

# *The brick without mortar*

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# INSTALLATION GUIDE

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## Before You Begin

This booklet describes the steps involved in installing Novabrik on standard 2" x 4" or 2" x 6" wood frame construction. Its purpose is to provide basic information that will simplify the installation process while assuring successful results.

Please note that this is only a guide and it does not claim to cover all situations that may occur. If your project involves some other type of construction, such as steel studs, concrete blocks or insulated concrete forms, among others, please consult your dealer or Novabrik manufacturer. You may also check our web site at [www.novabrik.com](http://www.novabrik.com) for more information.

Building codes and regulation vary throughout the country. Be sure to check with your local code official for specific requirements in your area. You can refer to the following Evaluation Reports for further information:

ICBO Evaluation Report ER-5395

BOCA Research Report 99•34

SBCCI Evaluation Report 9923

CCMC Evaluation Report 12833-R.

The information and product applications illustrated in this manual have been carefully compiled by Novabrik International Inc. and its Licensed Producers, and to the best of our knowledge accurately represent Novabrik 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.

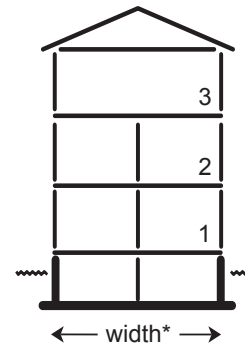
## Use and Restrictions

Novabrik can be used in new construction and remodeling. No foundation or brick ledge is required. Novabrik hangs on the wall.

For buildings not built on structural footings, check with a local building professional to make sure your foundation will adequately handle the added weight.

The table below outlines the back-up wall requirements and limitations for different configurations. Note that the limitations will vary according to the roof snow load.

**Back-up Wall Requirements**



No. of Stories (8' high)	Wood Studs Wall Construction	Maximum Width of Building
1	2 x 4 @ 24" o.c.	35'
	2 x 4 @ 16" o.c.	50'
	2 x 6 @ 24" o.c.	50'
	2 x 6 @ 16" o.c.	50'
2	2 x 4 @ 16" o.c.	32'
	2 x 6 @ 24" o.c.	50'
	2 x 6 @ 16" o.c.	50'
3	2 x 6 @ 16" o.c.	50'

**Example:**

Number of Stories: 3  
Wood Studs Wall

Construction: 2" x 6" @ 16" o.c.

Maximum Width of Building: 50'-0"

**Notes:**

Minimum stud grade : S-P-F S-Dry No 1/ No 2

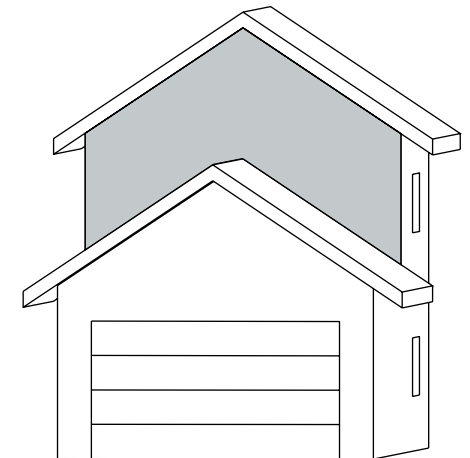
Snow load on roof : 40 lbs/sf

\* See pictures of Planning Guide - Step 1 section (next page) for meaning.

### Floater

When a section of wall wraps over the top of a roof, we call it a "floater". This area will need extra support before adding Novabrik.

Check with a professional builder or engineer to determine the structural requirements for the added weight.

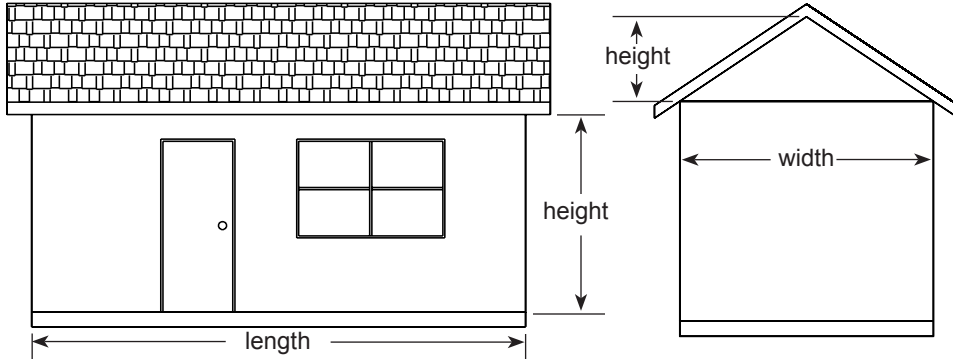


# Planning Guide

This planning guide will help you determine the amount of Novabrik and other accessories required to complete your project.

## Step 1

Make sketches of the home showing all sides.



## Step 2

Measure the height of each side (excluding gables) and multiply by the length or the width of the building to obtain the surface area.

For gables, measure the height at center (add 1' to allow for waste) and multiply by 1/2 the width to obtain the surface area.

Add the areas together.

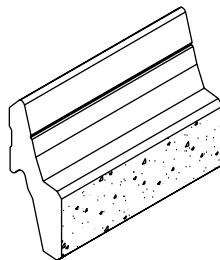
## Step 3

Measure the windows, doors and any other area that will not be covered with Novabrik. Multiply width by height for each area, then add all areas together.

## Step 4

Take the total area from Step 2 and subtract total of Step 3. Add 5% for waste during construction and bricks damaged during shipment. This is your Total Square Footage.

Multiply the Total Square Footage by the coverage factor (6.1 for 8 in. long Novabrik and 5.4 for 9 in. long Novabrik, check inside front cover for your coverage factor) to obtain the required number of Novabrik.



# Planning Guide

## Starter Strip

Add the length of each wall plus the width of each door and window to find the total length of starter strip needed.

## Door and Window Trim (check availability)

Add the two sides and top of each window to find the length of window trim. Total all together. Do the same for doors.

## Treated Baseboard 1 in. x 6 in.

Add together all of the wall length to find the total baseboard length.

## Furring Strip 1 in. x 3 in. or 1 in. x 4 in.

You need enough furring strips to overlay all of the framing studs, and enough to wrap around the windows and doors.

## Window Sill

Measure and record the width of each window separately to determine the total length of window sill needed. Order enough sills so that you can use larger pieces below each window, with as few joints as possible.

## Corner Bricks

Measure the height of each wall at the corner (in feet) and multiply by 2 to find the number of corner bricks needed. Add 5% for waste.

## Housewrap

Add the areas of wall and total them together to find the amount of housewrap needed.

## Corrosion-resistant Screws

Divide the total of bricks needed by 2. This will give you enough screws to attach the furring strips and the Novabrik. One longer screw is needed for each corner brick used.

## Tools, material and equipment

A proper set of tools will get the job done right. Safety is the number one item on any construction project. Use protective eye wear when cutting brick.

### Tool List

- 1/2 or 9/16 hammer drill (not a rotary SDS hammer drill)
- 3/16 and 7/32 masonry drill bits designed for a hammer drill
- cordless drill
- #2 square head drive (for drill)
- chop saw with diamond blade or masonry saw
- level
- rubber hammer
- hand held brush
- measuring tape
- string line for leveling
- utility knife
- skill saw (for wood strips)
- caulking gun
- scaffolding
- hammer
- gloves
- safety glasses
- dust mask

### Note on cutting Novabrik

Cutting brick is often a key part of installation. You can use either a wet saw or a dry saw with diamond blades.

A wet saw will reduce dust while cutting. Thoroughly rinse with clear water to remove any cement paste left to avoid staining when the brick dries up. A dry saw will be easier to move around.

Take the necessary precautions to protect yourself from dust. Use safety glasses and a dust mask.

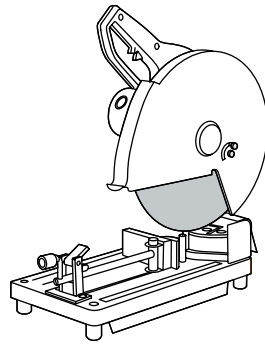
### Construction Adhesive

Use PL® Premium polyurethane construction adhesive or equivalent.

### Corrosion-resistant Screws

Use #8 corrosion-resistant screws (coated deck screws) to fasten the furring strips to the studs. Make sure the screws penetrate at least 1 ¼ in. into the studs. To fasten Novabrik to the furring strips, use #8 - 2 ½ in. long corrosion-resistant screws.

For coastal areas (less than 5 miles (8 km) from the ocean) use stainless steel fasteners.



Chop saw with diamond blade

## Insulation, Flashing and Housewrap

Before going into details about the preparation work and installation of Novabrik, a few important notes on insulation, flashing and housewrap for your home.

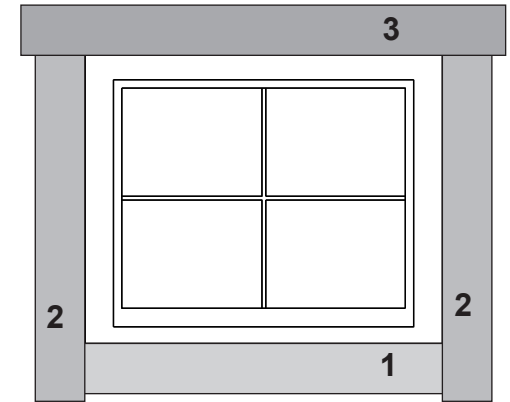
### Insulation

If you're replacing old siding, this is a perfect time to insulate your house from the exterior. Use rigid insulation, expanded polystyrene foam type, and fasten the furring strips through the insulation into the studs with longer screws.

### Flashing openings

Seal the flanges around the window with either peel-and-stick or nonstick flashing.

Make sure to overlap flashing properly, starting at the bottom, following with the sides and finishing with the top.

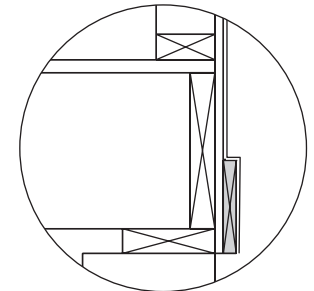


### Housewrap

When installing housewrap, make sure it is properly layered. Overlap layers at least 6 inches and tape the seams.

Cover the 1" x 6" baseboard and plywood reinforcement header with housewrap or polyethylene flashing. Slit housewrap and slip flashing under housewrap where necessary.

### Cover baseboard with housewrap



### Note:

For clarity, housewrap and flexible flashing are not shown on all drawings in this booklet.

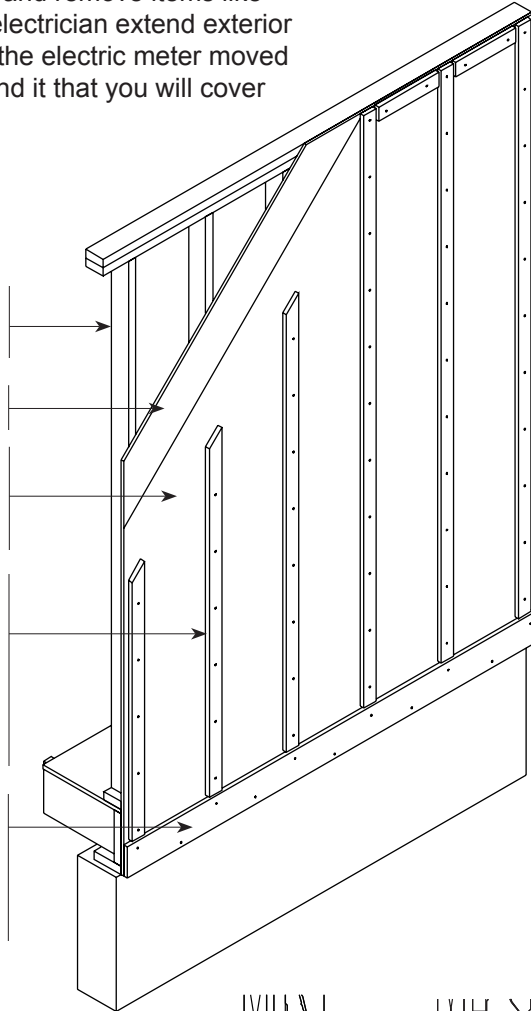
## Wall Preparation

The goal in this step is to prepare the job for Novabrik installation.

