



Best Practices for Flashing Details



Best Practices for Flashing Details



CULTURED STONE®

The Preferred Name In Stone™

Helping Create Strong Bonds

As you know, when applying manufactured stone veneer, it's of the utmost importance to take steps to prevent two common causes of serious damage—moisture and mold.

Cultured Stone® and Simpson Gumpertz & Heger Inc. (SGH), a well-known and widely respected architectural firm, have created this manufactured stone veneer best practices manual, complete with installation steps and corresponding diagrams, to help give you the extra advantage when installing manufactured stone veneer.

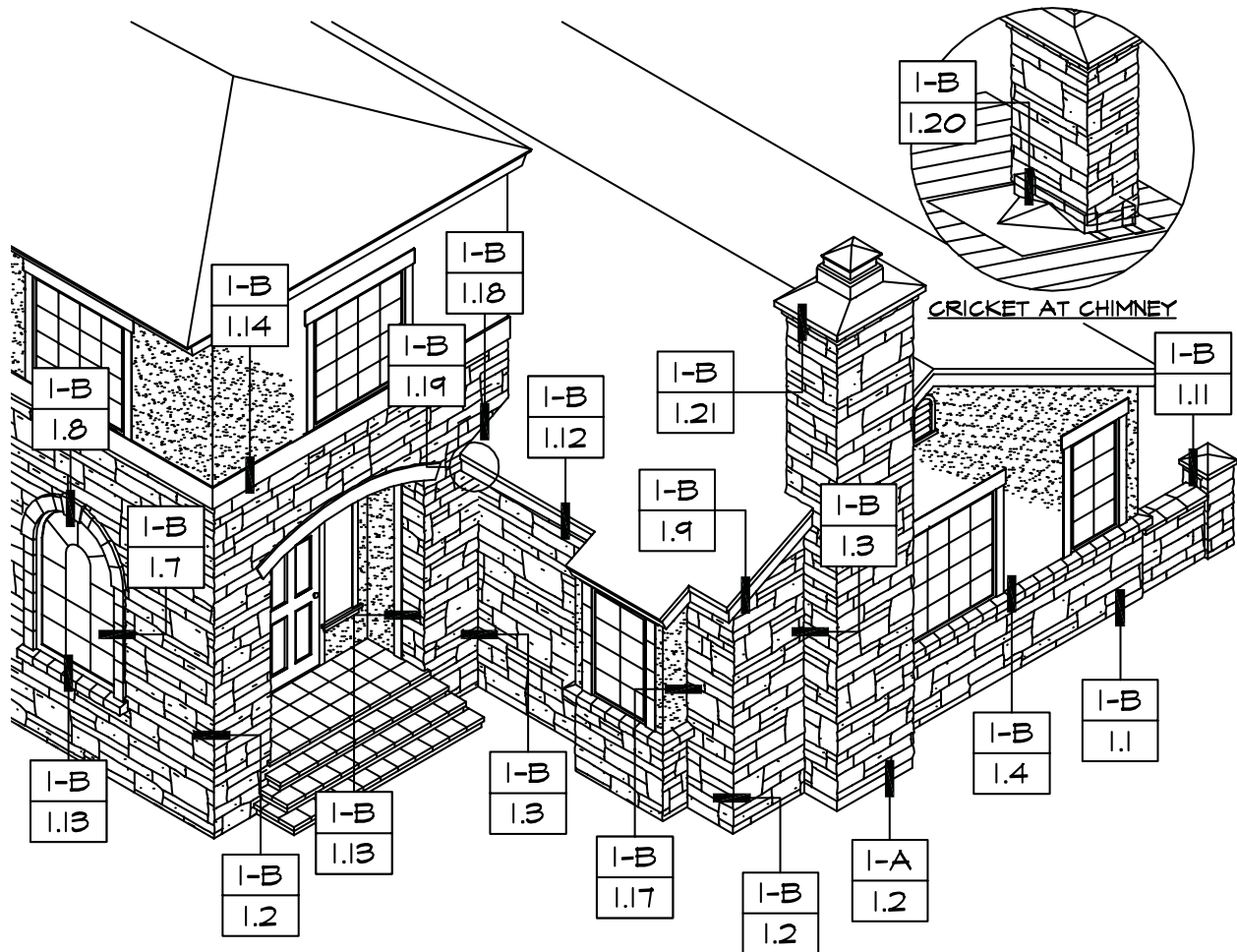
Not only is this manual a tool to help take your expertise—and business—to the next level, it's a valuable resource for additional construction details and ideas. After all, the fewer misapplications, the more satisfied customers. And the more satisfied customers you have, the higher the demand for your services.

For more information about Cultured Stone® or to easily access an interactive version of these best practices in downloadable formats, visit www.culturedstone.com.

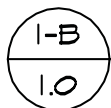
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Best Practices for Flashing Details

Below is the key to the flashing and construction details included in this manual. Refer to this key for a larger view of the detailed drawings that begin on page 3. The corresponding notes for each detail can be found on pages 12–13. Use these notes as a guide to ensure proper construction and installation.



SHEATHING AND WOOD STUDS - KEY TO DETAILS

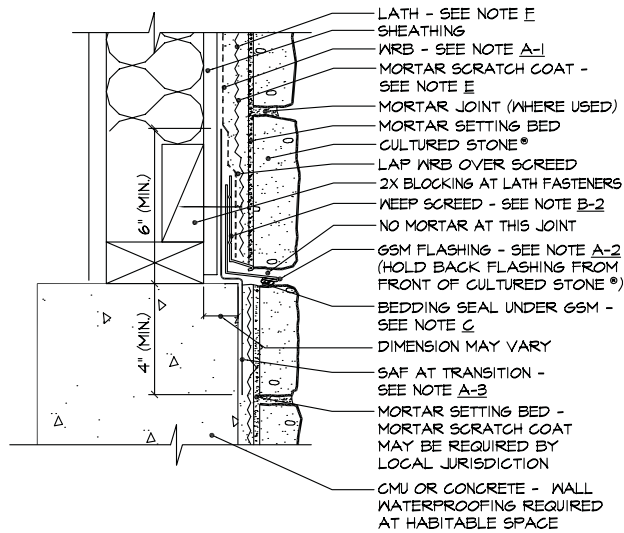


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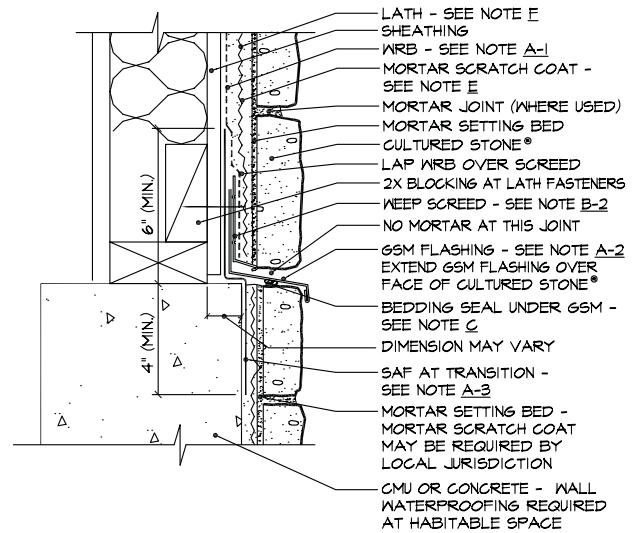


