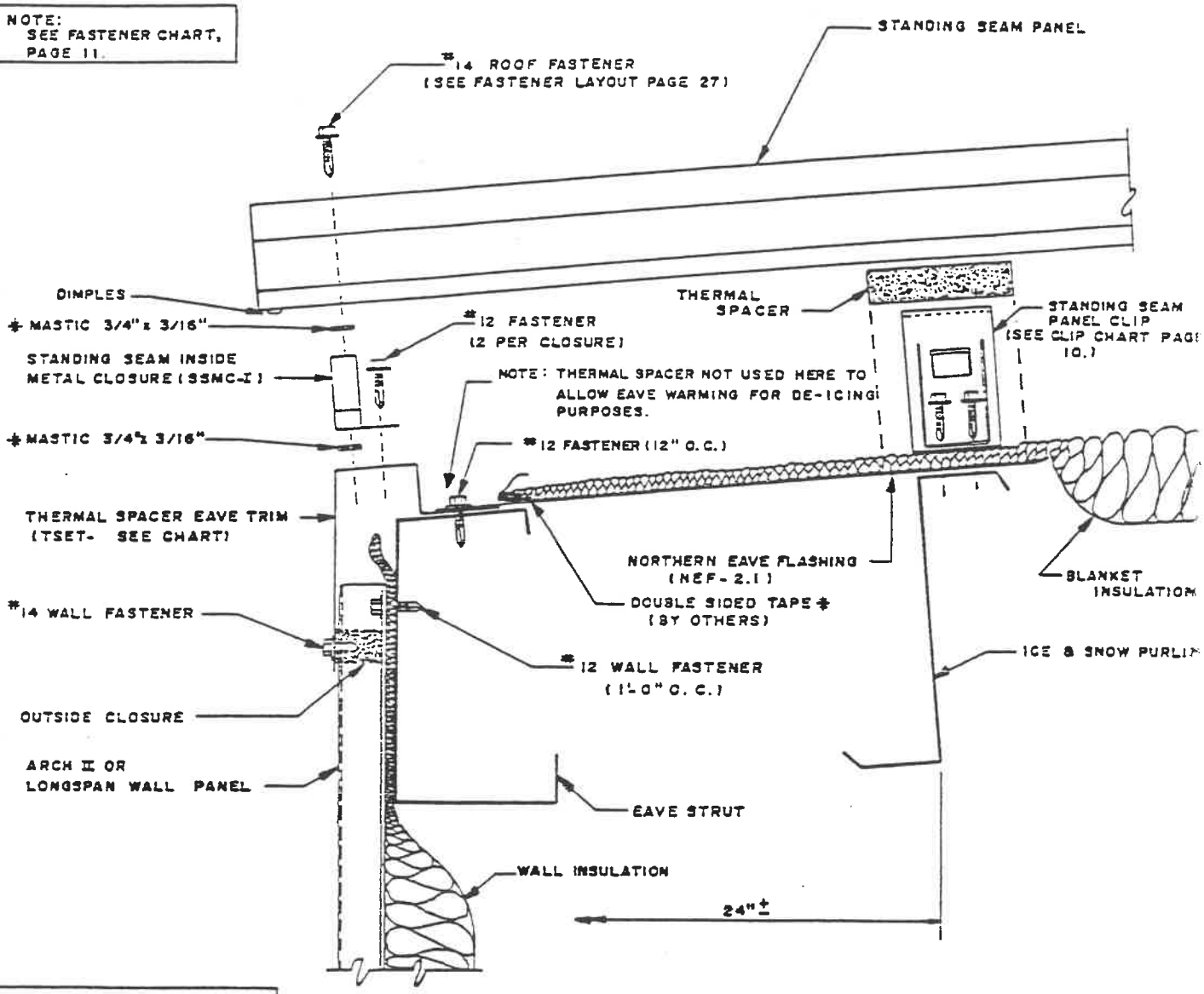
NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENDLAPS ONLY.

ICE AND SNOW CONDITION #2

BUILDING ROOF SLOPE	NORTHERN EAVE FLASHING
1/4 TO 12	NEF-3.1
1/2 TO 12	
1 TO 12	
4 TO 12	NEF-3.4

SEE GENERAL NOTES, PAGE 1

NOTE:
SEE FASTENER CHART, PAGE 11.



NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENDLAPS ONLY.

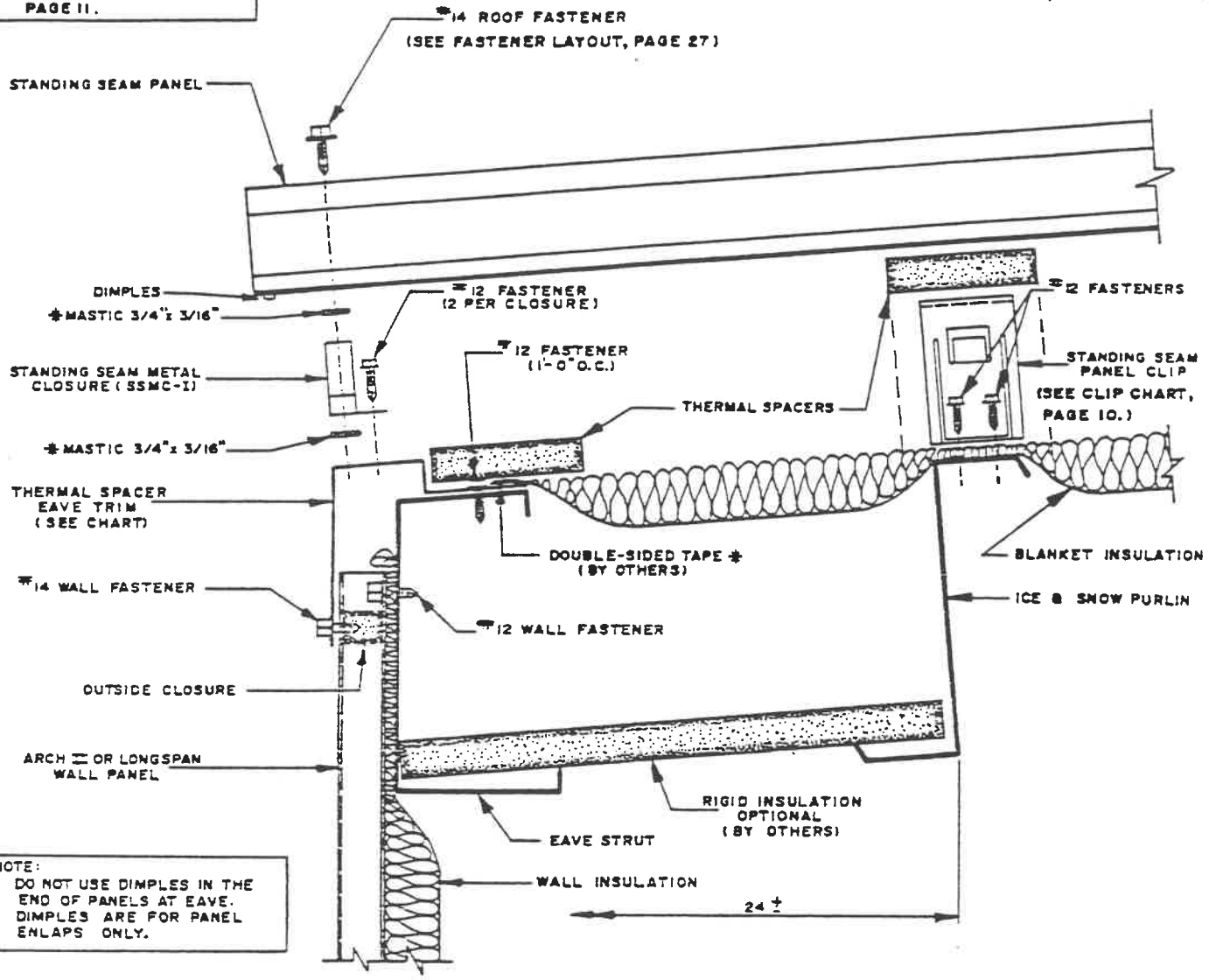
Think safety.

ICE AND SNOW CONDITION #1 WITH THERMAL SPACER

BUILDING ROOF SLOPE	THERMAL SPACER EAVE TRIM
1/4 TO 12	TSET-1
1/2 TO 12	
1 TO 12	
4 TO 12	TSET-4

✱ SEE GENERAL NOTES, PAGE 1

NOTE:
SEE FASTENER CHART, PAGE 11.



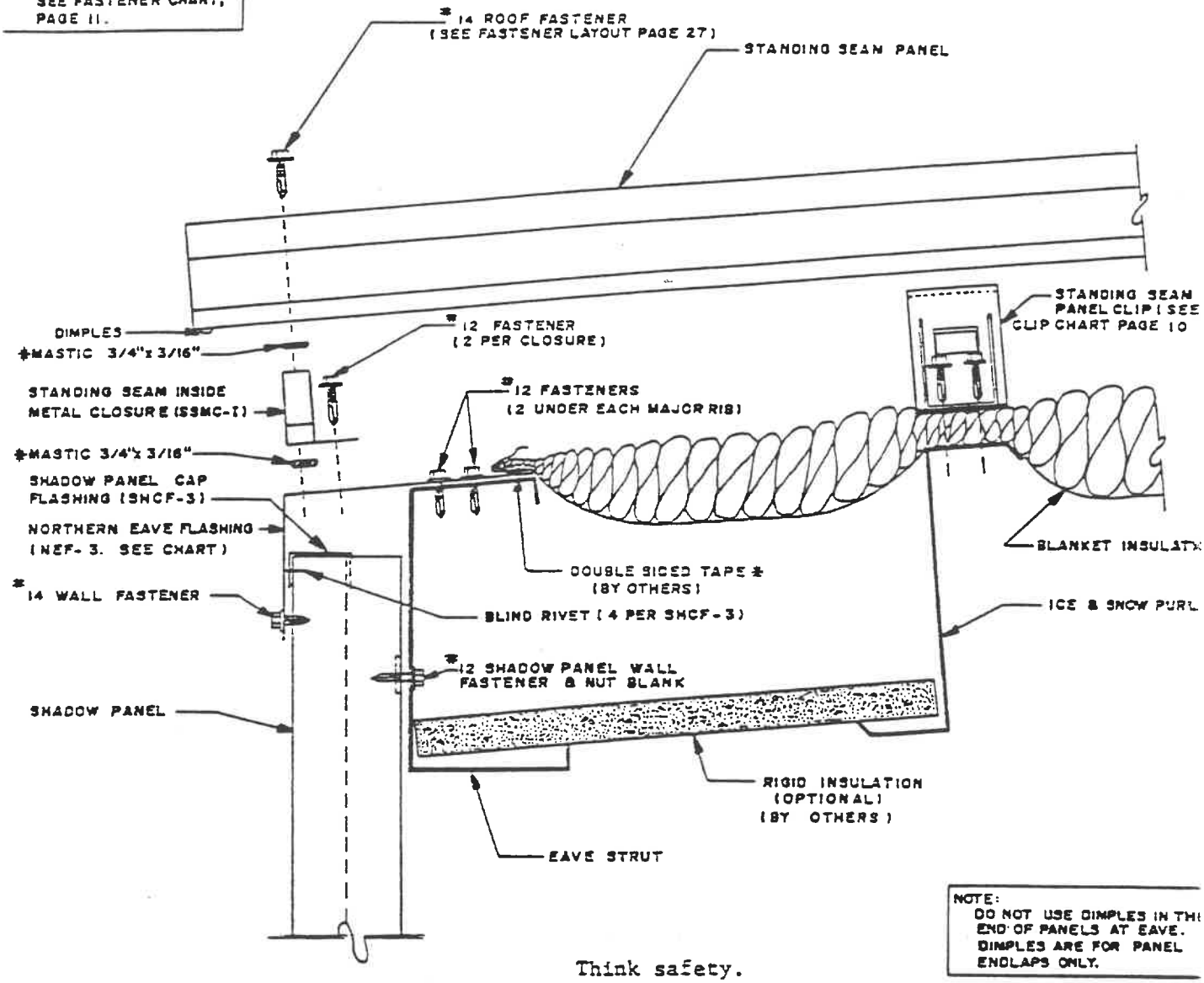
NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENLAPS ONLY.

ICE AND SNOW CONDITION # 2 WITH THERMAL SPACERS

BUILDING ROOF SLOPE	THERMAL SPACER EAVE TRIM
1/4 TO 12	TSET-1
1/2 TO 12	
1 TO 12	
4 TO 12	TSET-4

* SEE GENERAL NOTES, PAGE 1.

