Glossary of Terms

Accent Bands/Trim Bands

An accent band is decorative stucco trim constructed over a wood or EIFS foam attachment. Trim bands are decorative bands constructed of wood or other material. The bands are typically found around or below windows but also seen around doors and foundations. Accents should be sloped, not flat, free of cracks and stains, and should be caulked to the structural element they are attached to (ie. window). Accents should also not be installed over the structural element, (ie a window sill). Flat accent bands tend to collect water. Trim bands should be sloped, flashed and/or caulked.

Accent is cracked with stains

Accent is sloped away from the home

Flat accent is not sealed to window

Trim board is flashed

Building Papers

Between the sheathing and the cladding, building paper is used to shed both water and allow the transfer gases from the wall cavity. The paper used behind the cladding is cladding-specific. Some newer building papers incorporate physical drainage channels for moisture control. Building papers are to be installed in a shingle overlap fashion.

Grade D Building Paper

Building paper shingle wrapped – top layer over lower layer

Green wrap

Cladding

A material used to provide the exterior protection around a structure. Examples of different types of cladding are: Vinyl, Stucco, Metal, Brick or Stone, Hardi-Plank. All claddings have specific installation procedures.

Columns

A column is a vertical structural element that supports the weight of architectural elements, i.e. an arch or deck. Columns should be flashed if the top is exposed or at a joint of dissimilar materials. Hollow columns need to be constructed over a capped concrete base, not exposed to soils.

Column is not flashed or caulked

Column flashed

Deck column flashing

Cricket (Saddle)

A cricket is a sloped roof, usually double sided, that is used on the upper side of a chimney or wall to divert water around the chimney or wall.

Chimney cricket

Chimney cricket

Dead Valley

A dead valley occurs where a roof line or roof valley intersects an external wall or corner, causing the wall to act as a dam to the draining wall. Roof lines should not flow into structural walls.

Dead Valley

Dead Valley

Dead Valley

Drainage System

Wall drainage systems are specific materials designed to allow easy draining of any water that gets in behind the cladding. The system needs to be integrated into the flashing and weep screed systems of the wall, so the water has a way out.

End Dams

End dams are kickout flashings, diverters or caulk joints that are used to prevent water entry at the end of a horizontal flashing. End dams are typically found on deck ledgers, window head flashing, flat accents and trim boards, utilities and penetrations.

End Dam

Caulk joint end dam

Window head flashing with kickout flashing on end dam

Fire Flue

A fire flue is a specific type of exhaust duct that directs smoke and gas fumes from a contained gas fireplace out of the home.

Fire flue is caulked

Fire flue is not flashed or caulked

Fire flue is properly flashed

Flashing

Flashing is metal, plastic or other material used to collect, divert or prevent water from entering into a structure. Flashings are typically used on roofs and wall penetrations, but are also appropriate along horizontal surfaces at a juncture of dissimilar materials, such as a ledge.



Rough opening window sill flashing

Diverter Flashings

Diverter flashings are angled flashing of various lengths and heights that are installed on the top of roof shingles. Their placement is to divert surface water away from a wall or to direct the water to another area. Because they are not installed under the first step flashing and are usually installed over the shingles, they will not function as a substitute for kickout flashing at a roof termination.


Dormer Flashing

A dormer is a structural opening built in the side of a sloped roof. Dormer flashing begins behind the framed structure cladding and exits over the roof.

Dormer flashing

Dormer flashing missing

Drip flashing

Drip flashing is built into the framework of a window or door by the manufacturer. It diverts exterior water out away from the window with its flared leading edge. It should be used in conjunction with separate head flashing.

Drip flashing under head flashing of window

Drip flashing at window

Grade

Grade is the point where the soil level meets the home. All grade levels should be 6" below any wood framework of the home. Appropriate grade levels around a home not only control moisture wicking but also aid in the prevention of insect infestations.

Stucco terminated below grade

Stucco is terminated above grade

Wood below grade

Head flashing

Head flashings are used to divert both internal water and surface water over and away from a window, door or trim. The vertical leg of the flashing should be installed behind the building papers found behind the cladding. Head flashing should not be caulked and should have a positive slope away from the structure.

Window head flashing

Caulking over head flashing - improper

Flashing is too short, doesn't cover entire window and has negative slope.

Kickout flashing/Roof Termination

A roof termination is the point on a wall where the roof line ends. Step flashing should be installed along a sloped roof line, with the first flashing starting at the roof end point. A kickout flashing is to be installed under and behind the first step flashing with the vertical leg angled away from the cladding and exiting to air. The vertical leg of the kickout is to be of sufficient height, length and angle to handle the volume of water for the specific roof line. The horizontal leg is to have the folded joint welded or created seamless; it should not be caulked. Roof terminations, if not properly flashed, can allow copious amounts of water to flow into a wall and cause tremendous damage to a home.