CMU OR CONCRETE WALL - WOOD FRAMING
RECESSED BASE FLASHING

1-A
1.2A

SCALE: 3"=1'-0"

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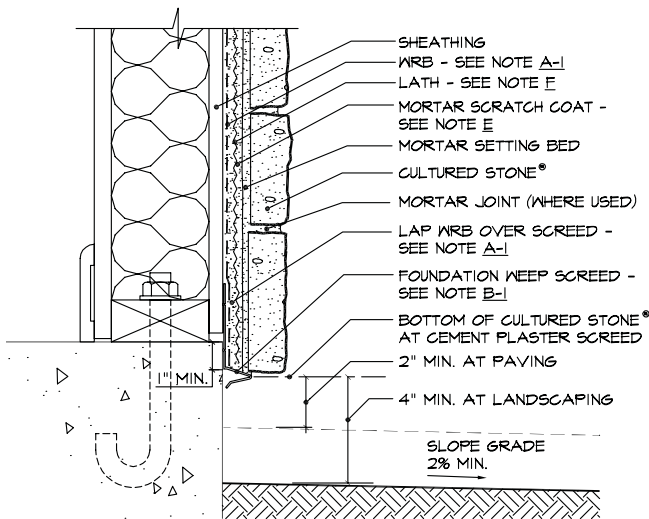


CMU OR CONCRETE WALL - WOOD FRAMING
EXTENDED BASE FLASHING

1-A
1.2B

SCALE: 3"=1'-0"

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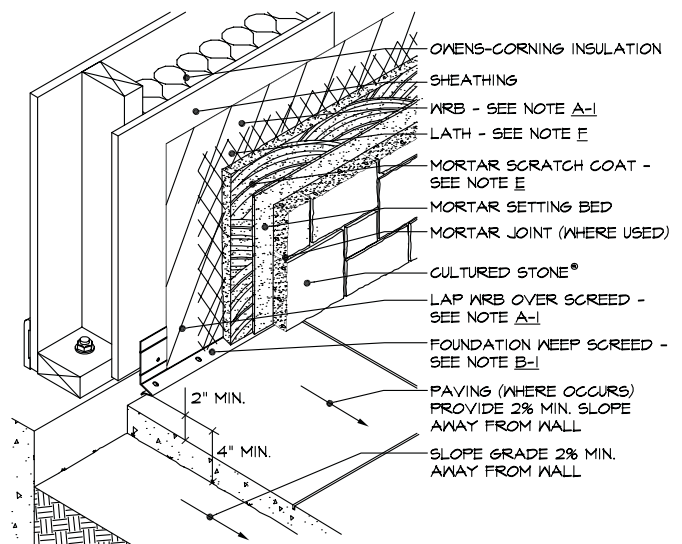


SHEATHING AND WOOD STUDS -
FOUNDATION WALL BASE

1-B
1.1

SCALE: 3"=1'-0"

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SHEATHING AND WOOD STUDS -
FOUNDATION WALL BASE

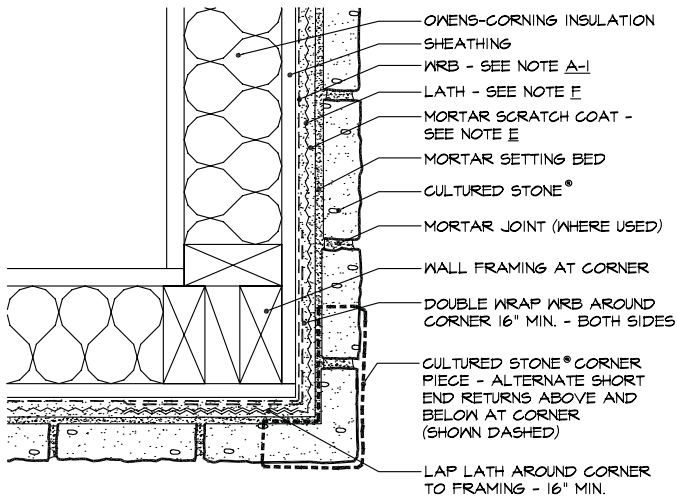
1-B
1.1A

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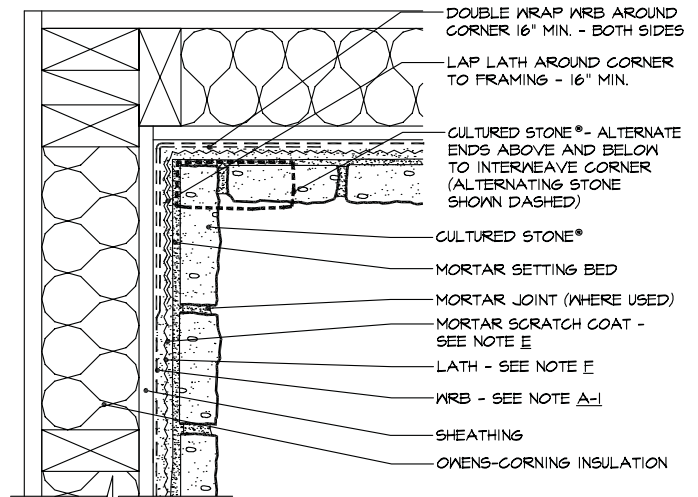


SHEATHING AND WOOD STUDS -
OUTSIDE CORNER

1-B
1.2

SCALE: 3"=1'-0"

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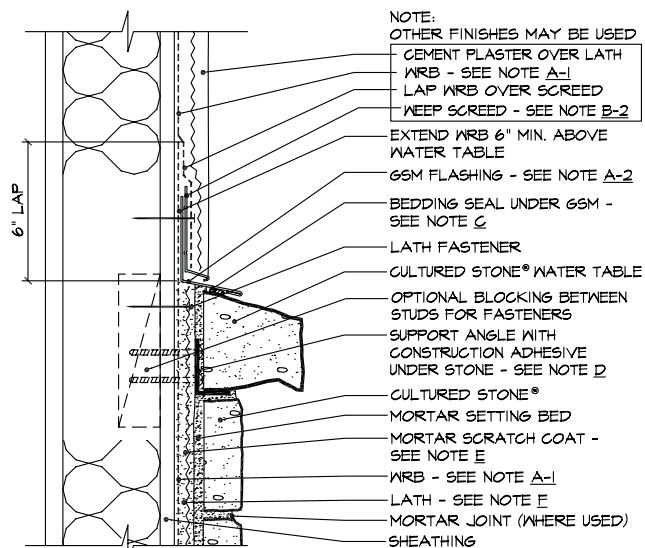


SHEATHING AND WOOD STUDS -
INSIDE CORNER

1-B
1.3

SCALE: 3"=1'-0"

