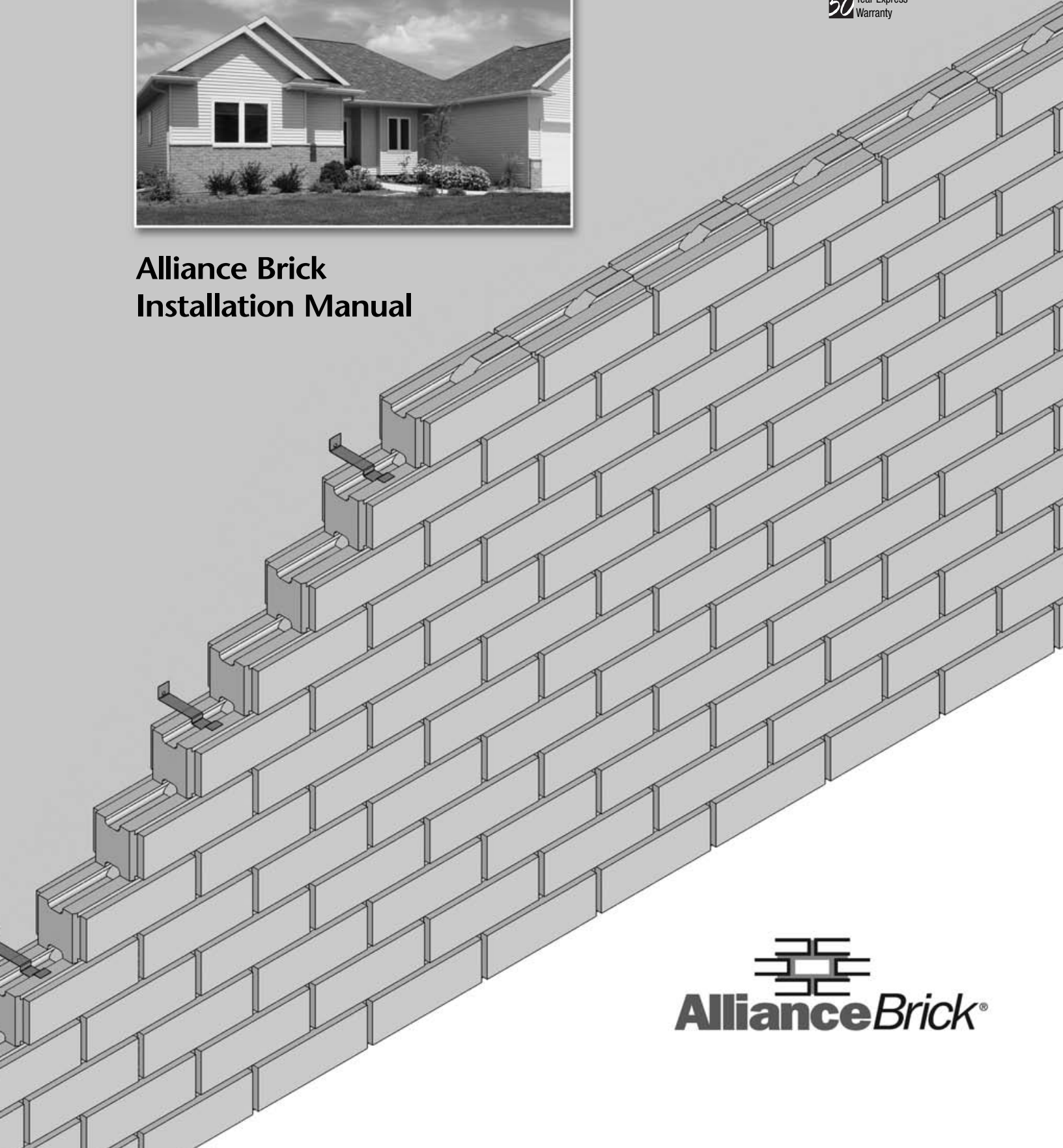


*Traditional masonry has met its match!*



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Warranty

## Alliance Brick Installation Manual



  
**Alliance Brick®**

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**IMPORTANT! PLEASE READ THIS ENTIRE INSTALLATION MANUAL PRIOR TO INSTALLING YOUR ALLIANCE BRICK.**

Building Code requirements vary from area to area. Check with local authorities for building code requirements in your area. Carefully read all installation guidelines before proceeding with your Alliance Brick application. Observe safety precautions.

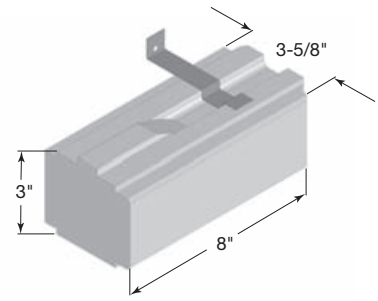
NOTE: The information and product applications illustrated in this manual have been carefully compiled by Alliance Concrete Concepts, Inc. and to the best of our knowledge accurately represent Alliance Brick product use. Final determination of the suitability of any information or material for the use contemplated and its manner of use is the sole responsibility of the user.



### Alliance Brick

Alliance Brick is dual-sided and can be installed with the rough/split face or smooth face exposed. Comprised of high density concrete, Alliance Brick is an attractive, easy to install masonry veneer.

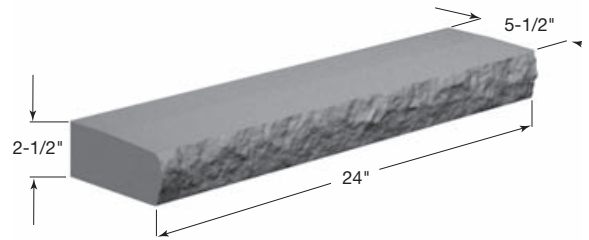
**Size:** 8" W x 3" H x 3-5/8" D  
**Weight:** 6.2 lbs.  
**Area:** 0.167 sq. ft.



### Alliance Sill Block

Alliance Sill is specifically designed to finish the top course of an Alliance Brick wall. Its linear appearance completes an Alliance Brick wall and makes an appealing accent.

**Size:** 24" W x 2-1/2" H x 5-1/2" D

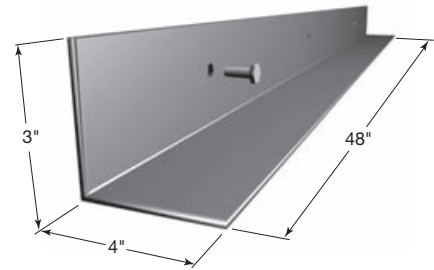


### Starter Ledge (Optional)

Ensuring a level base for the first course of an Alliance Brick wall is essential for proper installation.

**Material:** Steel  
**Size:** 4" D x 3" H x 1/4" (4' lengths)  
**Weight:** 23.2 lbs.

*Note: In the absence of a brick ledge, the Starter Ledge provides a level base for your Alliance Brick wall.*



### Alliance Brick Tie

The Alliance Brick Tie is a key component of an Alliance Brick wall. Designed to fit in an Alliance Brick, the Alliance Brick Tie integrates with the exterior wall and creates a 3/4" airspace between the Alliance Brick and the exterior wall.

**Material:** G90 Galvanized Steel



### Trim Channel (Optional)

Trim Channel is used when Alliance Brick needs to go around doors and windows.

**Material:** Aluminum  
**Length:** 8'  
**Weight:** 3.16 lbs.



### Super-Stik®

Known for its superior strength, time-tested performance, and versatility, Super-Stik® is an excellent masonry adhesive to use with Alliance Brick.

**Size:** 10-1/2 or 29 oz. Tubes



**Tools Needed**

- Cordless Drill
- Caulking Gun
- Dead-Blow Rubber Hammer
- Earplugs
- Gloves
- Hammer, 2 lb.
- Hammer Drill
- Hand Splitter
- Level (2' and 4')

- Safety Glasses & Dust Mask
- Saw with Diamond Blade
- String Line
- Super-Stik™ Adhesive
- Tape Measure
- Whisk Broom
- 1/4" standard screws with 1/4" hex head drive or 1/4" post frame screws
- Brick/Paver Splitter (optional)
- Scaffolding (optional)

**Grouting Tools (Optional)**

- Grout Bag or Powered Grout Gun
- Striking Tool
- Type S Grout

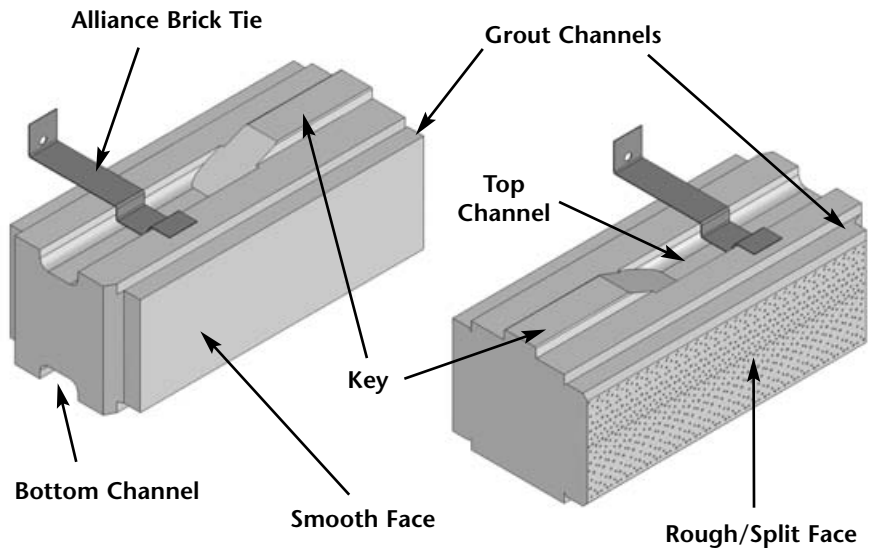
**IMPORTANT — PLEASE READ THIS ENTIRE INSTALLATION MANUAL PRIOR TO INSTALLING YOUR ALLIANCE BRICK!**

**Alliance Brick Key and Channel**

At the top of every Alliance Brick is a Key and a Channel. Together they make the Alliance Brick system mortarless, easy to build, and strong. This unique and patent pending design allows Alliance Brick units to interlock with each other.

**Alliance Brick Tie**

The Alliance Brick Tie is the fastener that connects the blocks to your wall. This galvanized steel tab fits in the Channel and connects bricks to the wall with a screw. The combination of the Alliance Brick Tie and Key/Channel creates strength, rigidity, and a 3/4" airspace so walls breathe – helping to prevent mold.



**Cutting Alliance Brick**

When cutting Alliance Brick, a dry masonry blade should be used. After cutting, brush off any excess cement dust. Residual dust can stain the brick if not removed.

**Splitting Alliance Brick**

To achieve a rough/split face finish on an outside corner, it is necessary to split Alliance Brick. For best results, use a brick/paver splitter to split Alliance Bricks. Wear protective equipment when splitting.

*Note: When installing Alliance Brick, all cut and/or split bricks should be adhered in place with Super-Stik or other high quality concrete masonry adhesive.*

**Engineering**

The maximum recommended height of your Alliance Brick wall will be determined by the Starter Ledge or angle iron connection. Use the following table to determine the maximum height for your Alliance Brick application. Consult a structural engineer if you desire to build higher than the maximum heights indicated below.

STARTER LEDGE	MAXIMUM HEIGHT*
Placed on top of concrete footing or brick ledge	<b>MAX. HEIGHT, WITH SILL BLOCK = &gt;16'</b> <i>(Limited by footing design)</i>
Attached to concrete footing or concrete stem wall, using 1/2" x 3" concrete anchor bolts/screws at 12" o.c..	<b>MAX. HEIGHT, WITH SILL BLOCK = 14'</b>

\* Starter Ledge anchorage requirements should be coordinated with the construction contractor. Alliance Brick's design charts are for preliminary use only. A final site specific design should be evaluated and approved by a qualified professional engineer.