NOTE:
SEE FASTENER CHART, PAGE 11.



NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENDLAPS ONLY.

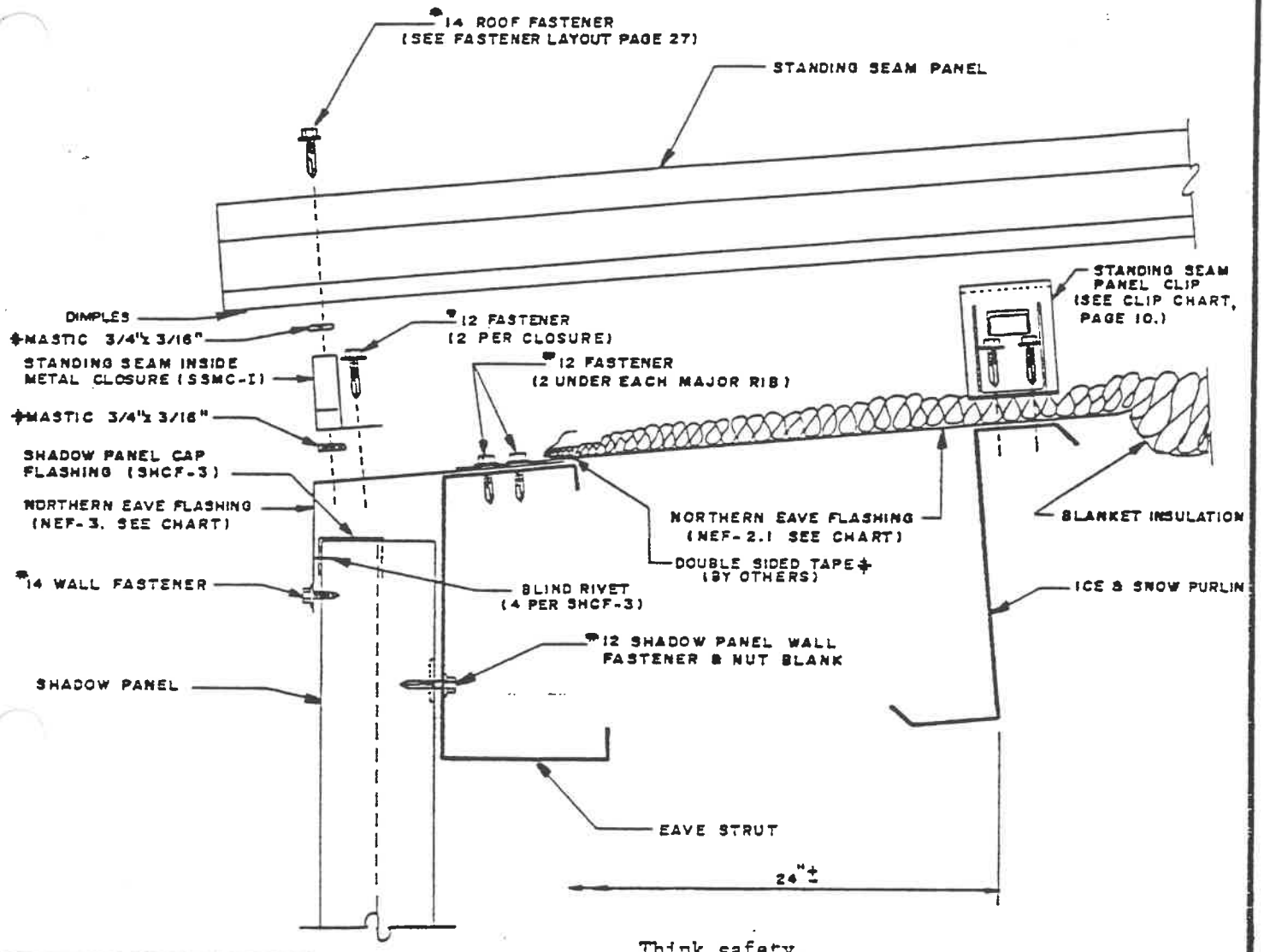
Think safety.

ICE AND SNOW CONDITION * 2
WITH SHADOW PANEL WALL

BUILDING ROOF SLOPE	NORTHERN EAVE FLASHING
1/4 TO 12	NEF-3.1
1/2 TO 12	
1 TO 12	
4 TO 12	NEF-3.4

*SEE GENERAL NOTES, PAGE 1

NOTE:
SEE FASTENER CHART, PAGE 11.



Think safety.

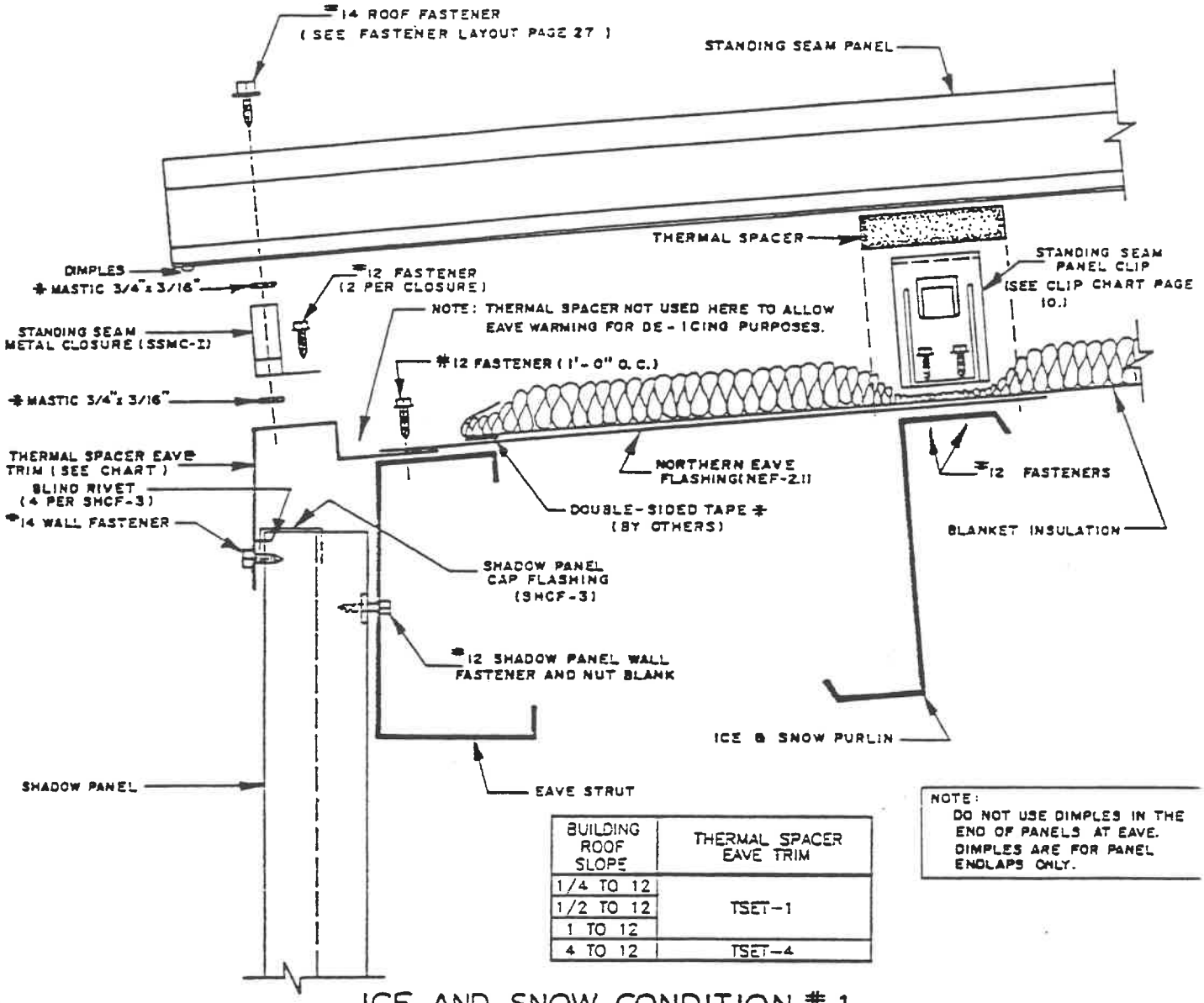
NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENDLAPS ONLY.

ICE AND SNOW CONDITION # 1
WITH SHADOW PANEL WALL

BUILDING ROOF SLOPE	NORTHERN EAVE FLASHING
1/4 TO 12	NEF-3.1
1/2 TO 12	
1 TO 12	
4 TO 12	NEF-3.4

✚SEE GENERAL NOTES, PAGE 1.

NOTE:
SEE FASTENER CHART, PAGE 11.



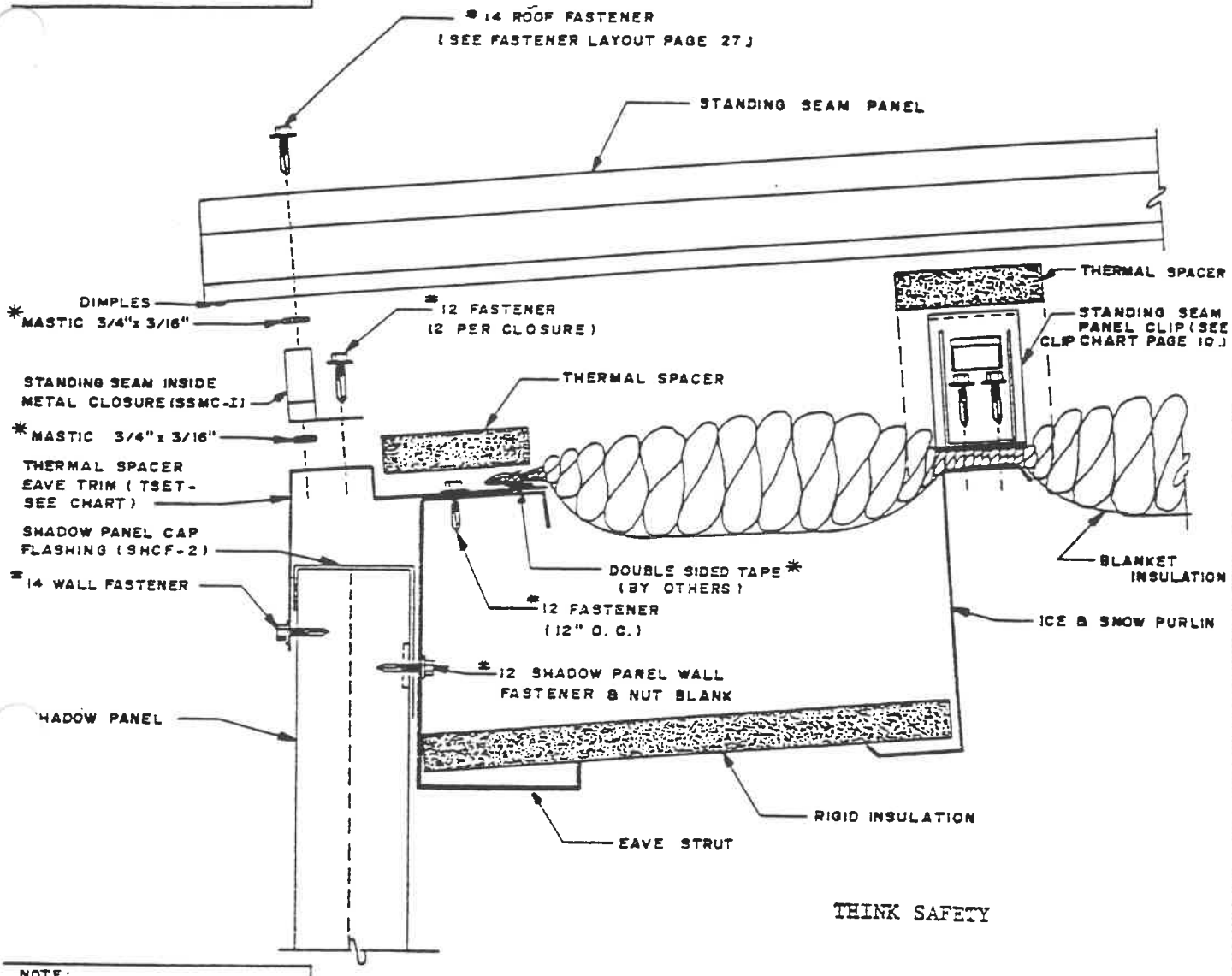
BUILDING ROOF SLOPE	THERMAL SPACER EAVE TRIM
1/4 TO 12	TSET-1
1/2 TO 12	
1 TO 12	
4 TO 12	TSET-4

NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENDLAPS ONLY.