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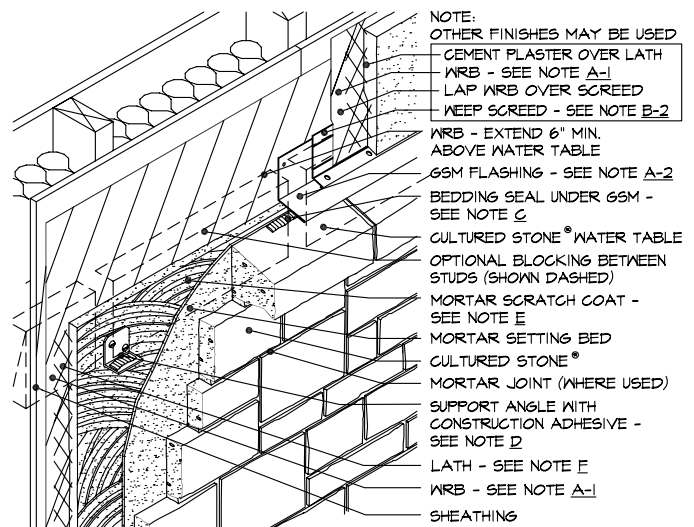


SHEATHING AND WOOD STUDS -
WATER TABLE OR WAINSCOT

1-B
1.4

SCALE: 3"=1'-0"

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SHEATHING AND WOOD STUDS -
WATER TABLE OR WAINSCOT

1-B
1.4A

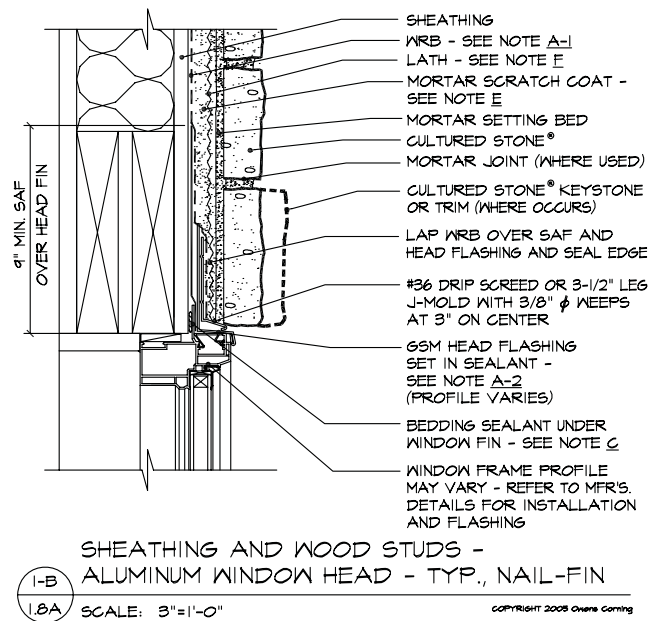
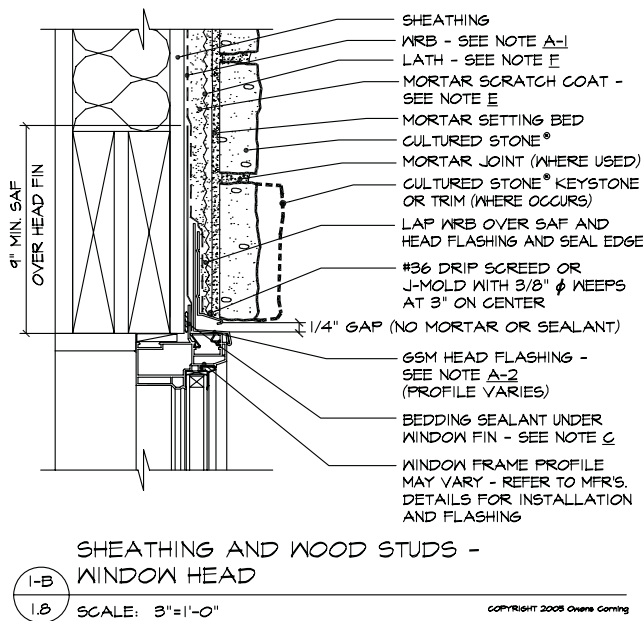
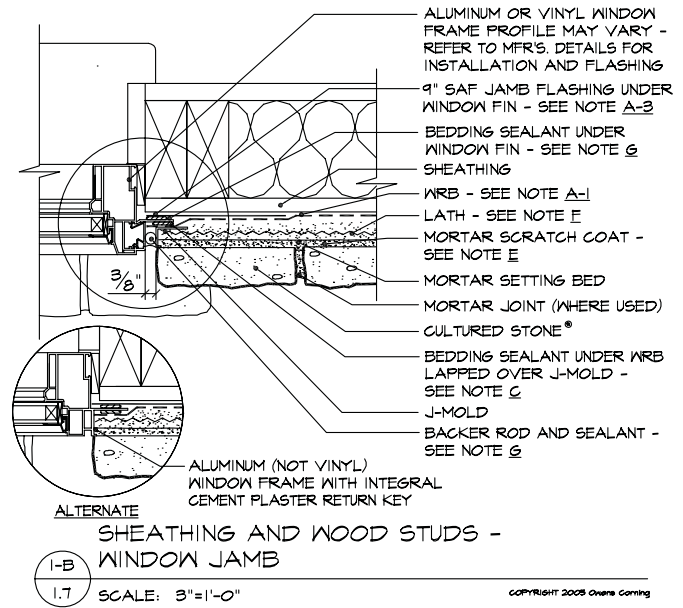
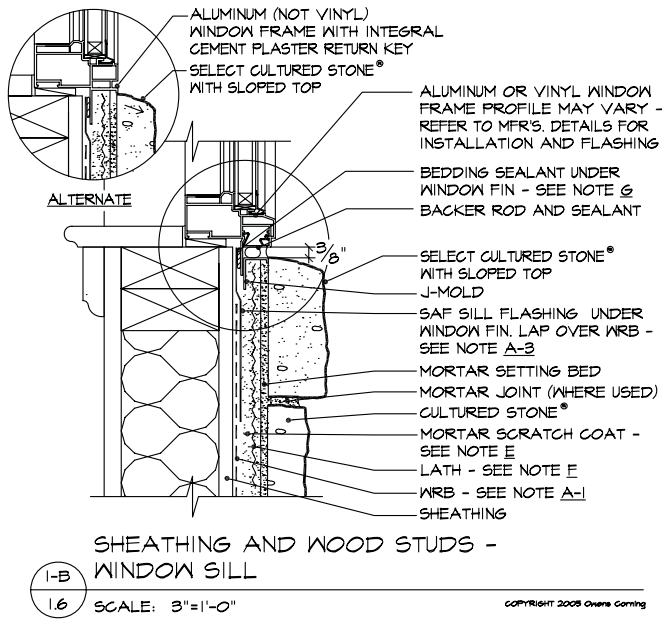
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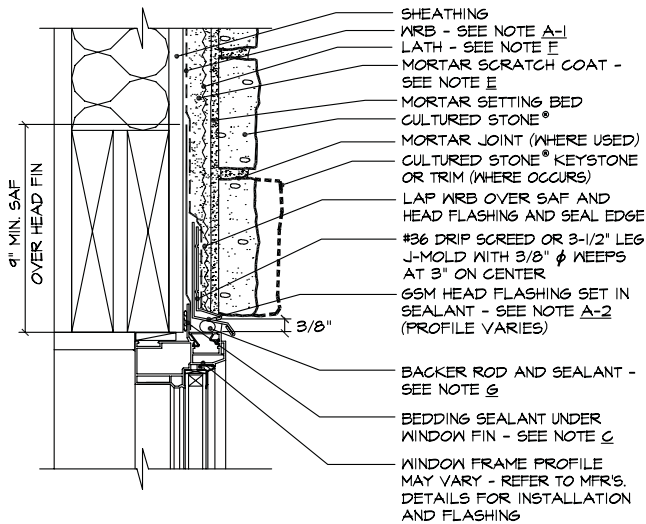
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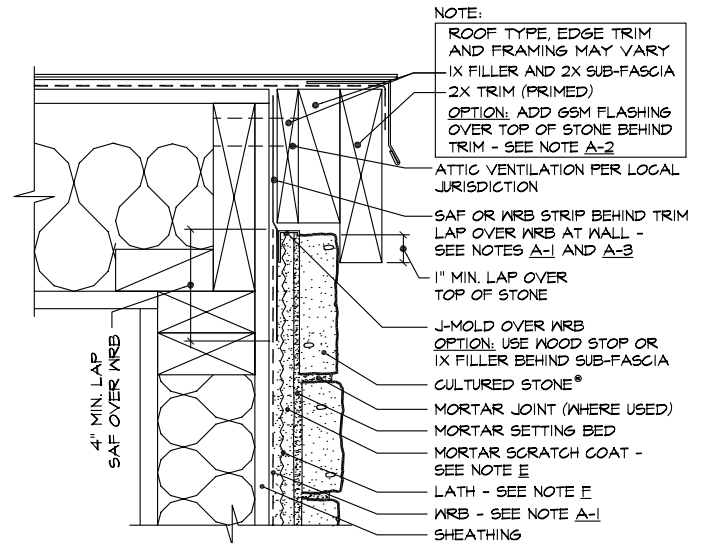