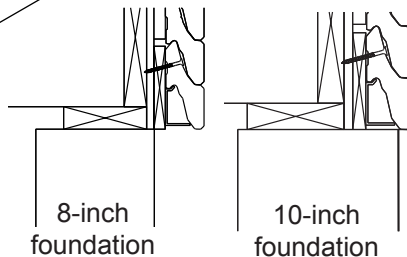
Remove existing siding and make sure the wall is sound. Replace deteriorated sheathing and remove items like downspouts. Have a qualified electrician extend exterior outlets and light fixtures. Have the electric meter moved if necessary or build a box around it that you will cover with aluminum.

Your wall should look like this once the prep work is done:

- **Studs**  
2" x 4" or 2" x 6" studs @ 16" or 24" o.c.
- **Sheathing** (any type)
- **Housewrap**  
Make sure the housewrap comes down and over the baseboard.
- **Furring strips**  
Line up over the framing studs and attach with #8 corrosion-resistant screws at 10 inches on center (the screws have to go at least 1¼" into the studs).
- **Treated baseboard**  
Line up 1" x 6" with the bottom of the house sheathing and attach with #8 corrosion resistant screws at 8 inches on center.



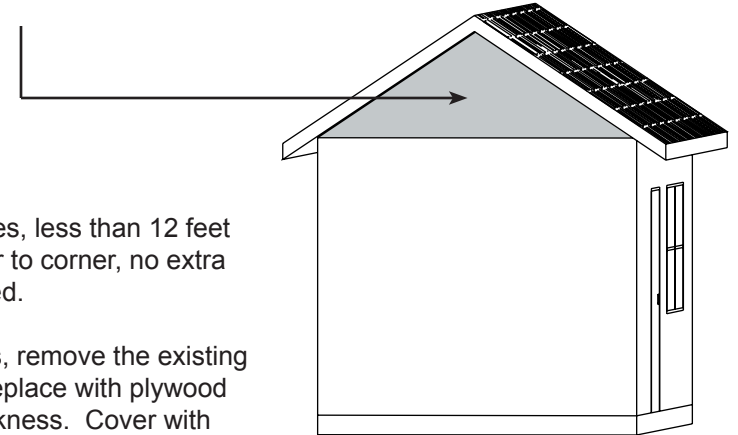
The width of the foundation is not important because Novabrik hangs on the wall. It does not rest on the foundation.



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## Gable Preparation

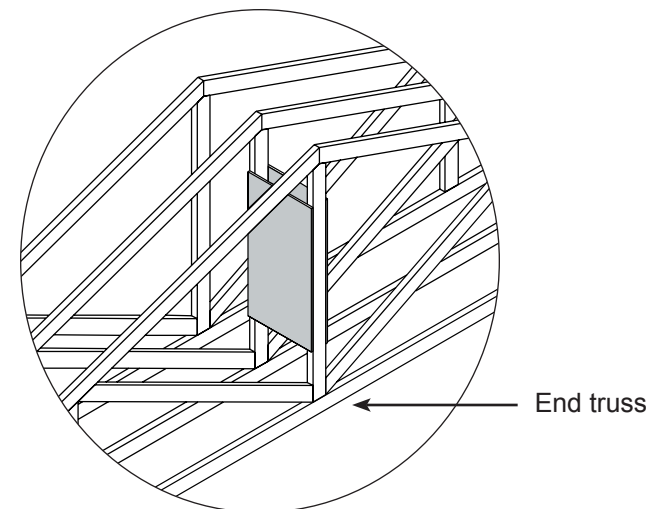
We refer to the triangular shaped part of a wall as a "roof gable". This section of the wall extends up and into the roof line, and needs extra support before adding Novabrik.



On smaller gables, less than 12 feet wide from corner to corner, no extra support is needed.

On larger gables, remove the existing sheathing and replace with plywood of the same thickness. Cover with housewrap and install 1" x 3" furring strips over the framing.

On large gables, add bracing between the first and second truss in the attic space to prevent wall from racking.



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## Preparation around Doors and Windows

Doors and windows need extra framing to support the brick above. In a new construction, the header can be designed to support the added load. Remember that Novabrik weighs about 27 pounds per square foot.

When remodeling or if the header is not designed for Novabrik, you must add a 3/4 inch thick plywood reinforcement header above the openings. Use the header chart below to size each window and door header. Make sure the header extends 6 inches past the opening on each side.

Fasten the plywood header to the studs and existing header with 2 rows of #8 screws at 10 inches on center. Make sure to cover header with flashing or a piece of housewrap, tucked underneath the housewrap above. If you want to install a soldier course above the opening, you need a plywood header 15 inches high.

**Header Chart**  
Height in inches of plywood reinforcement header

Rows of bricks to support	Width of opening (feet)							
	1	2	3	4	5	6	7	8
1	5	5	5	5	5	5	5	5
2	5	5	5	5	5	5	5	6
3	5	5	5	5	5	5	6	8
4	5	5	5	5	5	6	8	8
5	5	5	5	5	6	8	8	10
6	5	5	5	5	6	8	8	10
7	5	5	5	5	8	8	10	10
8	5	5	5	6	8	8	10	12
9	5	5	5	6	8	10	10	12
10	5	5	5	6	8	10	12	12
11	5	5	5	8	8	10	12	14
12	5	5	5	8	8	10	12	14
13	5	5	5	8	10	10	12	14
14	5	5	6	8	10	12	14	16
15	5	5	6	8	10	12	14	16
20	5	5	8	10	12	14	16	18
25	5	5	8	10	12	14	18	20
30	5	6	8	12	14	16	18	22
35	5	6	10	12	14	18	20	22
40	5	6	10	12	16	18	22	24
45	5	8	10	14	16	20	22	Steel
50	5	8	10	14	18	20	24	Steel
55	5	8	12	14	18	22	24	Steel
60	5	8	12	16	18	24	Steel	Steel

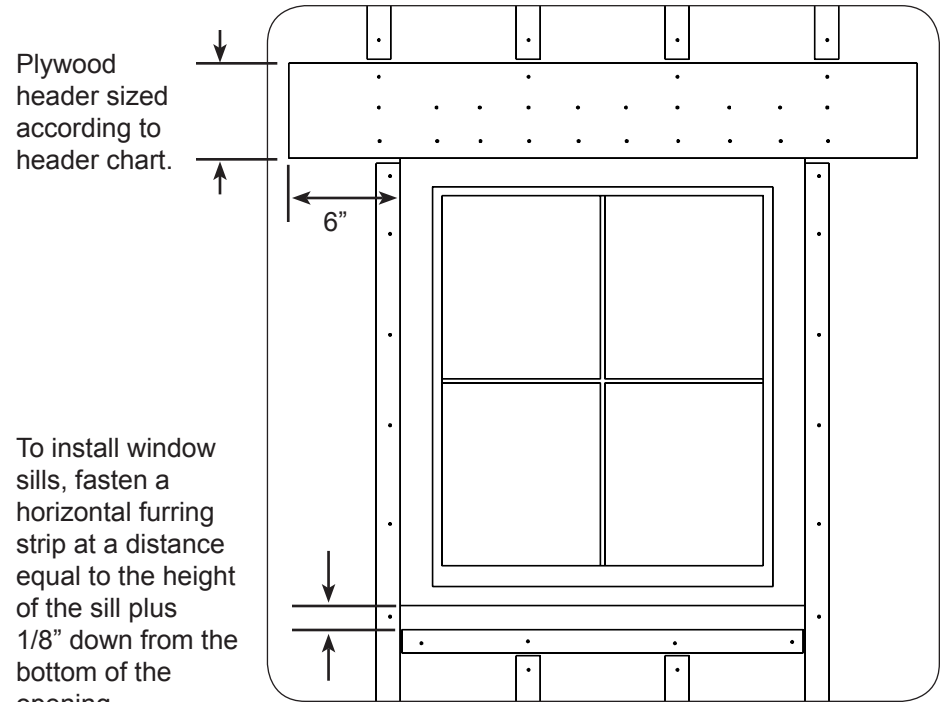
Remember, there are four rows per foot.

Example

For:  
width of opening: 6'  
rows of bricks above: 30

You get:  
height of header: 16"

## Preparation around Doors and Windows

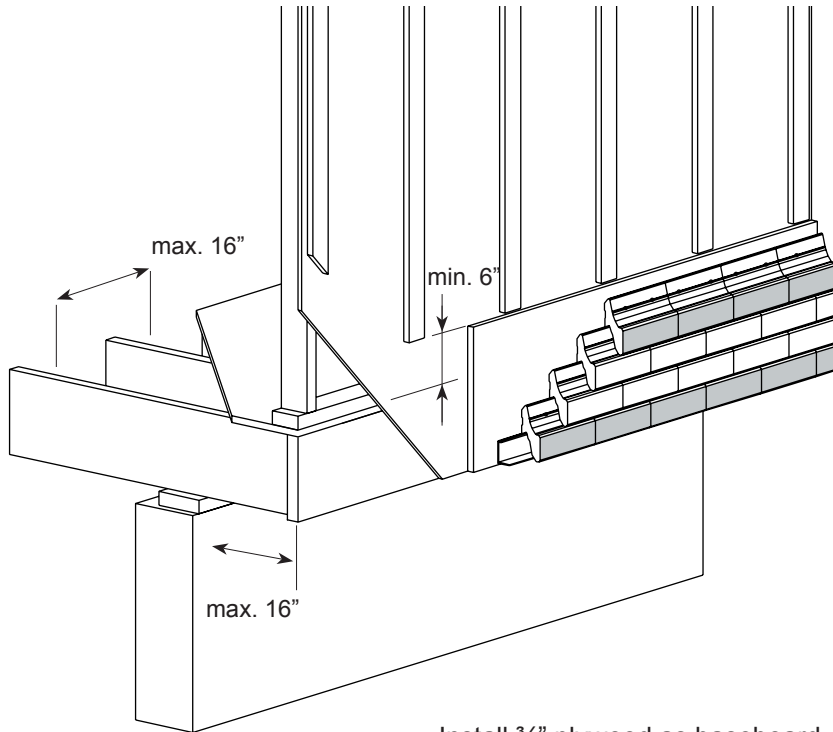


To install window sills, fasten a horizontal furring strip at a distance equal to the height of the sill plus 1/8" down from the bottom of the opening.

To install Novabrik over large openings or 'wide spans', extra structural review is essential. In some cases, steel may be required as an extra reinforcement. For those situations use a steel plate, cut to the appropriate length. Always consult with a structural engineer when designing the reinforcement.

## Overhang Preparation

Limit Novabrik installation to one story overhanging walls extending maximum 16 inches with floor joist spacing 16 inches on center maximum.



- Install  $\frac{3}{4}$ " plywood as baseboard instead of 1x6 (extend plywood minimum 6 inches above floor).
- Make sure to fasten top of baseboard to the sill plate and studs.
- Fasten each Novabrik on the first course with two screws.
- Fasten each Novabrik at top of baseboard with two screws.
- Continue installation in the usual manner.