ICE AND SNOW CONDITION # 1
WITH THERMAL SPACER AND SHADOW PANEL WALL

SEE GENERAL NOTES, PAGE 1.

NOTE:
SEE FASTENER CHART, PAGE 11.



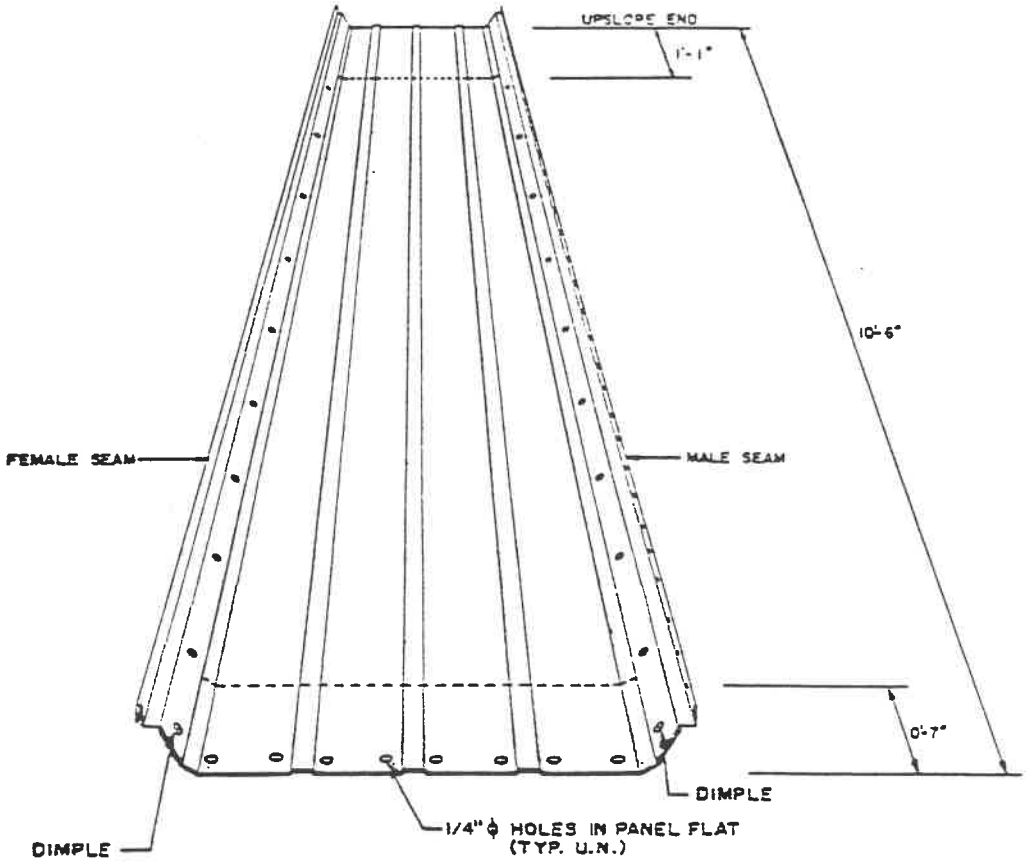
THINK SAFETY

NOTE:
DO NOT USE DIMPLES IN THE END OF PANELS AT EAVE. DIMPLES ARE FOR PANEL ENDLAPS ONLY.

ICE AND SNOW CONDITION # 2 WITH THERMAL SPACER AND SHADOW PANEL WALL

BUILDING ROOF SLOPE	THERMAL SPACER EAVE TRIM
1/4 TO 12	TSET-1
1/2 TO 12	
1 TO 12	
4 TO 12	TSET-4

* SEE GENERAL NOTES, PAGE 1.



STANDING SEAM SKYLIGHT
SKS-1^{L} OR SKS-1^{R}

SAFETY PRECAUTION

Do not under any circumstances step or walk on surface of fiberglass skylight. If foot traffic is necessary over skylight, use walk boards that are properly supported by the building purlins.

The Standing Seam skylight is a composite panel that includes a fiberglass light pan assembled with steel locking seams. It has been designed to follow the same installation procedures as a standard Standing Seam panel. Note that the skylight will have distinct upper and lower ends and will be marked for the left or right side of the roof.

Installation Instructions

Complete in sequence the installation of all roof panels up to the desired location of the skylight as shown in Figure 12, page 71 and make sure clips and fasteners are on all appropriate panels. Note the roof panels in the skylight run will in all probability be of different lengths from the remainder of the roof.

Begin by placing a lap stiffener, SSLS-1, into position on the upper edge of the lower panel as indicated in Figure 11, page 71. Expand skylight insulation trim flashing (Figure 13, page 71) and slide into major rib of downslope Standing Seam panel with edge of frame against the panel clips (Figure 12, page 71).

Cut insulation to the vinyl facing using the frame as a guage (do not cut facing at this point). Strip back the insulation from the facing to the points indicated in Figure 14, Figure 16 and Figure 17, page 72. Cut through the vinyl facing as indicated leaving sufficient vinyl tab to fold over the frame.

Fold the facing over the side rails of the frame, Figure 15, page 72, and install clinch angle, CA-1 with fasteners indicated. Next fold facing over downslope portion of frame and install clinch strap, CS-1, as shown in Figure 16, page 72. Cover exposed corners of fiberglass insulation with vinyl patching tape.

Apply mastic and caulk as shown on page 73 to the lower panel. Position skylight in the run making sure that the lower edge extends to the back side of the notch in the panel seams. Align female seam of skylight over male seam of adjacent panel and lock together. Secure the lap with ten #12 roof fasteners through the pre-dimpled areas and pre-drilled holes.

Slide a Standing Seam lap stiffener on to the skylight upslope end (page 73), and apply mastic and caulk for the next endlap. Install upper panel in normal manner and secure with 10 roof fasteners.

Return to normal sequence of sheeting roof.

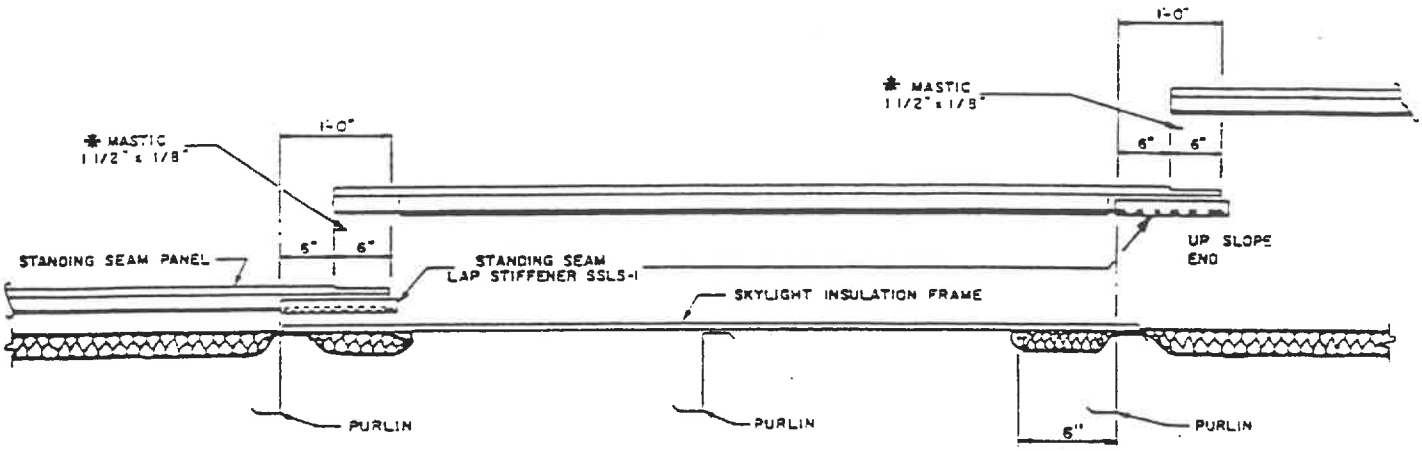


FIG. 11

*SEE GENERAL NOTES, PAGE 1

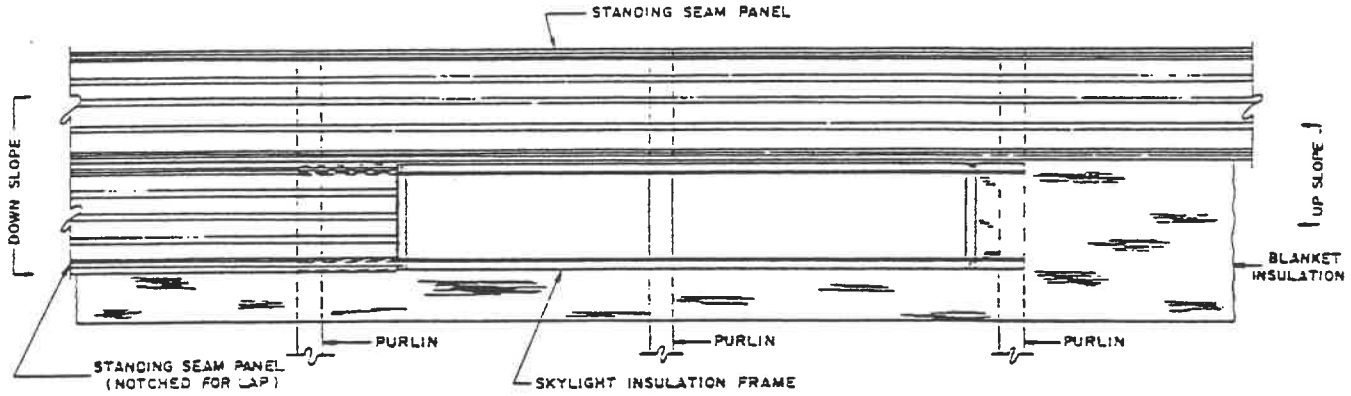


FIG. 12

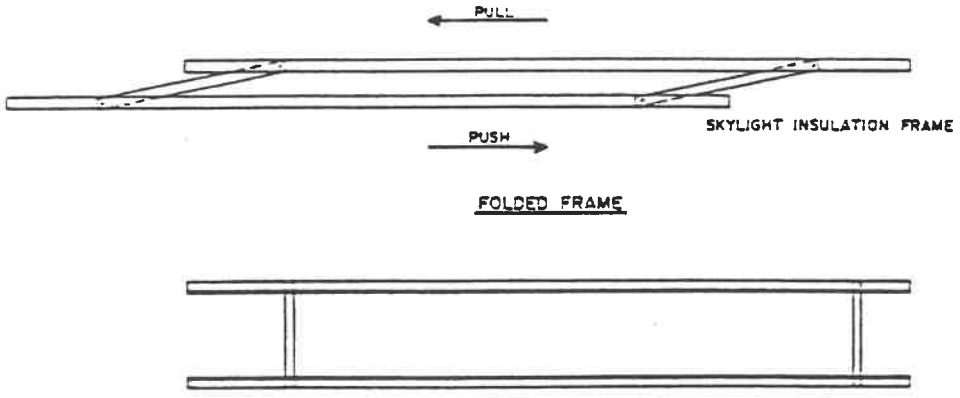


FIG. 13

SAFETY PRECAUTION

Use the right tool for the right job.

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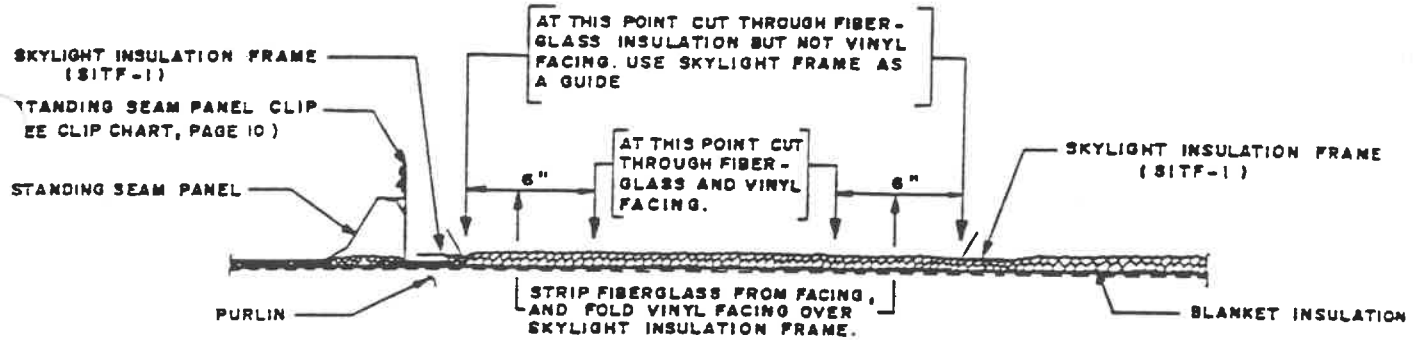


FIG. 14

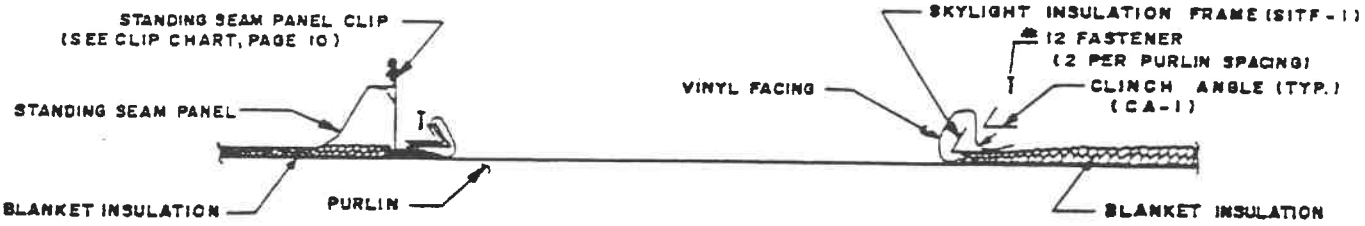


FIG. 15

NOTE:
SEE FASTENER CHART, PAGE 11.

