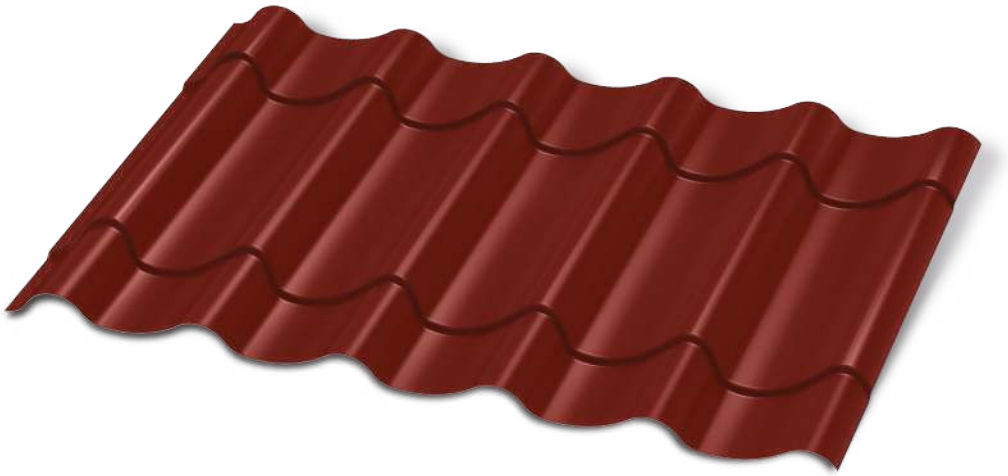
S-TILE PANEL
INSTALLATION DETAILS



BERRIDGE
MANUFACTURING
COMPANY

Roofs of Distinction

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INDEX	S-0
INSTALLATION INSTRUCTIONS	SI-1
INSTALLATION INSTRUCTIONS	SI-2
INSTALLATION INSTRUCTIONS	SI-3
INSTALLATION INSTRUCTIONS	SI-4
INSTALLATION INSTRUCTIONS	SI-5
INTRODUCTION TO TYPICAL DETAILS	S-1
INSTALLATION OVERVIEW	S-4
PANEL END LAP	S-5
PANEL INSTALLATION OVERVIEW	S-6
PANEL INSTALLATION OVERVIEW	S-7
EAVE DETAIL	S-10
RIDGE AND HIP DETAIL	S-20
GABLE DETAIL	S-30
RAKE WALL DETAIL	S-40
HEAD WALL DETAIL	S-50
SLOPE TRANSITION DETAIL	S-60
VALLEY DETAIL	S-70
ROOF PENETRATION	S-80
ROOF PENETRATION DETAIL	S-81
SIDE CURB DETAIL	S-82
ROOF PENETRATION DETAIL	S-83
PIPE PENETRATION DETAIL	S-84

Berridge Manufacturing Co.
Roofs of Distinction

INDEX

DATE 5/13/02

S-TILE

S-0

A. BERRIDGE S-TILE PANEL: AVAILABLE WITH A PAN WIDTH OF 32 11/16" AND DEPTH OF 1 1/2". PANEL LENGTHS MINIMUM 5'-0" MAXIMUM 40'-0".

B. MINIMUM SLOPE: THE S-TILE PANEL IS RECOMMENDED FOR SLOPES OF 3:12 AND GREATER IN MOST AREAS OF THE COUNTRY.

A DOUBLE LAYER OF THIRTY POUND FELT UNDERLAYMENT AND OR AN ICE AND WATER SHIELD COVERING THE ENTIRE SUBSTRATE IS RECOMMENDED IN HEAVY SNOW AREAS OR AREAS WHERE FREEZE-THAW CYCLES ARE PREVALENT.

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

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

D. STRIPPABLE FILM: THE STRIPPABLE PLASTIC FILM WHICH IS APPLIED OVER MOST BERRIDGE PREFINISHED PRODUCTS, PANELS, FLASHINGS, COILS AND FLAT SHEETS PROTECTS THE FINISH DURING FABRICATION AND TRANSIT. THIS FILM MUST BE REMOVED PRIOR TO INSTALLATION. TO REMOVE FILM FROM S-TILE IT IS RECOMMENDED TO START REMOVAL AT THE TOP OF THE PANEL OR RIDGE AND WORK TOWARD THE BOTTOM OR EAVE.

E. SOLID SHEATHING REQUIREMENTS: BERRIDGE MANUFACTURING COMPANY RECOMMENDS THE USE OF EITHER BERRIDGE 24 GAUGE CORRUGATED S-DECK (NOMINAL 2 - 1/2" PITCH X 11/16" DEPTH) OR A MINIMUM OF 1/2" SOLID WOOD SHEATHING TO PROVIDE SUFFICIENT HOLDING POWER FOR FASTENERS. CONTACT BERRIDGE MANUFACTURING'S ENGINEERING DEPARTMENT FOR USE OF ANY OTHER TYPE OF SOLID SHEATHING.

F. SHEATHING INSPECTION:

1. SHEATHING END JOINTS MUST BE STAGGERED.
2. ALL END JOINTS MUST MEET AT EITHER A JOIST OR RAFTER.
3. BLOCKING OR "H" CLIPS SHOULD BE USED ON PLYWOOD IF JOINTS DO NOT REMAIN FLAT UNDER THE WEIGHT OF WORKMEN.
4. ALL CUTS AT PENETRATIONS SHOULD BE TIGHT, WITHOUT GAPS.
5. USE CRICKETS AT LARGE PENETRATIONS.
6. MAKE SURE SUBSTRATE JOINTS ARE TIGHT AT ALL HIPS, VALLEYS AND RIDGES.

G. FASCIA/RAKE INSPECTION:

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

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

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

I. FELTING INSTALLATION:

1. ROSIN PAPER CANNOT BE USED AS A SUBSTITUTE FOR FELT OR ICE & WATER GUARD, NOR IN CONJUNCTION WITH FELT OR ICE & WATER GUARD.

2. SWEEP ROOF AREA CLEAN.

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

4. INSTALL VALLEY FELT FIRST.

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

6. REFER TO UNDERLAYMENT DETAILS WHEN CORRUGATED SHEATHING IS INVOLVED.

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

K. FLASHING INSTALLATION:

1. REMOVE STRIPPABLE PLASTIC FILM FROM ALL FLASHINGS.

2. ALWAYS STAGGER JOINTS WHEN ONE FLASHING IS INSTALLED OVER OTHER FLASHINGS.

3. INSTALL ALL FLASHINGS AS PER BERRIDGE TYPICAL DETAILS.

4. ALL FLASHINGS ARE TO BE DESIGNED AND INSTALLED TO ALLOW WATER TO ESCAPE.

M. PANEL INSTALLATION:

1. REMOVE STRIPPABLE PLASTIC FILM FROM EACH PANEL PRIOR TO INSTALLATION. REVIEW PAGE SI-1 LINE ITEM D.

2. FROM GROUND LEVEL FACING THE EAVE START PANEL INSTALLATION LEFT OF HIPS & VALLEYS WORKING FROM RIGHT TO LEFT. PANELS DRAINAGE CHANNEL IS TO FACE TO THE LEFT. SEE PANEL INSTALLATION OVERVIEW PAGES .

3. MAKE SURE S-TILE PANELS ARE PERPENDICULAR TO THE EAVE. MAINTAIN SQUARENESS OF EACH PANEL WITH EAVE.

4. KEEP PANELS ALIGNED SO THAT SEAMS MATCH AT HIPS, VALLEYS AND WHERE VERTICAL PANELS ADJOIN ROOF PANELS. DO NOT INSTALL LONG CONTINUOUS RUNS OF PANELS ALL AT ONE TIME WHERE SEAM LINES MUST MATCH. INSTALL 3 TO 5 PANELS IN ONE ELEVATION AND THEN FOLLOW WITH A LIKE NUMBER OF PANELS ON THE OTHER ELEVATION. WHEN YOU INSTALL PANELS IN THIS MANNER , YOU WILL BE ABLE TO MAKE ANY ADJUSTMENTS REQUIRED TO INSURE SEAM MATCHING.

M. FASTENERS: INSTALL FASTENERS AS PER TYPICAL DETAILS. USE SCREW WITH A METAL BACKED NEOPRENE WASHER FOR FASTENING OF PANELS. GALVANIZED ROOFING NAILS FOR INSTALLATION OF FLASHINGS OVER WOOD SHEATHING.

WHEN USING POP RIVETS ON FLASHING, STAINLESS STEEL RIVETS ARE RECOMMENDED TO AVOID RUST STAINS. MAKE SURE ALL FASTENERS ARE DRIVEN STRAIGHT AND SET FLAT. DO NOT OVERDRIVE FASTENERS, AS THIS WILL CAUSE THE PANEL AND/OR FLASHINGS TO BUCKLE OR BECOME RECESSED BELOW THE ELEVATION OF THE SUBSTRATE.

CONSULT BERRIDGE MANUFACTURING'S ENGINEERING DEPARTMENT REGARDING THE USE OF ANY OTHER TYPE OF FASTENER.

N. SEALANT RECOMMENDATIONS: TREMCO INC. SPECTREM 1 OR EQUAL. DO NOT USE ACID CURE CAULK.

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

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

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

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



S-Tile Sheets up to 40' in length speed installation, elminate endlaps.



Install Berridge S-Tile Panels right-to-left. Start with a full panel adjacent to a gable endwall, or in the case of a hip roof such as the one pictured, next to a valley or hip (see detail on page S-6). A continuous S-Tile die-formed foam closure is installed along the eave drip flashing (see detail S-10).



Fasten Berridge S-Tile Panels directly onto felted solid substrate with self-drilling fasteners w/neoprene washers. Install fasteners at every other tile step (see detail on page S-4) and along eave.



In preparation for valley or hip panel installation, lay out and lock Berridge S-Tile Panels together on the ground and snap a chalk line for diagonal cuts (see step 3, Page S-7).



Cut skewed Berridge S-Tile Panels for hip or valley installation with an abrasive circular saw or electric nibbler tool (not shown). If saw is used, file ragged edge burrs prior to installation.

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Note:
The details shown herein are merely recommendations as to how Berridge products should be installed under typical conditions. Specific conditions such as building design, local climate and building end-use will require adaptations or modifications.

S-TILE INSTALLATION PROCEDURE

BERRIDGE S-TILE ROOF PANEL

DATE
5/13/02

PAGE
SI-4

All product specifications, details & instructions subject to change without notice. For specific project details, contact Berridge.



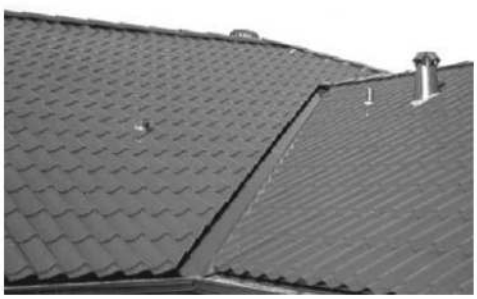
After Berridge S-Tile Panels have been cut to fit valley (or hip), lift the trailing (right-hand) edge of the first full-length panel and place the drain-edge channel of the diagonally-cut valley (or hip) panel under the full-length adjacent panel (see step 3, Page S-7).