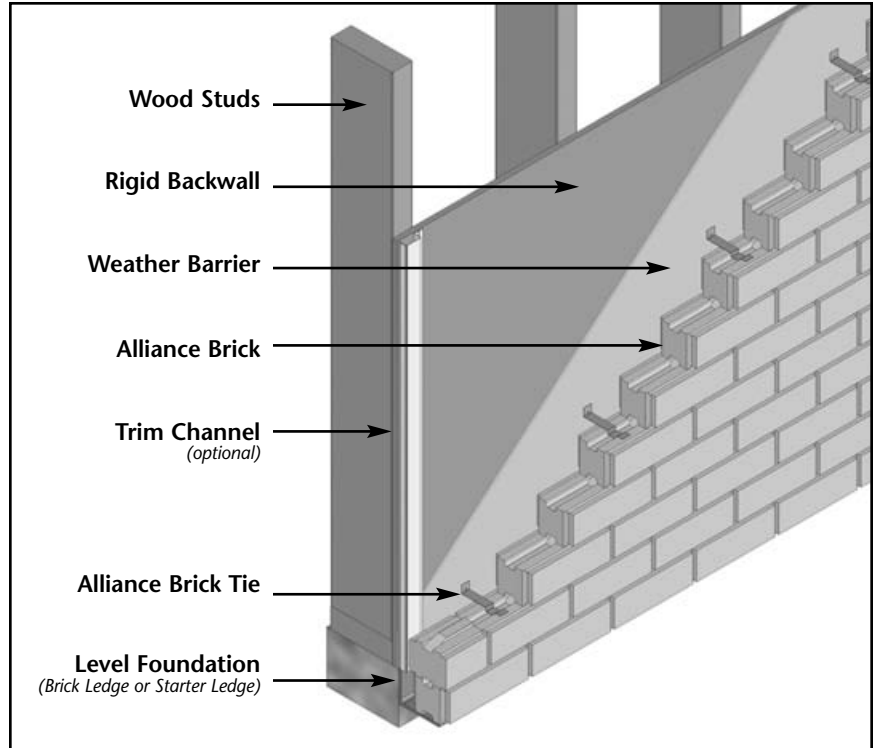
## Construction Considerations

Alliance Brick can be installed onto Plywood, Paneling, Wall Sheathing, and Concrete Board.

Prior to installing your Alliance Brick on an existing structure, remove existing siding and make sure the existing wall is plumb and in good condition. Wall boards with dry rot should be replaced before installing Alliance Brick.

For renovation projects, you will need to have a qualified professional modify exterior lighting, outlets, electrical boxes, hose outlets and other plumbing so they extend 4-3/8" past the face of the wall. You may also need to modify downspouts so they don't conflict with the position of the wall face.

Always cover your exterior wall with a weather resistant house wrap before installing Alliance Brick.



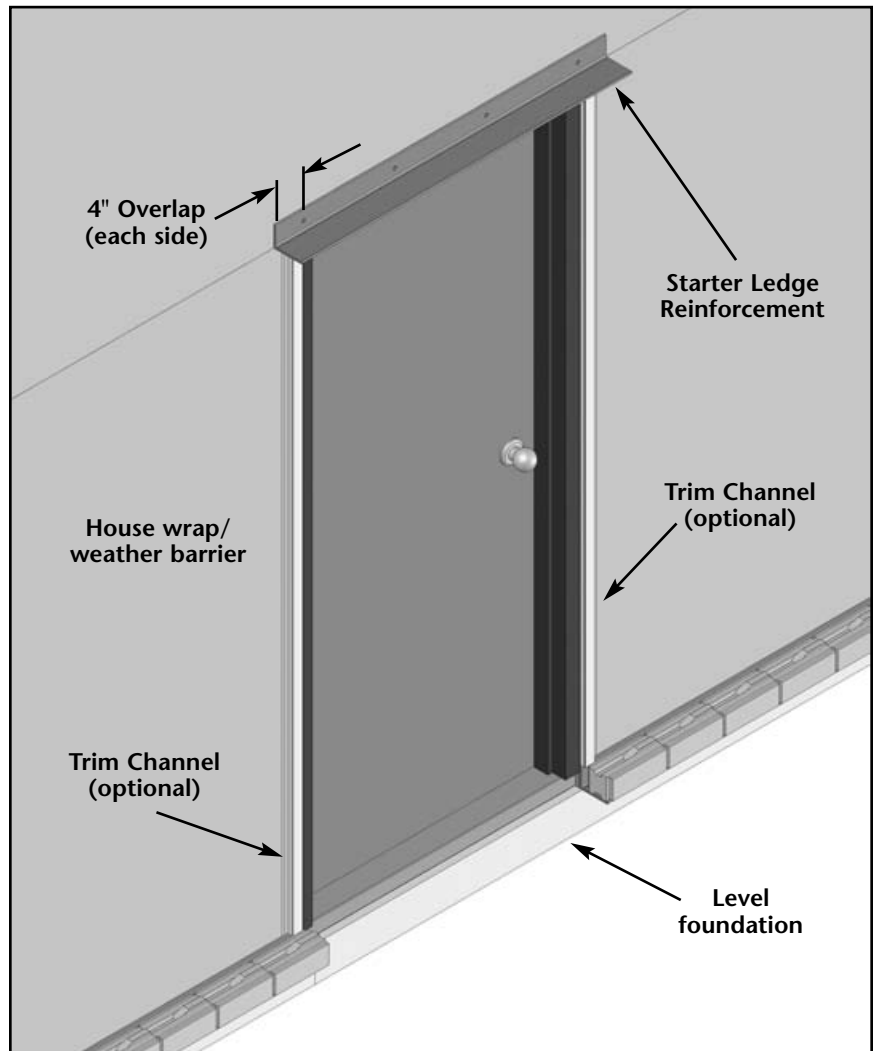
## Header Reinforcement Above Openings

Installing Alliance Brick above window and door openings requires reinforcement with a 4" Starter Ledge that overlaps the sides of the opening by a minimum of 4 inches on each side. This is necessary to disperse the weight of the wall above the opening. The 4" Starter Ledge needs to be fastened to the header.

*Important: Installing Alliance Brick over large openings requires special reinforcement considerations. Always consult with a qualified structural engineer when building such critical wall applications where wall weight and reinforcement are of concern.*

## Brick Coursing

Alliance Brick has the same appearance as traditional brick masonry. Therefore, it is important to install your wall so a running bond (staggered) appearance is maintained during construction. It is recommended that you begin installation from an outside corner and install in courses. For doors, windows, or other openings, Alliance Brick can be saw-cut or split to fit the opening.



### Step 1 - Install the Starter Ledge

Alliance Brick needs a level concrete brick ledge, a 4" x 3" angle iron, or a 4" Starter Ledge. The Starter Ledge is predrilled on the 3" side of the steel angle. When properly installed and level, the first course of Alliance Brick sits on the brick ledge or 4" Starter Ledge. If you are using a generic steel angle, it must be a minimum of 4" deep by 3" high by .25" thick. Attach the Starter Ledge 6" from top of slab/stem wall. Use 1/2" dia. x 3" long concrete anchors at 8" to 16" on center.

### Step 2 - Install the First Course

Lay the first course of Alliance Brick with the Key of the brick facing up. (See page 8 when construction involves inside or outside corners.) Check for level. If not perfectly level, the brick may be shimmed or a small amount of mortar may be applied on the ledge. Prior to adding successive courses, the top of each Alliance Brick needs to be clean and free of foreign material. Using a whisk broom, sweep all debris from every course.

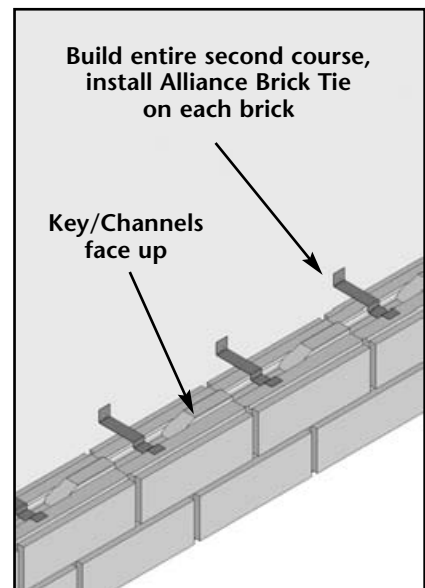
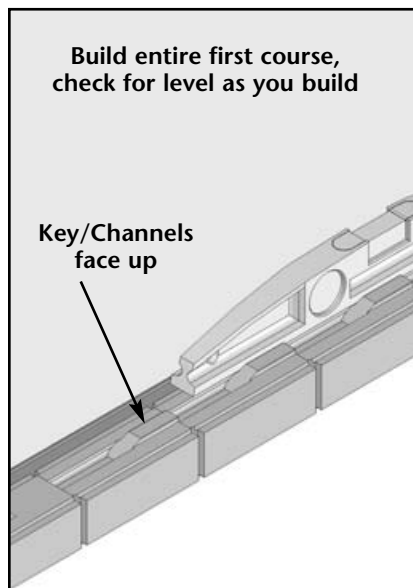
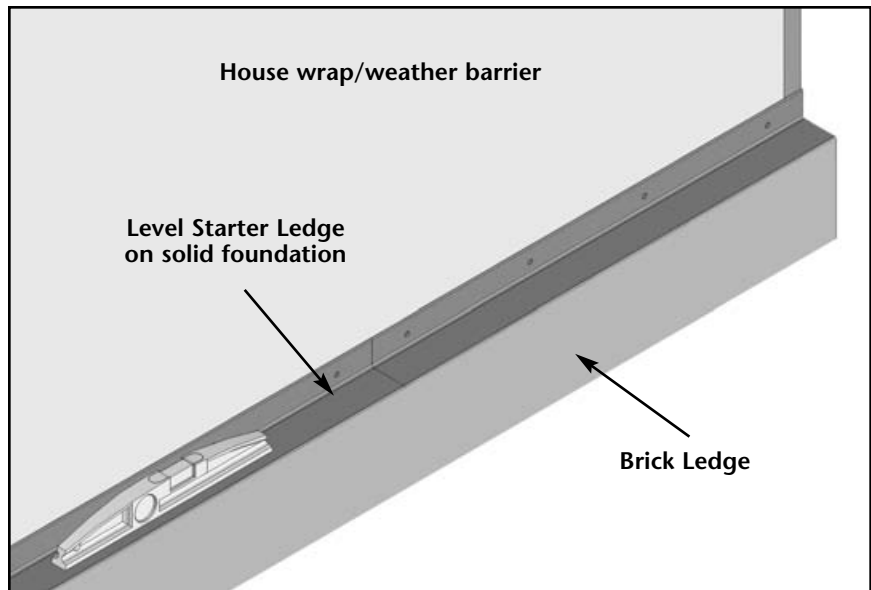
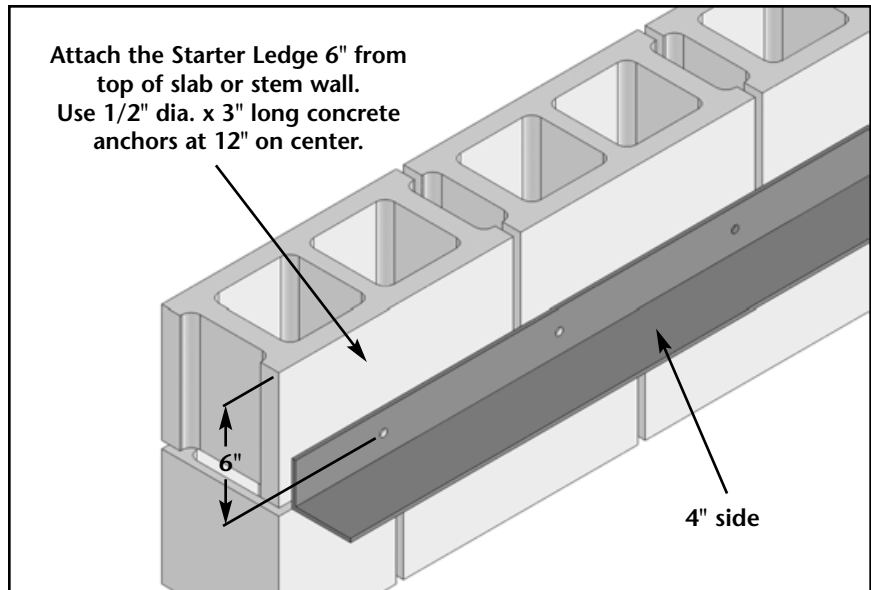
*Note: When applying mortar on the brick ledge or Starter Ledge, the second course needs to be placed and tied before the mortar sets to assure that adjustments can be made.*

### Step 3 - Additional Courses

As you continue to build your Alliance Brick wall, the second course needs to be installed with the Alliance Brick Tie on each brick. The Tie fits in the top Channel of each brick and is screwed to the exterior wall with a standard 1-1/4" hex head screw. After the second course, this process will need to be repeated every third course, by placing a tie on each brick of that course and fastening securely.