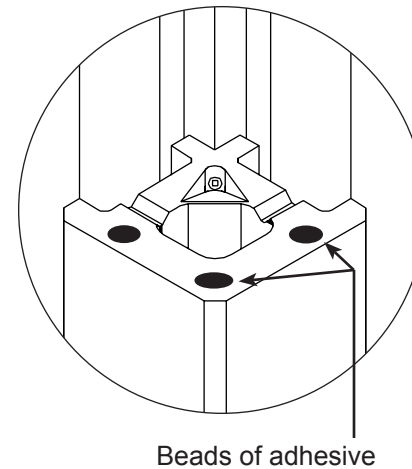
Note:

If the overhang is longer than 16 inches or if the wall is higher than one storey, check with a structural engineer.

## 90° Outside Corner Installation

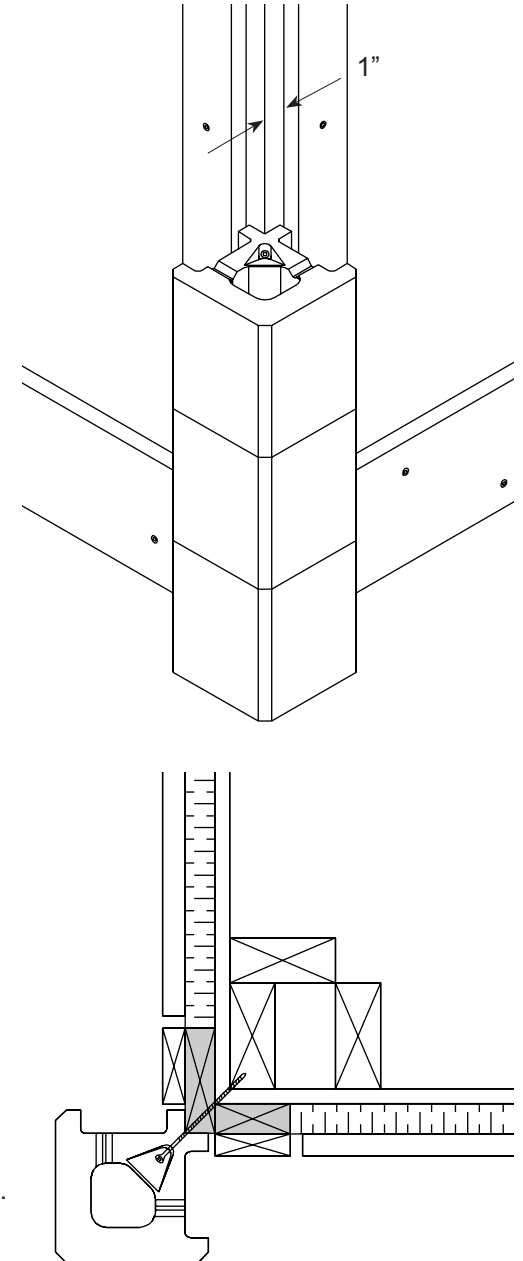
Old generation 90° outside corner block.

- Make sure the baseboard and the furring strips are held back 1 inch from the edge.
- Drill a hole at a 30° angle in the corner block.
- Fasten each block with one #10 4" long corrosion-resistant screw.
- Apply a small amount of construction adhesive in between each block to lock them together.



### Corner on Rigid Insulation

- Replace insulation at the corner by continuous wood blocking to secure corner block when installing Novabrik over rigid insulation.





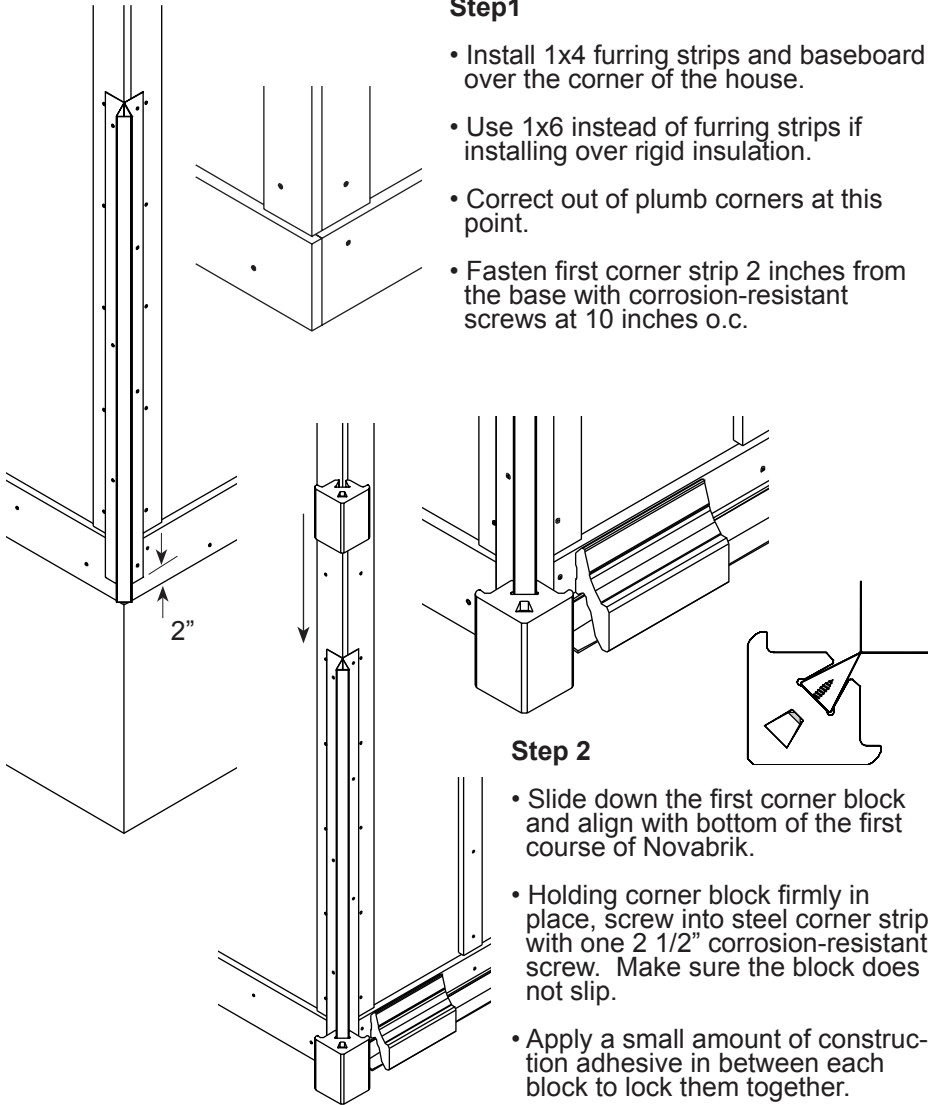
## New Generation 90° Outside Corner Block (check availability)

This 90° outside corner block is easier and faster to install than the previous generation.

Pre-drill a hole at a 30° downward angle in the notch of each corner block before installation.

### Step 1

- Install 1x4 furring strips and baseboard over the corner of the house.
- Use 1x6 instead of furring strips if installing over rigid insulation.
- Correct out of plumb corners at this point.
- Fasten first corner strip 2 inches from the base with corrosion-resistant screws at 10 inches o.c.



### Step 2

- Slide down the first corner block and align with bottom of the first course of Novabrik.
- Holding corner block firmly in place, screw into steel corner strip with one 2 1/2" corrosion-resistant screw. Make sure the block does not slip.
- Apply a small amount of construction adhesive in between each block to lock them together.

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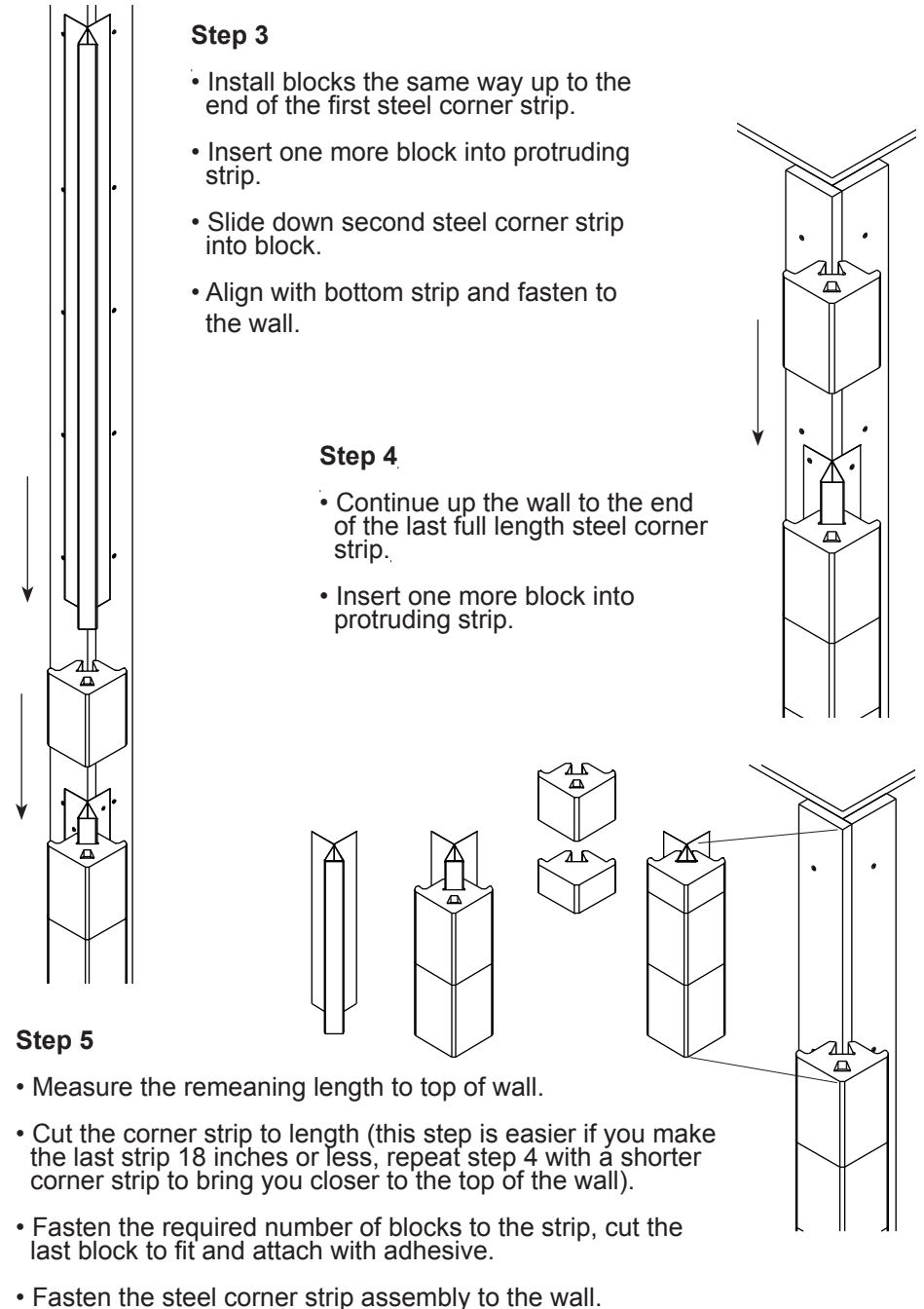
## New Generation 90° Outside Corner Block (check availability)

### Step 3

- Install blocks the same way up to the end of the first steel corner strip.
- Insert one more block into protruding strip.
- Slide down second steel corner strip into block.
- Align with bottom strip and fasten to the wall.