Proper kickout flashing

Kickout flashing with welded joints. Good

No kickout flashing present

Improper kickout flashing installed on top of the step flashing.

Ice Dam

Ice dams occur when snow melts over a heated part of the roof and refreezes at the unheated area, usually at the eaves or gutters. The frozen dam causes subsequent melted water to back up under the shingles and valleys and leak into the home.

Ice Damming

Attic/roof damage below ice damming

Ice Dam at Dead Valley

Ledge

Ledges are used on a brick or stone application to cap the top course. They should be sloped to run water away from the structure, and best practice is to have the ledge flashed and/or caulked.

Ledge is flat

Ledge is flashed

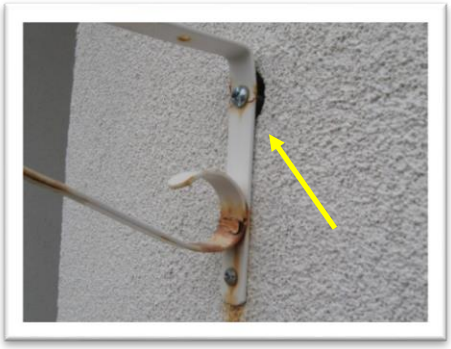
Ledge is sloped, not flashed or caulked

Penetrations

A penetration is anything that protrudes through the home cladding, and should be caulked, sealed or flashed to prevent water entry.

Utility is embedded and is not flashed or caulked

Penetration is well-flashed



Penetration is not sealed

Quoin

A quoin is a decorative block attached at building corners or columns. Like accents, the top edge of the quoin should be sloped away from the home. Most quoins are foam board applications on stucco exteriors.

Quoin

Quoin

Quoin

Rim Joist or Band Joist

A rim joist is a cap attached to the exterior ends and sides of a floor platform. The interior portion of the rim area should be insulated and include a vapor barrier.

Rim joist

Rim joist damage from interior condensation

Rim joist damage from interior condensation

Sealant (Caulk)

Sealants are used to close open gaps and joints found on any structure. Window joints, door joints, ledges, garage doors, penetrations, deck joints, edges, accent bands, and any point where different materials meet should be sealed to prevent moisture intrusion; however, a caulk joint should never be the primary means to stop moisture. There are many types of sealants/caulks available and should be chosen for adhesiveness to the materials being sealed and the conditions the joint will be performing in. Typically a urethane, polyurethane or silicone sealant works best for exterior home applications. A caulk joint should be applied in an hour glass design giving stretch ability to the middle of the joint. A large thick middle of the joint will cause the joint to pull away from the materials being sealed. Caulking a home is both art and science that even most builders don't understand. Improper caulking may lead to damage and premature failure.

Caulk at window adhesively failing and needs maintenance

Window/stucco joint is not sealed

Window mitre joint is not sealed

Caulk being used in a high risk area. Not a good application for caulk

Good caulk joint

Good caulk joint, but behind the stucco, not over the stucco.

Poor caulk joint at a window joint - Adhesively failing

Good caulk joint

Sheathing

Sheathing is a panel of wood, fiber or gypsum materials applied to the outer framework of a building. The sheathing encapsulates the framework, gives racking support to the structure and serves as a base for exterior cladding attachment. Some examples of commonly used sheathings are plywood, Oriented Strand Board (OSB), fiberboard, gypsum board, and insulation board.

Oriented Strand Board (OSB)

Fiberboard

Gypsum Board

Asphalt impregnated fiberboard.

Asphalt impregnated fiberboard.

Substrate

A substrate is defined as a wood panel product used under the roof deck.

Soffit

A soffit is the underside of any construction element, such as arches, cornices and overhangs. Soffits should be free of stains, which could indicate attic or roof moisture problems. The larger the soffit the greater protection provided to the wall below.

No ventilation through the soffit

Large soffit overhang.

Staining

Staining is any discoloration found on the siding application typically caused by water. Stains can potentially indicate moisture intrusion but can also show that water is being directed out and over the siding.

Cracks with staining. Water is behind the stucco.

Discoloration. Water being directed out and over the stucco.

Sprinkler overspray

Stains over wood

Stains over vinyl

Stucco

Traditional Stucco

A three layer stucco application with an overall thickness of 5/8" or greater is considered Traditional Stucco. The first layer, called the scratch coat, is troweled/pressed into a metal lathe that is attached to the structure. The second coat, called the brown coat, is applied after the scratch coat has sufficiently dried. The final, third coat is called the finish coat. Older homes built prior to 1990 are typically traditional cementious stucco. Structures built since then often have a synthetic stucco used as the finish coat, and is referred to as a Hardcoat traditional stucco.