After each course, carefully check for level and make adjustments as necessary.

For added rigidity, you may apply a small bead of Super-Stik adhesive to the top of each brick on un-tied courses. Place adhesive towards the back of the brick to keep any excess from escaping through the front.



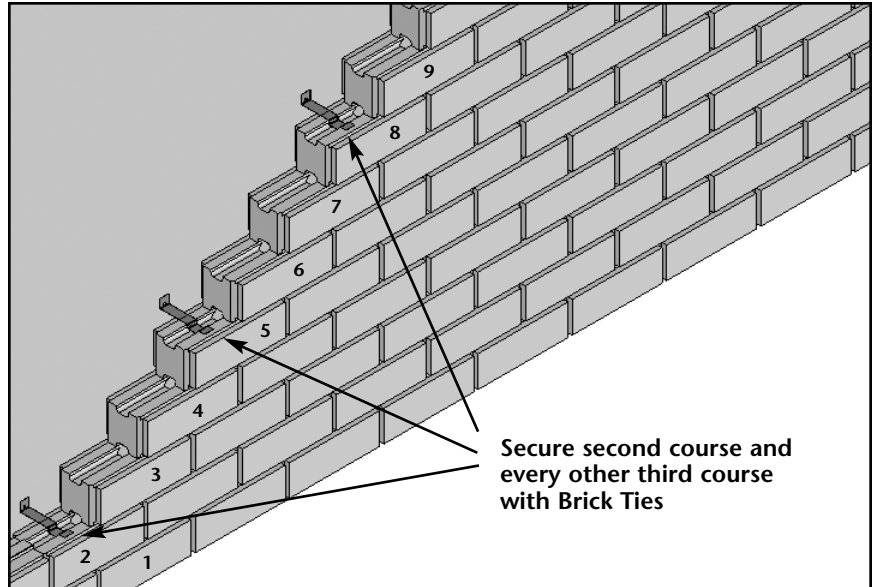
### Step 4 - Successive Courses

Always build Alliance Brick in complete courses and carefully check and adjust for level.

The Alliance Brick Tie is NOT used on every course. The first course does not need a Tie. The second course and every third course above it (as well as the top two courses) will need to be fastened to the wall with a Tie on each brick.

Use a 1-1/4" Standard Screw with 1/4" Hex head drive or 1-1/4" Post Frame Screw to attach each Alliance Brick Tie.

*Note: If you have an area on the wall that begins to grow, it may be the result of a top course(s) not being clean and/or an Alliance Brick Tie(s) that is not properly locking with the Key Channel. Clean off debris and/or force the Tie(s) to conform to the Channel using a dead blow hammer.*



### Step 5 - Finishing Your Top Courses

When you reach the top of your wall, use the Alliance Brick Tie on the top two courses. Saw the Key off the top course to accommodate a sill, flashing or soffit.

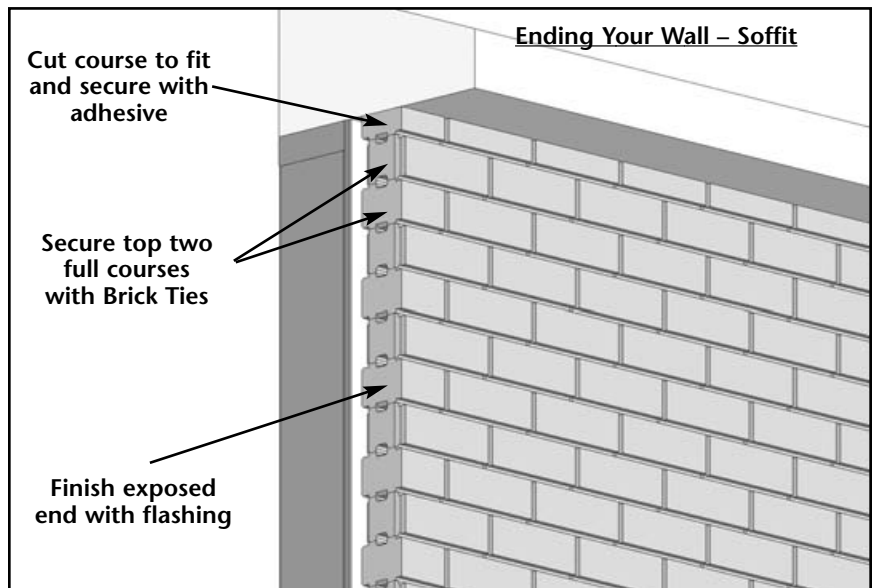
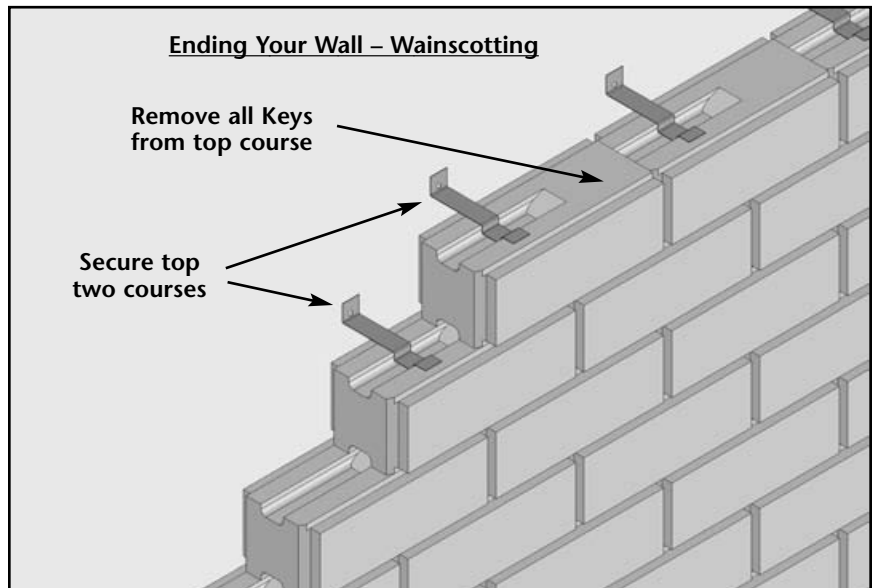
#### **Wainscot Installation Option:**

Before adhering the top course of Bricks, make sure all the Keys have been completely removed. Install the Alliance Brick Sill Block or other sill material using Super-Stik adhesive. See pg. 16 for building considerations.

#### **Soffit Installation Option:**

To build Alliance Brick with an existing soffit, install full bricks as high as possible. It may be necessary to cut Alliance Brick to fit under the existing soffit and adhere in place with Super-Stik.

*Note: When installing Alliance Brick, all cut and/or split bricks should be adhered in place with Super-Stik or other high quality concrete masonry adhesives.*



**As you build, it is recommended to use Alliance Bricks from multiple pallets to blend in any color variation.**

**Alliance Brick Corners**

With Alliance Brick, it is easy to make inside and outside corners. It is best to start your wall at a corner and work outwards. This minimizes the visibility of cut pieces that may appear in the wall. All brick corner units should be glued in place with Super-Stik or other high quality concrete masonry adhesive.

**90° Outside Corner (Rough/Split Face)**  
Begin installation by placing a rough/split brick at the corner. **REFER TO PAGE 10 ON HOW TO CREATE CORNER BRICKS.** Split 1-3/8" off the end of the brick on the Key side. To ensure the next course in the corner is level for the next course of brick, saw cut the Key off the brick so the unit is flush at the top. After modifying the brick, position it in the corner.

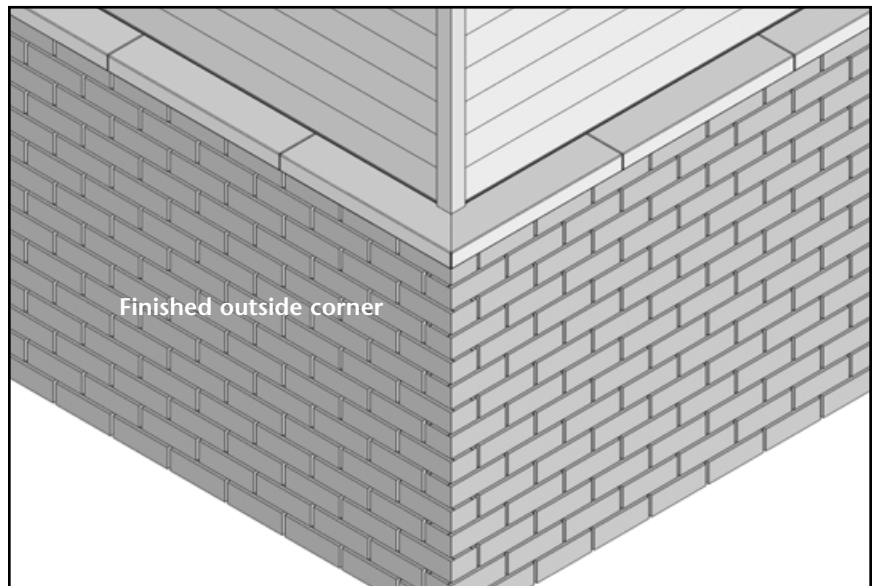
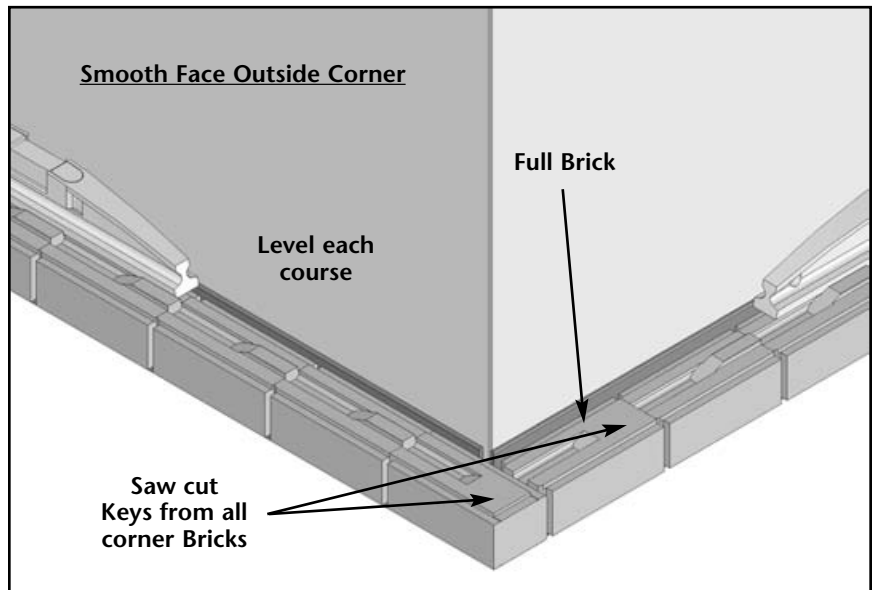
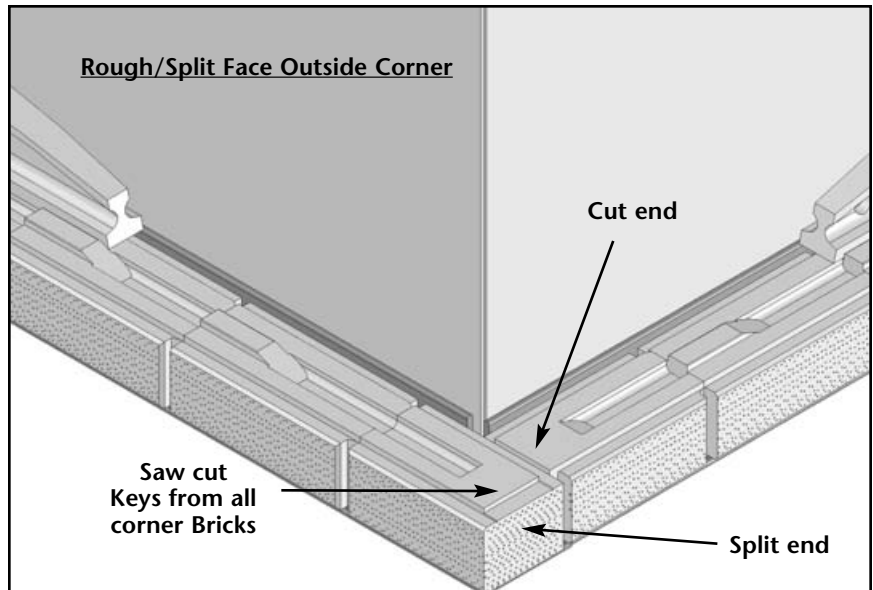
Next, saw cut a brick to be used on the adjacent wall. **REFER TO PAGE 10 ON HOW TO CREATE CORNER BRICKS.** Saw cut 1" off the side of the brick. It needs to be placed flush with the brick that has been split.