### Step 4

- Continue up the wall to the end of the last full length steel corner strip.
- Insert one more block into protruding strip.



### Step 5

- Measure the remaining length to top of wall.
- Cut the corner strip to length (this step is easier if you make the last strip 18 inches or less, repeat step 4 with a shorter corner strip to bring you closer to the top of the wall).
- Fasten the required number of blocks to the strip, cut the last block to fit and attach with adhesive.
- Fasten the steel corner strip assembly to the wall.

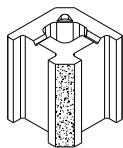
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## 90° Inside Corner Installation (check availability)

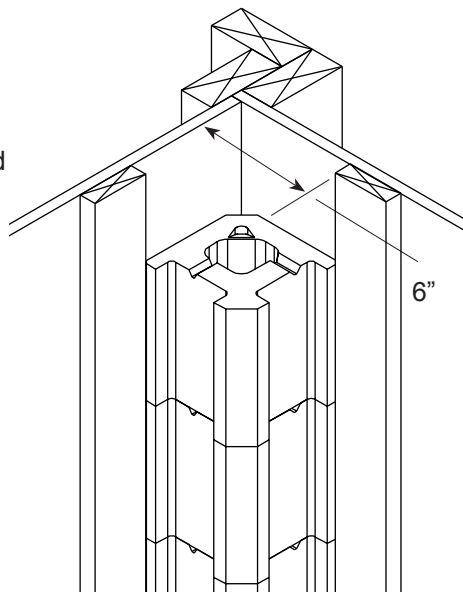
Inside corners are built using an inside corner block or by overlapping one brick facing over the other.

### Old Generation

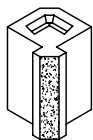


Depending on how the house is framed and the type of sheathing, you may need to adjust installation.

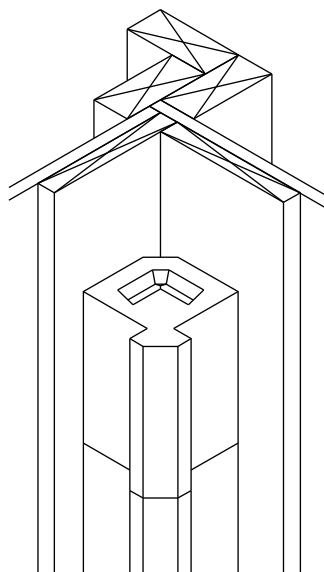
- Install furring strips at least 6" from the corner (check fitting with corner block).
- Pre-drill a hole at a 30° downward angle in each corner block.
- Use a 4" long corrosion-resistant screw to fasten each block. Apply construction adhesive between blocks.



### New Generation



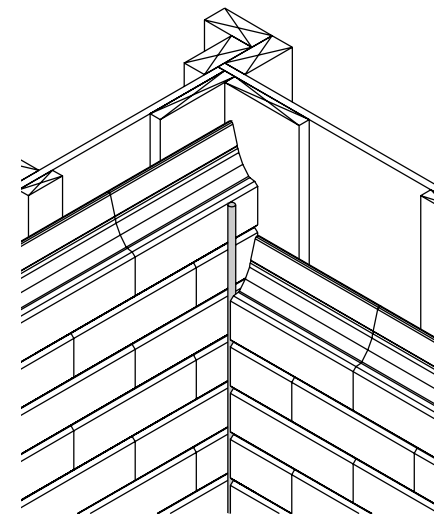
- Install 1 in. x 6 in. boards over the corner of the house. Correct out of plumb or uneven corners at this point.
- Pre-drill a hole at a 30° downward angle in each corner block. Align the holes towards the studs in the wall.
- Use a 4" long corrosion-resistant screw to fasten each block. Apply construction adhesive between blocks.



## Inside Corner - Overlapping Bricks

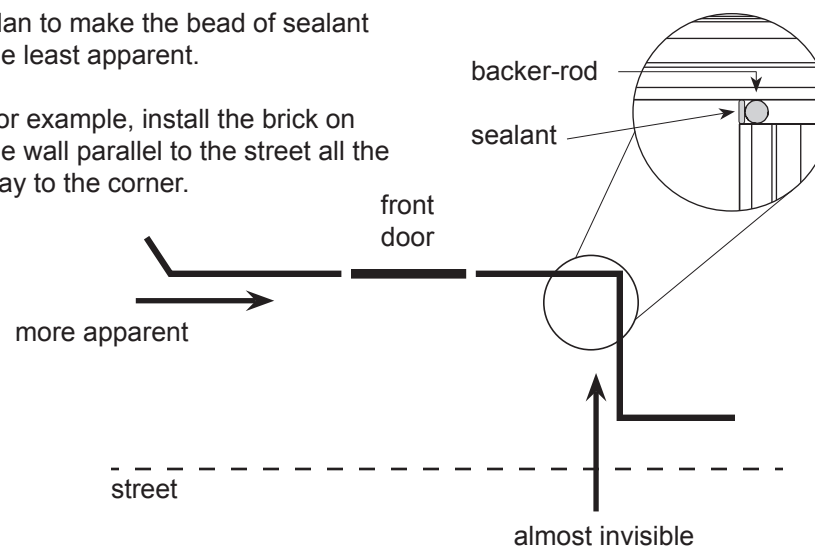
### Overlapping Bricks

- At each inside corner use 1 in. x 6 in. boards for furring strips.
- Make sure the screws are attached to the framing.
- Be sure to use housewrap or an ice and snow shield behind to insure moisture protection.
- Install Novabrik on one wall all the way to the corner.
- As you install the adjoining wall, lay a cord of backer-rod up the brick wall.
- Cut and attach end pieces to achieve a consistent 3/8 inch gap.
- Run a bead of sealant down the entire joint between the bricks.



Plan to make the bead of sealant the least apparent.

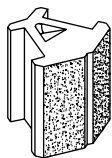
For example, install the brick on the wall parallel to the street all the way to the corner.



## 45° Outside Corner Installation (check availability)

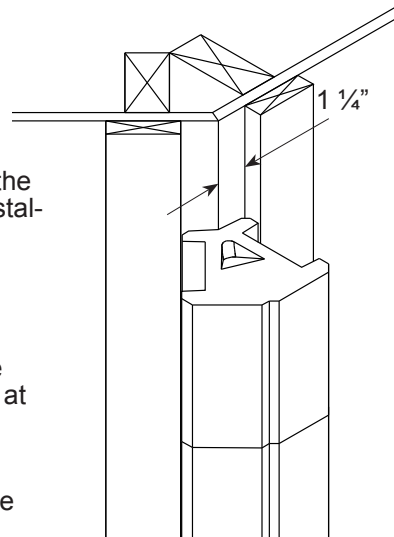
Use these corner blocks for turrets, bay windows and for any other corner with angles between 15° and 75°.

### Old Generation

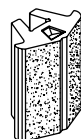


Depending on how the house is framed and the type of sheathing, you may need to adjust installation.

- Install furring strips at least 1-1/4" from the corner (check fitting with corner block).
- Find where you have solid wood behind the sheathing and drill a hole in the corner block at this angle.
- Use a 4" long corrosion-resistant screw to fasten block. Apply construction adhesive between blocks.

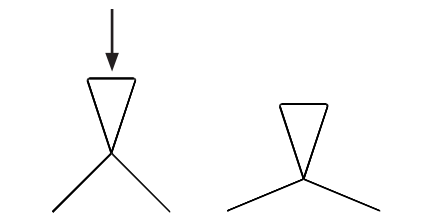


### New Generation

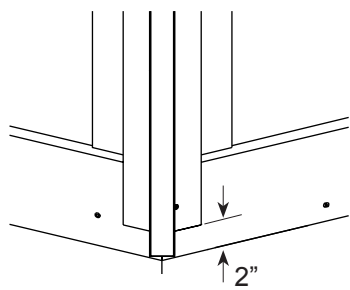


This 45° outside corner block is installed exactly the same way as the 90° outside corner block (see pages 14-15), using the same galvanized steel corner strip.

- Install 1x4 furring strips and baseboard over the corner of the house.
- Bend the steel corner strip to the appropriate angle.
- Use 1x6 instead of furring strips if installing over rigid insulation.
- Correct out of plumb corners at this point.
- Fasten first corner strip 2 inches from the base with corrosion-resistant screws at 10 inches o.c.

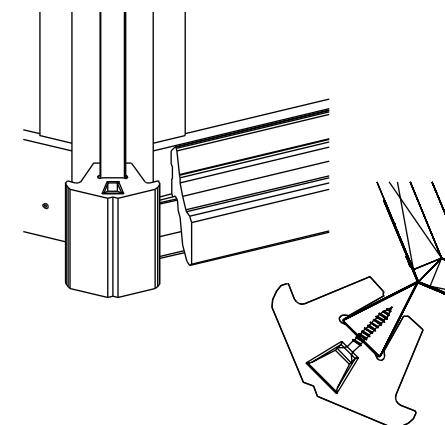


Bend the corner strip to the appropriate angle by pushing it against a flat surface with your hands.

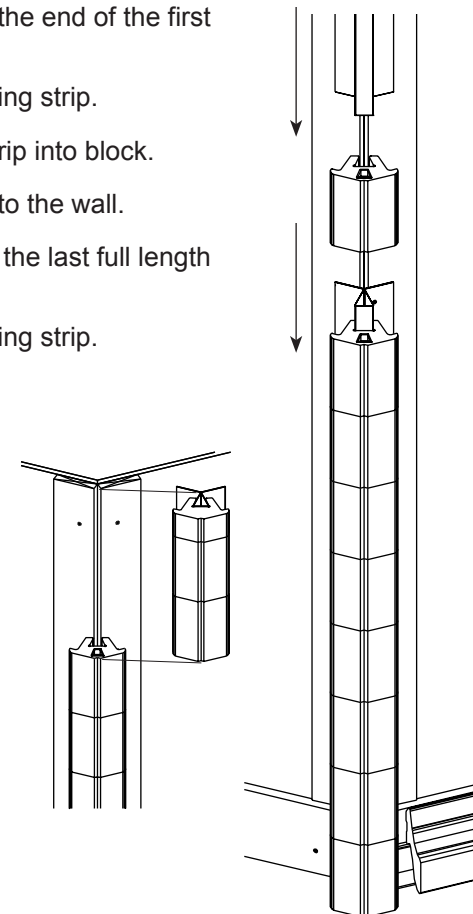


## 45° Inside Corner Installation (check availability)

- Slide down the first corner block and align with bottom of the first course of Novabrik.
- Holding corner block firmly in place, screw into steel corner strip with one 2 1/2" corrosion-resistant screw. Make sure the block does not slip.
- Apply a small amount of construction adhesive in between each block to lock them together.
- Install blocks the same way up to the end of the first steel corner strip.
- Insert one more block into protruding strip.
- Slide down second steel corner strip into block.
- Align with bottom strip and fasten to the wall.
- Continue up the wall to the end of the last full length steel corner strip.
- Insert one more block into protruding strip.

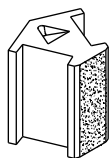


- Measure the remaining length to top of wall.
- Cut the corner strip to length (this step is easier if you make the last strip 18 inches or less, repeat step 4 with a shorter corner strip to bring you closer to the top of the wall).
- Fasten the required number of blocks to the strip, cut the last block to fit and attach with adhesive.
- Fasten the steel corner strip assembly to the wall.