Traditional stucco

Dri-Vit Stucco

Dri-vit stucco is the brand name for polymer based (acrylic) manufactured stucco, (stucco in a bucket). The name Drivit is often misused to identify an EIFS system. There are many manufacturers of synthetic stucco and EIFS is the application.

EIFS (Exterior Insulated Finished System)

EIFS is a system that uses an insulating foam board attached to the sheathing. The stucco is synthetic applied as a polymer-based synthetic basecoat embedded in a fiberglass mesh, covered with a synthetic polymer based finish coat. Total thickness of the stucco is 1/8-3/16".

EIFS- 1/8" thick stucco with fiberglass mesh.

EFIS basecoat with mesh embedded over ESP foam board

EIFS foam accent band.

EIFS foam board.

California One-Coat Stucco

A California one-coat stucco is typically a cementious scratch coat application that includes fiberglass fibers to help prevent cracking and add strength to the mix. The second coat, with fiberglass fibers, is applied usually before the scratch coat is sufficiently dried. An "Elastomeric Paint" is applied over the second coat and used as the finish coat. Typical California one-coat stucco thickness is less than a half-inch.

California one-coat stucco - spalling

Cultured Stone

Cultured Stone is often used as the finish coat on stucco. It is usually applied after the brown coat application. The mortar joints used between the stones are porous and susceptible to moisture intrusion, so it is important that they are maintained.

Cultured Stone

Metal Lathe

All Traditional, California One-Coat, Cultured Stone, and Hybrids Systems require a metal lathe attached to the structure. The lathe gives the scratch coat strength, rigidity and anchorage to the wall.

Metal lathe

Metal lathe embedded in stucco

Stop Bead

Stop bead is a metal or plastic part that is used in stucco applications. The purpose is to provide a stop point, termination or edge to the stucco.

Stop bead

Stop bead provides a gap for a proper caulk joint.

Control Joint

A control joint is a groove cut or formed into a cementious surface to allow for cracking to occur without being particularly noticeable. A control joint in a stucco application is a metal "U"-shaped channel installed with the metal lathe.

Control joint

Control Joint

Expansion Joint

An expansion joint is the gap built between two separate pieces of concrete or wall cladding unit. This gap allows for expansion and contraction of the structure without damage. Expansion joints are usually caulked to allow for movement without water entry occurring.

Expansion joint

Expansion joint before caulk is applied

Efflorescence (Bloom)

Efflorescence is the mineral deposits left on the surface of stone, concrete, plaster or mortar when water evaporates. Water intrusion through the material dissolves the minerals in the material and deposits those minerals on the surface as the water evaporates. Typical efflorescence is white and chalky, sometimes forming stalagmites or stalactites.

Efflorescence on stone application

Efflorescence on stucco

Crack with efflorescence

Utilities

Utilities are loosely defined as items attached to the home from an outsourced supply company. Most protrusions of utilities are behind a metal box and are not accessible. Utilities should be flashed and/or caulked.

Utilities not flashed or caulked

Hose bib is flashed

Vent

A vent allows air to move in and/or out of the home. All vents should be sealed, and any flat vents should also be flashed.

Vent is not caulked

Vent caulked

Vent is flashed and caulked

Weep Ropes

Weep ropes are found at water collection areas on brick applications. They usually have “cotton” ropes or plastic tubes installed to allow collected water behind the brick to wick out to the exterior.

No weep holes present

Weep rope in brick application

Weep rope in brick application

Weep Screed

A weep screed is a type of metal stop bead installed at the lowest edge of the siding. The weep holes allows for any water that gets behind the cladding to escape at the bottom.

Weep screed

Window nomenclature

Window Frame

The frame of the window is the part of the window attached to the structure of the home. The frame is often assembled with mitered or straight joints in the lower and upper corners. These corner joints are often where failures occur and moisture intrusion begins. The sealant or foam used by the manufacturer is usually not designed to last forever and will eventually require maintenance. The frame is what is in contact with the cladding.

Damaged window frame

Frame in rough window opening

Damaged window frame

Sash

The sash is a separate frame used to encompass the glass or glaze portion of the window assembly. The type of sash is often used to identify the type of window - fixed, casement (swing out), double hung, slider, etc. It is the most common part of the window that is replaced.

Fixed window sash

Casement window sash.

Sash with open corner, needs maintenance.

Window Mitre Joint

A miter joint is a 45-degree cut into the 90-degree corner of a window or door frames. Miter joints should be externally sealed or seamless in design to prevent moisture intrusion.

Window mitre joint

Window mitre joint.

Window Mullion Joint

The joint created when two separate window frames are joined together is called the mullion joint. Typically, this joint is caulked and/or insulated and has a mullion cap installed to prevent moisture intrusion. Each window manufacturer has proprietary specs and requirements for the mullion joints.

Horizontal and vertical mullion joints with mullion caps

Window mullion joint, not capped

Vertical window mullion joint not flashed