**90° Outside Corner (Smooth Face)**  
Begin installation by placing a saw-cut brick at the corner. **REFER TO PAGE 11 ON HOW TO CREATE CORNER BRICKS.** Split 3/8" off the end of the brick opposite the Key. To ensure the course in the corner is level for the next course of brick, saw cut the Key off the brick so the unit is flush at the top. After modifying the brick, position it in the corner.

Next, place a standard Alliance Brick so it's flush with the modified brick on the adjacent wall.

For each succeeding course, alternate the direction of the brick to achieve a running bond.

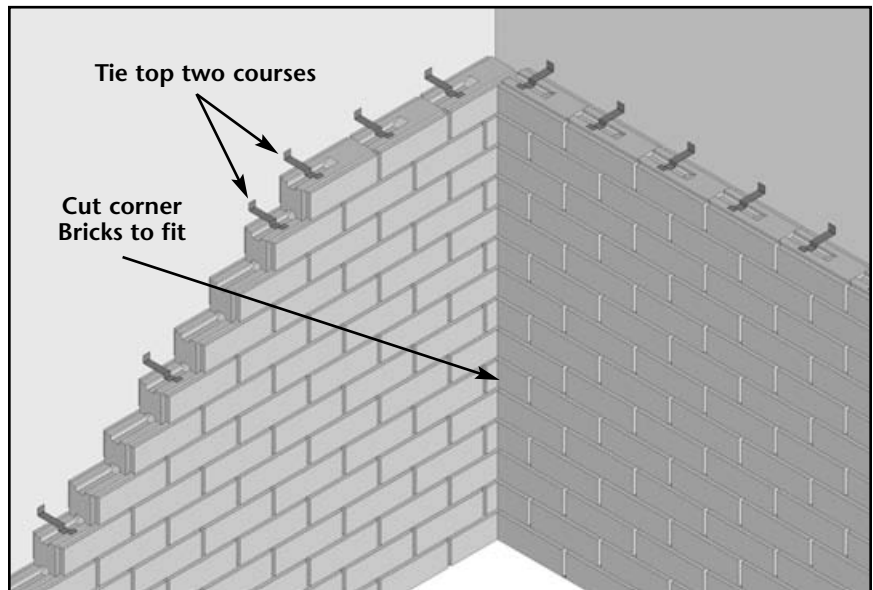
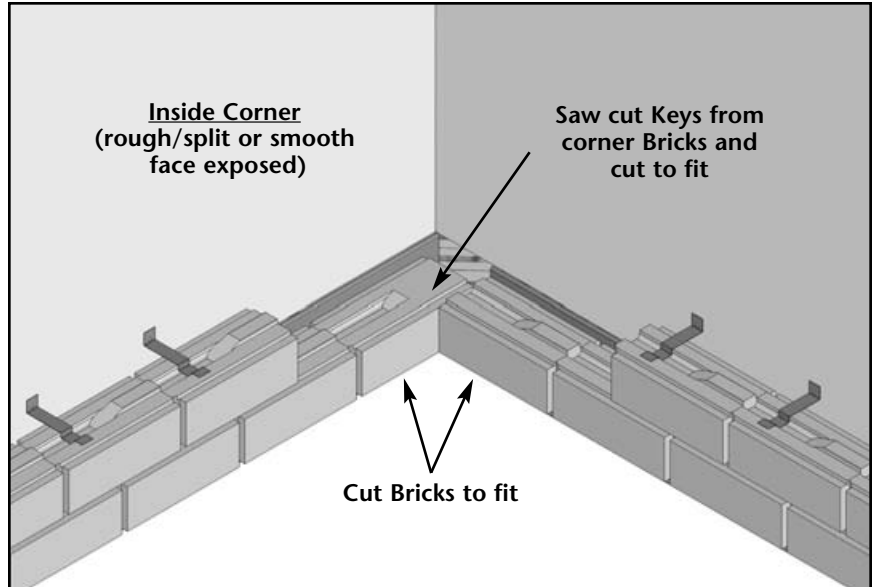
*Note: Use plastic shims when necessary to keep Alliance Brick units level.*



**90° Inside Corner**

For an inside 90° corner, build towards the corner. Remove Keys from corner bricks and cut to proper length. Run the left course past the right in the first course. Run the right course past the left in the second course.

*Note: After cutting Alliance Brick, brush off any excess cement dust. Residual dust can stain the brick if not completely removed.*

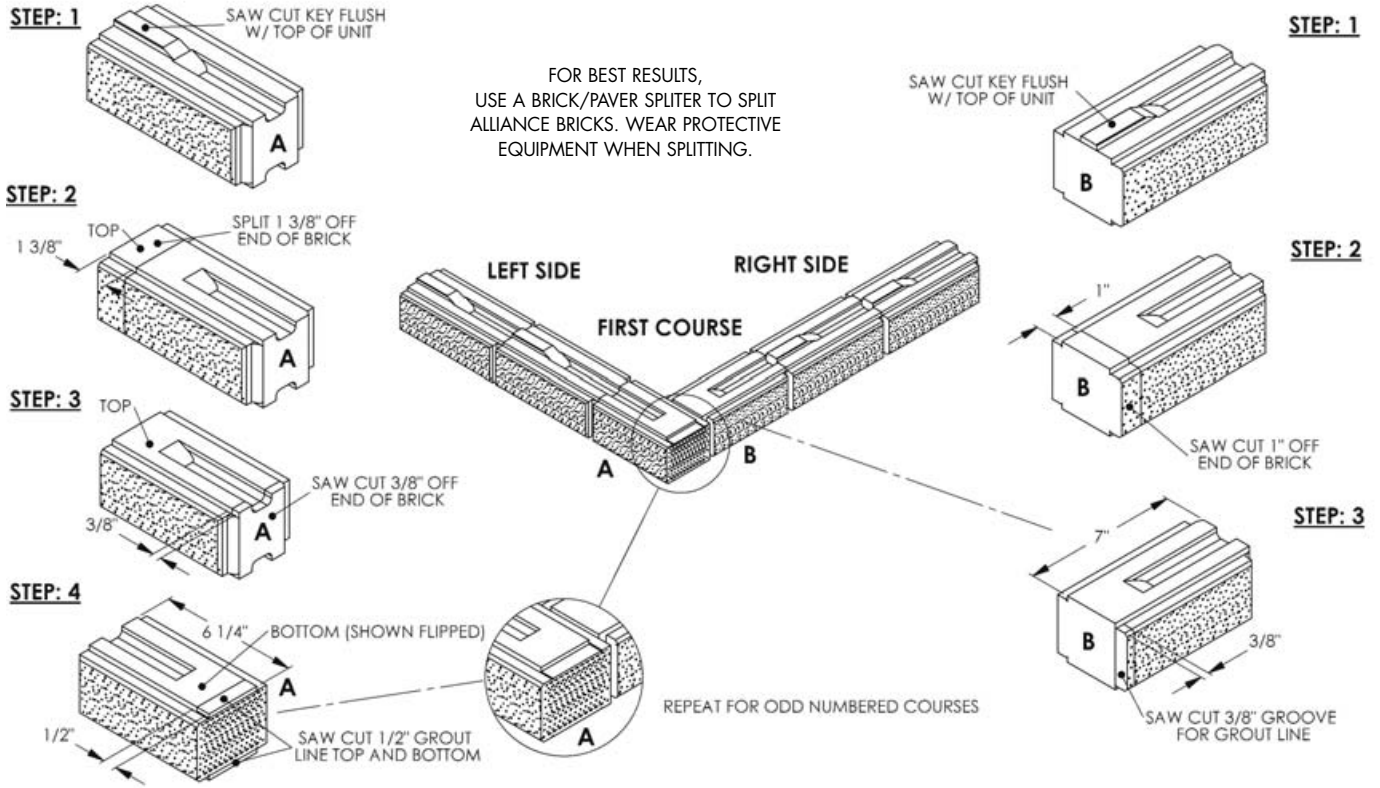


[www.alliancebrick.com](http://www.alliancebrick.com)

**CREATING CORNER BLOCKS – ROUGH/SPLIT FACE EXPOSED**

**BRICK UNIT - FIRST (ODD) COURSE LEFT SIDE**

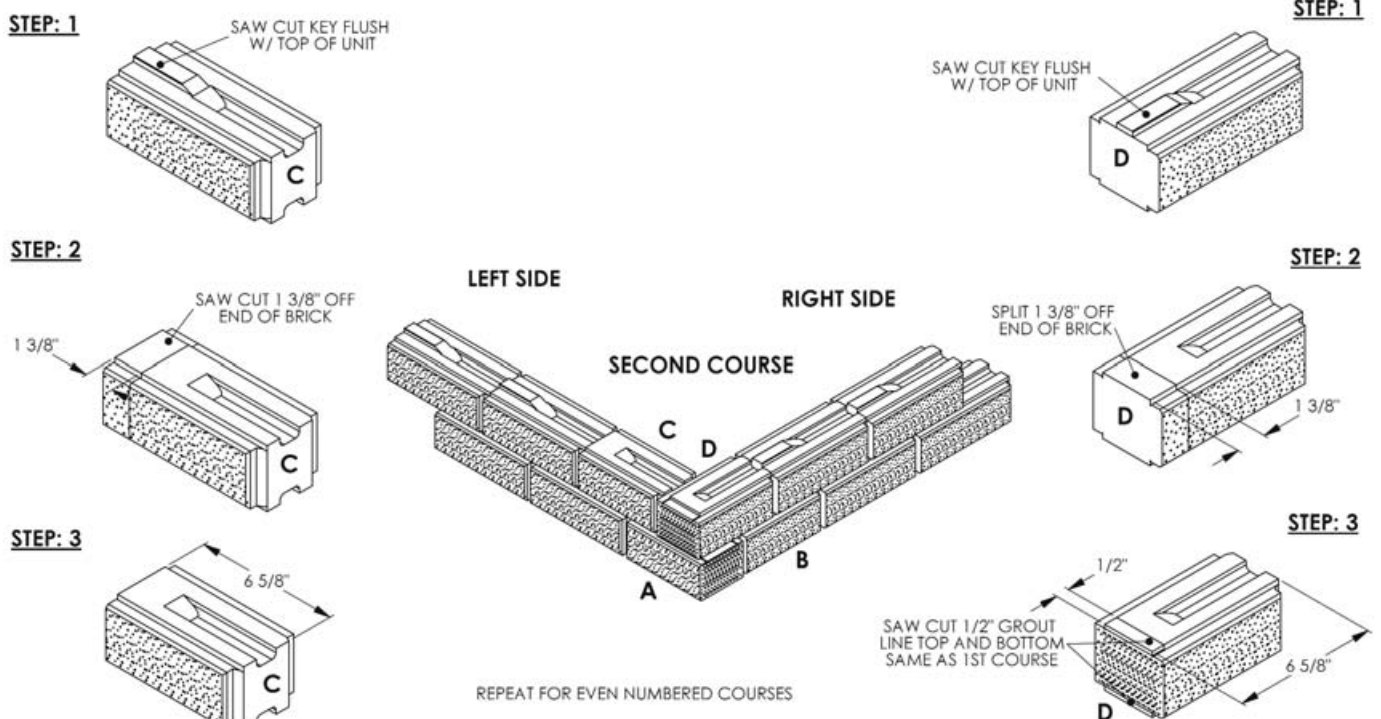
**BRICK UNIT - FIRST (ODD) COURSE RIGHT SIDE**



*Note: You must place corner Block (A) upside down during construction.*

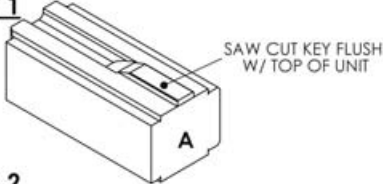
**BRICK UNIT - SECOND (EVEN) COURSE LEFT SIDE**