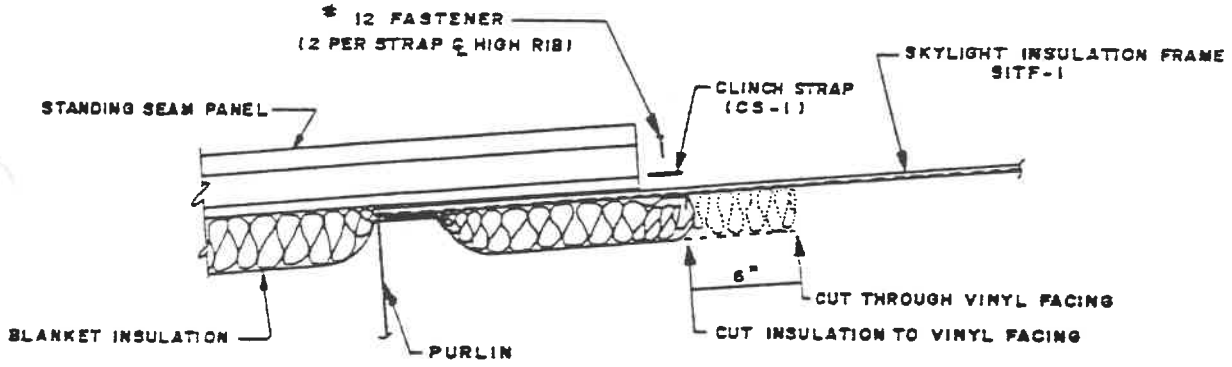


FIG. 16

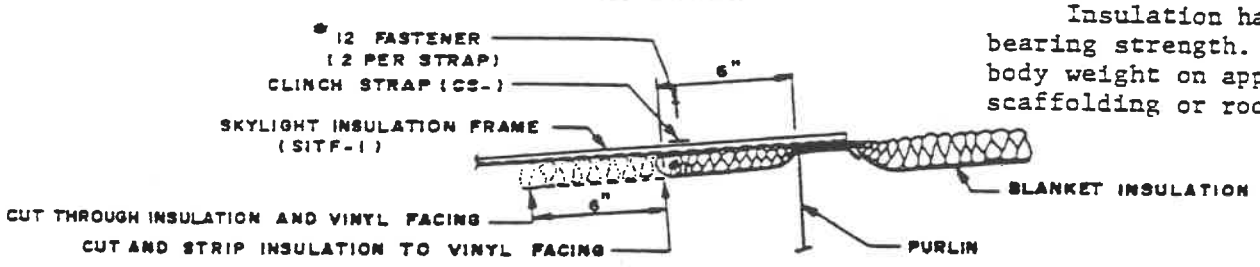
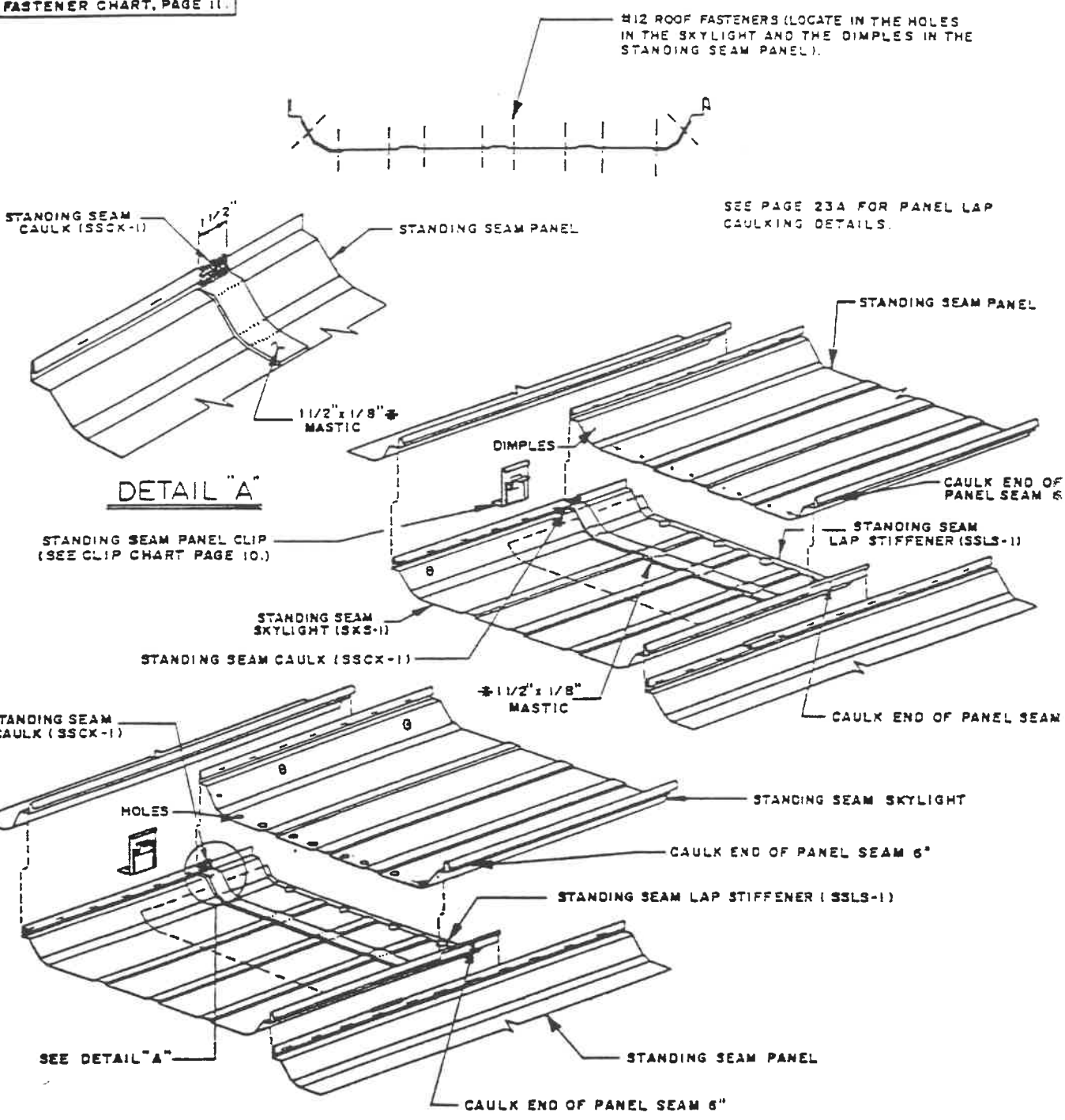


FIG. 17

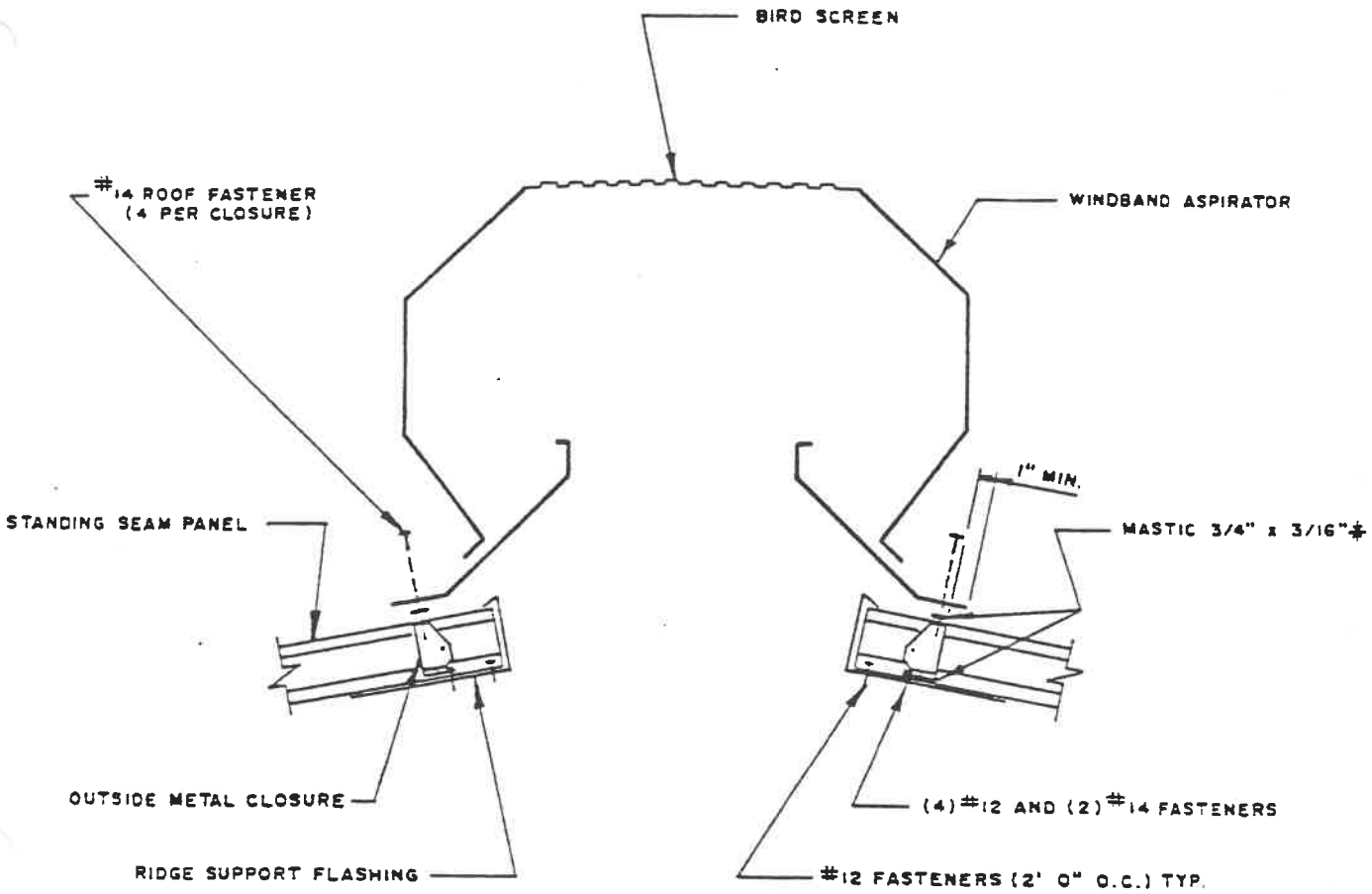
SAFETY PRECAUTION

Insulation has no load bearing strength. Maintain body weight on approved scaffolding or roof panels.

NOTE:
SEE FASTENER CHART, PAGE 11.