SHEATHING AND WOOD STUDS - VINYL WINDOW HEAD - TYP., NAIL-FIN

1-B
1.8B

SCALE: 3"=1'-0"

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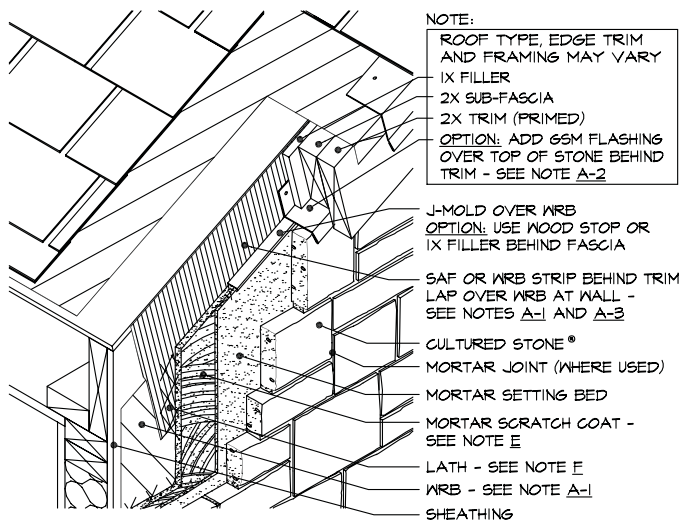


TOP OF FRAMED WALL AT ROOF - TIGHT RAKE

1-B
1.9A

SCALE: 3"=1'-0"

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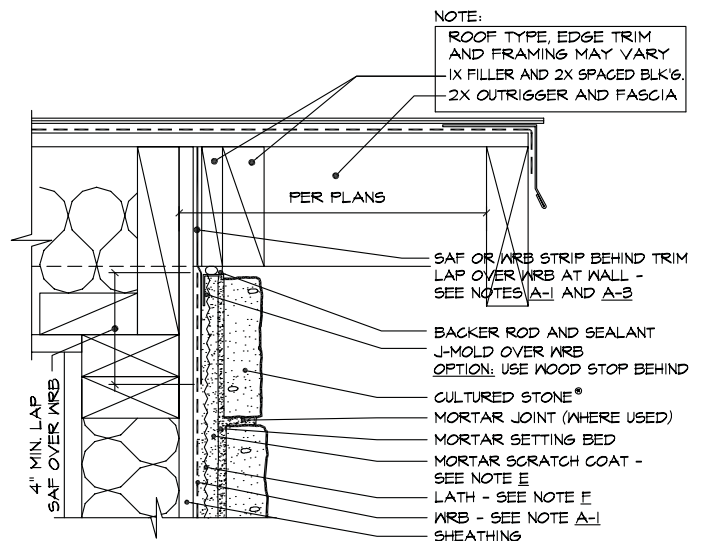


TOP OF FRAMED WALL AT ROOF - TIGHT RAKE

1-B
1.9A

SCALE: N.T.S.

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TOP OF FRAMED WALL AT ROOF - EXTENDED RAKE (OPEN SOFFIT)

1-B
1.9B

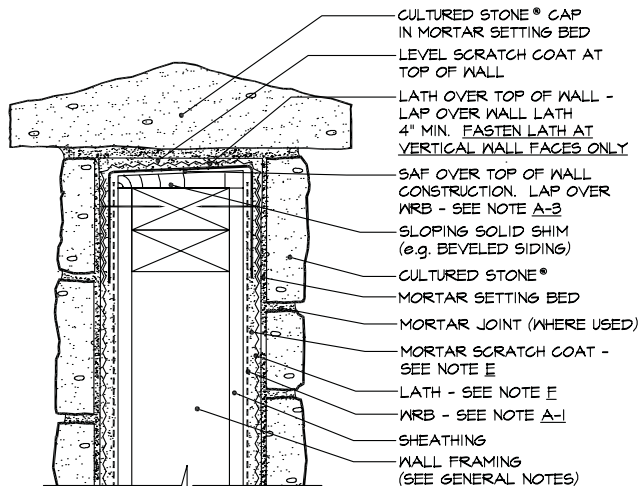
SCALE: 3"=1'-0"

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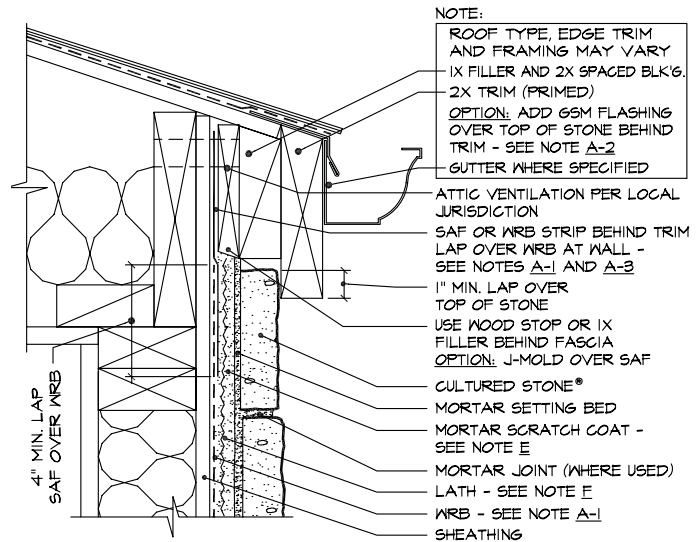
Best Practices for Flashing Details



SHEATHING AND WOOD STUDS -
WALL CAP

1-B
1.11 SCALE: 3"=1'-0"