**BRICK UNIT - SECOND (EVEN) COURSE RIGHT SIDE**

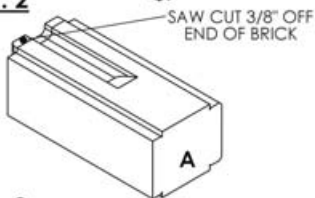


**BRICK UNIT - FIRST (ODD) COURSE LEFT SIDE**

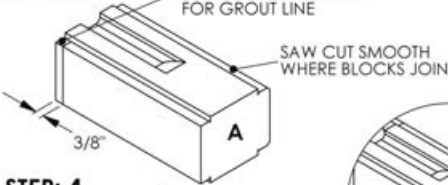
**STEP: 1**



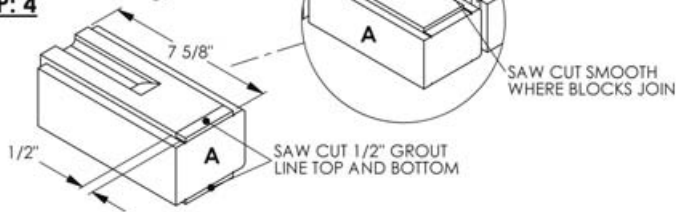
**STEP: 2**



**STEP: 3**

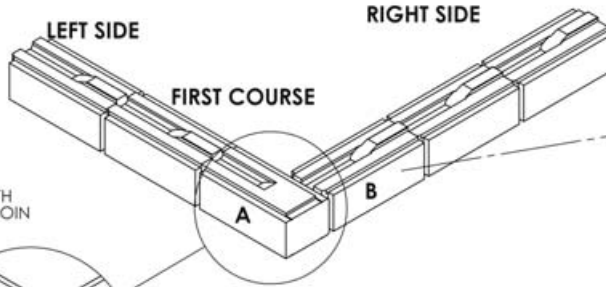
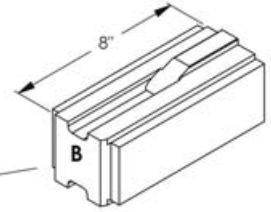


**STEP: 4**



**BRICK UNIT - FIRST (ODD) COURSE RIGHT SIDE**

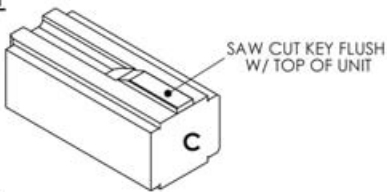
**REGULAR BRICK UNIT**



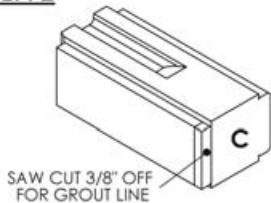
REPEAT FOR ODD NUMBERED COURSES

**BRICK UNIT - SECOND (EVEN) COURSE LEFT SIDE**

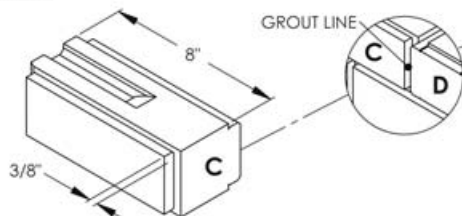
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**STEP: 2**

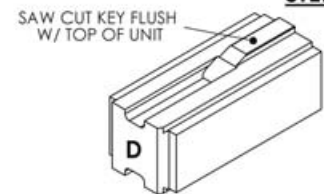


**STEP: 3**

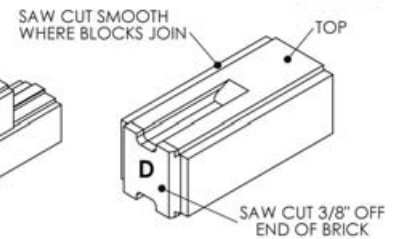


**BRICK UNIT - SECOND (EVEN) COURSE RIGHT SIDE**

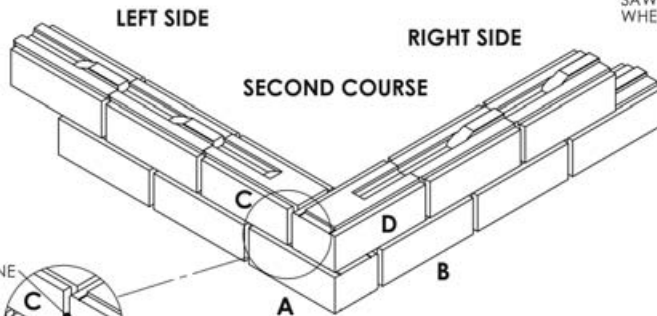
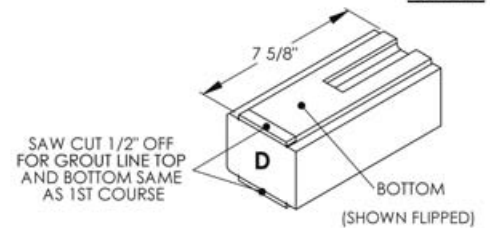
**STEP: 1**



**STEP: 2**



**STEP: 3**



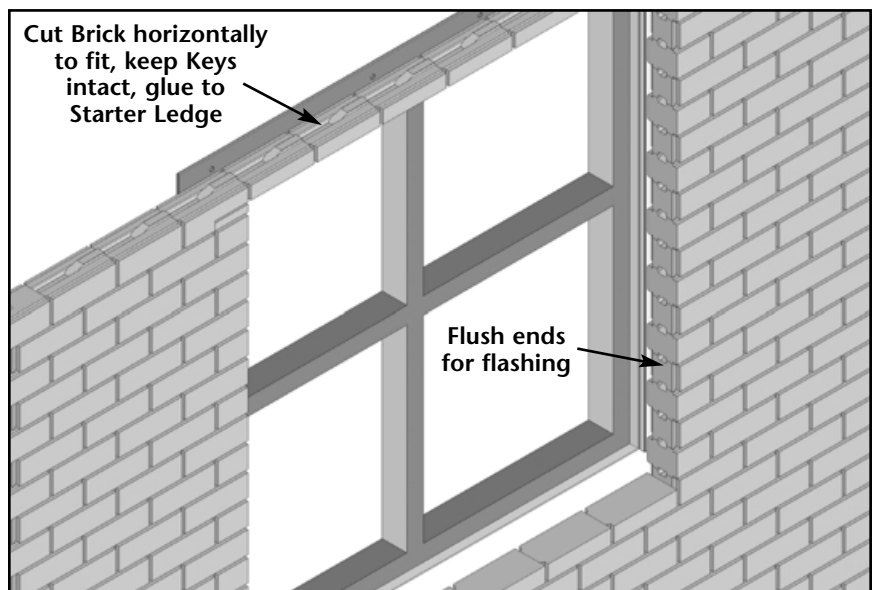
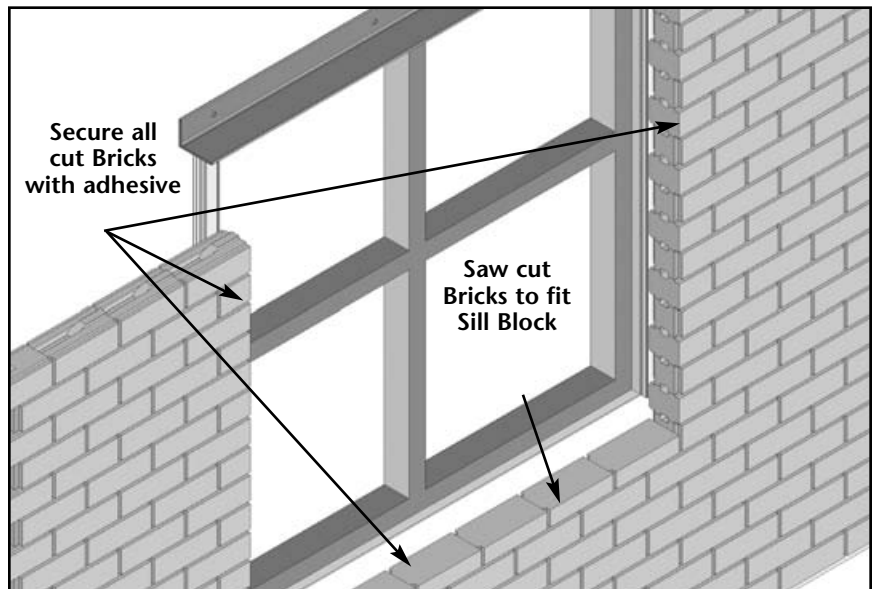
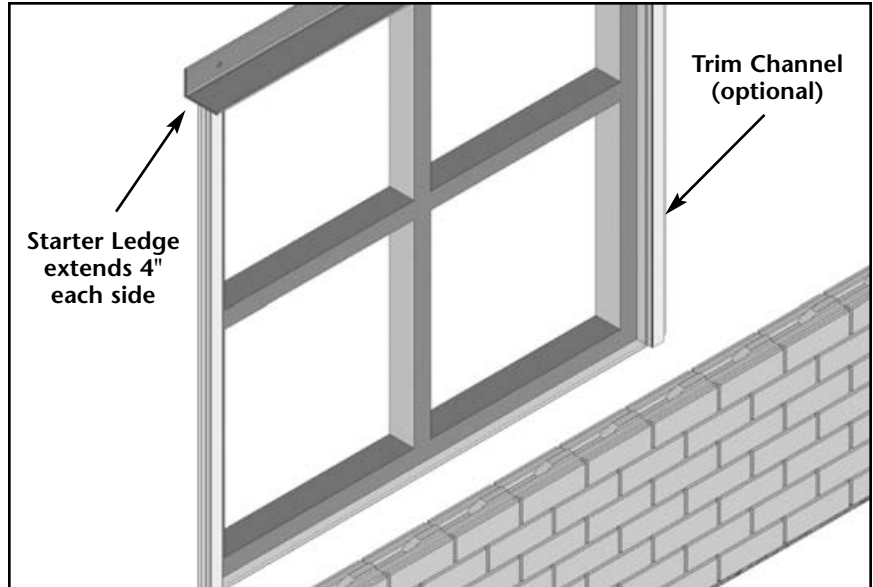
REPEAT FOR EVEN NUMBERED COURSES

**Window Openings**

Installing Alliance Brick above window openings requires reinforcement with a 4" Starter Ledge that overlaps the sides of the opening by a minimum of 4" on each side. This is necessary to disperse the weight of the wall above the opening. The 4" Starter Ledge needs to be fastened to the header.

Install Alliance Brick up to the height of the Starter Ledge then cut bricks to accommodate the Starter Ledge. If necessary, measure and cut bricks horizontally for the courses above the opening. Cut from the bottom to leave the Key intact. Position and glue each cut brick to the bottom of the Starter Ledge.