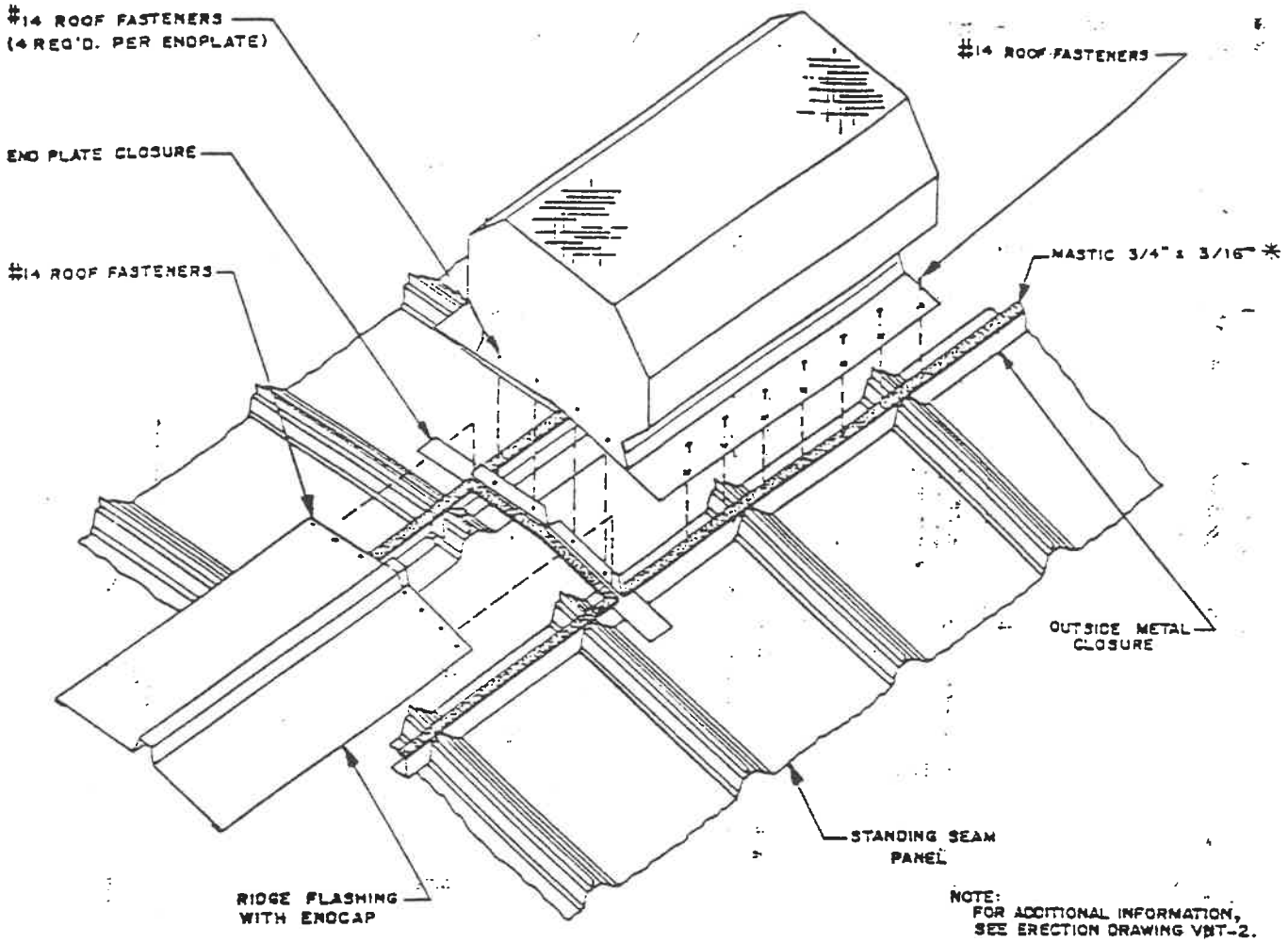
✱ SEE GENERAL NOTES, PAGE 1



SECTION THROUGH RIDGE VENT

NOTE:
FOR ADDITIONAL INFORMATION,
SEE ERECTION DRAWING VNT-2.

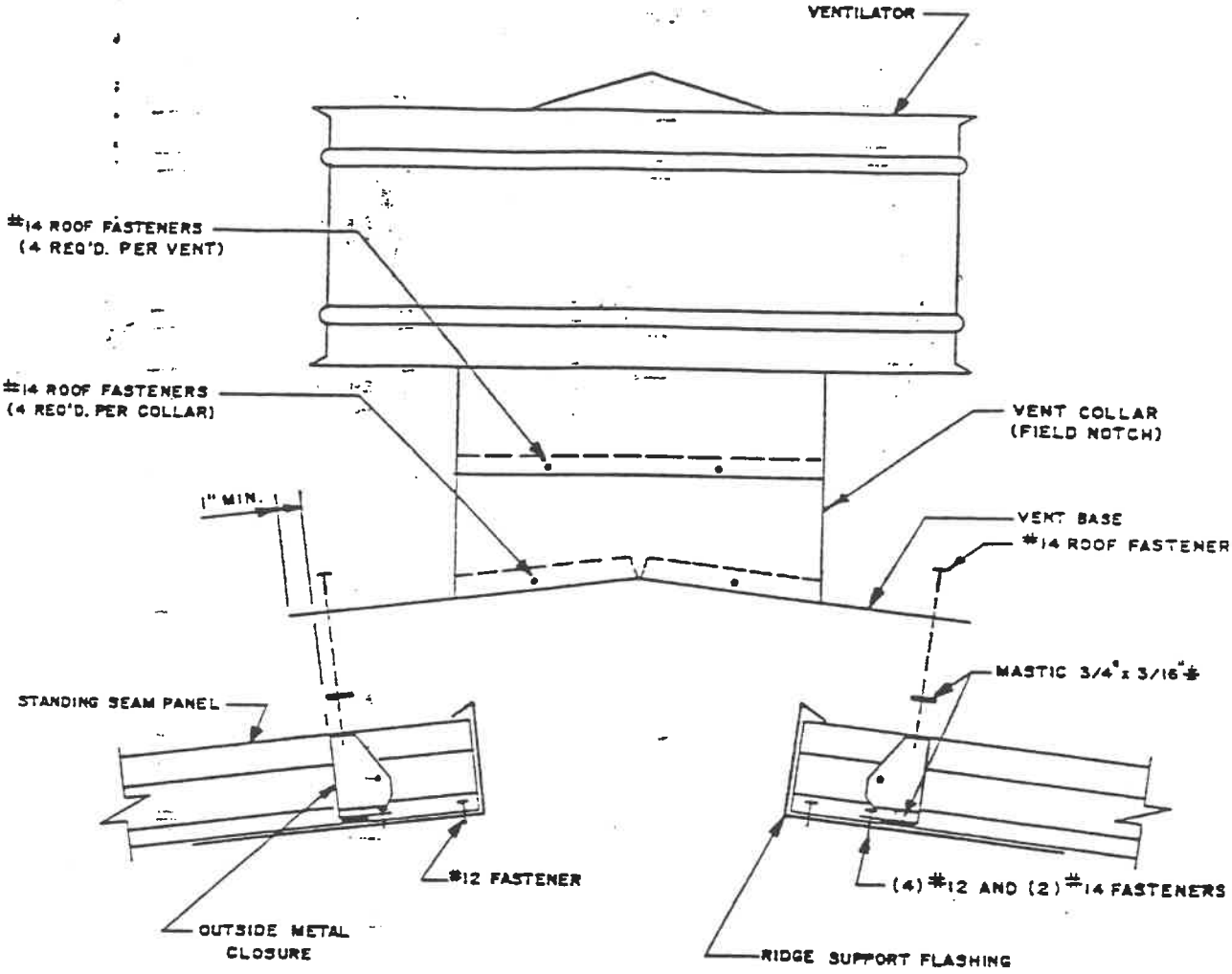
* SEE GENERAL NOTES, PAGE 1.



* SEE GENERAL NOTES, PAGE 1.