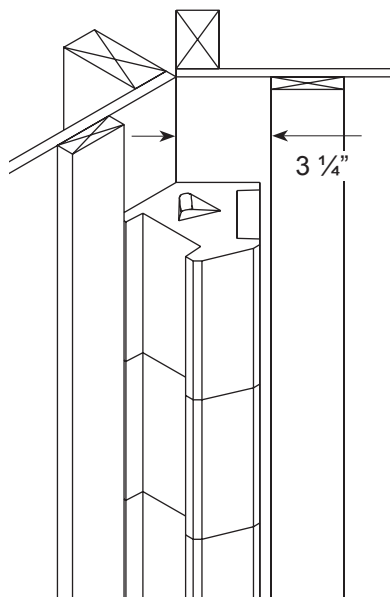
## 45° Inside Corner Installation (check availability)

### Old Generation

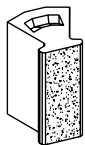


Depending on how the house is framed and the type of sheathing, you may need to adjust installation.

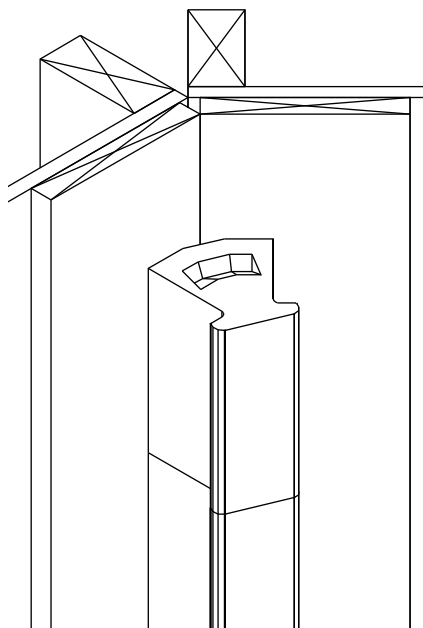
- Install furring strips at least 3-1/4" from the corner (check fitting with corner block). Replace fiber board sheathing with OSB or plywood for this section.
- Find where you have solid wood behind the sheathing and drill a hole in the corner block at this angle.
- Use a 4" long corrosion-resistant screw to fasten block. Apply construction adhesive between blocks.



### New Generation



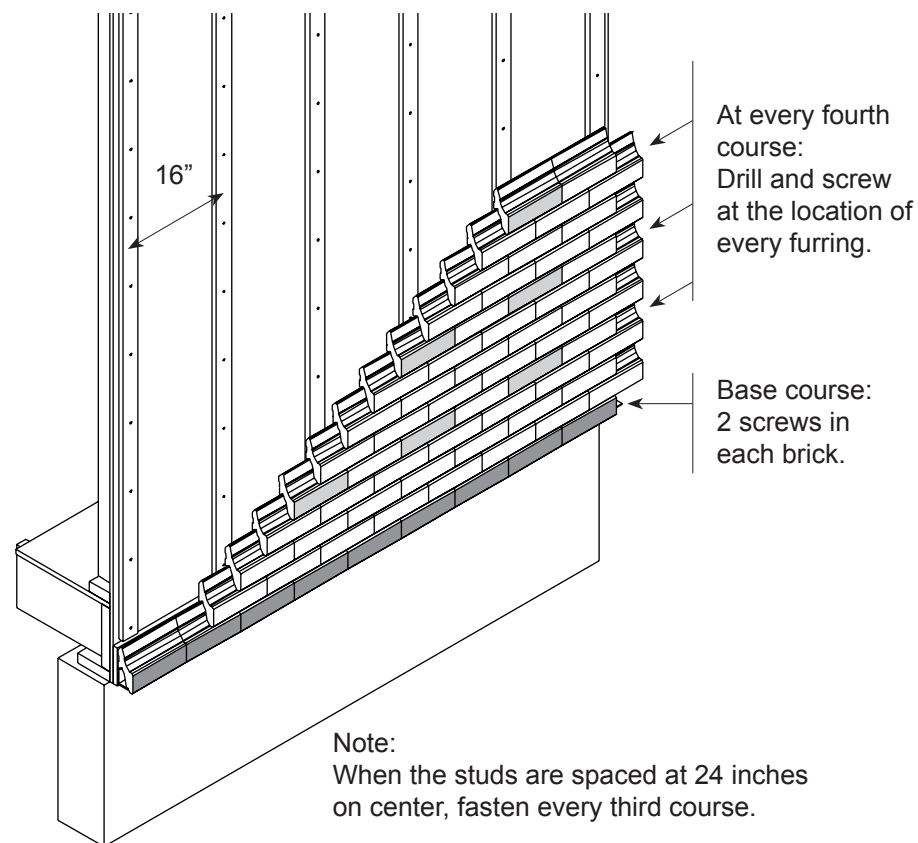
- Install 1x6 boards over the corner of the house. Correct out of plumb or uneven corners at this point.
- Pre-drill a hole at a 30° downward angle in each corner block. Align the holes towards the studs in the wall.
- Use a 4" long corrosion-resistant screw to fasten each block. Apply construction adhesive between blocks.



## Novabrik Installation

With all the prep work completed, you are ready to start installation.

- Pre-drill the bricks for the base course with two holes before placing them in position. Avoid drilling screw holes in the center of the bricks.
- Don't set the screws too tight. Hold the brick flat and stop the screw when the head touches the brick. Install the screws at a slight downward angle.
- Always install the bricks in staggered rows.
- Be sure to mix four Novabriks from each of the pallets as you stack and install. This will blend the Novabriks together.
- The first course must absolutely be level. A long straight edge can help. Be sure to check for straightness every fourth course before fastening.
- Use your rubber mallet to tap the bricks in place and brush down with a small broom to remove dirt and dust.

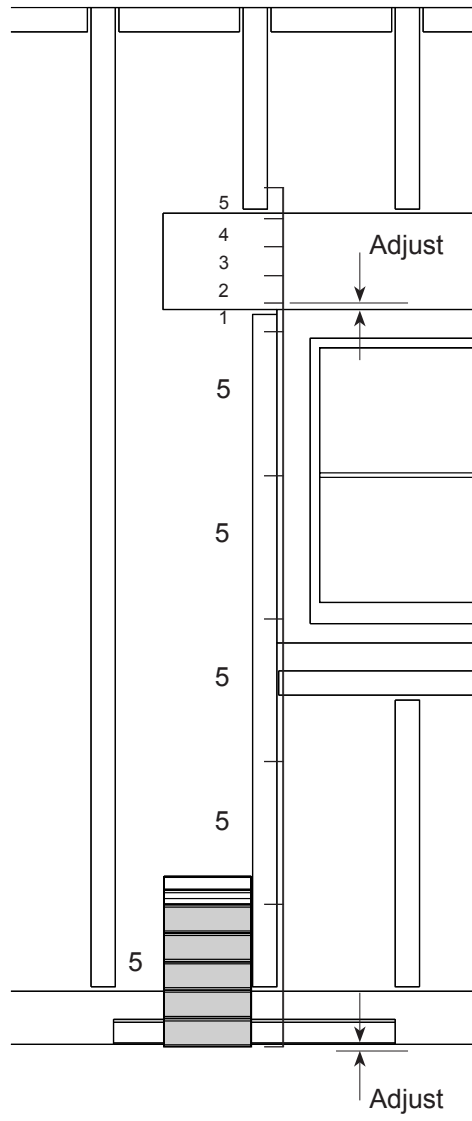


## Vertical Alignment

Your goal is to fine tune the starting point of the Novabrik so it stacks up to meet the top of the main door and window openings.

If you plan on installing a soldier course above openings, start from the lowest point and skip this step.

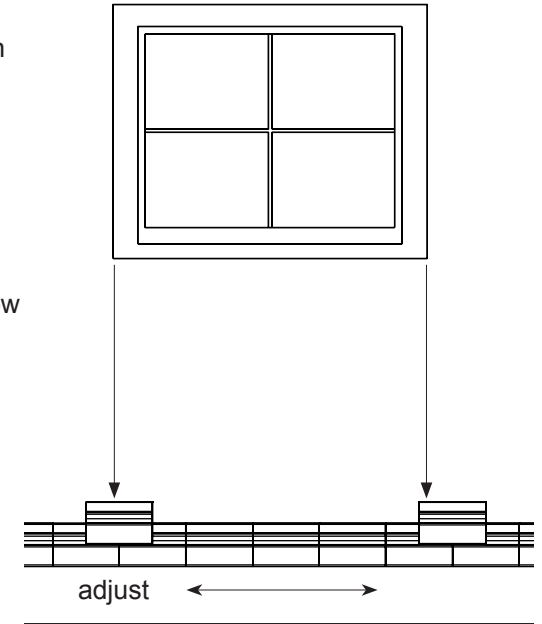
- Tack a piece of starter strip near the bottom of the base board below the main window.
- Stack up 5 Novabrik and mark the location of the top brick on the nearest furring.
- Measure the height of the 5 bricks and divide by 5 to get the height of 1 brick.
- Use a level and mark the top of the window on the same furring strip (take into account the window trim if you use it).
- Measure up the furring strip in groups of 5 bricks until you get to the top of the window.
- Mark off single brick lines and compare the line closest to the top of the window.
- Adjust the location of the starter strip up or down to get the proper height.
- Mark the final location of the starter strip on several spots along the baseboard.
- Snap a chalk line across the baseboard and install the starter strip from end to end.



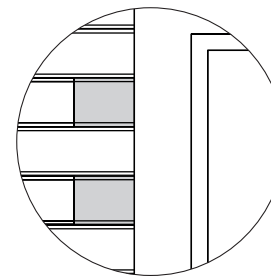
## Horizontal Alignment

Your goal here is to locate the bricks so the pattern fits around your windows with the least amount of small pieces needed.

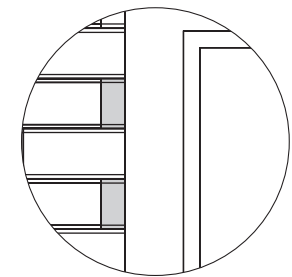
- Place a row of Novabrik on the starter strip.
- Check the alternating courses by placing two Novabrik on the second row as shown.
- Sight down from the window corners to see how the seams line up.
- Adjust the first row in a way that gets the best fit around the windows.



RIGHT



WRONG



You can make adjustments below and above the door if needed to improve the fit around the windows.

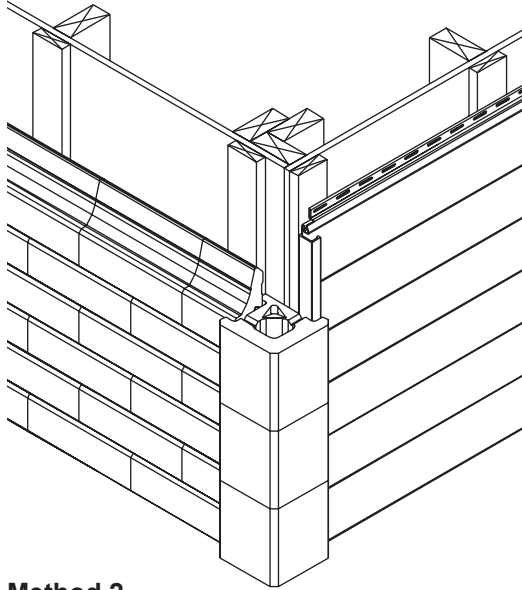
In order to avoid using smaller pieces around the windows, you can double cut the brick above and below the door.

## Installation with Existing Siding

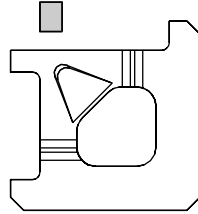
There are two methods to install Novabrik on your facade only, leaving your existing siding on the sides. We recommend you use the second method.