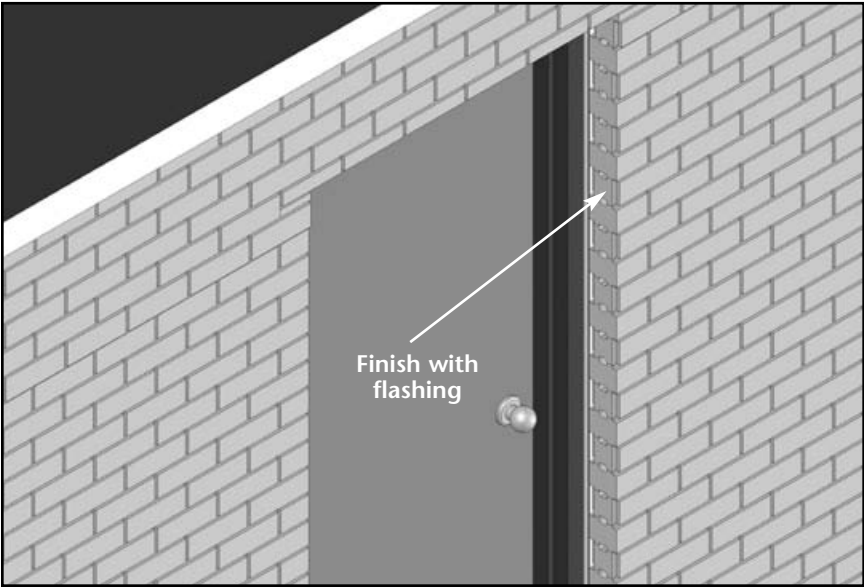
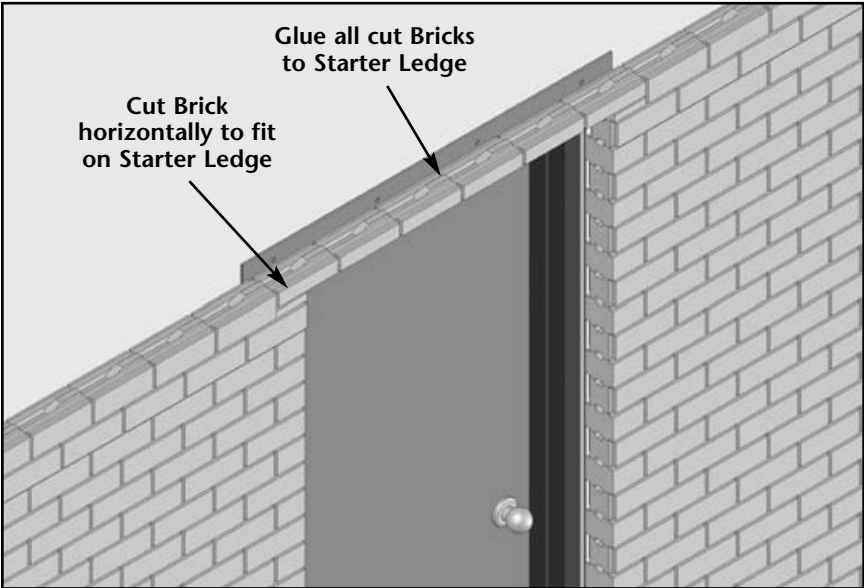
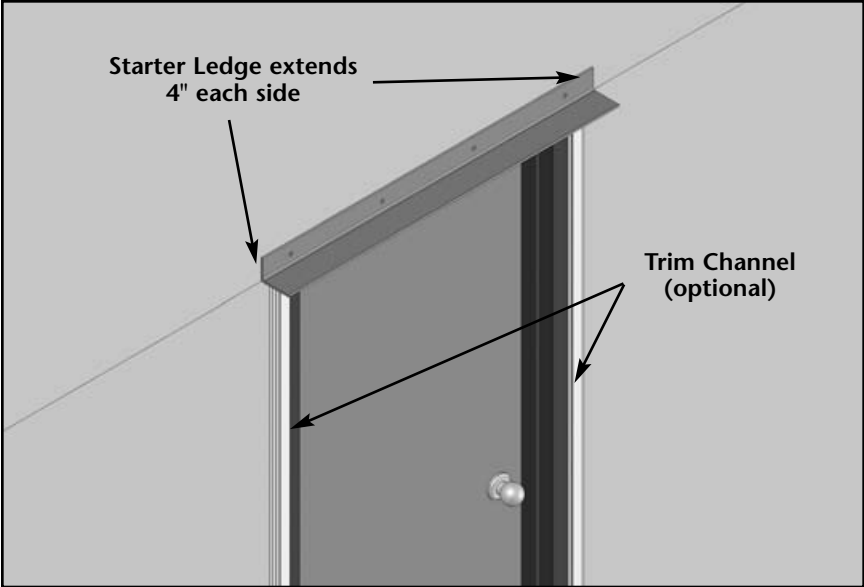
*IMPORTANT: Installing Alliance Brick over large openings requires special reinforcement considerations. Always consult with a qualified structural engineer when building such critical wall applications where wall weight and reinforcement are of concern.*



**Door Openings**

Installing Alliance Brick above door openings requires reinforcement with a 4" Starter Ledge that overlaps the sides of the opening by a minimum of 4" on each side. This is necessary to disperse the weight of the wall above the opening. The 4" Starter Ledge needs to be fastened to the header.

Install Alliance Brick up to the height of the Starter Ledge then cut bricks to accommodate the Starter Ledge. If necessary, measure and cut bricks horizontally for the courses above the opening. Cut from the bottom to leave the Key intact. Position and glue each cut brick to the bottom of the Starter Ledge.



## Finishing with Alliance Brick

### Sill Block

Depending on the application, it may be necessary to cut the top course of Alliance Brick for the Sill Block to fit. Be sure to saw cut all keys on the top of the bricks on the top course.

The top two courses of Alliance Brick need to be tied to the exterior wall. In a soffit or similar application, you may not be able to tie the top course to the wall. In this case, always secure the top course with concrete adhesive.

If using the Alliance Sill Block or any other type of sill, apply Super-Stik or concrete adhesive to the top of the units. When applying construction adhesive, always try to place the adhesive toward the backside of block. This will prevent excess glue from being visible on the face of the wall.

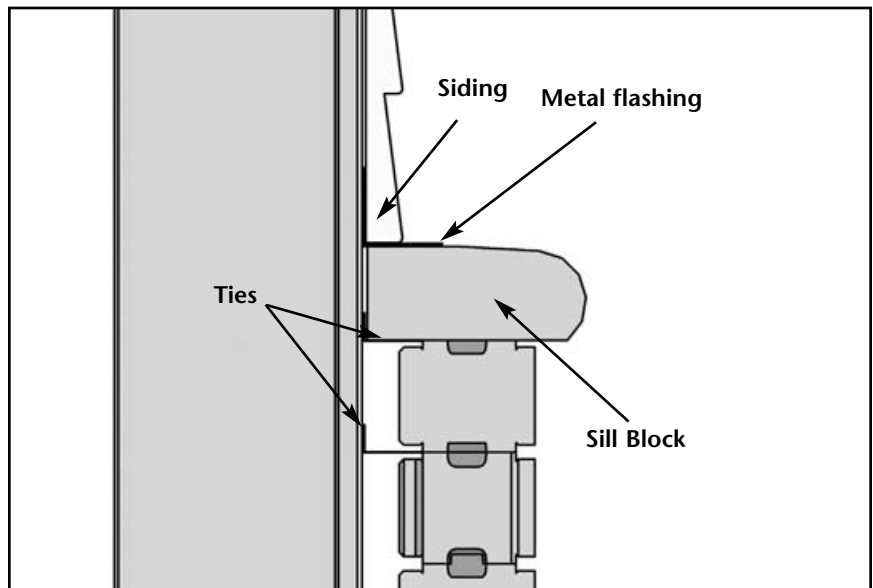
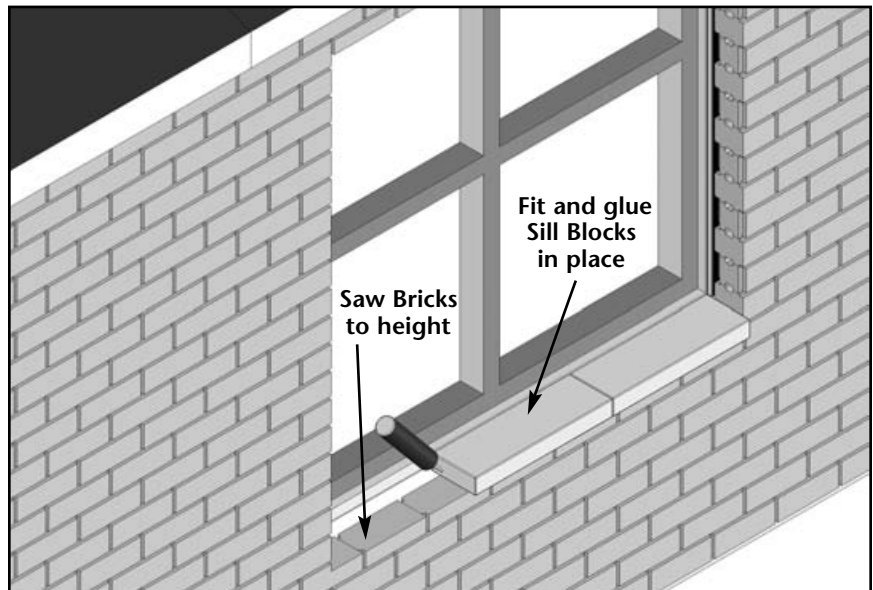
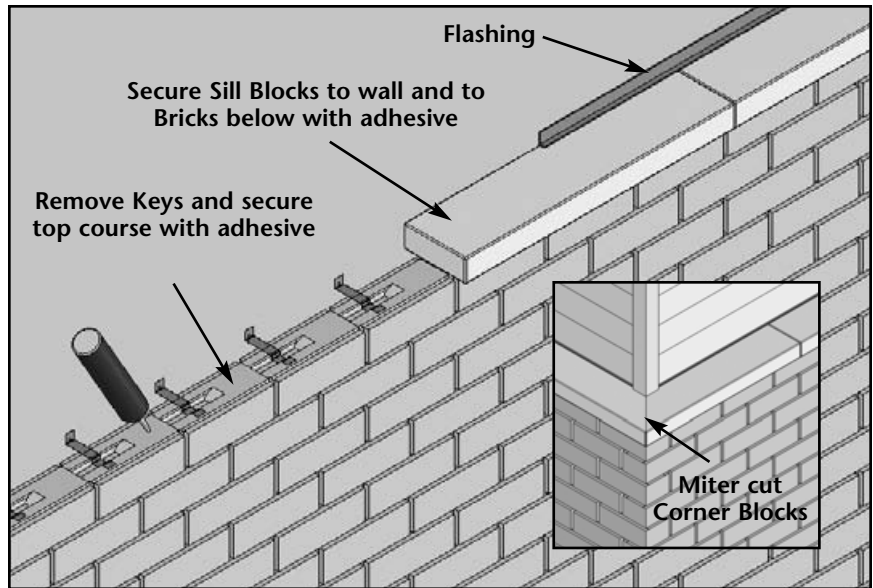
After installing the sill, flash and/or caulk to keep water from getting behind the siding and brick.

*Note: When using a product other than the Alliance Sill Block refer to that product's installation guidelines.*

### Flashing

Flashing is typically done with metal, wood, or vinyl material to cover exposed courses and to protect water/moisture from getting into your home through window and door openings.

When siding will be used above Alliance Brick, starter-strip flashing is needed where the bottom course of the siding will meet the Alliance Brick Sill Block.



## Alliance Brick Options

### **Banding with Alliance Brick**

It is easy to create distinguishable accents in your Alliance Brick wall by simply adding contrasting colors in bands, corners, patterns, etc.

### **Painting and Staining Alliance Brick**

Since Alliance Brick is made with concrete, choose an appropriate paint or stain specific for use on masonry surfaces. Carefully follow the manufacturers wall preparation and application instructions.

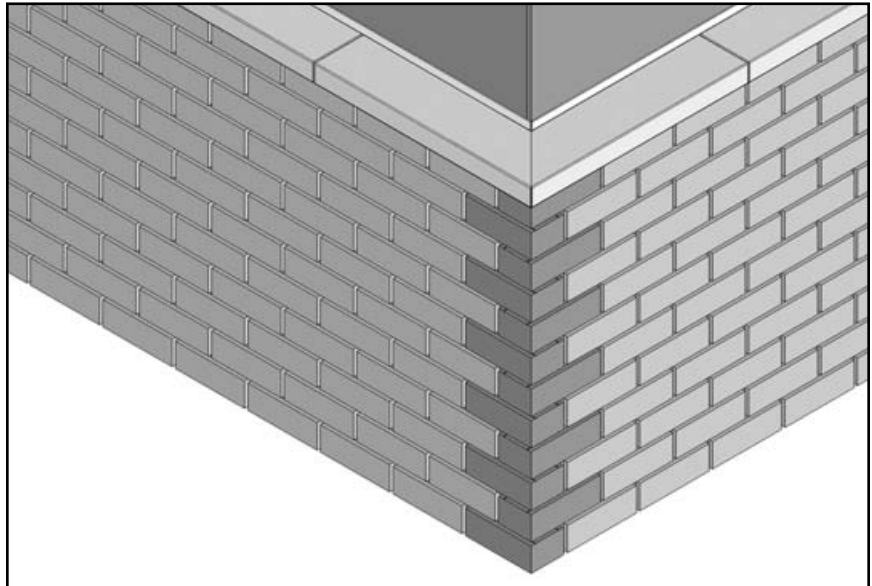
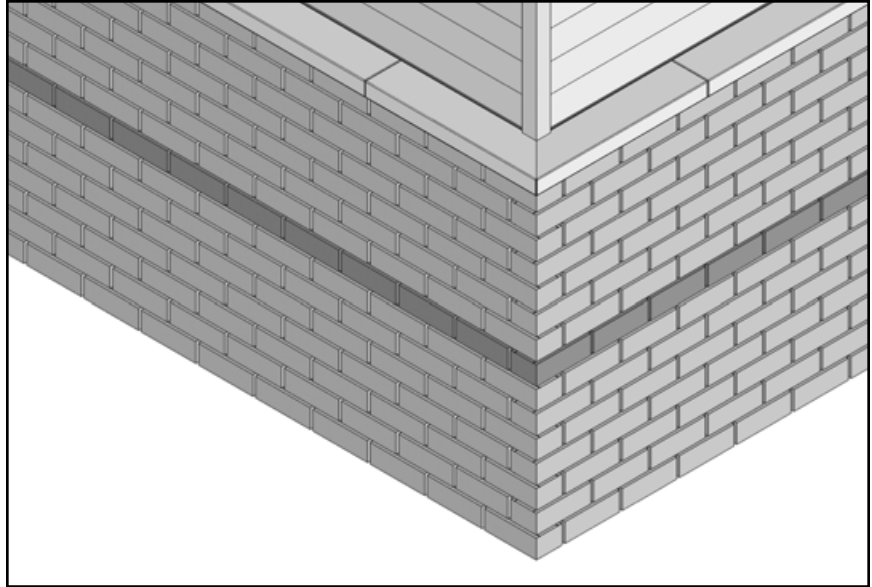
### **Grouting Alliance Brick**

For a finished brick appearance, Alliance Brick walls can be easily grouted with a grout gun or grout bag. Simply apply grout, strike the excess with a striker tool, and brush it smooth.