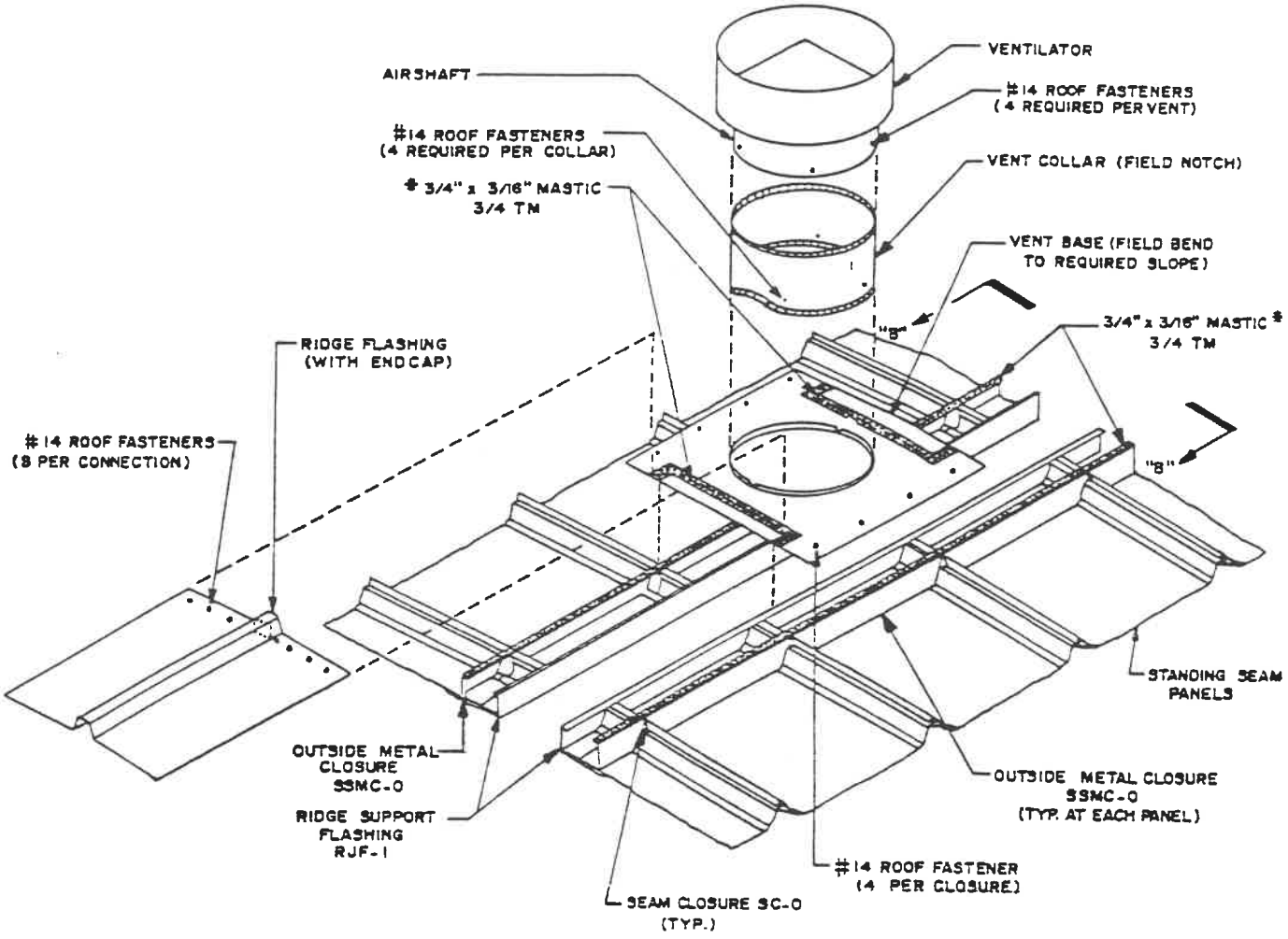
RIDGE VENT INSTALLATION

NOTE:
FOR ADDITIONAL INFORMATION,
SEE ERECTION DRAWING VNT-4



DETAIL AT RIDGE WITH ROUND VENT

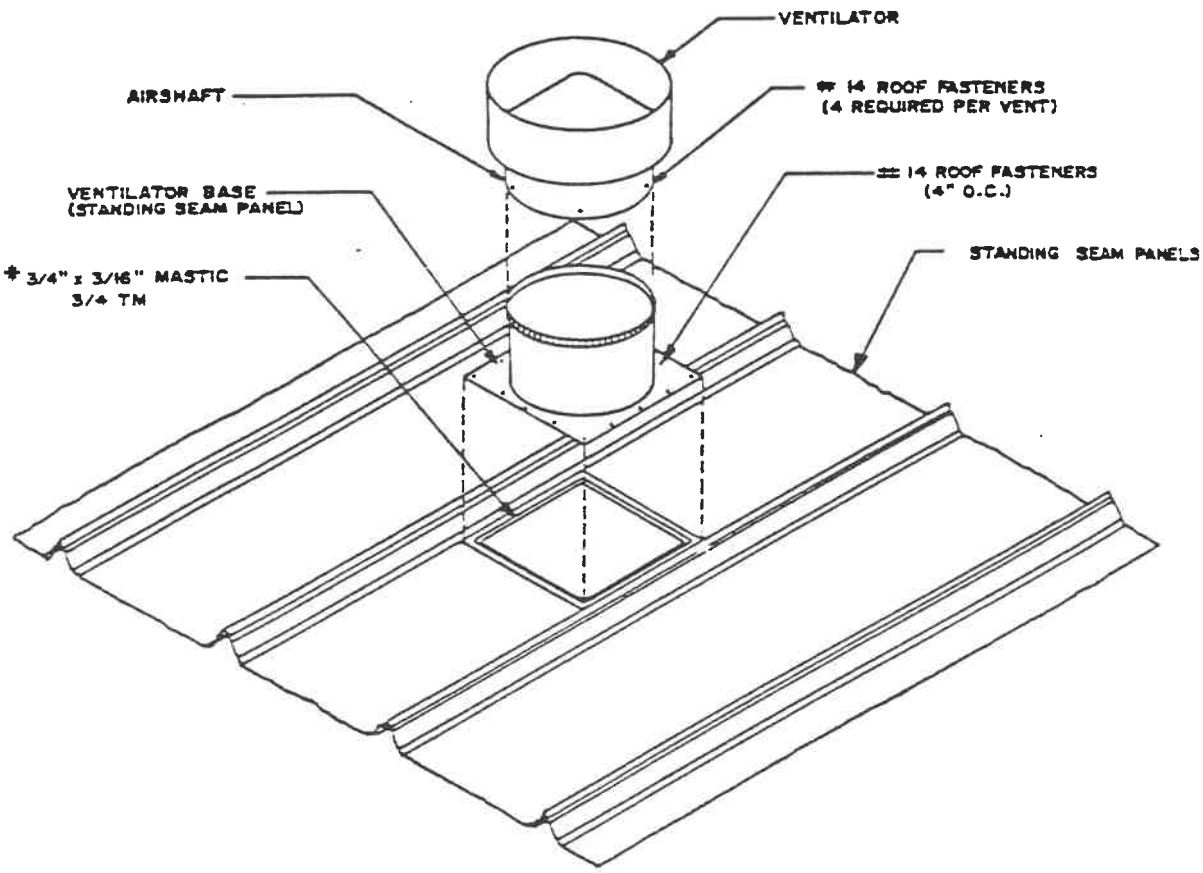
SEE GENERAL NOTES, PAGE 1.



VENT DETAIL AT RIDGE

FOR ADDITIONAL INFORMATION SEE ERECTION DRAWING VNT-4

* SEE GENERAL NOTES, PAGE 1.

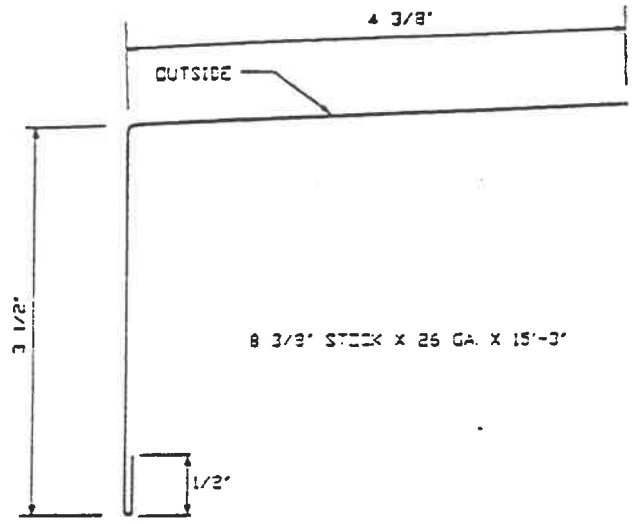


VENT DETAIL ON ROOF SLOPE

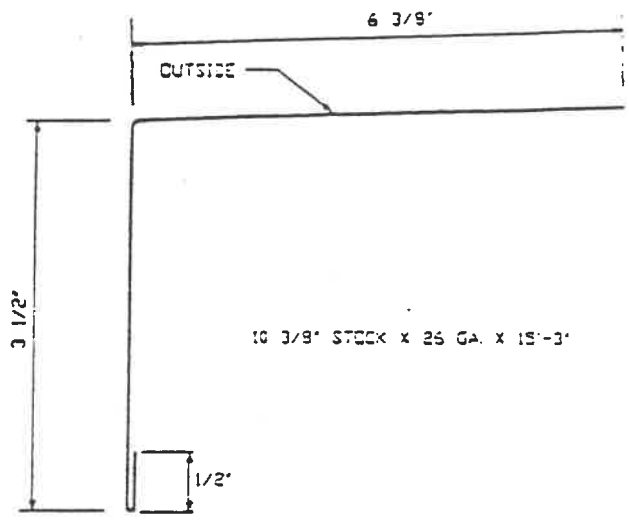
FOR ADDITIONAL INFORMATION
SEE ERECTION DRAWING VNT-4

* SEE GENERAL NOTES, PAGE I.

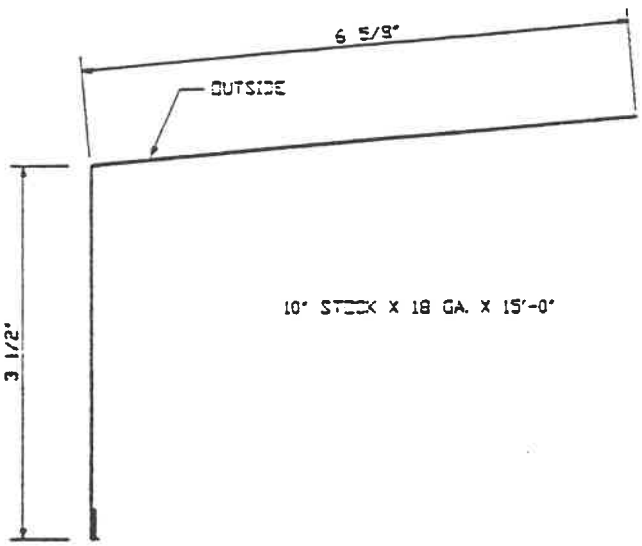
APPENDIX



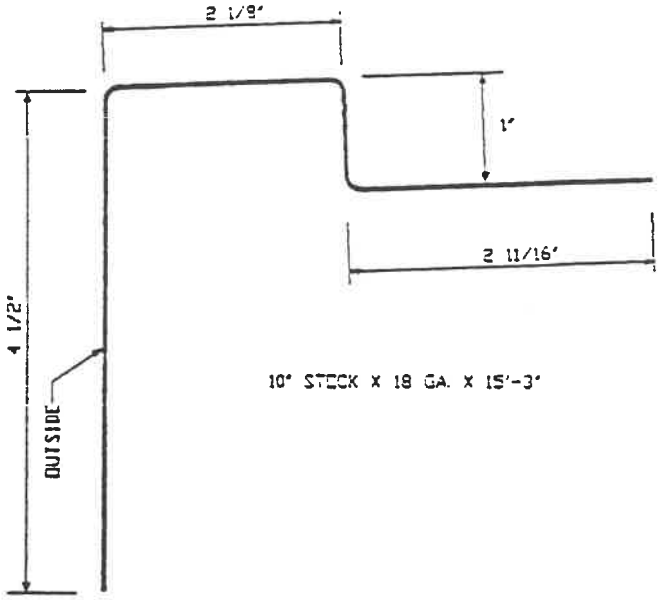
EAVE CLOSURE FLASHING
FEC-1 or 4



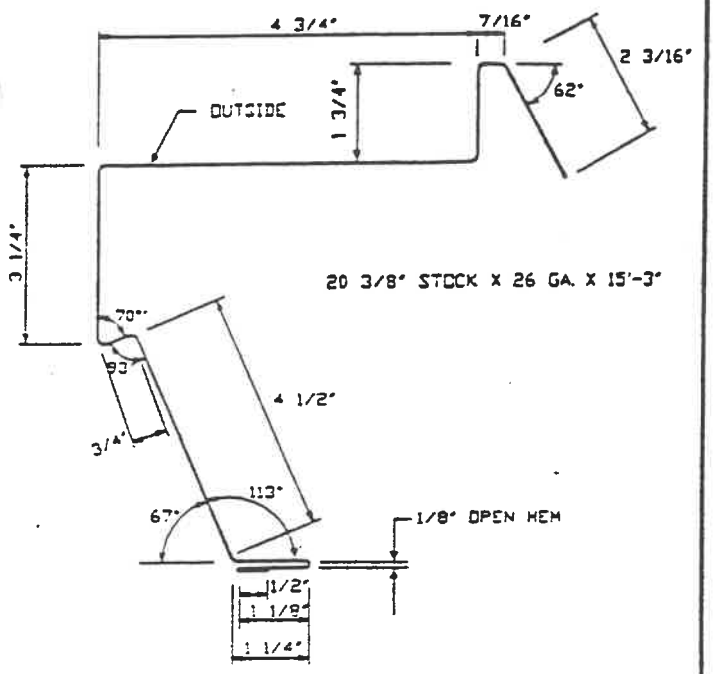
EAVE CLOSURE FLASHING FOR SHADOW PANELS
SPEC-1 or 4



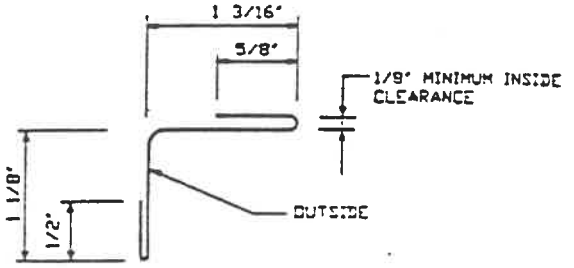
NORTHERN EAVE FLASHING
NEF-3.1 or 3.4



THERMAL SPACER EAVE TRIM
TSET-1 or 4

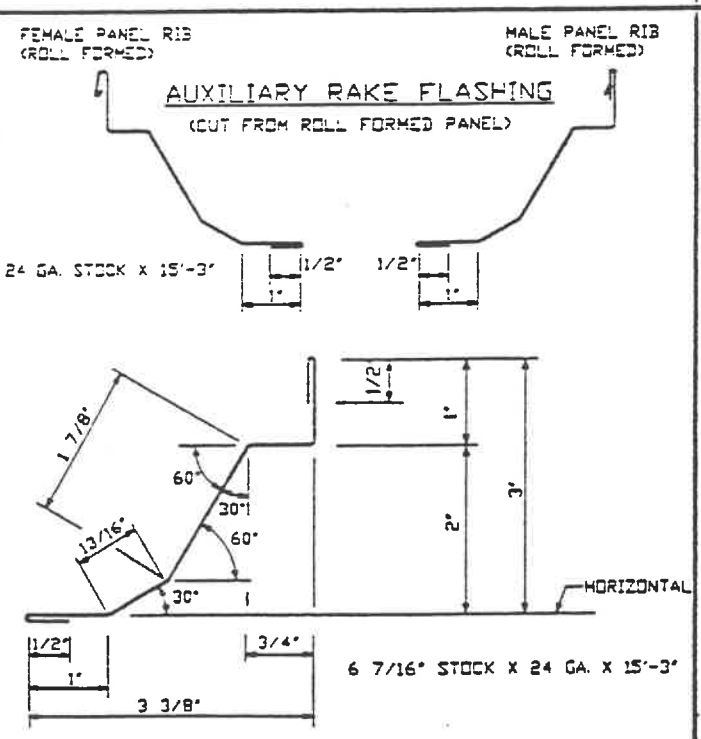


STANDING SEAM RAKE FLASHING
SRF-1

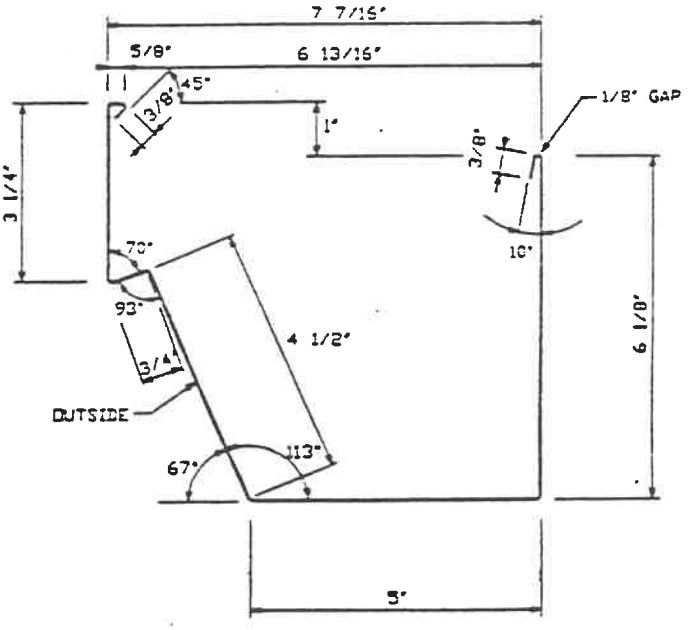


3 9/16" STOCK X 26 GA. X 15'-3"