Using the **old generation corner blocks**.

### Method 1



- Saw off one of the back wings as shown below .

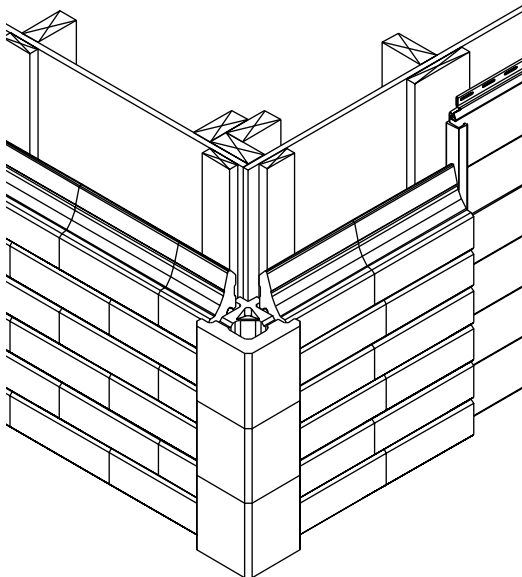


- Bring the corner block towards the middle of the facade, leaving only the necessary depth for the siding.

**This method makes it difficult to install Novabrik on the sides in the future.**

**We recommend you use the second method.**

### Method 2



- Install the corner block in the usual way.
- Cut the siding and install Novabrik up to the first stud.
- Install new J channel and apply caulking at the joint.

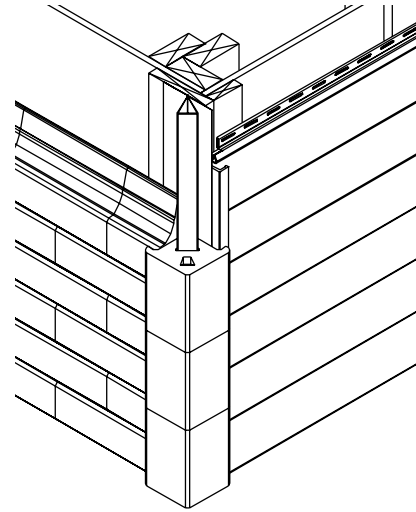
**When you decide to replace the rest of the siding, simply remove the Novabrik already installed and start over from the corner block.**

## Installation with Existing Siding

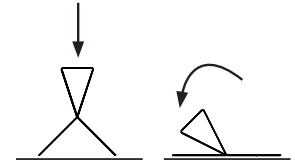
Again, we recommend you use the second method. This way, the job will be easy when the time comes to replace the rest of your siding with Novabrik.

Using the **new generation corner blocks**.

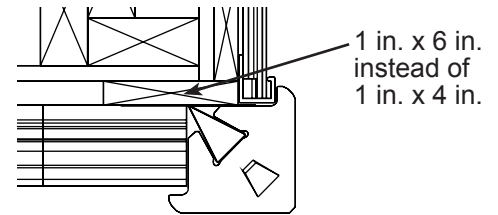
### Method 1



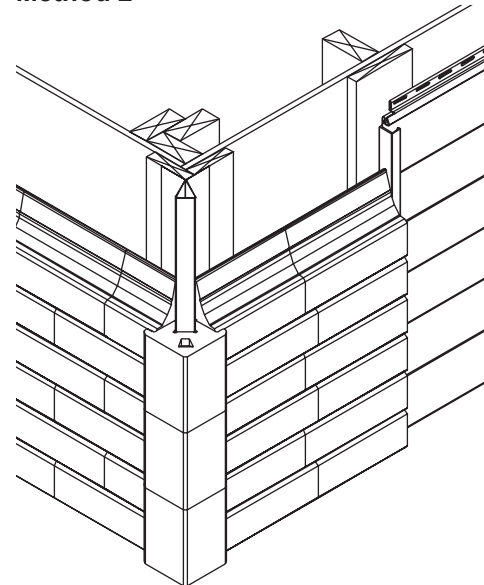
- Bend the corner strip by pushing it against a flat surface and twisting it with your hands.



- Bring the corner block towards the middle of the facade, leaving only the necessary depth for the siding.



### Method 2



**The first method makes it difficult to install Novabrik on the sides in the future.**

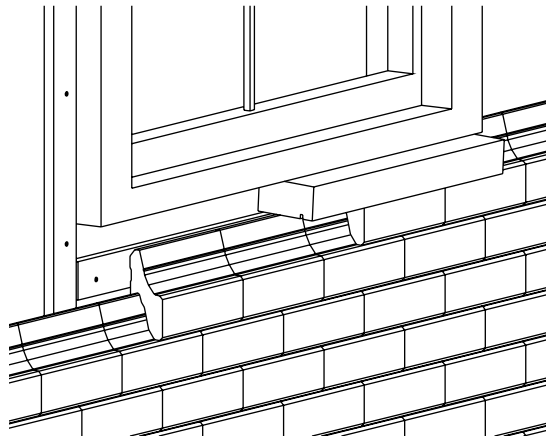
**We recommend you use the second method.**

- Install the corner block in the usual way.
- Cut the siding and install Novabrik up to the first stud.
- Install new J channel and apply caulking at the joint.

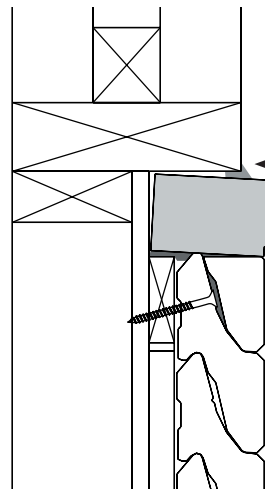
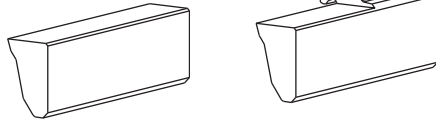
## Window Sill Installation

Window sills require a bit of cutting and fitting. Install sill at a downward angle to provide for water run off. Cut sills to equal length for a better look under longer windows.

- Make sure there is enough space between the window frame and the horizontal furring strip to insert the window sill.
- Cut the top of the bricks under the window if you need to.
- Apply a large bead of adhesive along the top of the bricks and the horizontal furring.
- Insert sill blocks under window frame and set into adhesive.
- Insert a small filler piece and attach with adhesive.
- Caulk between bottom of window and top of sill.



Cut filler pieces to fit under the window sill and secure with adhesive.



caulk between window frame and sill

secure sill and filler piece with construction adhesive

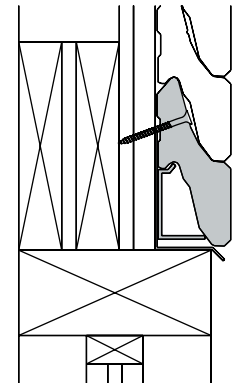
fasten each Novabrik under window sill with 2 screws, cut the top of the bricks if necessary

## Installation Above Openings

This page shows installation of a horizontal course above openings. Installing a soldier course is shown on page 30.

Remember to install a  $\frac{3}{4}$  inch thick plywood reinforcement header sized according to the table found on page 10. Cover this header with housewrap or polyethylene flashing.

- Fasten plywood header sized according to table on page 10.
- Install aluminum flashing over opening (have it bent to size from trim coil).
- Cover plywood and metallic flashing with polyethylene flashing or housewrap.
- Install starter strip to bridge opening and fasten each brick on the starter with 2 screws.

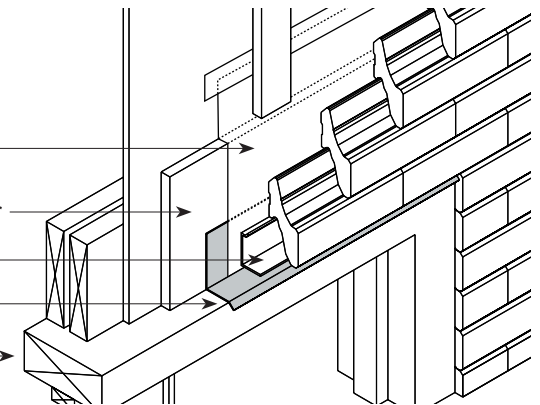


housewrap or flexible flashing tucked under housewrap

plywood reinforcement header

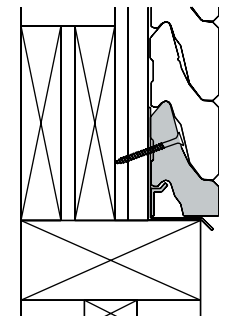
starter strip  
standard aluminum flashing

window frame



It may be impossible to have a full brick above all openings, especially on a 2-story wall. You then have to cut the bricks above the opening horizontally.

Cut the starter strip as well so you have a level line to install the bricks. Installing a soldier course is a very attractive alternative to horizontal cuts.



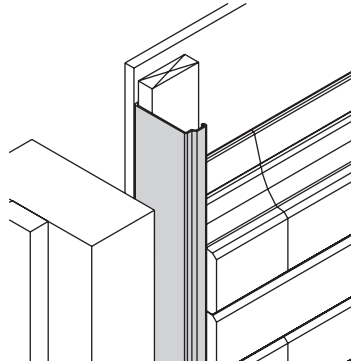
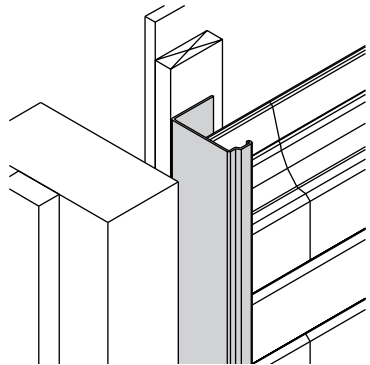
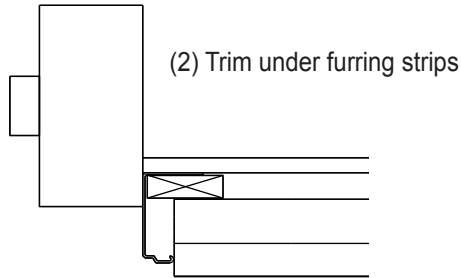
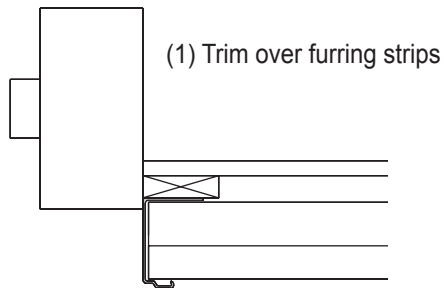
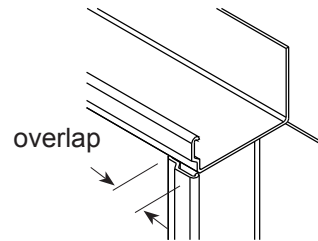
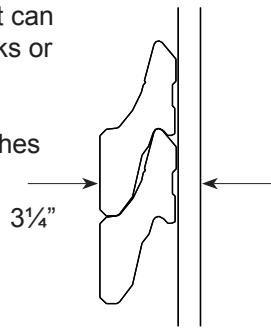


## Window Trim (check availability)

Window trim is used to extend the window frame out. It can be installed in two ways. Covering the edge of the bricks or giving Novabrik an edge to butt up to.

Note that the furring strip and Novabrik will add 3 ¼ inches to the face of your wall.