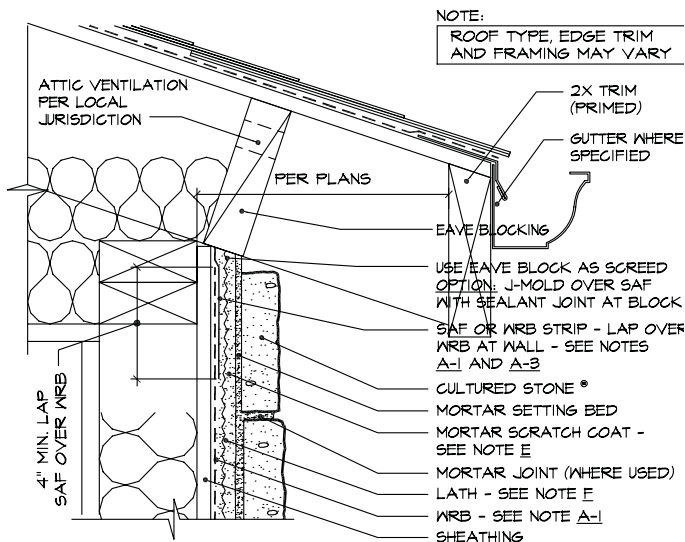
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TOP OF FRAMED WALL AT ROOF -
TIGHT EAVE

1-B
1.12A SCALE: 3"=1'-0"

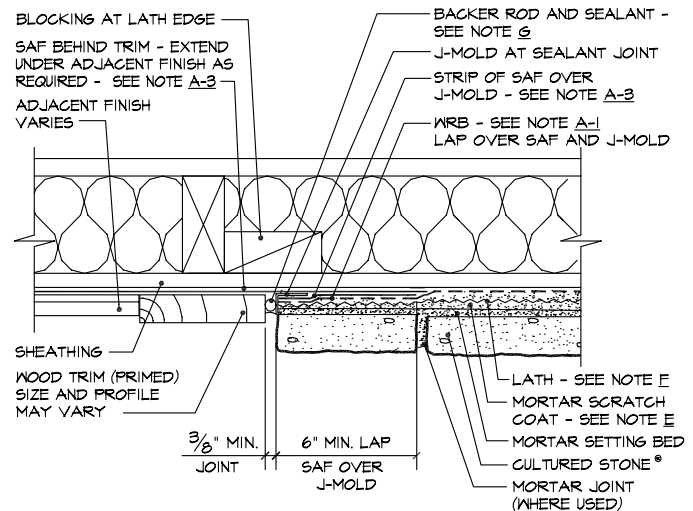
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TOP OF FRAMED WALL AT ROOF -
EXTENDED EAVE (OPEN SOFFIT)

1-B
1.12B SCALE: 3"=1'-0"

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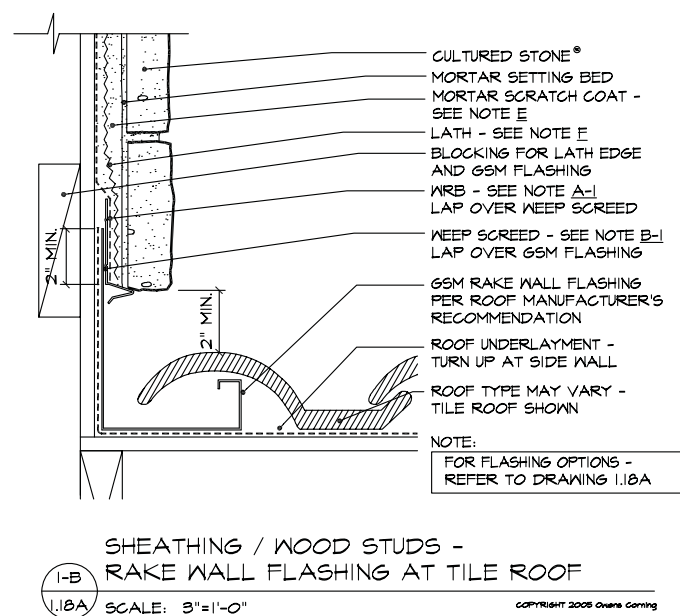
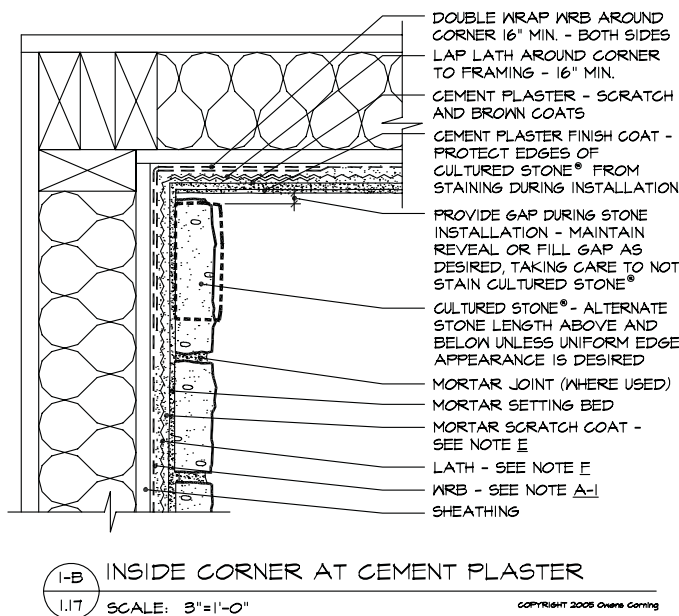
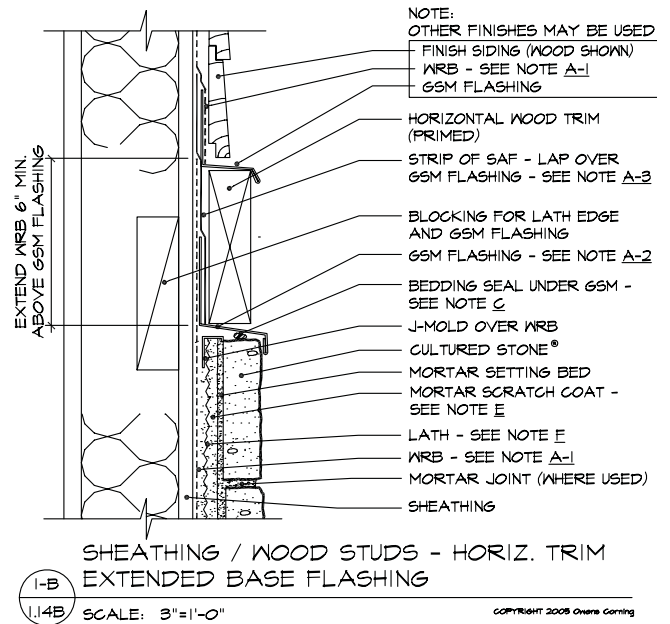
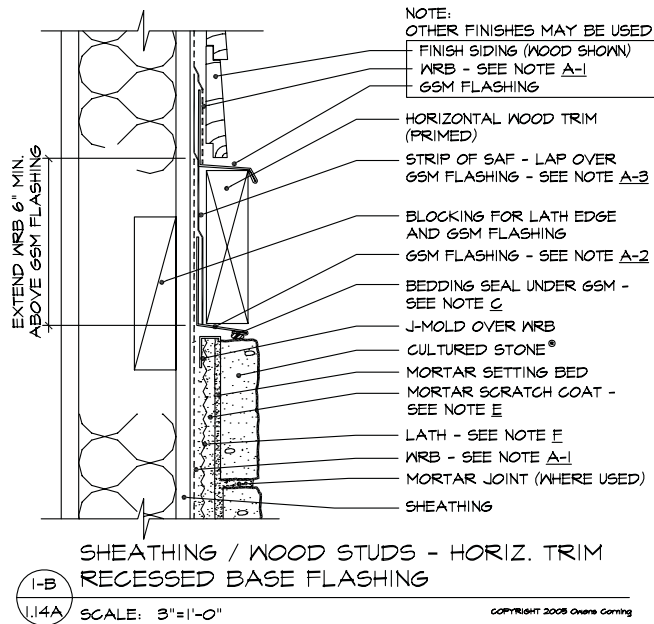
SHEATHING AND WOOD STUDS -
VERTICAL WOOD TRIM