RAKE SUPPORT FLASHING
RSF-1



ALTERNATE AUXILIARY RAKE FLASHING (PRESS BRAKE)
ARF-1



STANDARD GUTTER
GT1-10.3 or GT1-15.2

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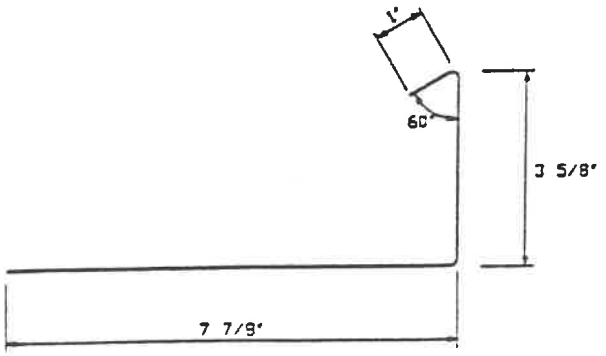
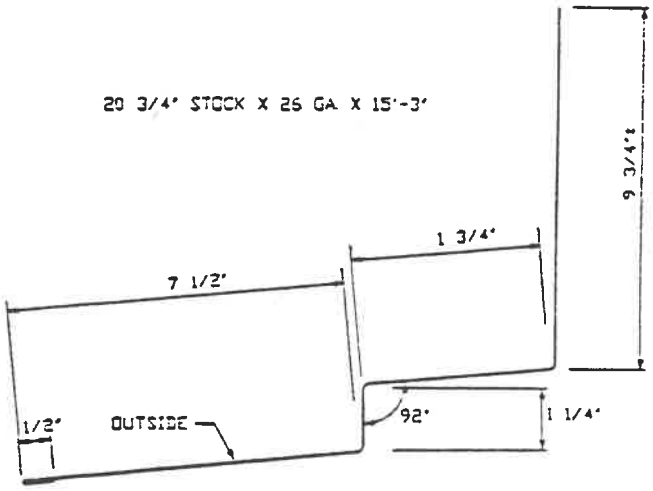
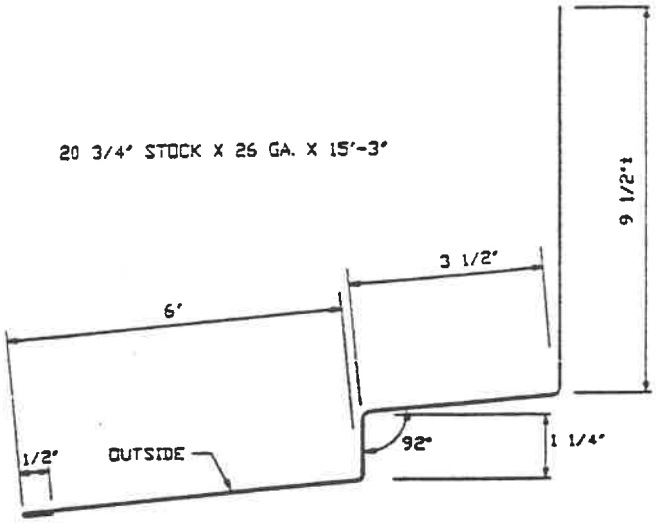


12 1/2" STOCK X 18 GA. ALUMINUM COATED X 15'-3"

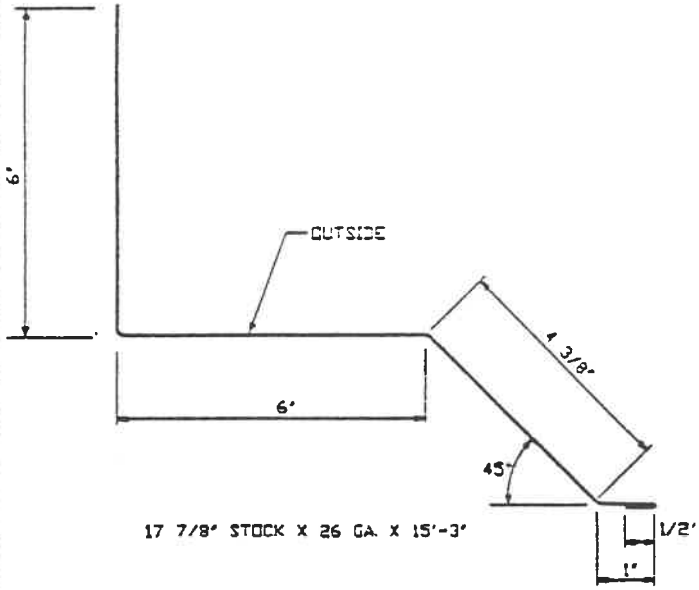
RIDGE SUPPORT FLASHING
RJF-1



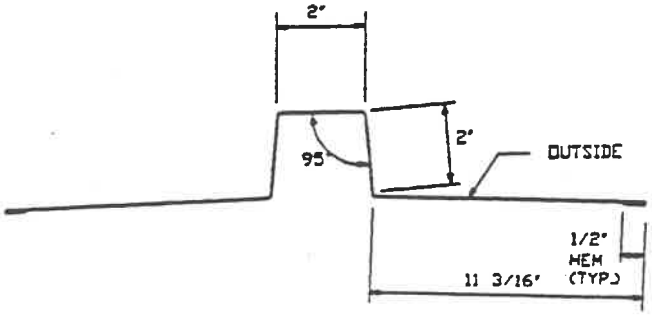
ROOF TO WALL FLASHING
FRW-1 or 4



ROOF TO WALL FLASHING
FRW-1H or 4H

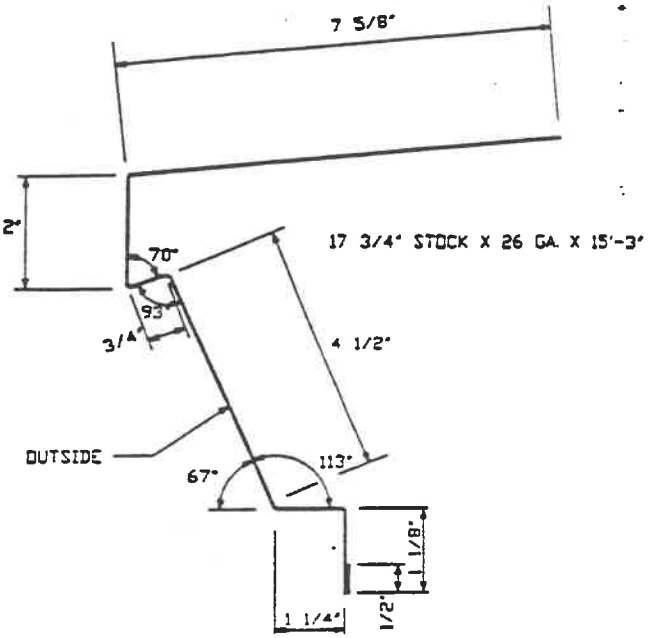


STANDING SEAM ROOF TO WALL FLASHING
FSF-8

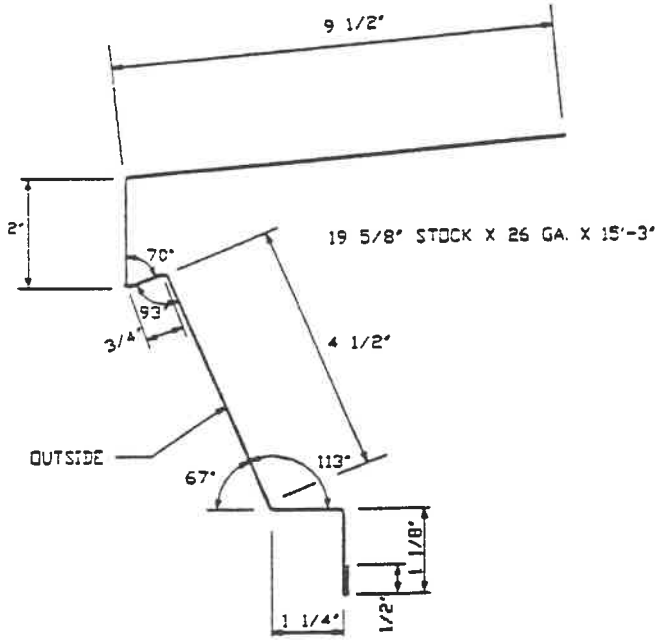


29 3/8" STOCK X 24 GA. X 15'-3"

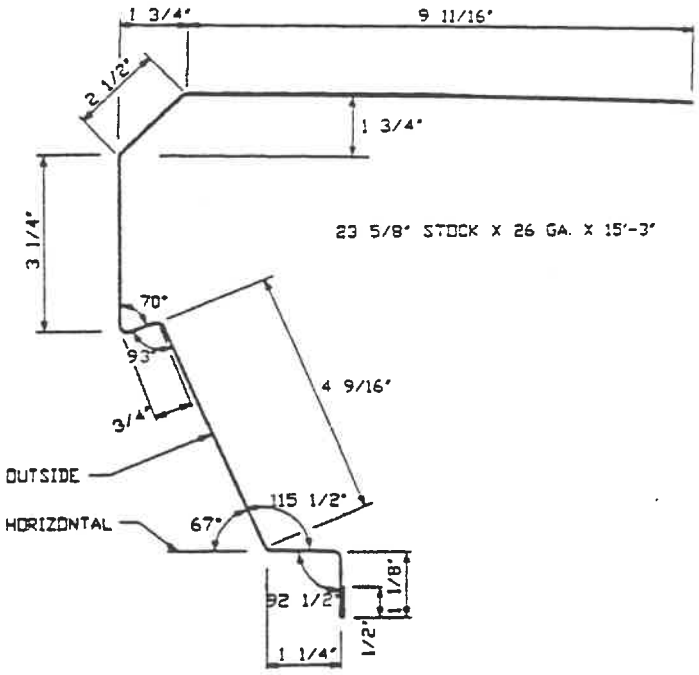
EXPANSION RIDGE FLASHING
RFE-1 or 4
RFE-1E or 4E WITH ENDCAP



EAVE FLASHING
ED-1 or 4



EAVE FLASHING
SPET-1 or 4



HIGH SIDE FLASHING
HSES-1

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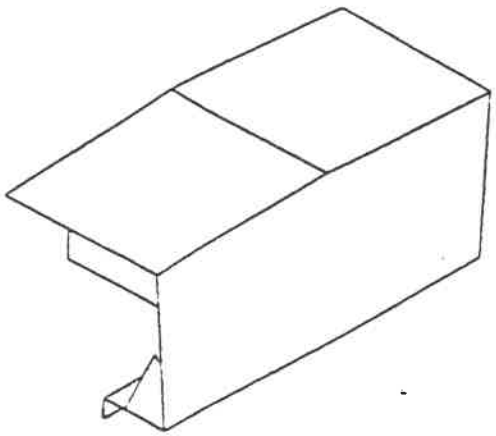
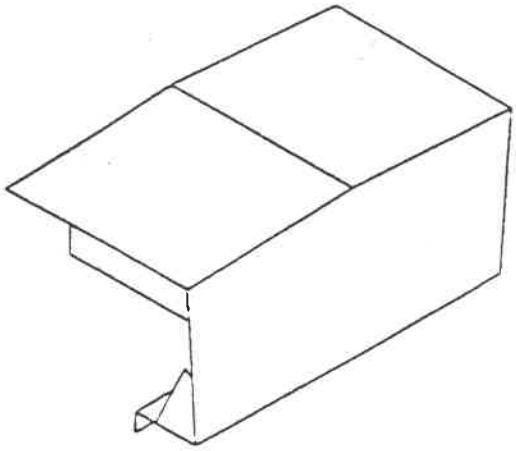
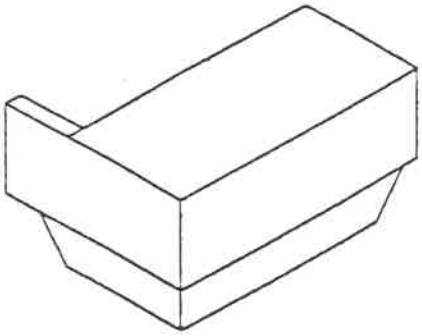