Diagonally-cut Berridge S-Tile Panels used at roof hips are installed in the same manner.



For enhanced appearance along hip or ridge lines, use Berridge Spanish barrel tiles. Fasten to the top of ridge/hip counter flashing. Use continuous S-Tile outside configuration foam closure strips with a continuous bead of caulk under the edges of hip/ridge counter flashing (see detail S-20).



View of completed valley gutter showing diagonally-cut Berridge S-Tile panels and Spanish Barrel Tiles along ridge lines.



The use of Berridge Spanish Barrel Tiles along the hips and ridges of Berridge S-Tile Panels completes and greatly enhances the finished appearance of the roof.

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Note:
The details shown herein are merely recommendations as to how Berridge products should be installed under typical conditions. Specific conditions such as building design, local climate and building end-use will require adaptations or modifications.

S-TILE INSTALLATION PROCEDURE

BERRIDGE S-TILE ROOF PANEL

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5/13/02

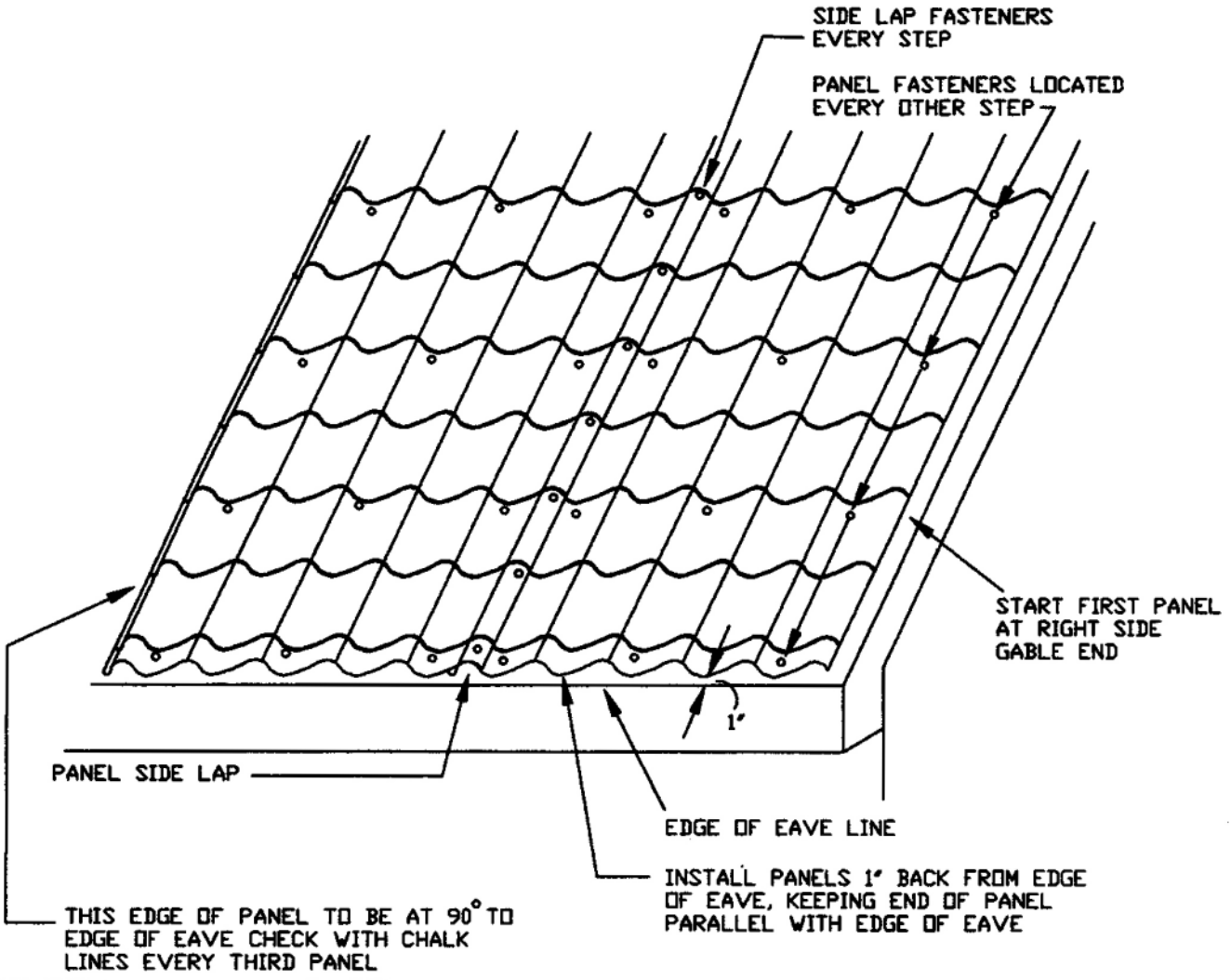
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SI-5

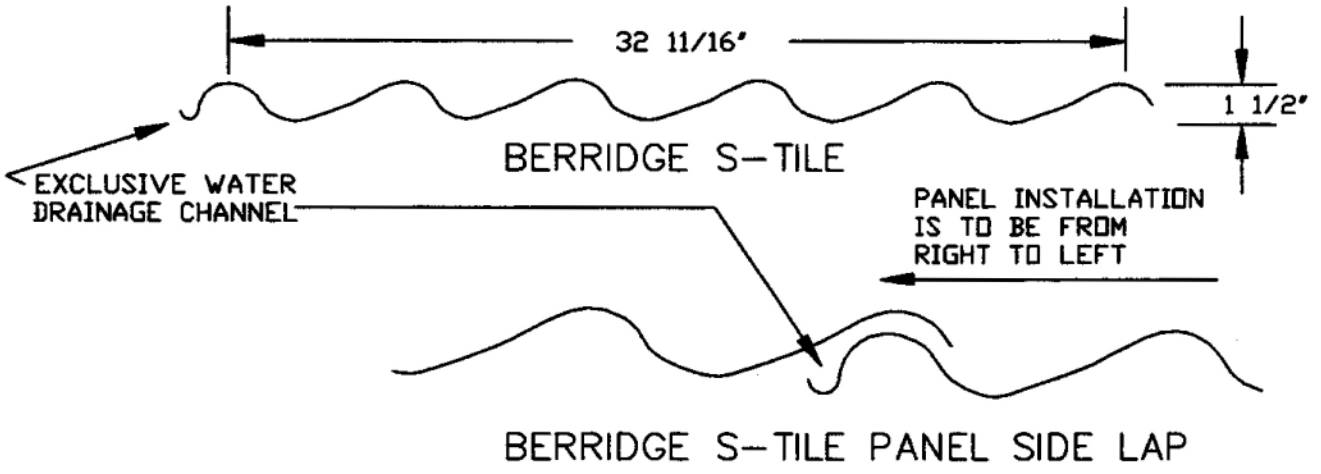
All product specifications, details & instructions subject to change without notice. For specific project details, contact Berridge.

THE DETAILS CONTAINED IN THE FOLLOWING PAGES ARE MERELY RECOMMENDATIONS AS TO HOW BERRIDGE MANUFACTURING MATERIALS SHOULD BE INSTALLED. THEY MAY REQUIRE ADAPTATIONS OR MODIFICATIONS FOR A SPECIFIC PROJECT AS CONDITIONS VARY IN BOTH BUILDING DESIGN AND LOCAL WEATHER PECULIARITIES.

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

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





BERRIDGE S-TILE PANEL SIDE LAP

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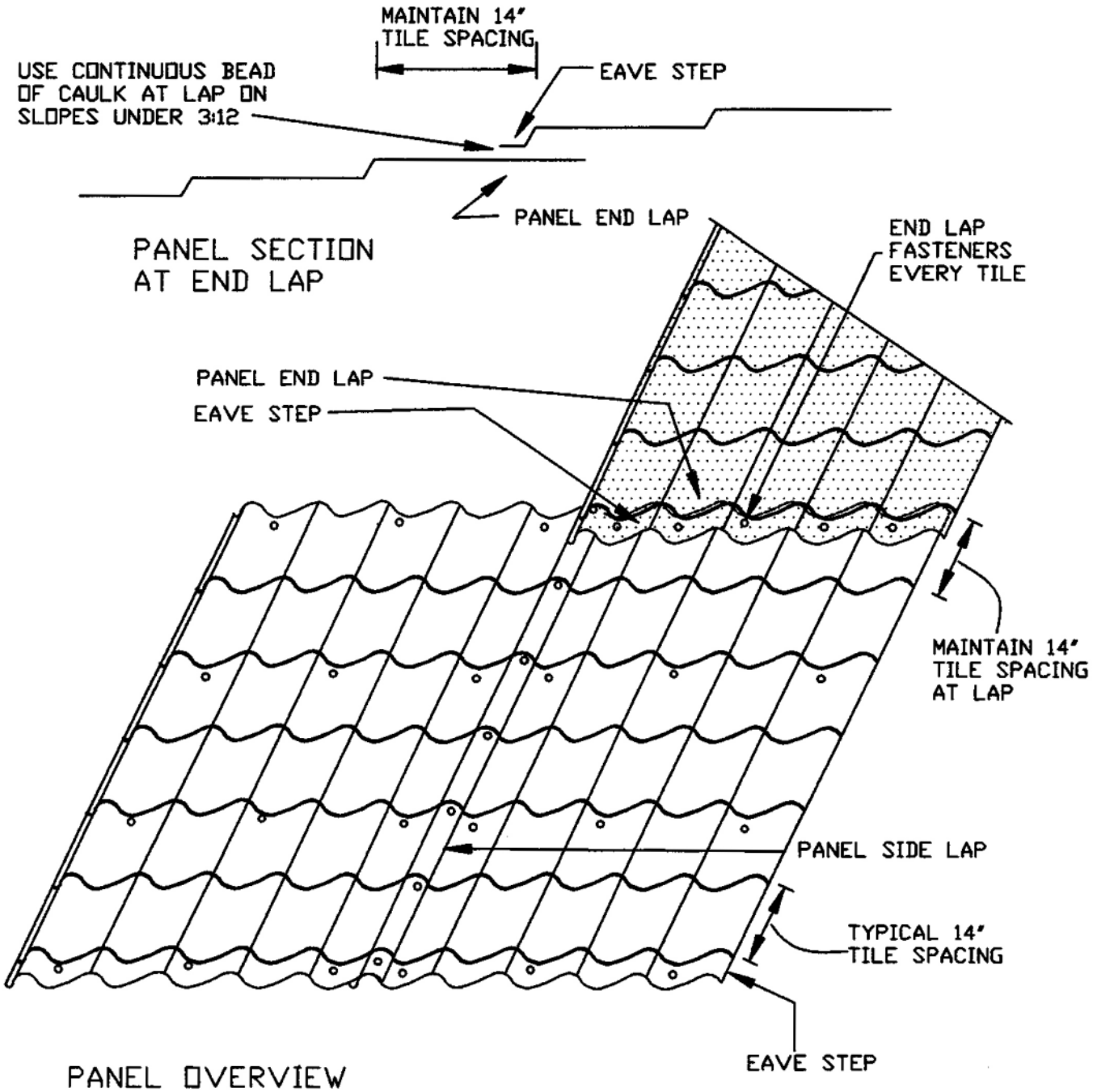
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INSTALLATION OVERVIEW