- Cut the trim pieces to the proper length for the sides and top (make sure the top piece overlaps the sides), on windows, cut the bottom of the side pieces at a slight angle for the sill.
- Install the trim over the furring strips if you want the trim to cover the bricks (1), or install the header and furring strips over the back of the trim if you want the bricks to butt up to it (2).

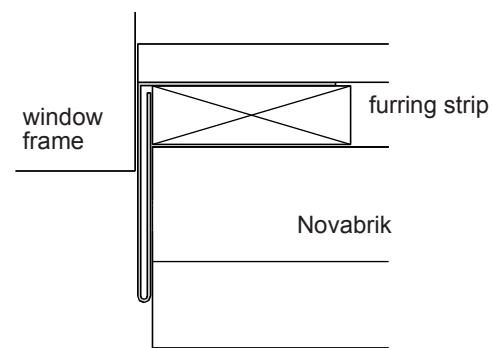


- Tack the trim in place using small galvanized nails.
- Once the job is complete, apply caulking between the trim and the window frame, and between the trim and the edge of Novabrik for the second case.

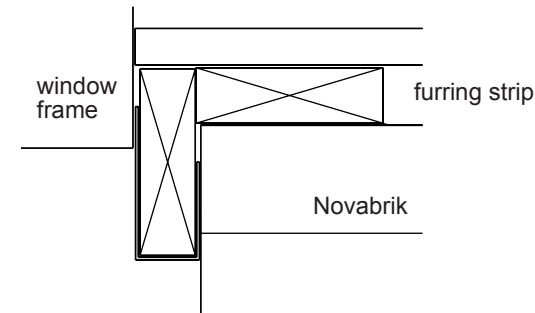
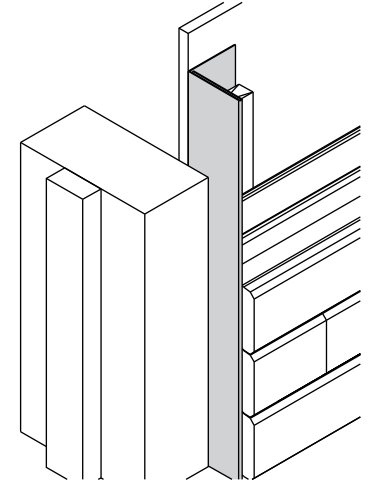
## Aluminum Window Capping

Aluminum can also be used to extend the window frame out to give a clean, finished edge.

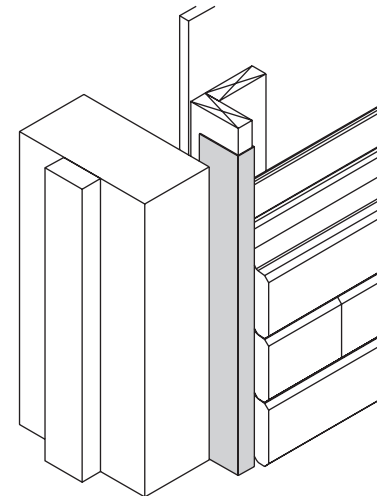
There are different ways to cap the sides of openings. Two common ways are shown below. Unless you own a metal brake, you will have to find a place to get your aluminum bent. Take your measurements and make a drawing of what you need. Do not forget the flashing above openings.



- Tack in place the aluminum piece.
- Fasten the furring strip over the aluminum.



- Tack wood blocking next to window frame.
- Fasten the furring strip next to it.
- Cover wood blocking with aluminum.



Remember to apply caulk along the window frame and the aluminum, and the aluminum and the brick.

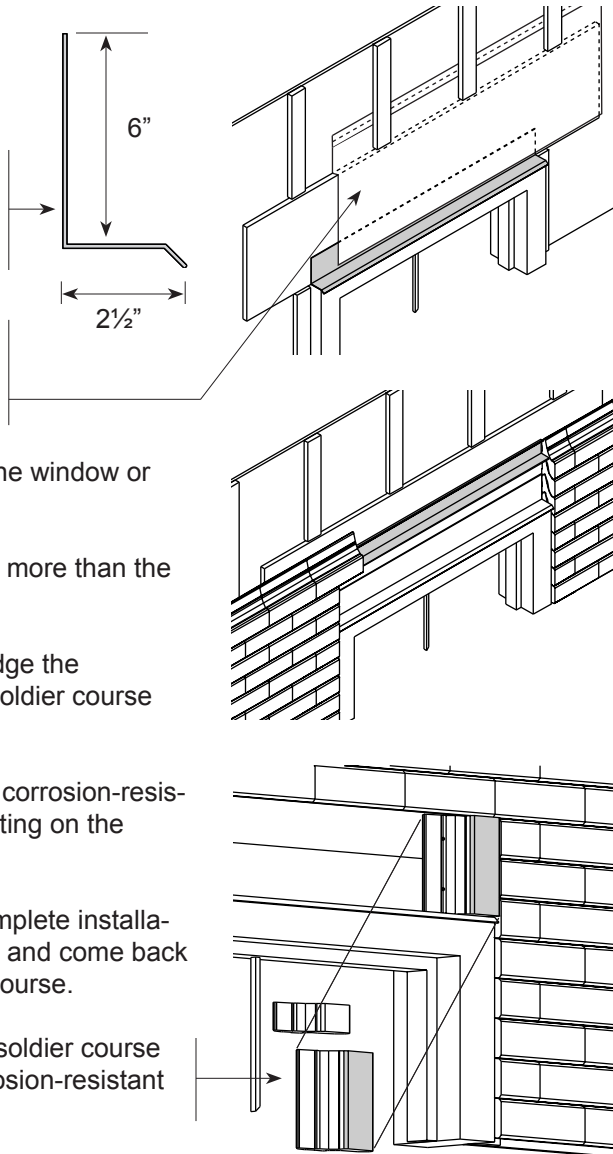


## Soldier Course Installation

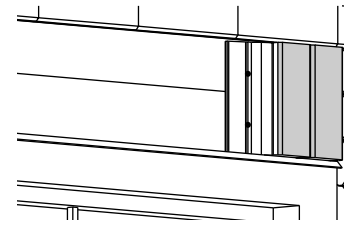
A soldier course above windows and doors not only is pleasing to the eye, it can be easily cut to adjust to the brick coursing for a perfect fit.

Follow the steps below:

- Fasten a 15" high 3/4" thick plywood over the opening.
- Install aluminum flashing over opening (have it bent to size from trim coil).
- Cover plywood and metallic flashing with polyethylene flashing or housewrap.
- Stack Novabrik around the window or door.
- Leave a space above no more than the length of one Novabrik.
- Attach starter strip to bridge the brick course above the soldier course opening.
- Install Novabrik with two corrosion-resistant screws per brick resting on the starter strip.
- At this point, you can complete installation to the top of the wall and come back to complete the soldier course.
- Cut to length and install soldier course in opening with two corrosion-resistant screws per brick.



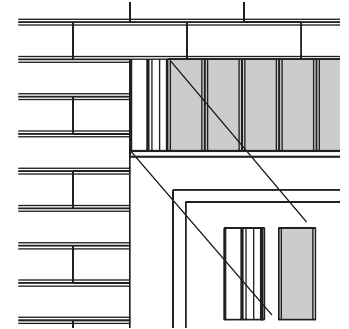
## Soldier Course Installation



- Install the rest of the soldiers in the same way.
- Remove the top part of the last Novabrik soldier and glue in place.

Note:

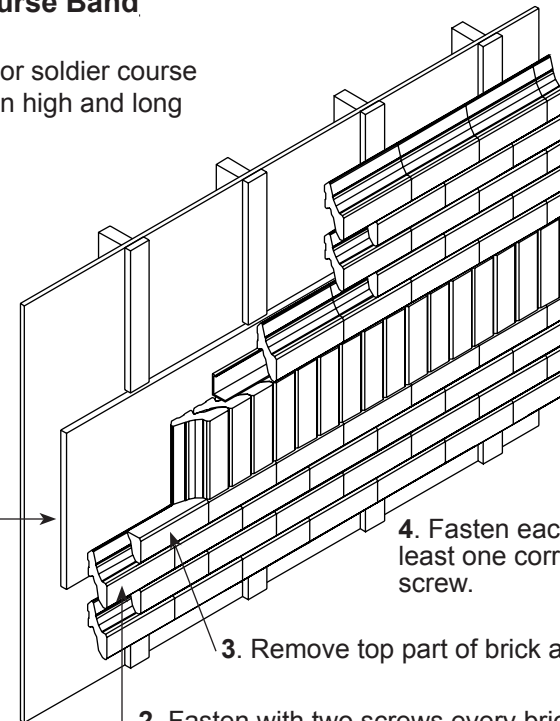
If you need to cut a brick to fit the width of the opening, start installing soldiers at both ends and cut the brick in the middle of the opening.



### Soldier Course Band

A second color soldier course looks good on high and long walls.

1. Fasten 18" high plywood to studs and cover with flashing or house wrap.



2. Fasten with two screws every brick on this course.
3. Remove top part of brick and glue in place.
4. Fasten each soldier with at least one corrosion-resistant screw.
5. Install starter strip above soldier course and fasten each brick with two screws. Continue up the wall fastening bricks at each furring strip every fourth course.

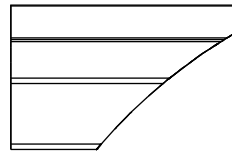
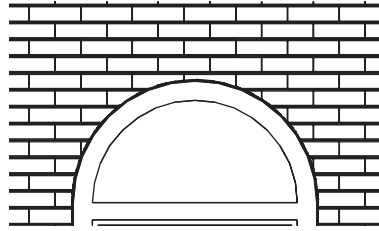
## Rounded Openings

Installing Novabrik over round head windows or doors can be done in two ways. A horizontal course or a soldier course forming an arch. Arches can only be realized over openings with a large radius.

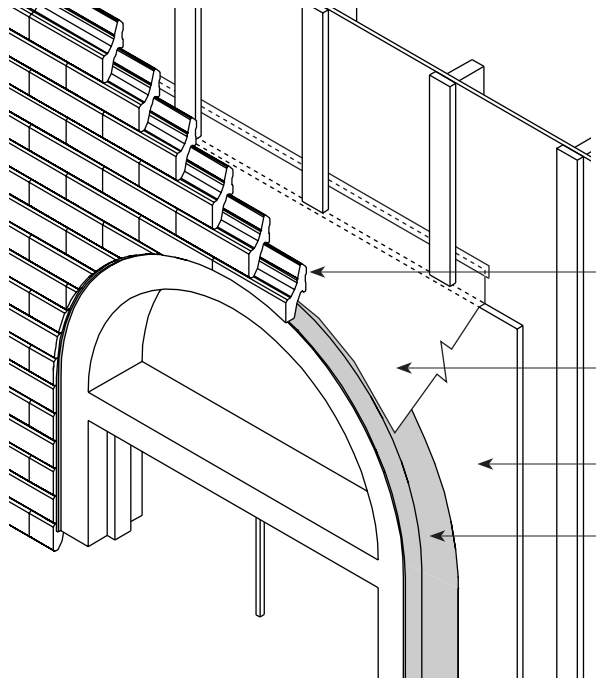
In both cases, flashing around the opening is very important. Good quality materials and attention to details are critical.

### Horizontal Coursing

- Fasten a 3/4" thick plywood over the opening (size according to table on page 10).
- Install aluminum flashing around opening.
- Cover plywood and aluminum flashing with polyethylene flashing or housewrap.
- Cut Novabrik using a grinder with a 4" masonry blade to follow the contour of the opening.
- Apply caulk between the window frame and aluminum flashing.



Use a grinder with a 4" masonry blade to follow the contour of the opening.