Follow the (Type S) grout manufacturers preparation and application instructions.

### **Specialty Blocks**

It's simple to include specialty blocks such as name or address numbers. Order your custom block carefully by measuring the block opening, taking into consideration all cuts needed including grout lines.



### Creating Alliance Brick Columns

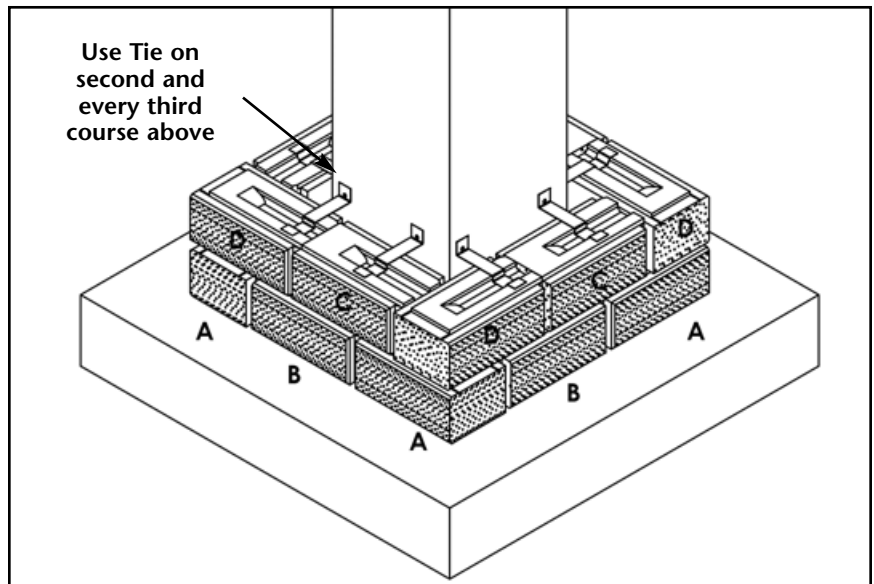
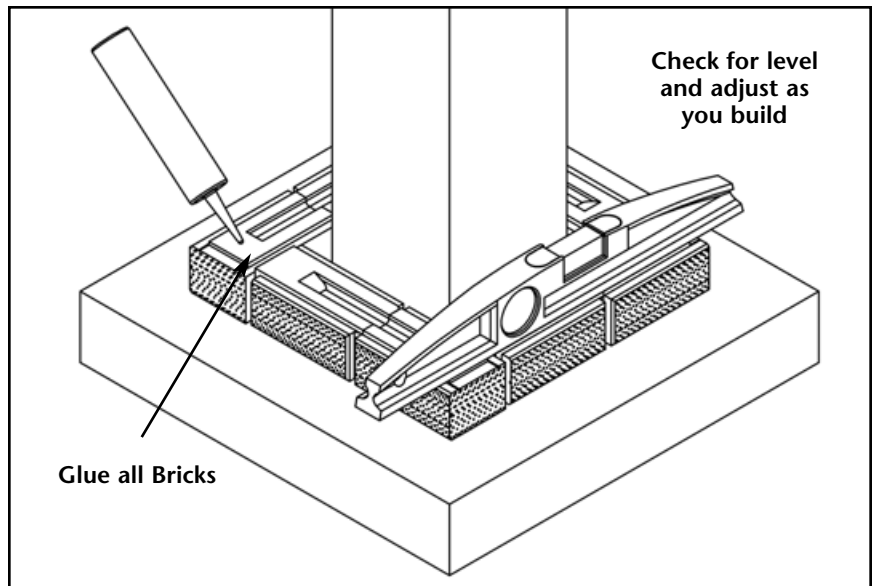
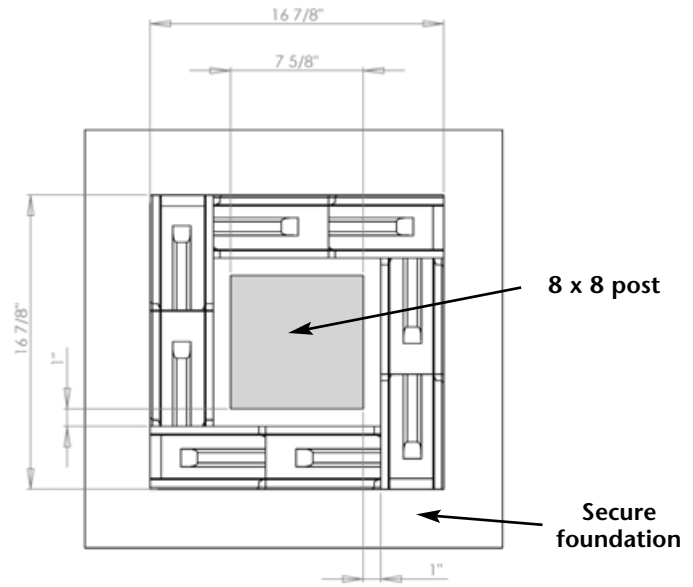
Start all column construction using a strong, level foundation. **Rough/Split face column bricks must be cut to accommodate construction with an 8 x 8" post and to create grout lines.**

*Note: Smooth and Rough/Split face bricks have separate cutting requirements. Carefully follow the proper brick cutting guides for the type of column you are building.*

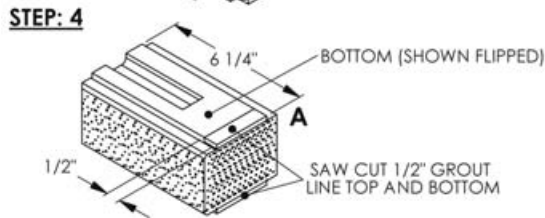
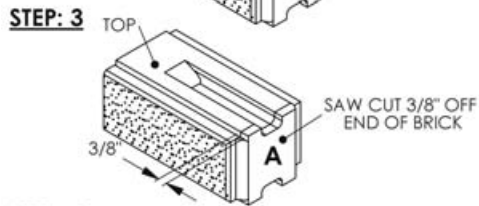
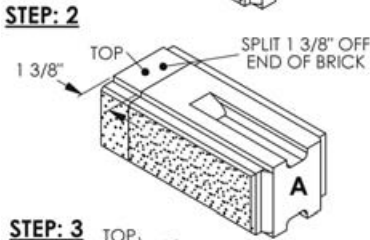
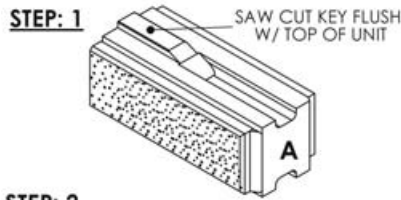
### Rough/Split Face Exposed Column Construction

When you build columns, you will use the Brick Tie on the second and every third course above it just as previously illustrated plus a **small bead of glue on every brick** in the column. Follow the cutting guides on page 17 for the four different brick cuts needed to build a column with rough/split face exposed.

*Note: When cutting Alliance Brick, a dry masonry blade should be used. After cutting Alliance Brick, brush off excess cement dust. Residual dust can stain the brick if not removed.*

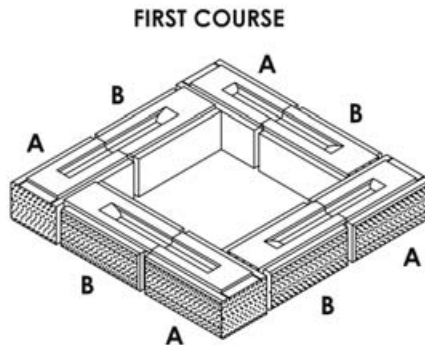
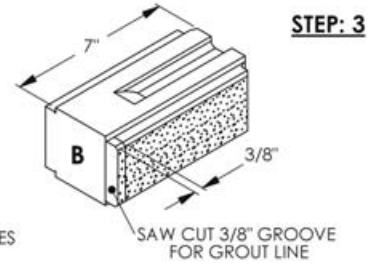
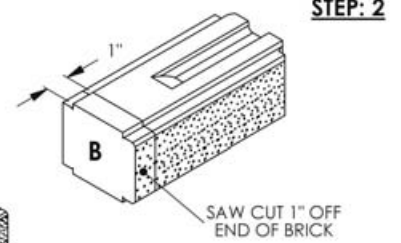
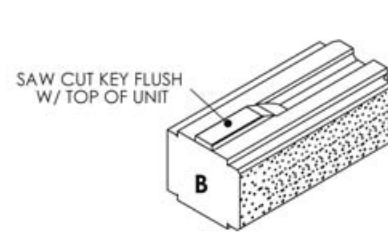


**BRICK UNIT - FIRST (ODD) COURSE LEFT SIDE**



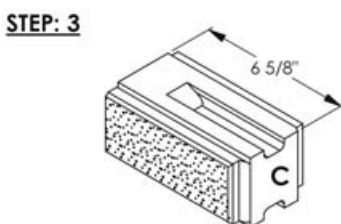
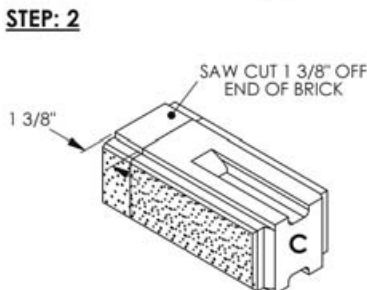
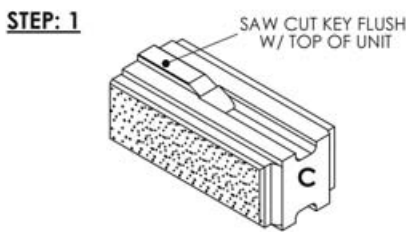
FOR BEST RESULTS, USE A BRICK/PAVER SPLITTER TO SPLIT ALLIANCE BRICKS. WEAR PROTECTIVE EQUIPMENT WHEN SPLITTING.