S-TILE SYSTEM

DATE 5/13/02

PAGE\FILE S-4



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PANEL END LAP

S-TILE SYSTEM

DATE
5/13/02

PAGE\FILE
S-5

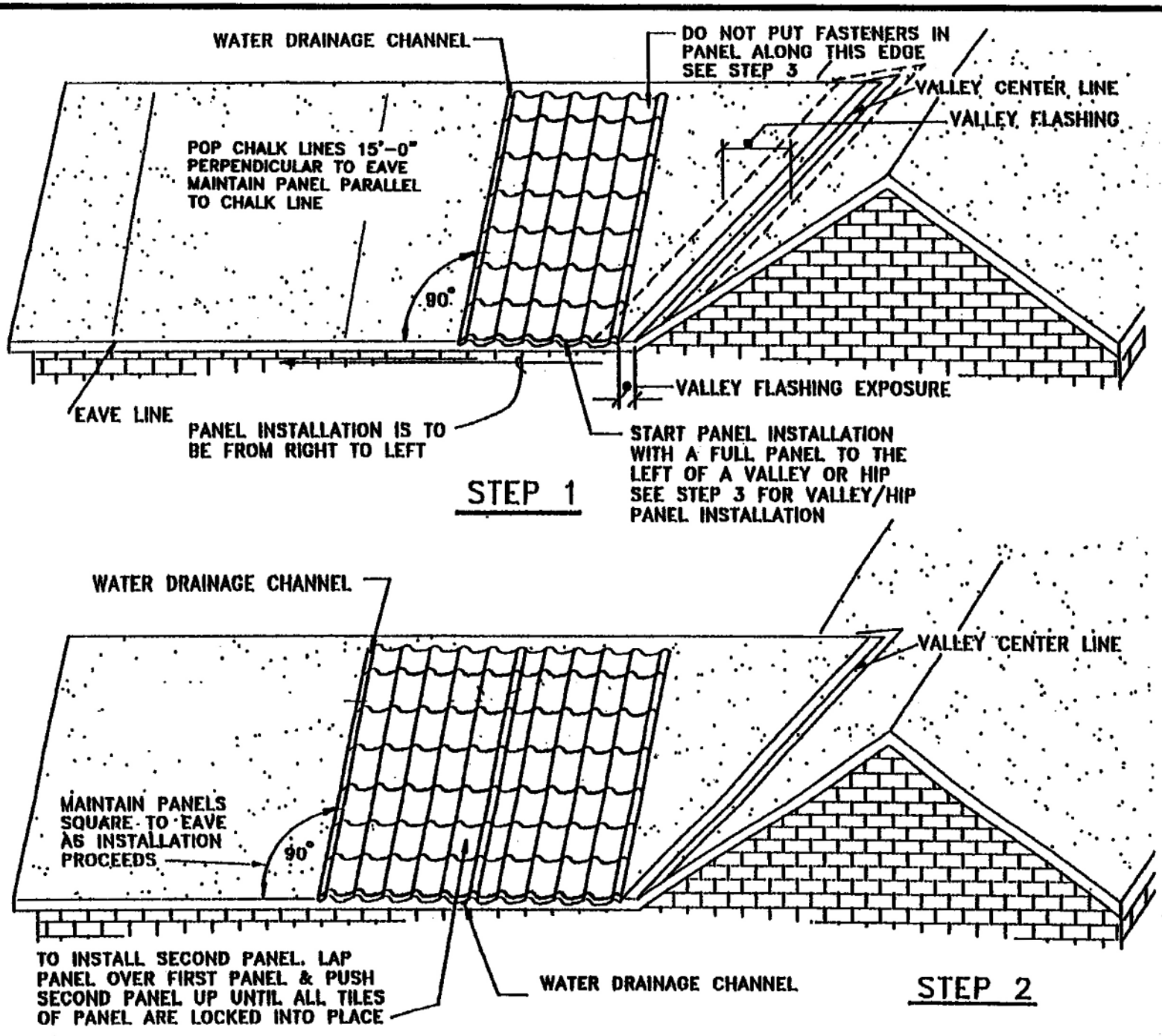
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S-TILE SYSTEM

PANEL INSTALLATION OVERVIEW

DATE 5/13/02

PAGE\FILE S-6



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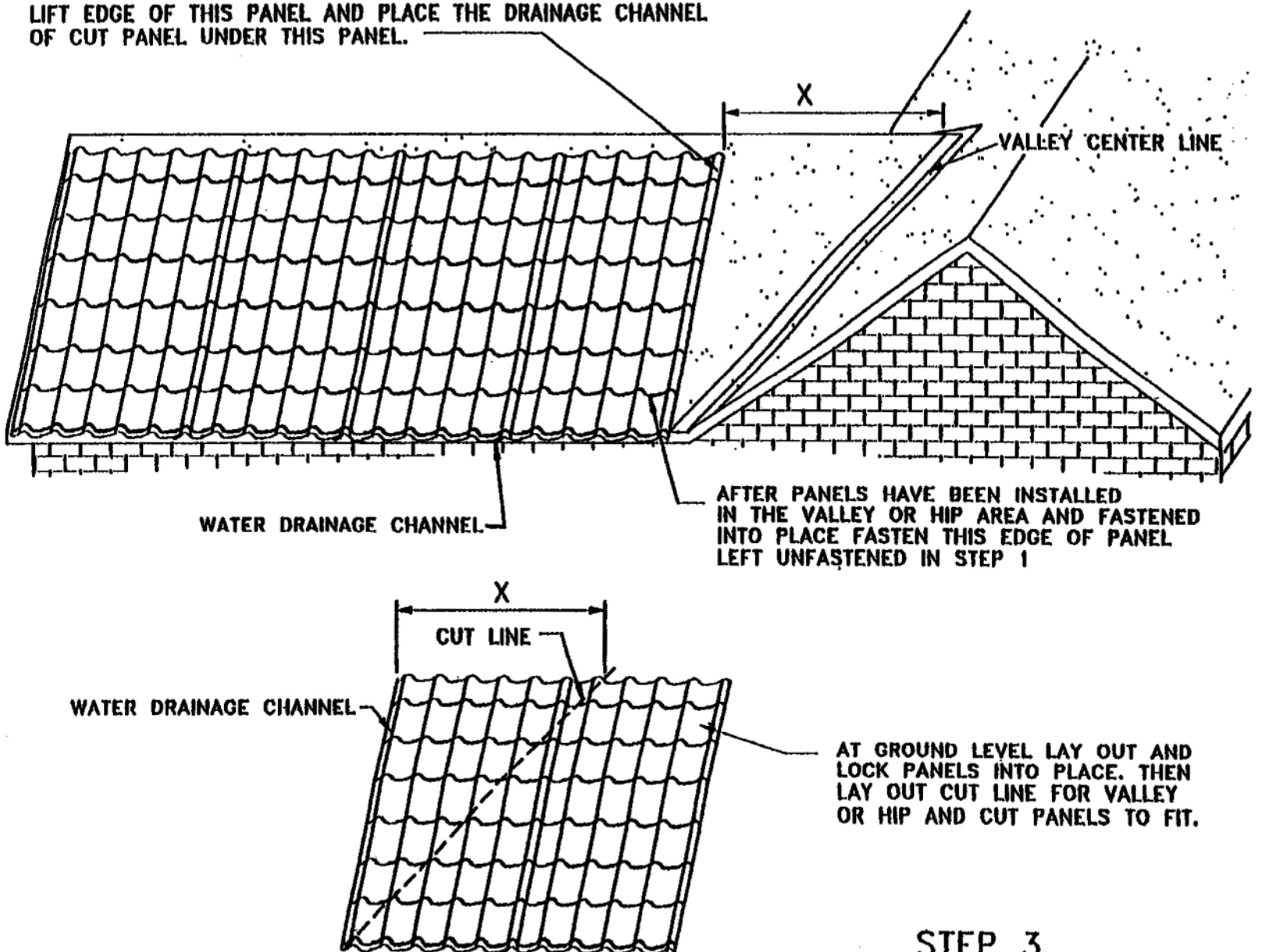
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S-TILE SYSTEM