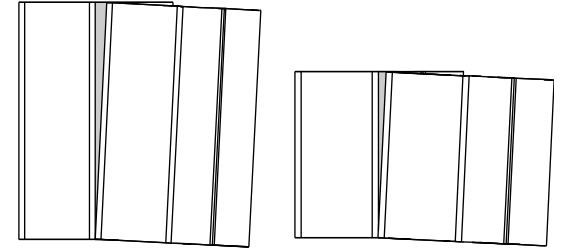
- cut Novabrik to follow window frame
- housewrap covering plywood and aluminum flashing
- plywood reinforcement header
- aluminum flashing

## Making an Arch

### Making an Arch

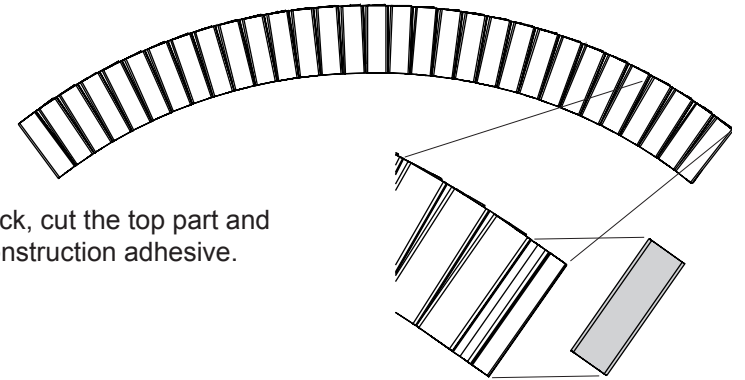
Arches are done by opening the joint between the bricks at one end. The width of the gap is limited by aesthetics.

This is why arches are limited to openings with a large radius.



Reducing the height of the brick will allow for a shorter radius.

- Prepare the opening as shown on the previous page, with plywood reinforcement header and housewrap or polyethylene flashing covering plywood and aluminum flashing.
- Start from one end, fastening each brick with 2 screws and applying a large bead of construction adhesive between the bricks.

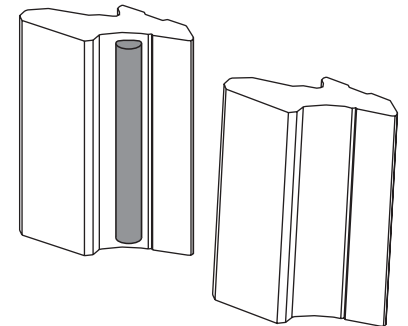


- For the last brick, cut the top part and secure with construction adhesive.

### Sealing the arch

Apply a large bead of construction adhesive between the bricks before you set them in place with two screws per brick. This will prevent water penetration.

Remember to install aluminum flashing over the opening and cover with housewrap or polyethylene flashing.



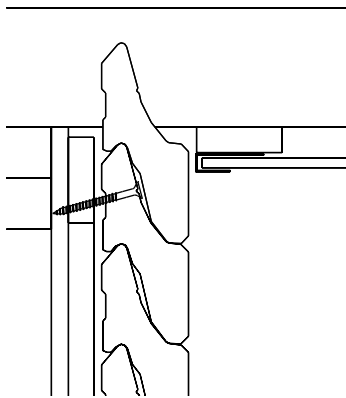
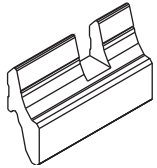
## Soffit Details

The three most common ways to install Novabrik at the top of the wall are shown here. Best results will be achieved using a shadow box or by running Novabrik up into the open eave and installing a new soffit.

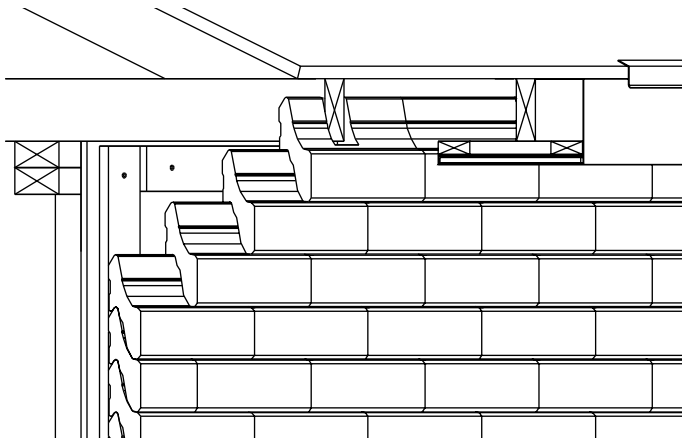
On gable ends, install a new soffit against the Novabrik wall or use a shadow box.

### New Soffit

- Install Novabrik up beyond the soffit line.
- Cut the bricks to fit under the roof trusses if necessary.



- Secure the second course from the top with corrosion-resistant screws.
- Set in place the last course with construction adhesive.
- Install new soffit, resting the j-trim against the Novabrik face.
- On gable ends, you may need to cut the top of the bricks at an angle.

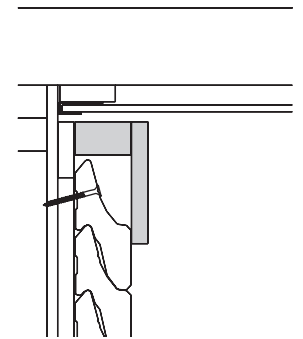
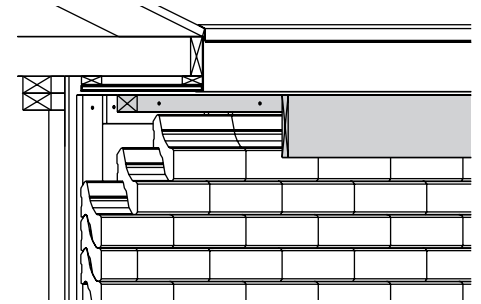


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## Soffit Details

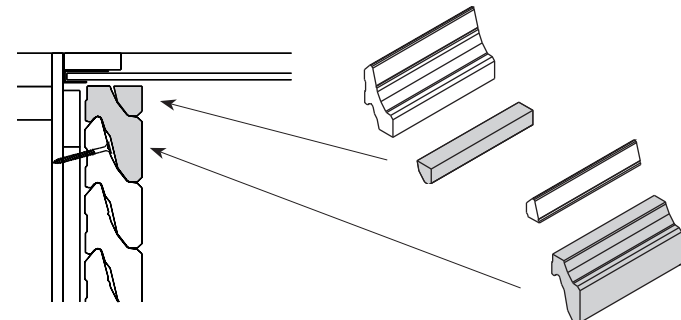
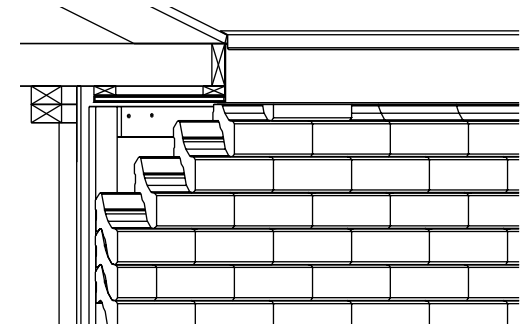
### Shadow Box

- To make a shadow box, attach 2" x 3" spacers on edge just below the soffit along the length of the wall.
- Secure the top row of brick with corrosion-resistant screws.
- You may need to cut the last brick to fit under the 2" x 3".
- Apply adhesive to secure the last row if you cannot use screws.
- Attach a 1" x 6" to the 2" x 3" with galvanized nails (you may wish to clad this to match your fascia and soffits).



### Existing Soffit

- Install full bricks as high as possible.
- Cut the top of the brick to fit under the existing soffit.
- Insert a filler piece and attach with construction adhesive.

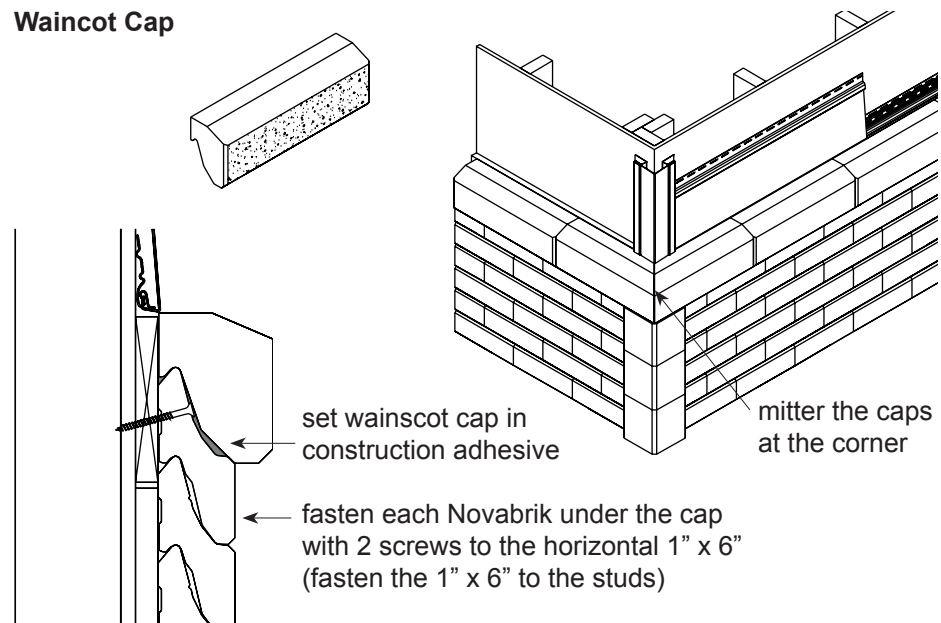


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## Wainscot Cap (check availability)

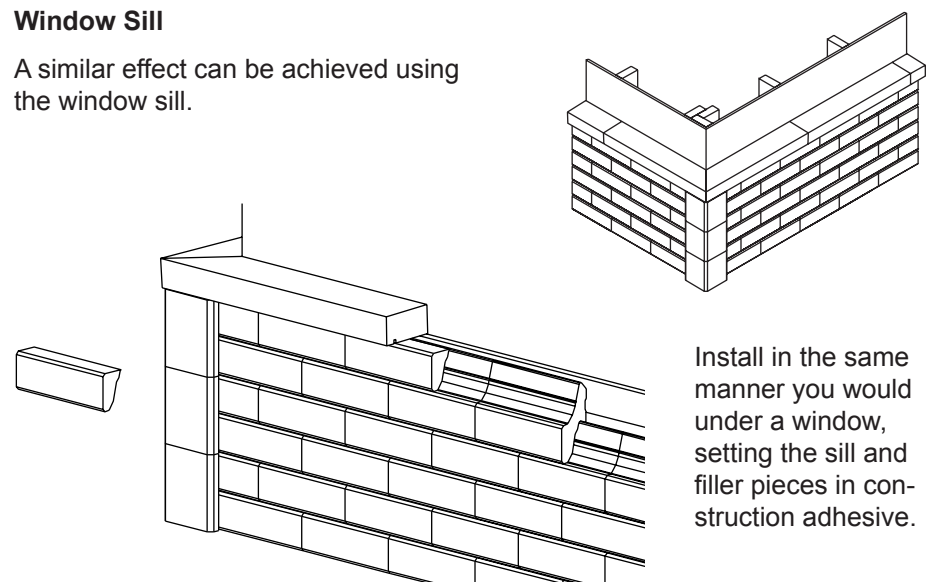
Wainscotting is a very popular look in some areas of the country. A wainscot cap was specially designed for this application.

### Wainscot Cap



### Window Sill

A similar effect can be achieved using the window sill.



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US Patent # 6,108,995

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