1-B
1.13 SCALE: 3"=1'-0"

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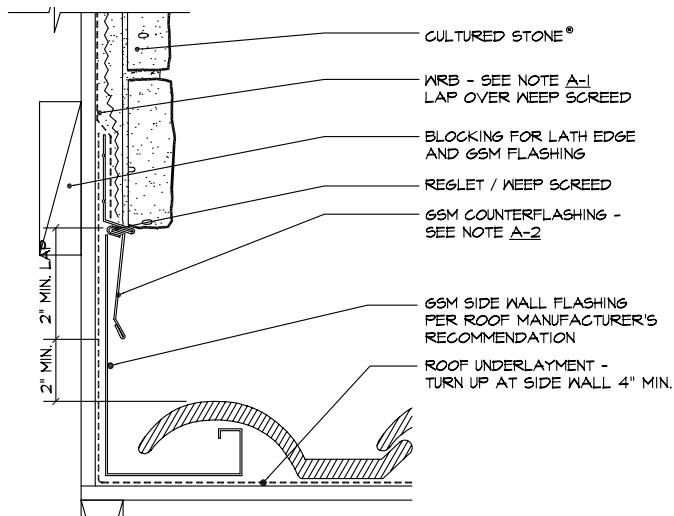
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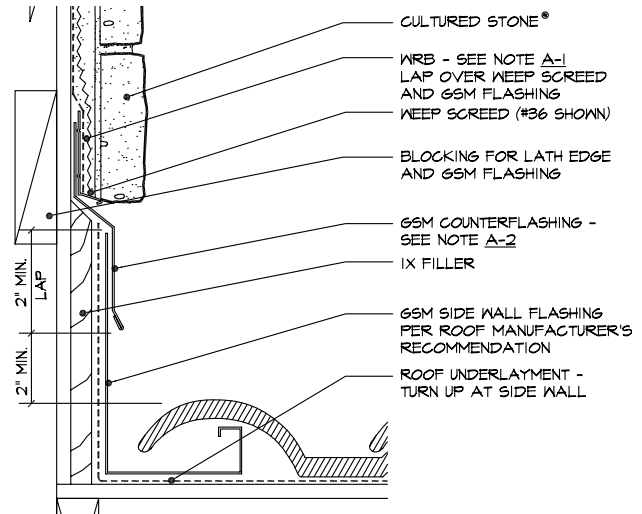


SHEATHING / WOOD STUDS - ALTERNATE
SIDE WALL FLASHING AT TILE ROOF

1-B
1.18A

SCALE: 3"=1'-0"

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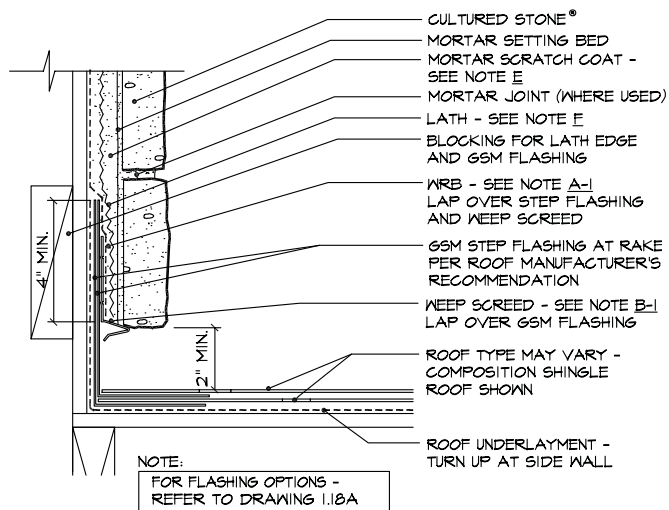


SHEATHING / WOOD STUDS - ALTERNATE
SIDE WALL FLASHING AT TILE ROOF

1-B
1.18A.2

SCALE: 3"=1'-0"

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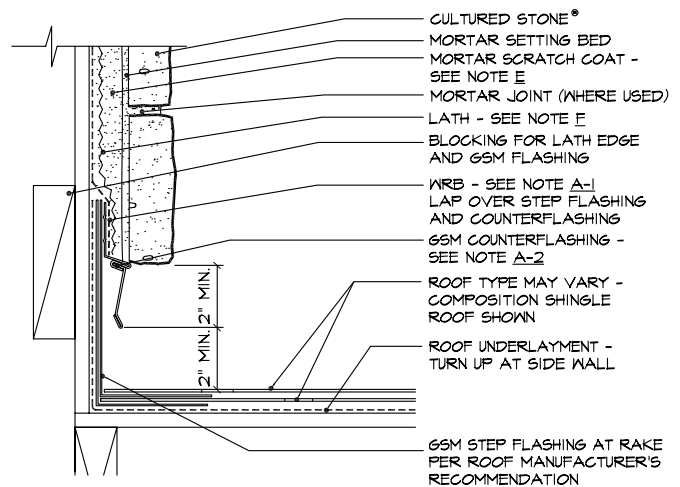


SHEATHING / WOOD STUDS - RAKE WALL
FLASHING AT COMPOSITION SHINGLE ROOF

1-B
1.18B

SCALE: 3"=1'-0"

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SHEATHING / WOOD STUDS - ALTERNATE
SIDE WALL FLASHING AT COMP. SHINGLES

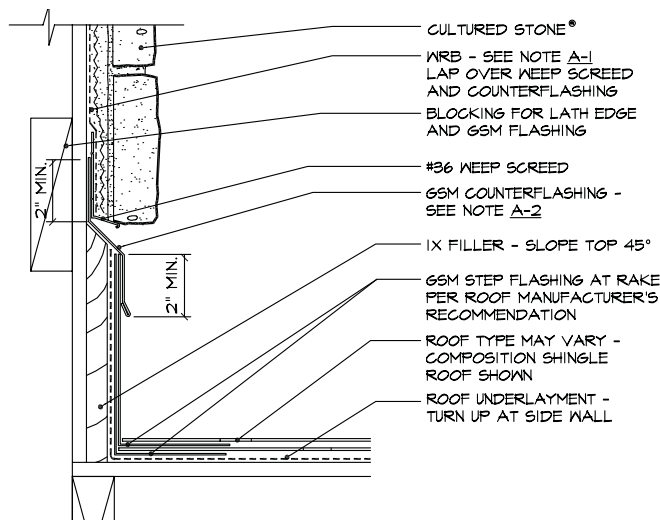
1-B
1.18B.1

SCALE: 3"=1'-0"