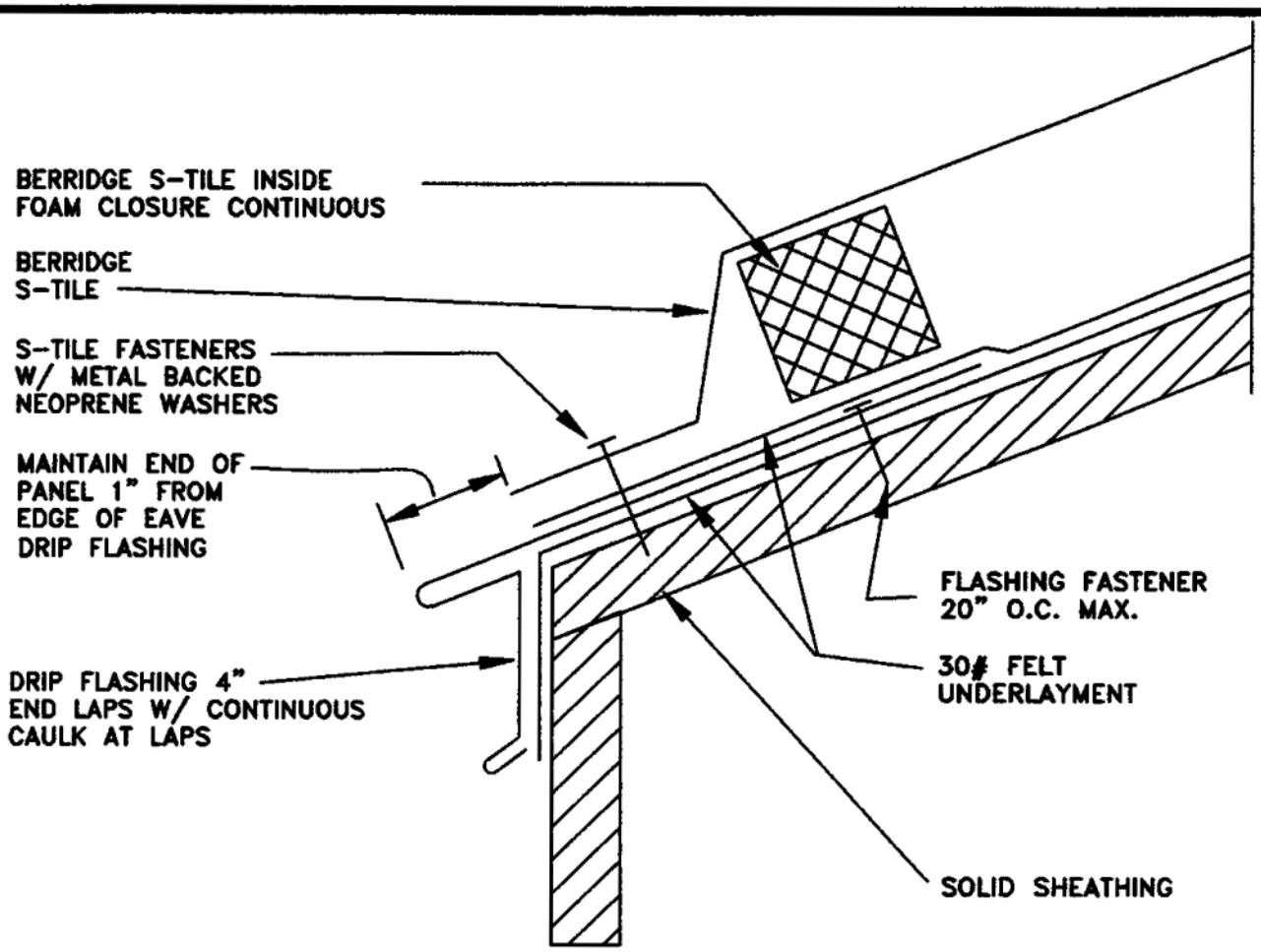
PANEL INSTALLATION OVERVIEW

DATE 5/13/02

PAGE\FILE S-7



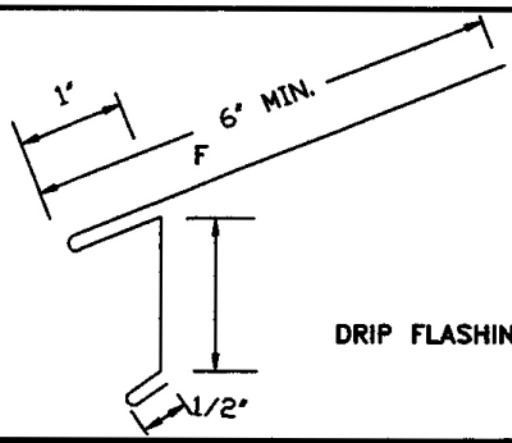
STEP 3



1. SEE DETAIL S-4 FOR LAY OUT OF S-TILE FASTENERS.

2. SOLID SHEATHING TO BE MIN. 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

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



F = FINISH SIDE

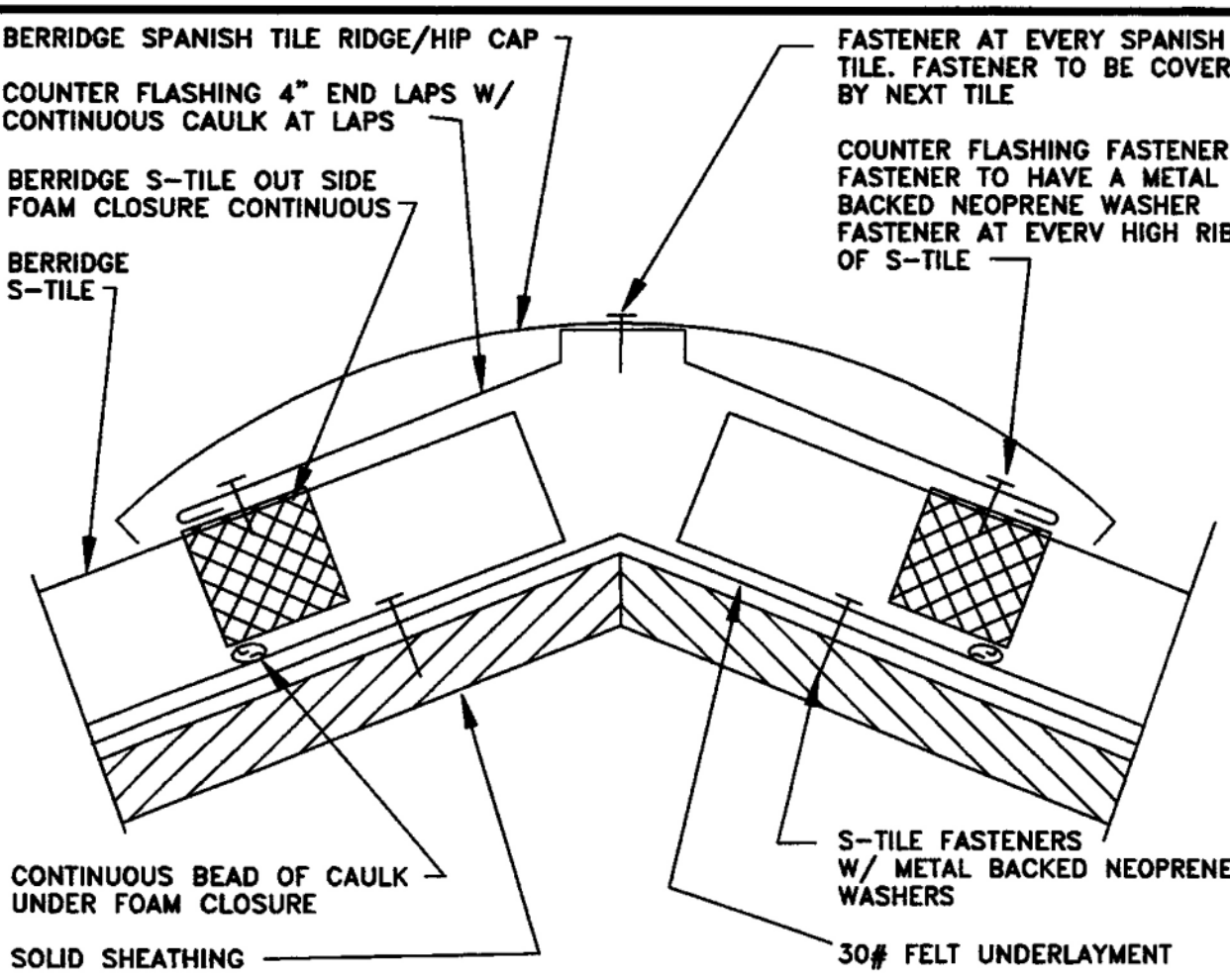
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EAVE DETAIL

S-TILE

DATE 5/13/02

S-10

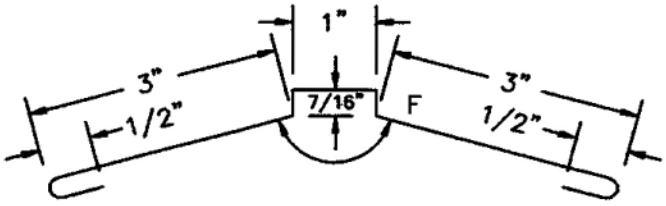


1. SEE DETAIL S-4 FOR LAY OUT OF S-TILE FASTENERS.

2. AT THE HIP AN OUT SIDE 45° LEFT HAND AND RIGHT HAND FOAM CLOSURES WILL BE REQUIRED.

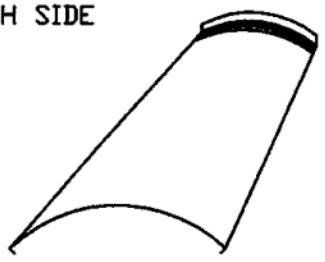
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COUNTER FLASHING

F = FINISH SIDE



BERRIDGE SPANISH TILE RIDGE/HIP CAP

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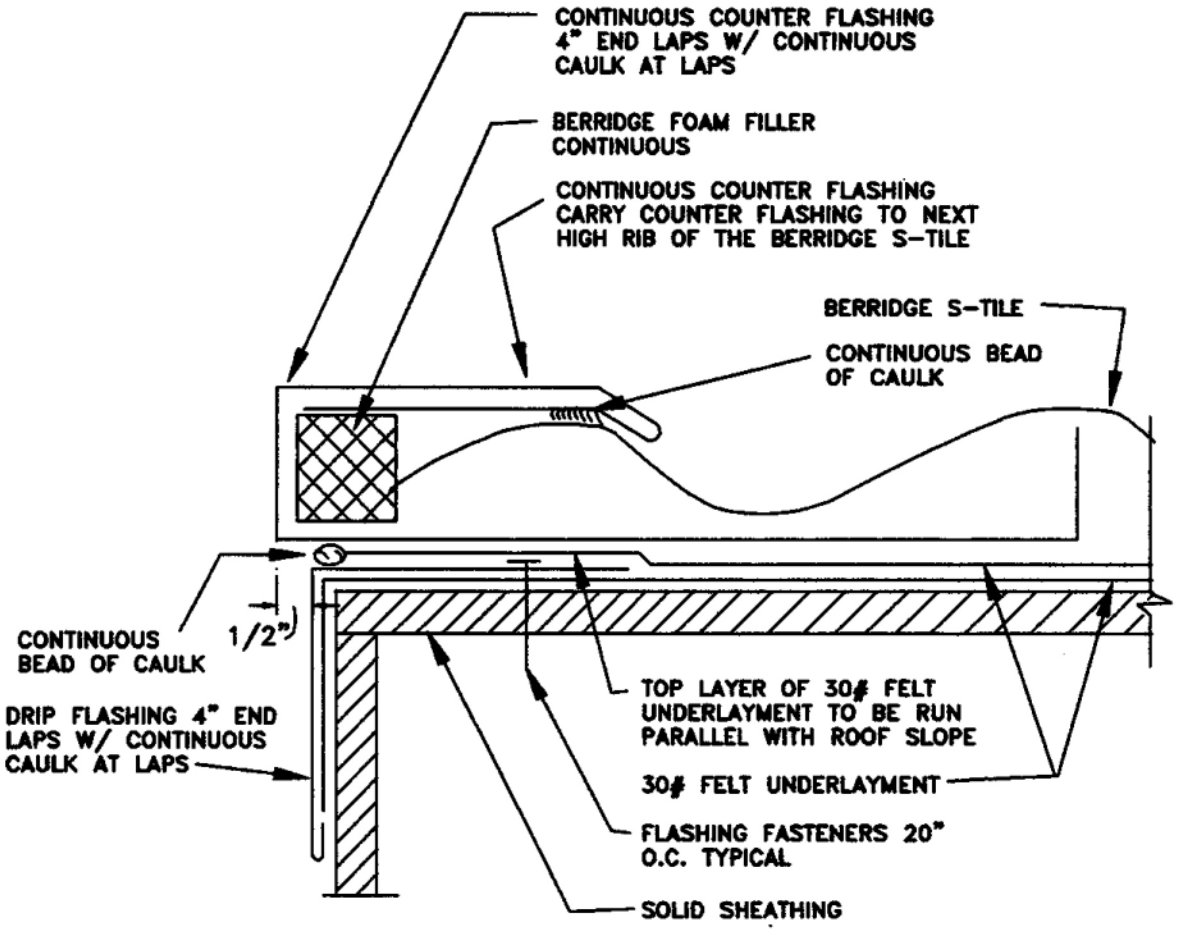
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RIDGE/HIP DETAIL