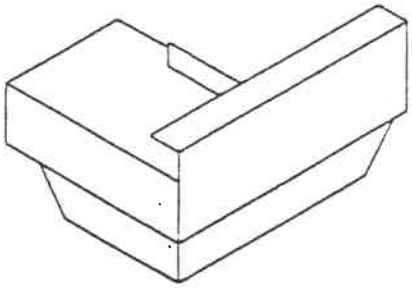
STANDING SEAM RAKE CAP
SRC-1 or 4



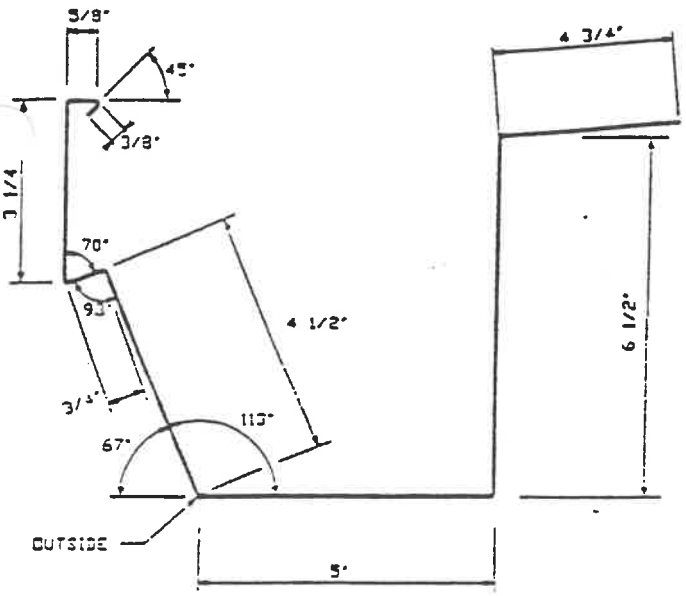
STANDING SEAM RAKE CAP
SPRC-12 or 4



CORNER CAP BOX
CCB-1 or 4

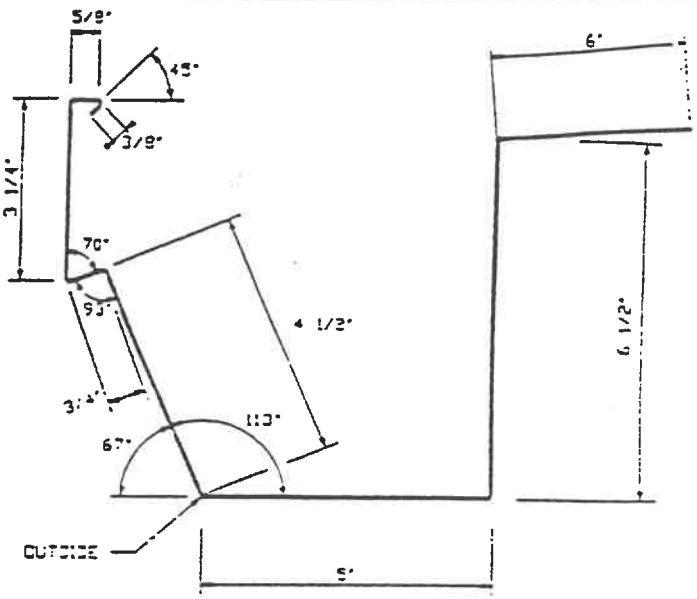


CORNER CAP BOX
CCD-1 or 4



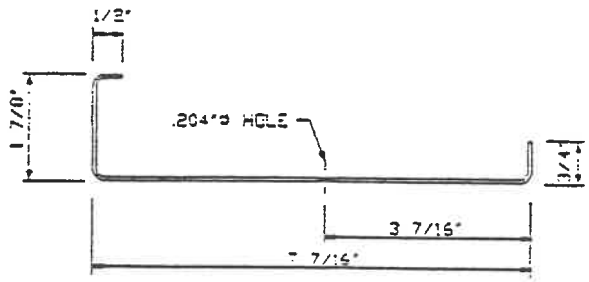
25 3/4" STOCK X 24 GA. X 15'-3"

FLANGE BACK GUTTER
BG-1 or 4



27" STOCK X 24 GA. X 15'-3"

FLANGE BACK GUTTER
SPFBG-1 or 4



1 1/2" STOCK X 12 GA. GALV. X 9 15/16"

GUTTER CLIP
GC-A

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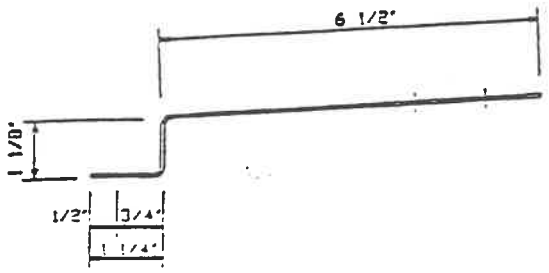
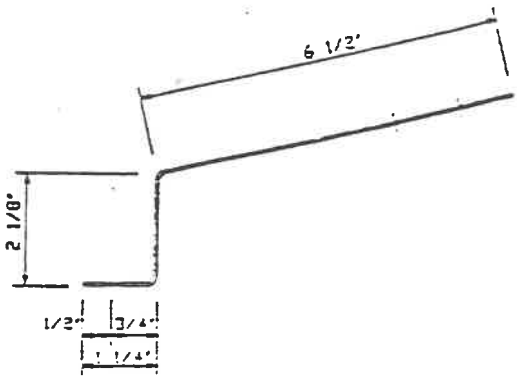


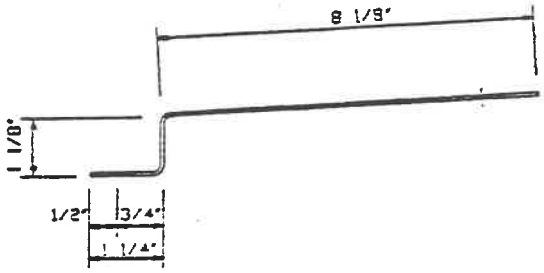
1 1/2" STOCK x 12 GA. GALV. x 8 3/8"

GUTTER CLIP
GC-B1



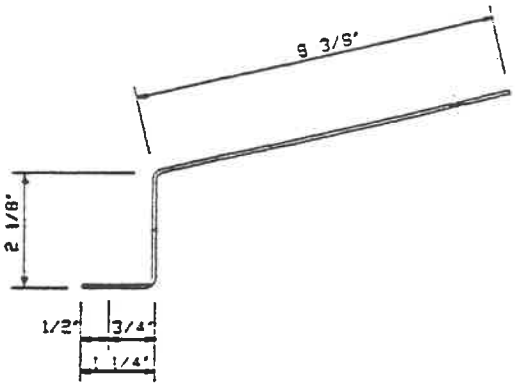
1 1/2" STOCK x 12 GA. GALV. x 9 3/8"

GUTTER CLIP
GC-B4



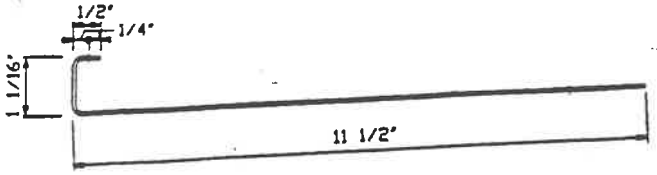
1 1/2" STOCK x 12 GA. GALV. x 10"

GUTTER CLIP
SPGC-B1



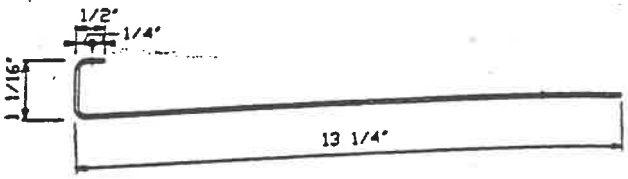
1 1/2" STOCK x 12 GA. GALV. x 11 1/4"

GUTTER CLIP
SPGC-B4



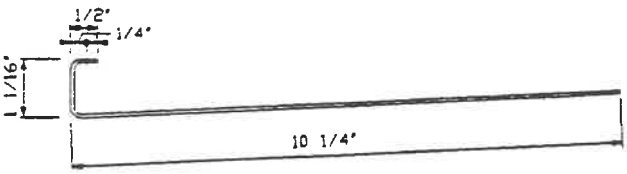
1 1/2" STOCK X 12 GA. GALV. X 12 9/16"

GUTTER STRAP
GS-1 or 4



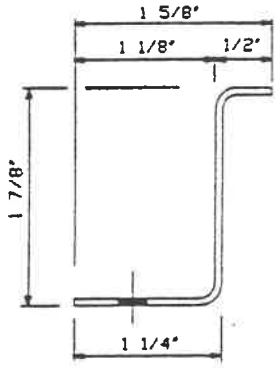
1 1/2" STOCK X 12 GA. GALV. X 14 5/16"

GUTTER STRAP
SPGS-1 or 4



1 1/2" STOCK X 12 GA. GALV. X 11 5/16"

GUTTER STRAP
GST-1 or 4



1 1/2" STOCK X 12 GA. X 3 1/4"

CORRUGATION SUPPORT CLIP
CSC-1

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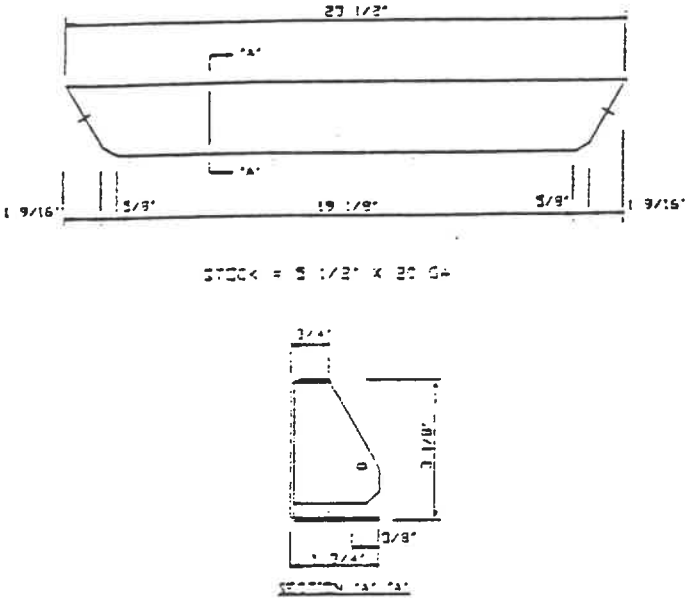
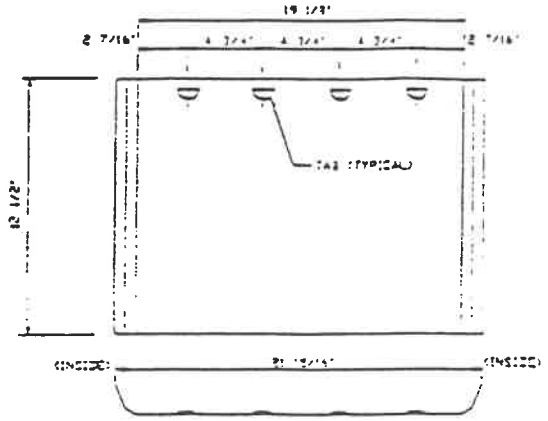


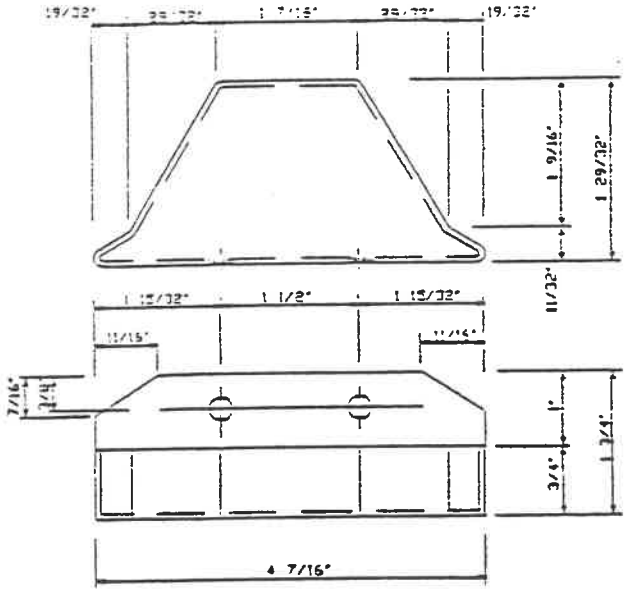
STOCK = 5 1/2" X 20 GA

STANDING SEAM OUTSIDE METAL CLOSURE
SSMC-O



STOCK = 12 1/2" X 16 GA. x 23 5/8"

STANDING SEAM LAP STIFFENER
SSLS-1



MATERIAL = 5 1/2" X 20 GA.

STANDING SEAM INSIDE METAL CLOSURE
SSMC-I

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