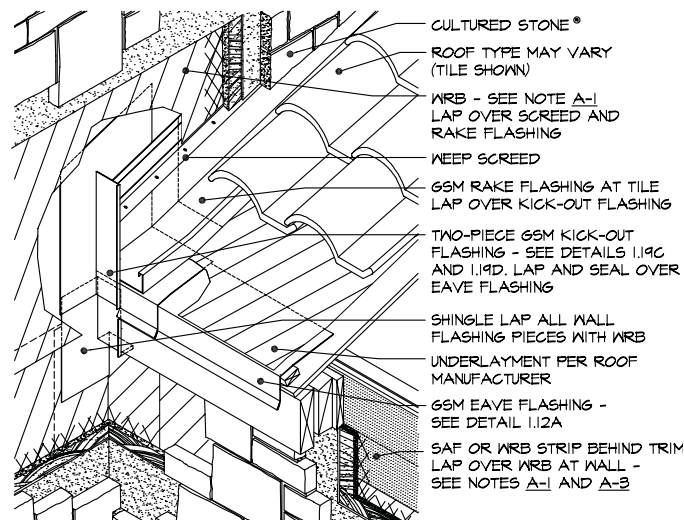
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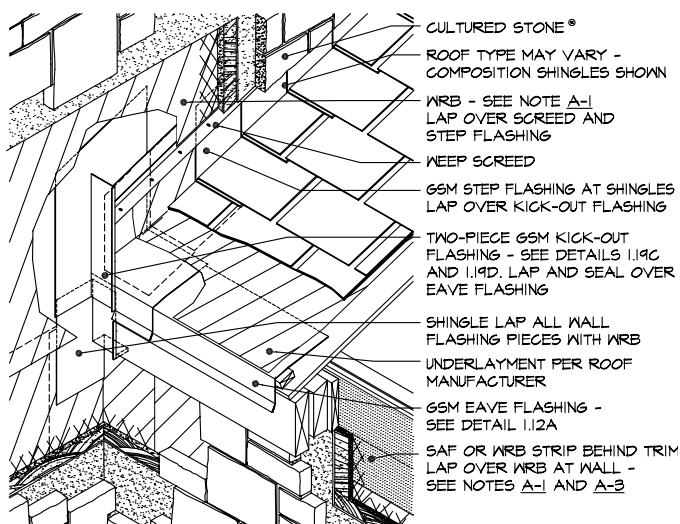
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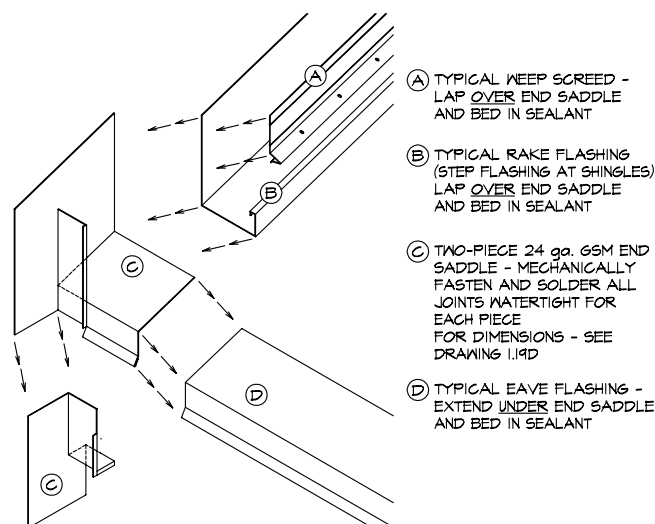
1-B
1.18B.2 SHEATHING / WOOD STUDS - ALTERNATE
SIDE WALL FLASHING AT COMP. SHINGLES
SCALE: 3"=1'-0" COPYRIGHT 2005 Owens Corning



1-B
1.19A SHEATHING / WOOD STUDS - SIDE WALL
FLASHING TO EAVE AT TILE ROOF
SCALE: NONE COPYRIGHT 2005 Owens Corning



1-B
1.19B SHEATHING / WOOD STUDS - SIDE WALL
FLASHING TO EAVE AT COMP. SHINGLES
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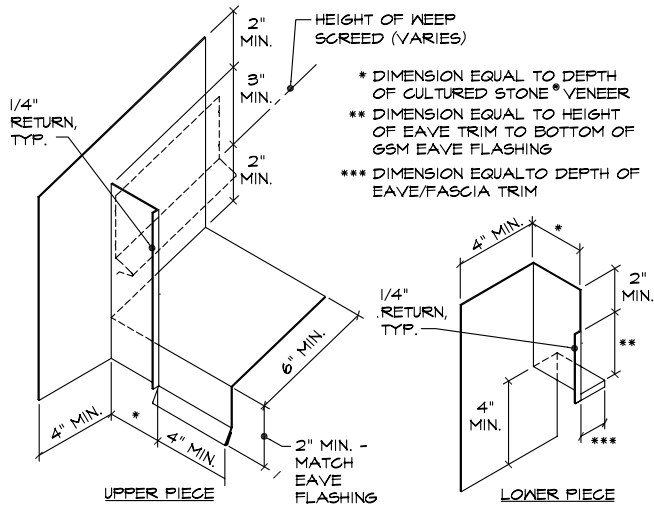


1-B
1.19C SHEATHING / WOOD STUDS -
SIDE WALL FLASHING AT EAVE, TYP.
SCALE: NONE COPYRIGHT 2005 Owens Corning

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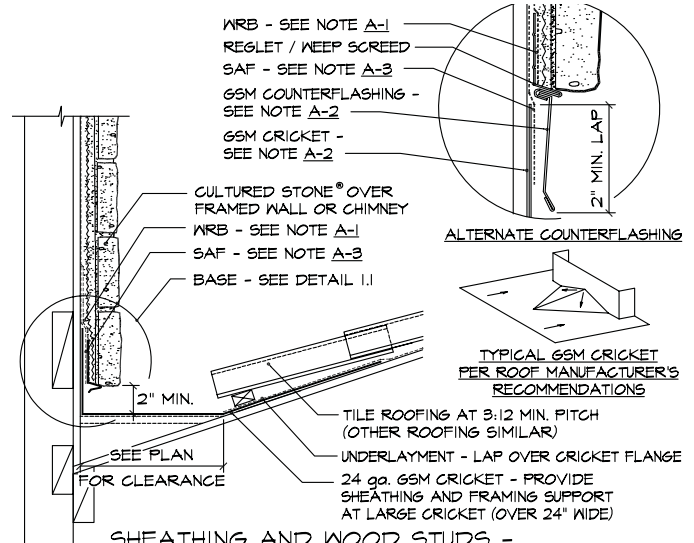


SHEATHING / WOOD STUDS - KICK-OUT FLASHING AT EAVE, TYP.