S-TILE

DATE 5/13/02

S-20

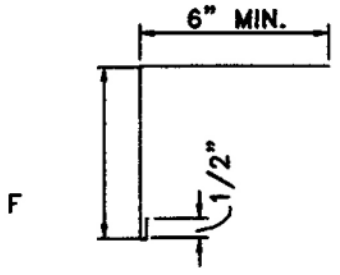


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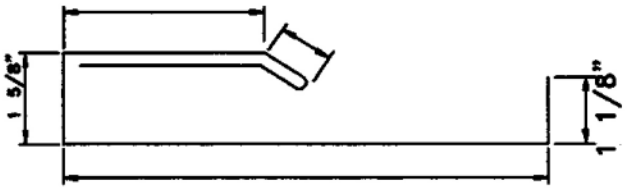
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F = FINISH SIDE



DRIP FLASHING



F

COUNTER FLASHING

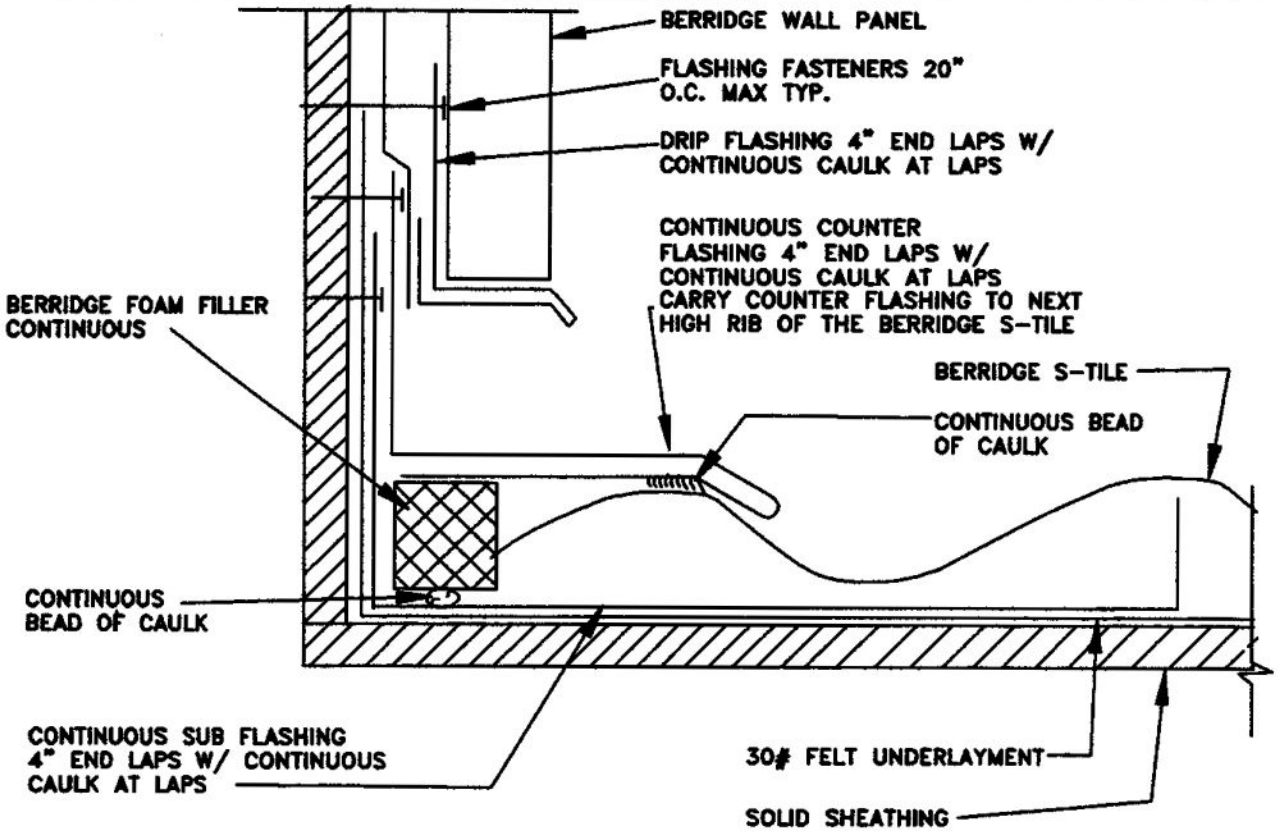
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GABLE DETAIL

S-TILE

DATE
5/13/02

S-30

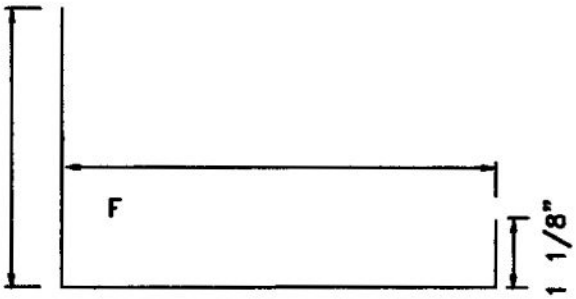


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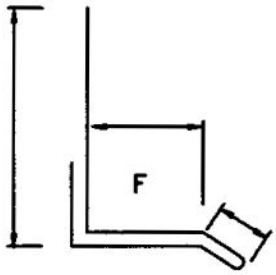
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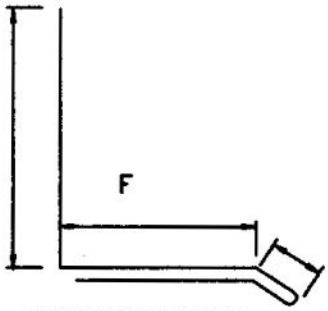
F = FINISH SIDE



SUB FLASHING



DRIP FLASHING



COUNTER FLASHING

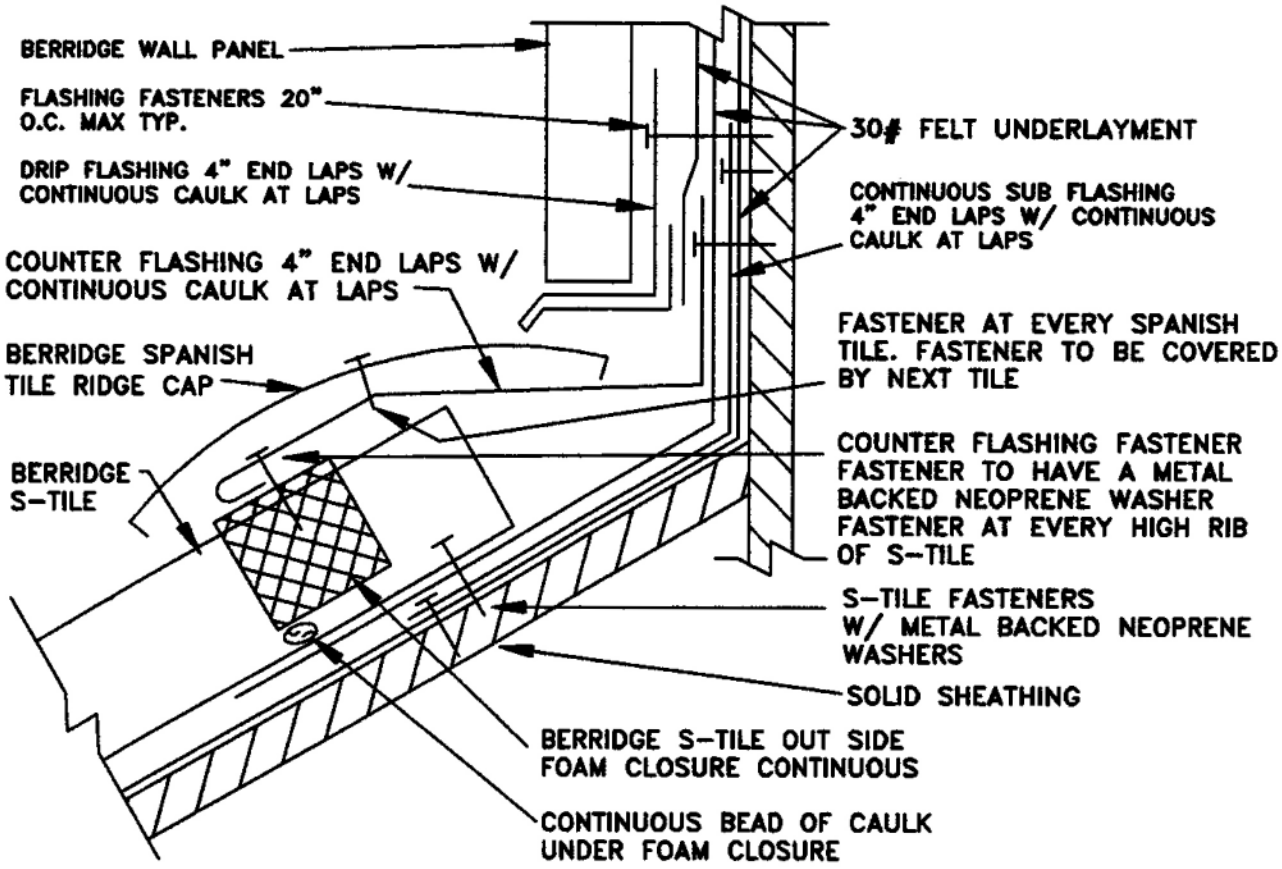
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RAKE WALL DETAIL