**BRICK UNIT - FIRST (ODD) COURSE RIGHT SIDE**

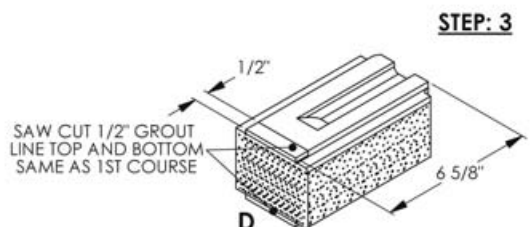
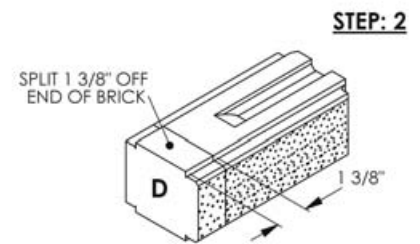
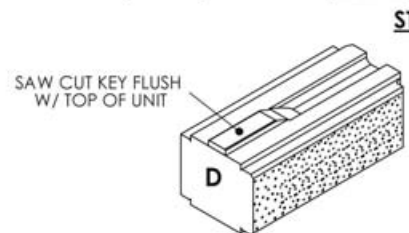


REPEAT FOR ODD NUMBERED COURSES

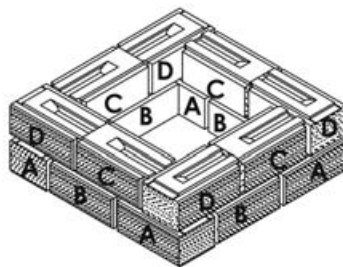
**BRICK UNIT - SECOND (EVEN) COURSE LEFT SIDE**



**BRICK UNIT - SECOND (EVEN) COURSE RIGHT SIDE**



**SECOND COURSE**



REPEAT FOR EVEN NUMBERED COURSES

### Creating Alliance Brick Columns

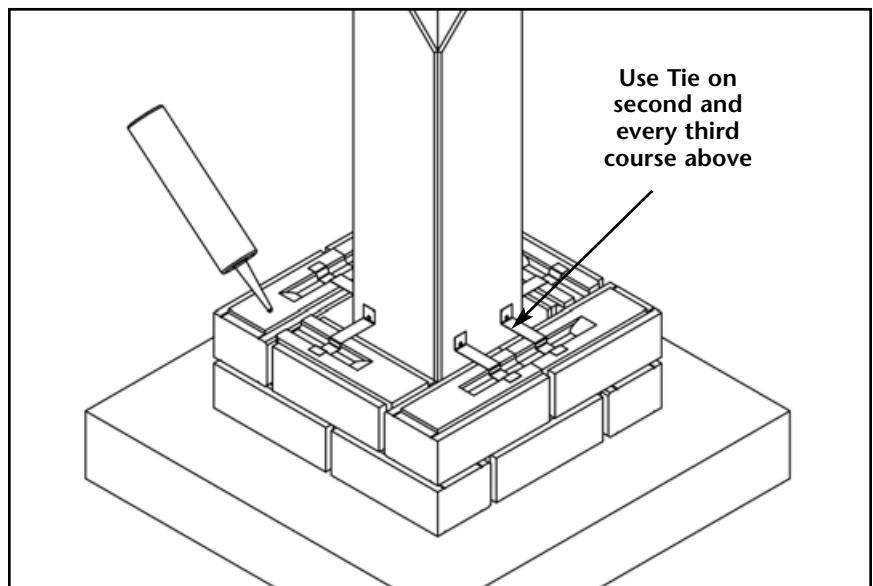
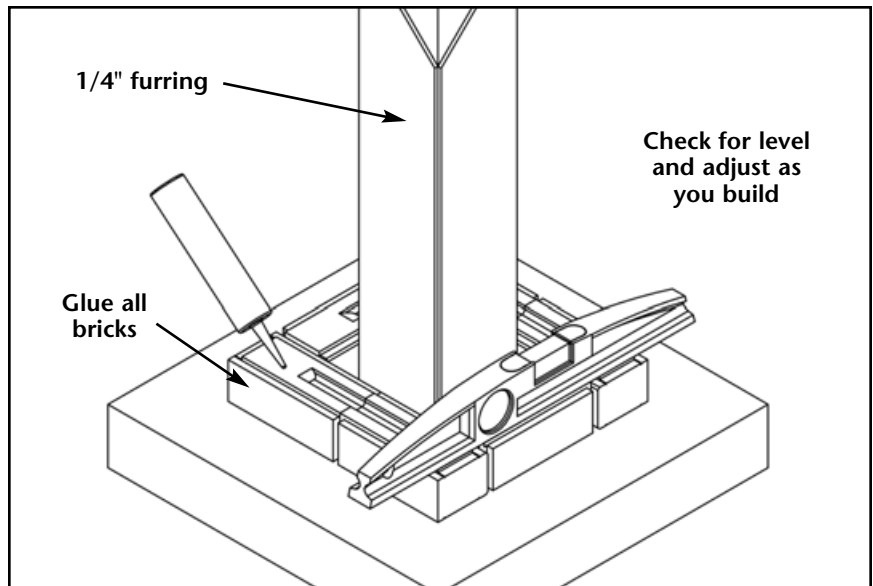
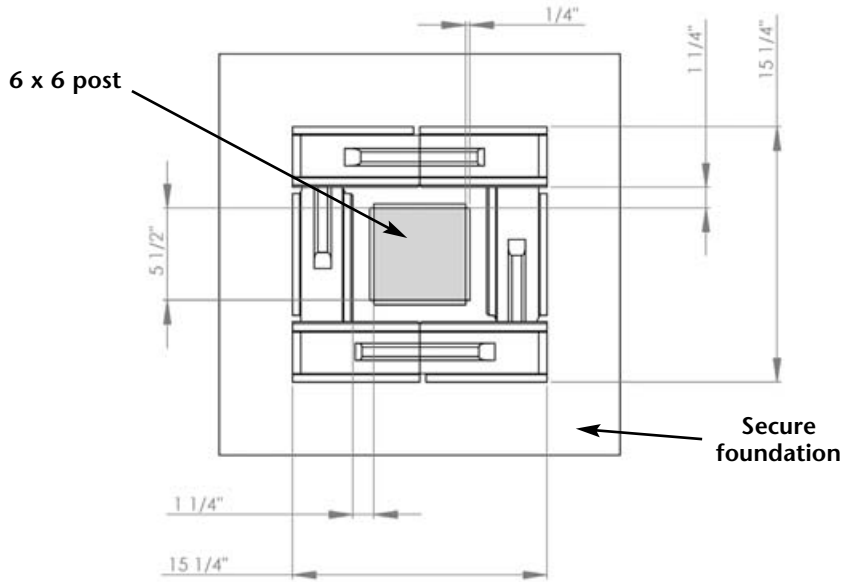
Start all column construction with a strong, level foundation. **Smooth Face column bricks must be cut to accommodate construction with a 6 x 6" post and to create grout lines.** Fur out your post to exactly 6 x 6" before you begin building smooth faced columns.

*Note: Rough/Split face and smooth face bricks have separate cutting requirements. Carefully follow the proper brick cutting guides for the type of column you are building.*

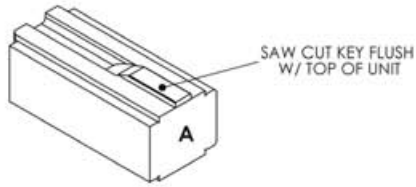
### Smooth Face Exposed Column Construction

Glue all bricks when you build columns and use the Brick Tie (and adhesive) on the second and every third course above it. Follow the cutting guides on page 19 for the three different brick cuts needed to build a column with smooth face exposed.

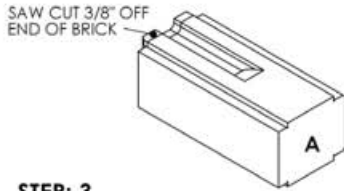
*Note: When cutting Alliance Brick, a dry masonry blade should be used. After cutting Alliance Brick, brush off any excess cement dust. Residual dust can stain the brick if not removed.*



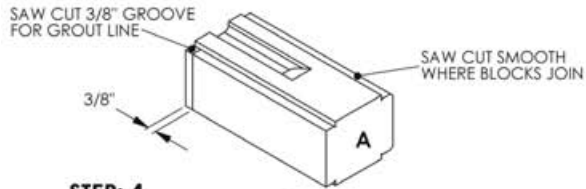
**STEP: 1**



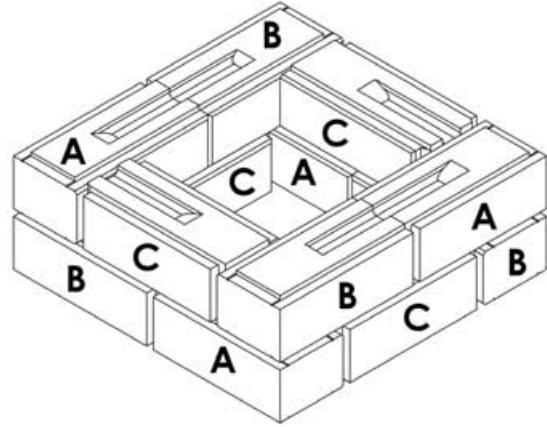
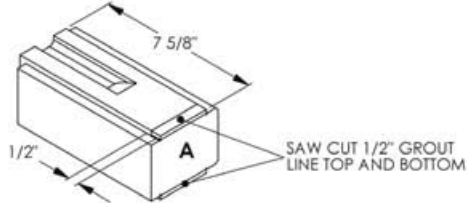
**STEP: 2**



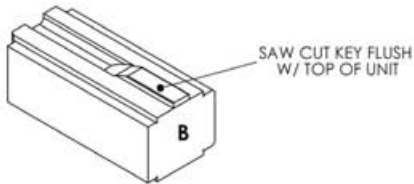
**STEP: 3**



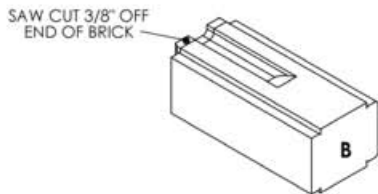
**STEP: 4**



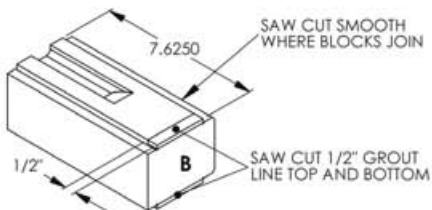
**STEP: 1**



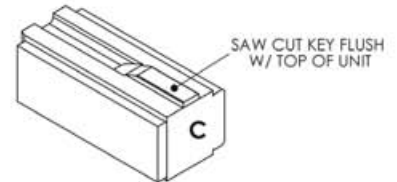
**STEP: 2**



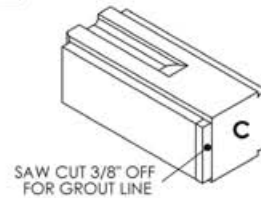
**STEP: 3**



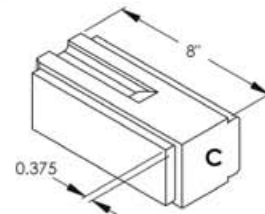
**STEP: 1**



**STEP: 2**



**STEP: 3**



*Note: You must place corner Block (B) upside down during construction.*

## GENERAL INFORMATION

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### **Efflorescence, Cleaner & Sealer**

All cement products are susceptible to efflorescence or frosting. While we know how and why efflorescence occurs, it is nearly impossible to prevent it entirely.

When the cement, which contains lime, is mixed with sand, rock, and water and begins to harden, the free lime in the cement turns into calcium hydroxide. Although concrete products are solid, they contain millions of microscopic pores that go from the surface down into the interior. As the concrete starts to cure, water migrates to the surface through the pores, carrying with it calcium hydroxide. When the calcium hydroxide comes into contact with air, a hard white substance called efflorescence or frost is formed. This sticks to the surface of the concrete. This will continue as long as the concrete is curing.

Efflorescence will disappear, but it could take a few years. If the frost is very obvious and detracts from your Alliance Brick, you can remove it by using a standard masonry cleaner.

When using a masonry cleaner, follow the instructions given. After using the product, it is recommended to apply a concrete sealer on the surface of the Alliance Brick to eliminate efflorescence from occurring again.

### **Exterior Applications**

Make sure the application of Alliance Brick products and the structure it is being applied to incorporate good building practices.

On exterior applications, the incorrect installation or absence of flashing, cant strips, gutters, and downspouts may result in diversion of water run-off onto finished surface areas. Masonry and other building products subjected to these conditions may develop staining, and when combined with severe freeze-thaw conditions, may eventually suffer surface damage. The application of Alliance Brick veneer under these conditions is not recommended.

### **Restrictions**

Use Alliance Brick products only on buildings that meet current local building codes where applicable. Building code requirements vary. Check with local authorities for building code requirements in your area. Carefully read all Installation Guidelines before proceeding with your Alliance Brick application.

### **Trademarks and Patents**

Alliance Brick® and its logo are all trademarks of Alliance Concrete Concepts, Inc. All rights reserved. Super-Stik™ concrete adhesive is a trademark of Alliance Concrete Concepts, Inc. All rights reserved. American and International patents applied for and pending.

### **Warranty**

Alliance Brick comes with a 50-year express limited liability and transferable product warranty.



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Rochester, MN 55906

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**[www.alliancebrick.com](http://www.alliancebrick.com)**

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