1-B
1-19D

SCALE: NONE

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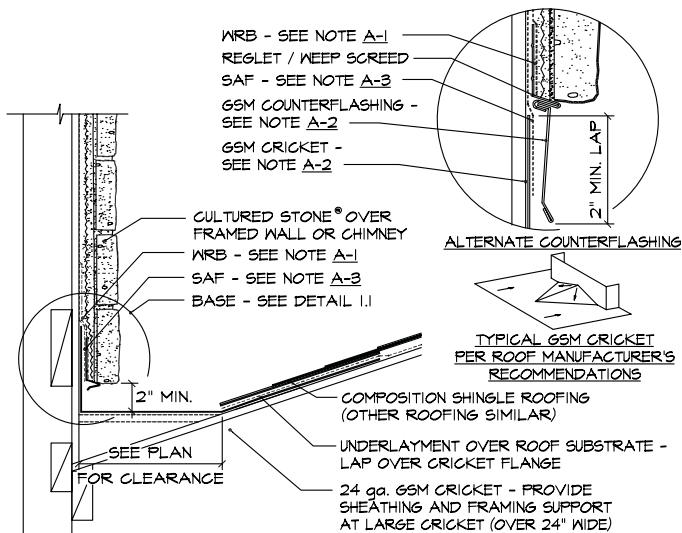


SHEATHING AND WOOD STUDS - CRICKET AT WALL WITH TILE ROOFING

1-B
1-20A

SCALE: 1-1/2"=1'-0"

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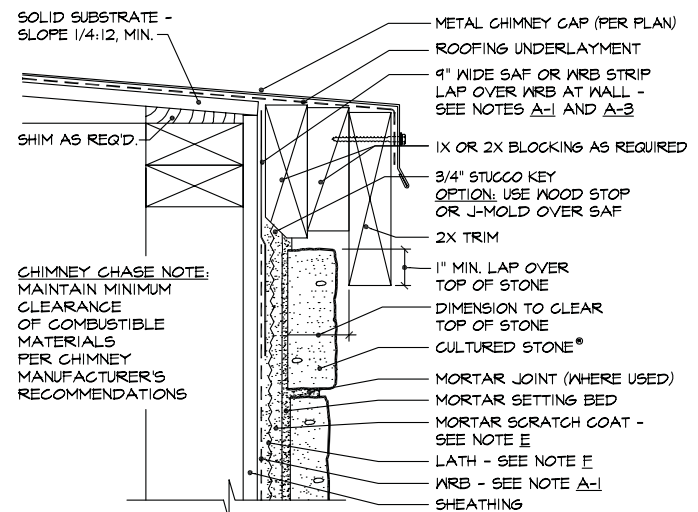


SHEATHING / WOOD STUDS - CRICKET AT WALL WITH COMPOSITION SHINGLES

1-B
1-20B

SCALE: 1-1/2"=1'-0"

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CHIMNEY CHASE CAP WITH WOOD TRIM

1-B
1-21

SCALE: 3"=1'-0"

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A-1

WRB = Weather-Resistant Barrier (aka water-resistant barrier).

The minimum requirements must meet applicable building code regulations. Provide minimum 6" vertical laps and 3" horizontal laps (preferred) per NFPA 5000 (2" minimum horizontal laps per IBC and IRC). Check with local code authority to verify requirements for WRB at specific projects.

1. WRB over wood framing:

- A. 2000 IBC Section 1404.2 and 2000 IRC Section R703 require (1) layer No. 15 asphalt felt per ASTM D 226, Type 1.
- B. (2) layers of Grade D building paper are required for stucco applications over wood-based sheathing in 1997 UBC Section 14.2 and 2000 IBC Section 2510.6. Generally, 2 layers of grade D, 60-minute building paper provide better performance than 1 layer.
- C. (1) layer of building paper is permitted per International Code Council (ICC) Evaluation Report ESR-1364 for Cultured Stone® exterior wall applications.

2. WRB over CMU/Concrete:

Generally a WRB is not required for the mortar setting base coat over a substrate of CMU or concrete. However, if there is habitable space to the interior, then consideration for water management should be made which may include a WRB. When a WRB is used over a CMU concrete substrate, the fasteners and integration with flashing, drips and screeds may require special detailing consideration, including the use of a mechanically attached lath.

A-2

GSM = Galvanized Sheet Metal.

This usually refers to flashings that are fabricated with 24-gage minimum thickness. The sheet metal is coated with a G90 (preferred) or G60 (minimum) galvanizing. GSM flashings should be mechanically fastened and soldered watertight (preferred method). Or, at a minimum, the sheet metal may be lapped and sealed with a butyl or polyurethane sealant. Nail or screw fasteners for GSM flashings must be corrosion-resistant and penetrate to wall framing/blocking.

A-3

SAF = Self-Adhering Flashing.

This refers to peel-and-stick type membrane flashings. A 40-mil thickness is preferred, except where multiple layers lap; then a 25-mil thickness may be considered. Install shingle-fashion with SAF-to-SAF laps of 3" minimum. All edges and seams must be rolled flat and tight with a 1"- to 2"- wide solid hand roller. Integrate SAF with flashings and WRB lapped in shingle-fashion.

B-1

Foundation Weep Screed.

Provide a means to weep water behind the Cultured Stone® veneer at the bottom of framed wall with the mortar setting bed. A weep screed is a building code requirement with cement plaster over wood-framed walls. Use a # 7- or # 36-type screed with a 3½" vertical leg. Adjust the ground depth for the thickness of the scratch coat and mortar setting bed.

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B-2

Watertable Flashing.

Provide a GSM flashing over the top of watertables and wainscots when additional wall cladding occurs above, including additional courses of Cultured Stone® veneer. The flashing should extend on to the Cultured Stone® watertable/wainscot 1/2" minimum. The outer edge of the flashing should have a hemmed edge for stiffness and to protect a raw sheet metal edge from rusting.

C

Bedding Seal Under GSM Flashing.

The objective of the bedding seal is to limit water and air infiltration. The 3 options are: a) A generic weatherseal tape with adhesive to keep in place; b) Polyurethane sealant ASTM C-920, Type S, Grade NS, Class 25; ASTM C-719; c) Mortar filler into voids and between stones.

D

Support Angle.

A galvanized metal bracket or clip capable of supporting 5 lb./LF of weight. The support angle can be a continuous bracket or separate clips to support each stone installed to wall framing/stud blocking at 16" on center, maximum. Or, use a 1 1/2" x 2" x 1 3/8" x 18-gage clip (equivalent to Simpson Strong Tie A-21) fastened to wall framing with (2) corrosion-resistant fasteners penetrating into wood wall framing/stud blocking 1" minimum, metal studs/blocking 5/8" minimum. Install support angle over cement plaster scratch coat. Pre-drill holes and fill with butyl sealant to the WRB prior to fastening.

E

Scratch Coat.

Base coat of mortar consisting of cement plaster shall cover the lath and be 3/8" minimum thickness. See Owens Corning Cultured Stone® veneer material requirements.

F

Lath.

Details show a galvanized metal lath separate from the WRB. Paper-backed lath may be considered for open framing or retrofit conditions when accepted by the local jurisdiction. See Owens Corning Cultured Stone® material requirements.

G

Window Perimeter Sealant.

A perimeter sealant joint is recommended between the termination of the plaster base coat and vinyl window/door frames. It may also be necessary between some wood window/door frames when there is no exterior trim covering the joint. The exposed exterior sealant needs to adhere to the plaster termination and frame. The sealant selection should be confirmed with the sealant or window/door manufacturer.

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