S-TILE

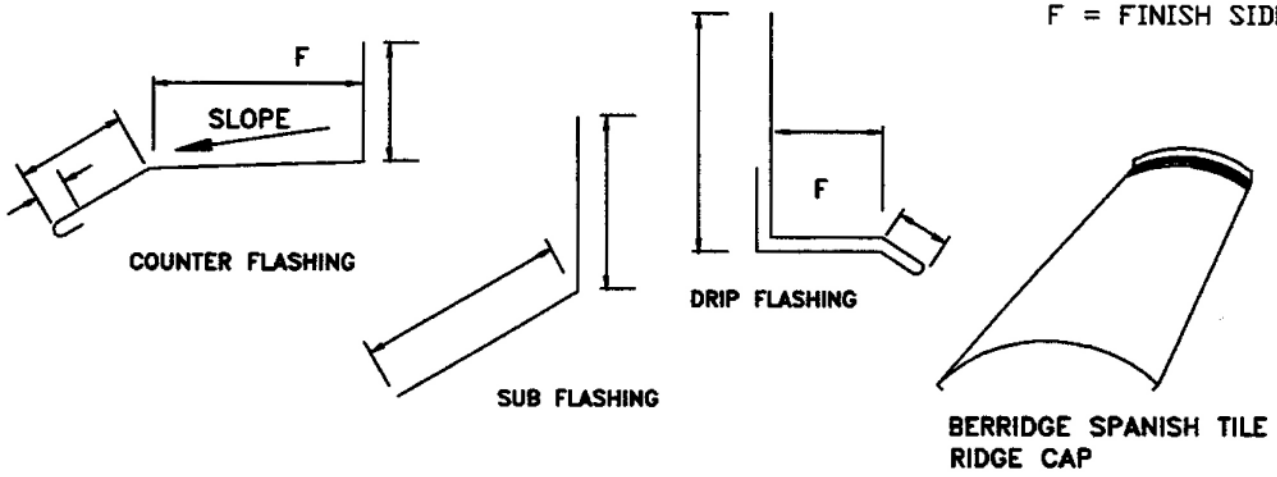
DATE 5/13/02

S-40



1. SEE DETAIL S-4 FOR LAY OUT OF S-TILE FASTENERS.
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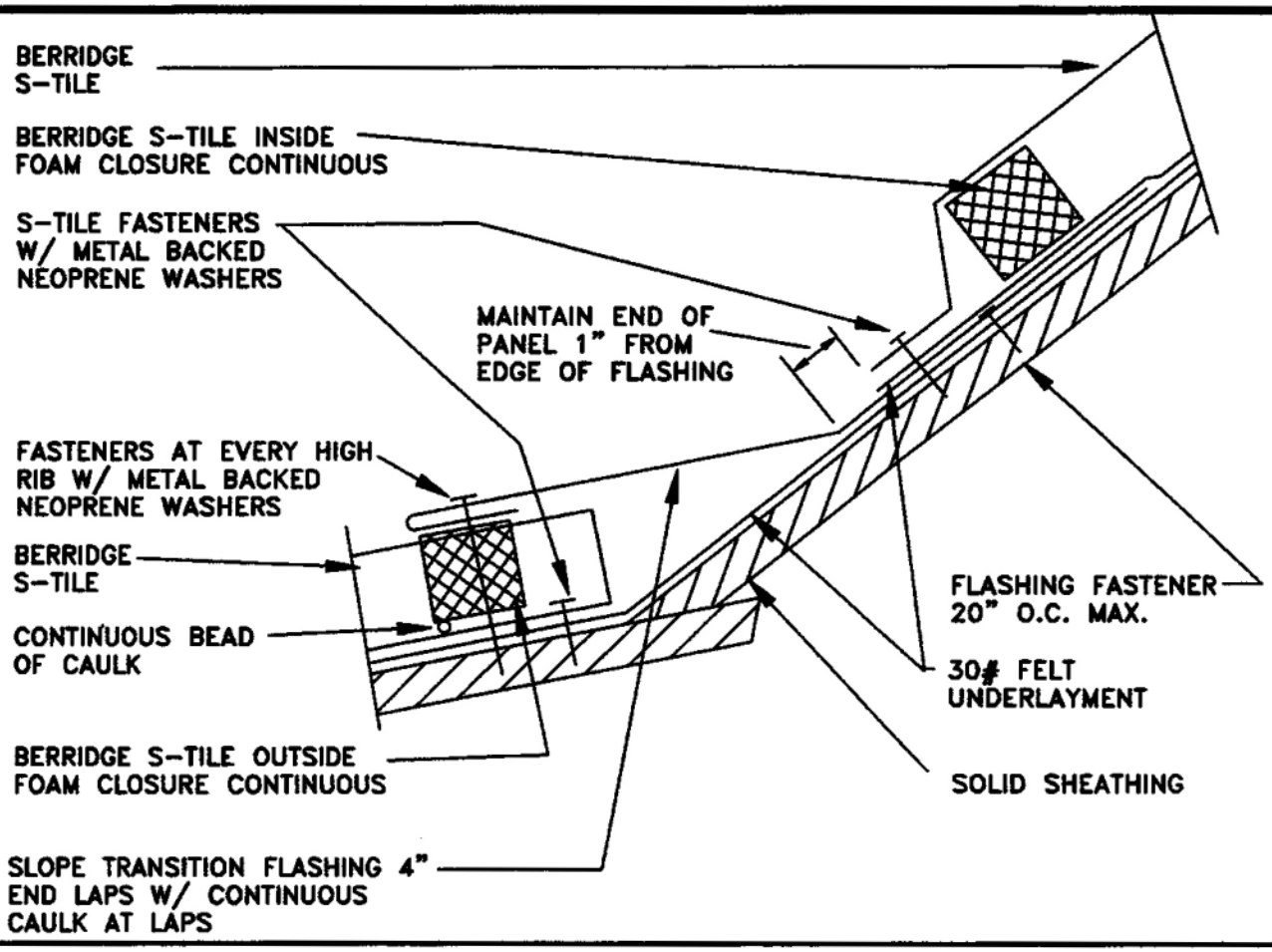
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HEAD WALL DETAIL

S-TILE

DATE 5/13/02

S-50



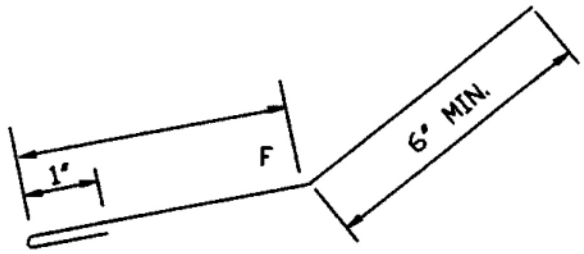
1. SEE DETAIL S-4 FOR LAY OUT OF S-TILE FASTENERS.

2. SOLID SHEATHING TO BE MIN. 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

3. KEEP TILES ALIGNED VERTICALY FROM BELOW TO ABOVE TRANSITION.

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

F = FINISH SIDE



SLOPE TRANSITION FLASHING

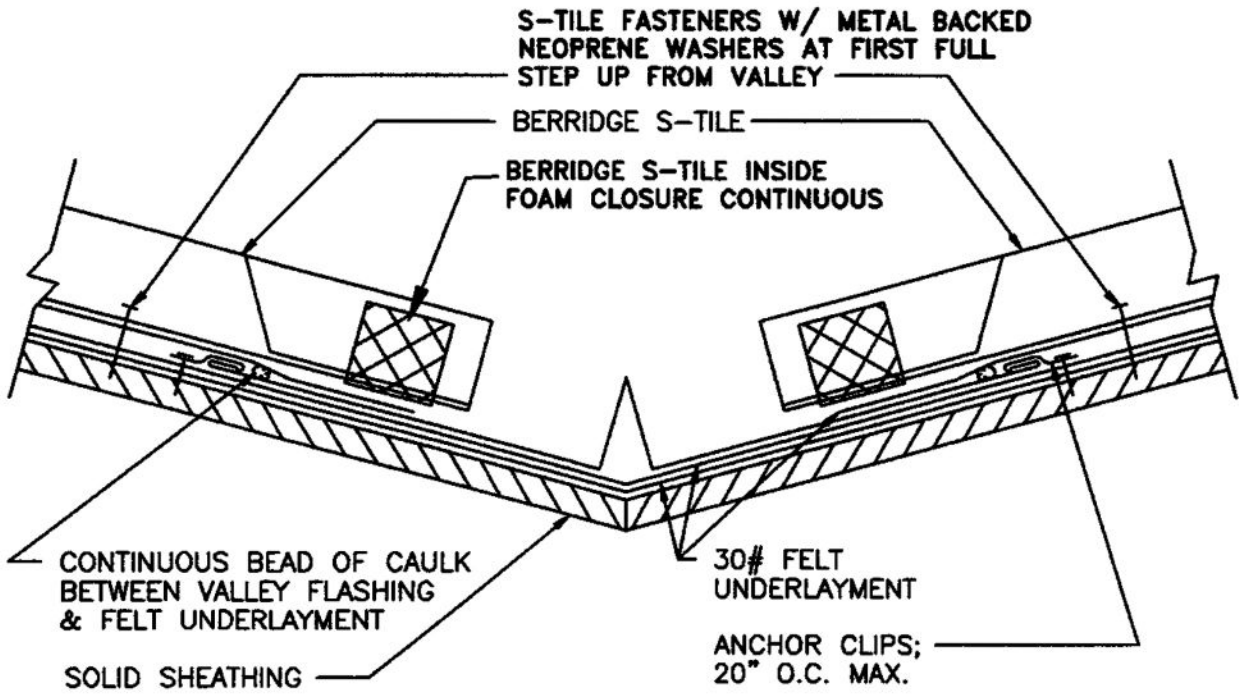
Berridge Manufacturing Co.
Roofs of Distinction

SLOPE TRANSITION

S-TILE

DATE 5/13/02

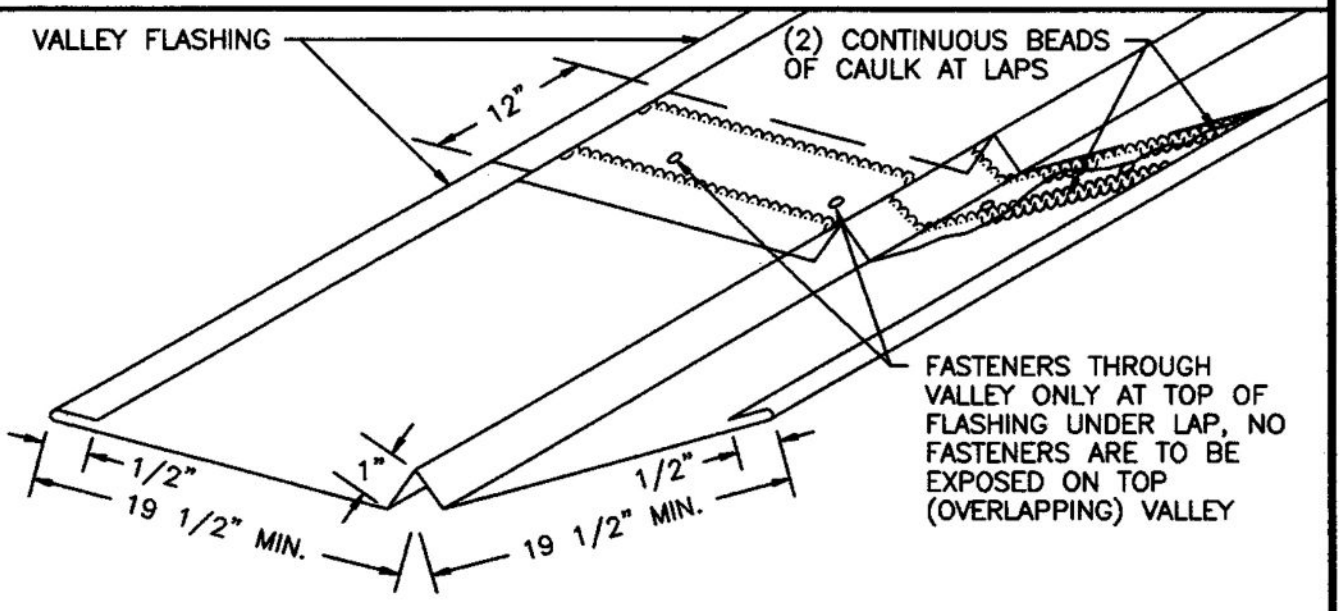
S-60



1. SEE DETAIL S-4 FOR LAY OUT OF S-TILE FASTENERS.

2. SOLID SHEATHING TO BE MIN. 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING POWER OF FASTENERS.

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



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VALLEY DETAIL

DATE
5/13/02

S-TILE

S-70

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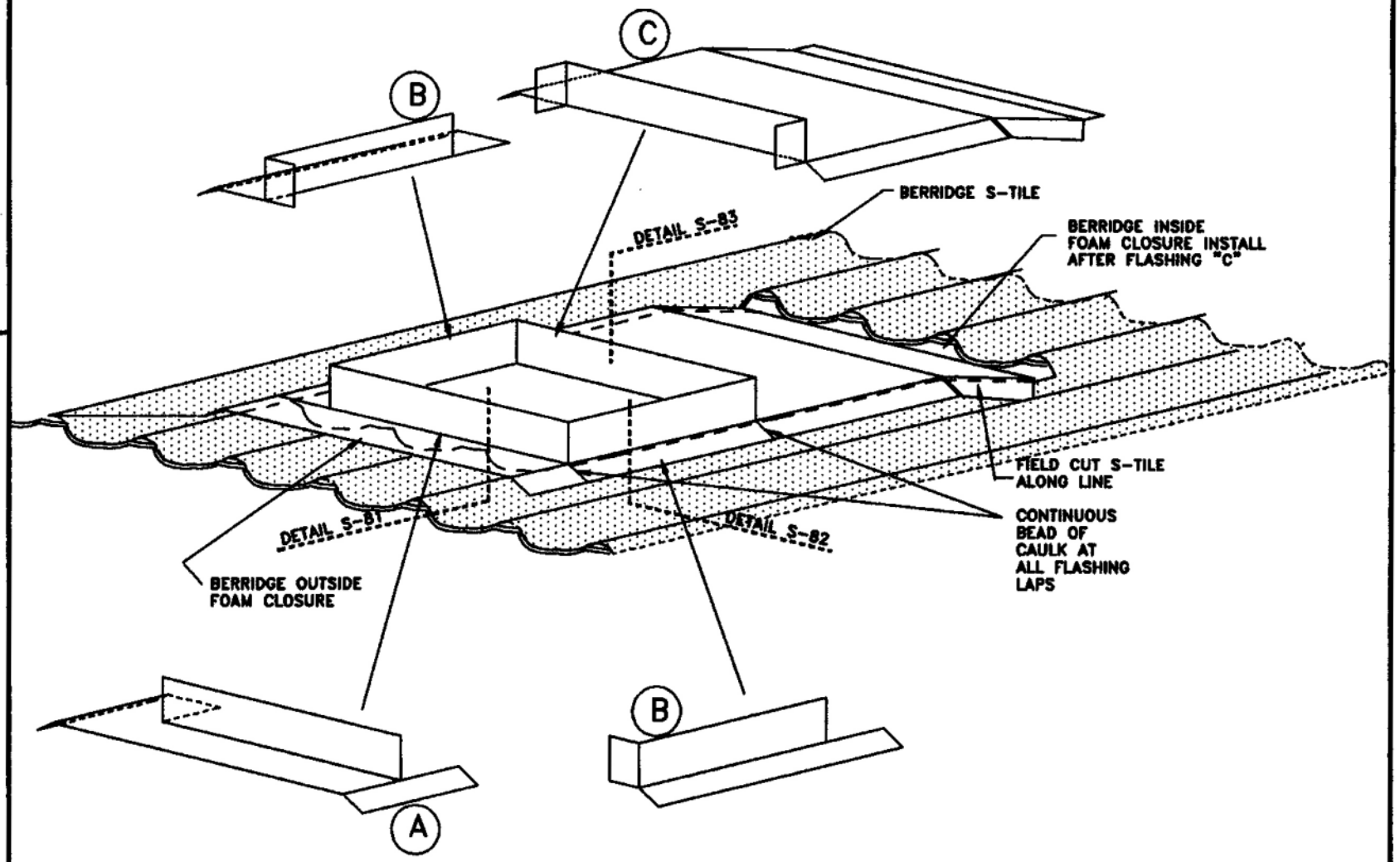
Roofs of Distinction

ROOF PENETRATION

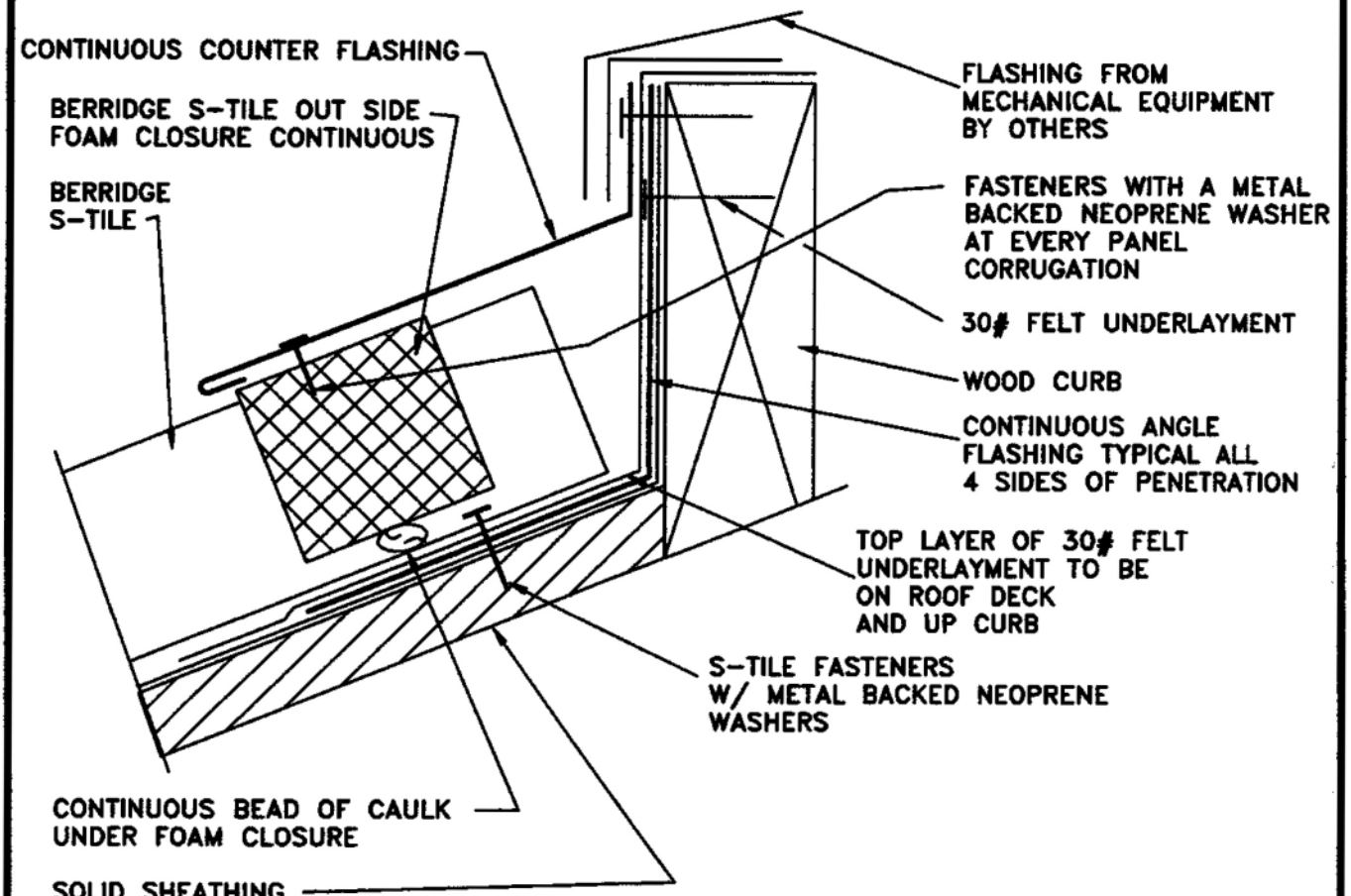
S-TILE

S-80

DATE 5/13/02



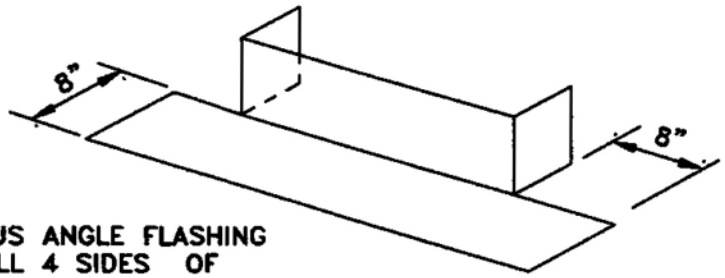
FIELD CUT PANEL ALONG DOTTED LINE & INSTALL PANEL. INSTALL FLASHING "A" FIRST ALONG WITH FOAM CLOSURE. INSTALL FLASHING "B" SECOND, CAULK ALL FLASHING LAPS. INSTALL FLASHING "C" LAST, THIS FLASHING IS TO BE SLIPED UNDER THE S-TILE & FELT AS SHOWN IN DETAIL S-83 BEFORE THE FOAM CLOSURE OR FASTENERS ARE INSTALLED. SEE ALSO DETAILS S-81 & S-82 FOR FELTING AND SUBFLASHING.



1.?SEE DETAIL S-4 FOR LAY OUT OF S-TILE FASTENERS.

2.?SOLID SHEATHING TO BE MIN. 1/2" PLYWOOD OR EQUIVALENT IN STRENGTH FOR HOLDING ?POWER OF FASTENERS.

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



CONTINUOUS ANGLE FLASHING TYPICAL ALL 4 SIDES OF PENETRATION

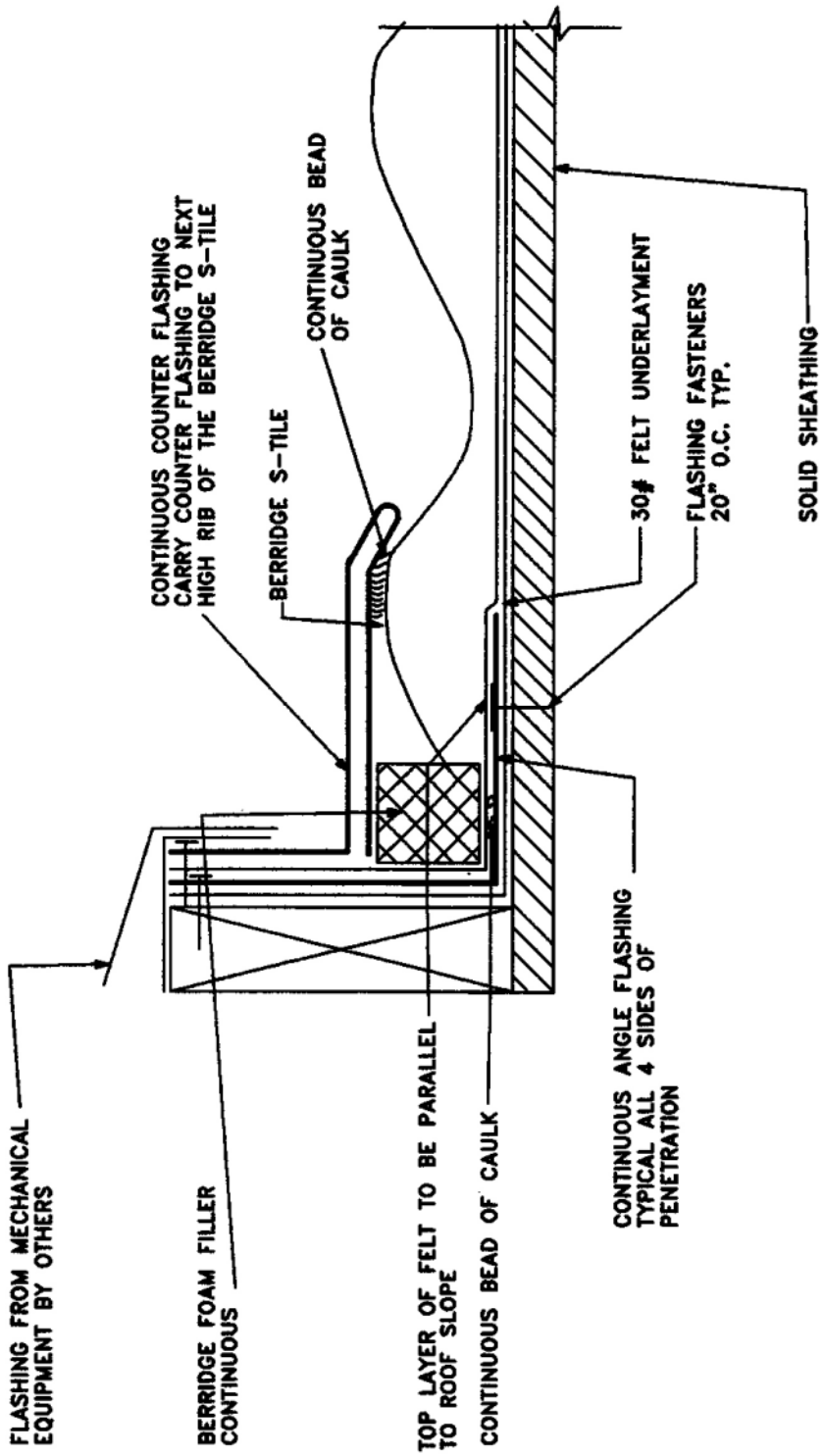
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Roofs of Distinction

ROOF PENETRATION DETAIL

DATE 5/13/02

S-TILE

S-81



Berridge Manufacturing Co.

Roofs of Distinction

SIDE CURB DETAIL

S-TILE

DATE
5/13/02

S-82

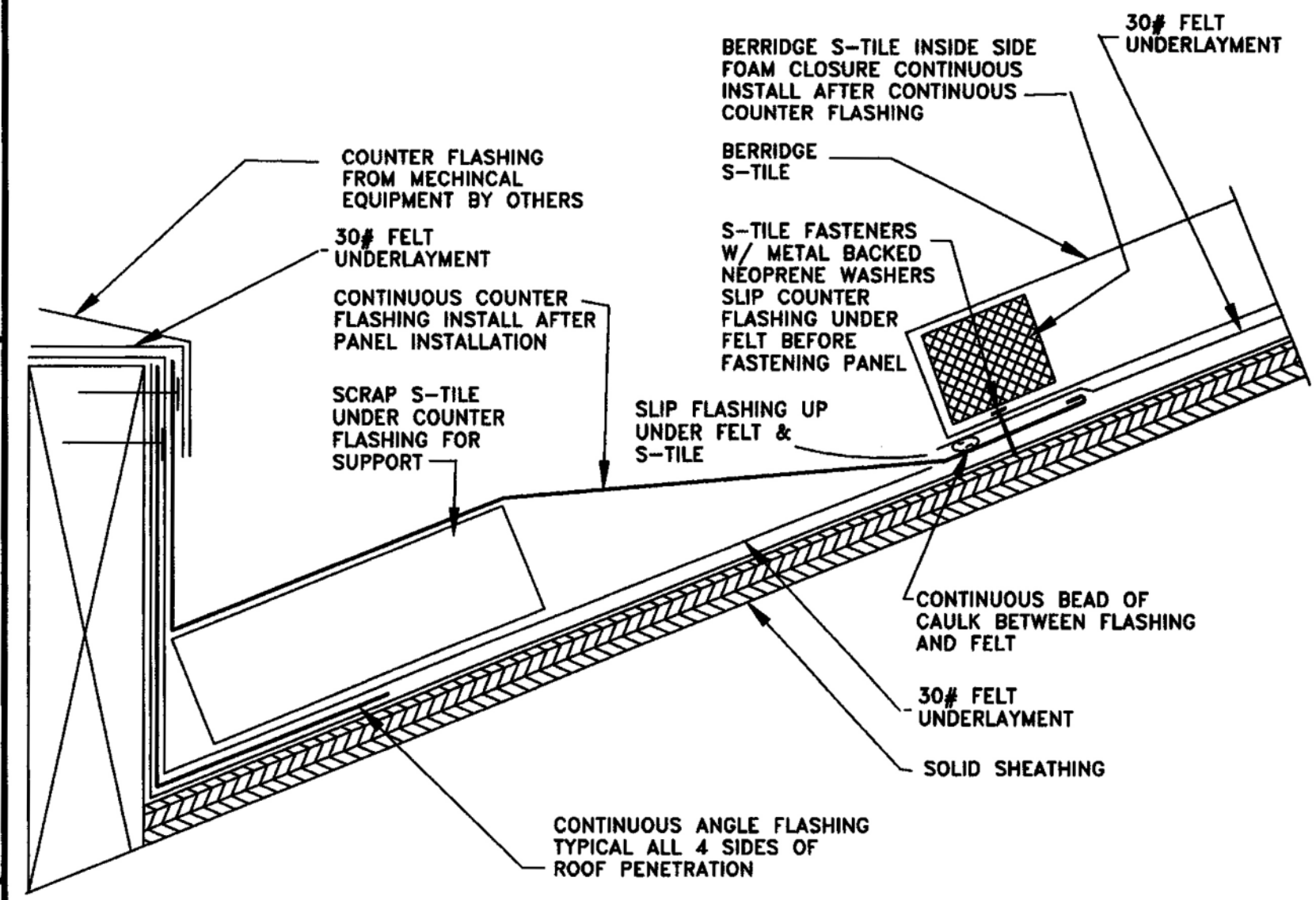
Berridge Manufacturing Co.

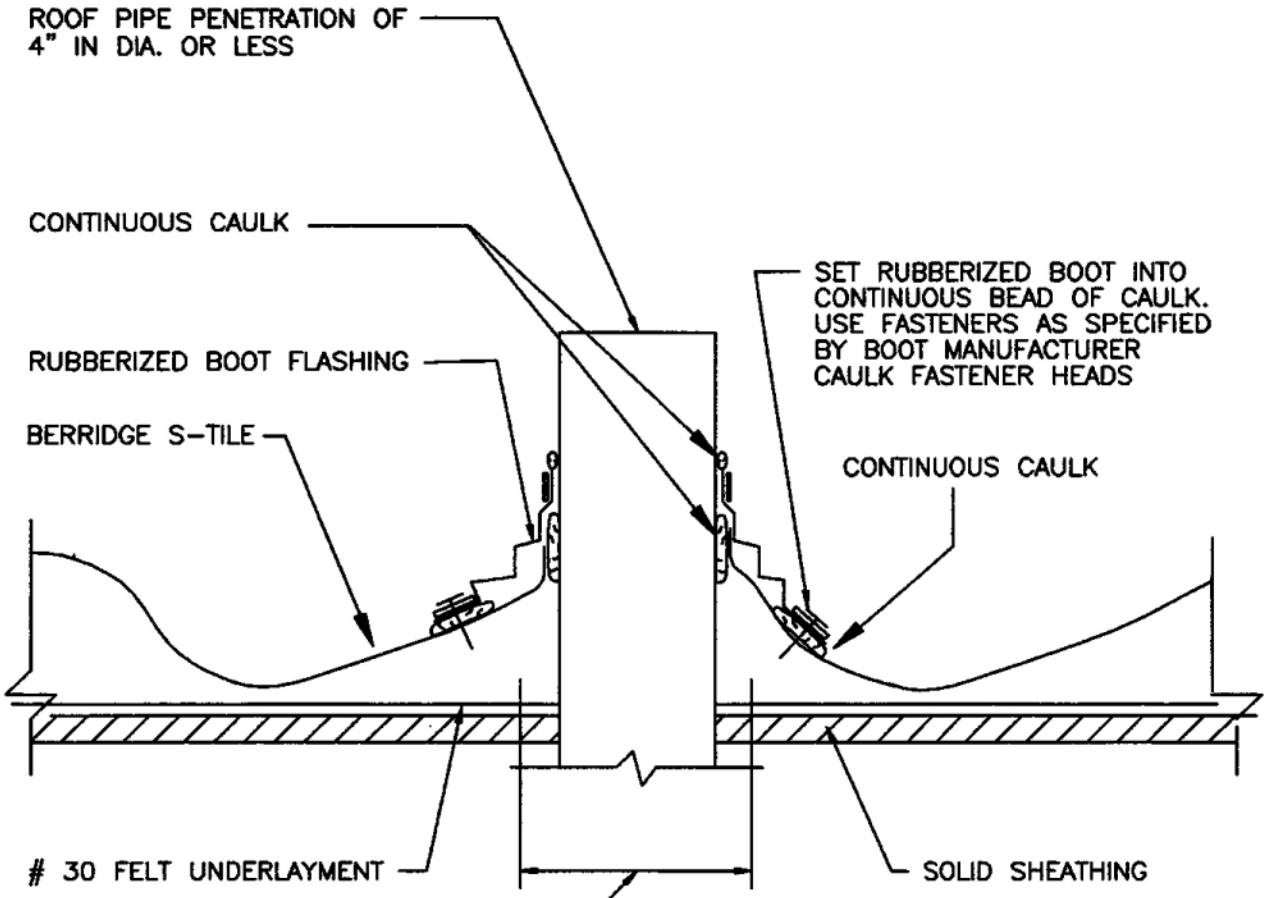
ROOF PENETRATION DETAIL

S-TILE

S-83

DATE 5/13/02





NOTE: IF PIPE IS MADE OF METAL, IT MUST BE PAINTED TO PREVENT RUST RUN-OFF FROM STAINING PANELS.

NOTE: POSITION SQUARE BASED BOOTS IN A DIAMOND ORIENTATION WHERE POSSIBLE TO AID IN DIVERTING WATER.

Berridge Manufacturing Co. Roofs of Distinction	PIPE PENETRATION DETAIL	DATE 5/13/02
	S-TILE	S-84