



CHADSWORTH COLUMNS

PERGOLA BEAMS – INSTALLATION

In this document, Chadsworth is going to describe one method of installation for the Pergola beams to the columns and for flashing the columns. These methods have been used by different contractors to install these items across the country. Please understand that due to the literally hundreds of methods of attaching the Pergola Beams to the column shafts, Chadsworth does not recommend one method over another. However, these methods have been used successfully and are among the most common. Please feel free to contact me with any questions or concerns.

***** This is just an example of an installation method. *****

Flashing the Columns:

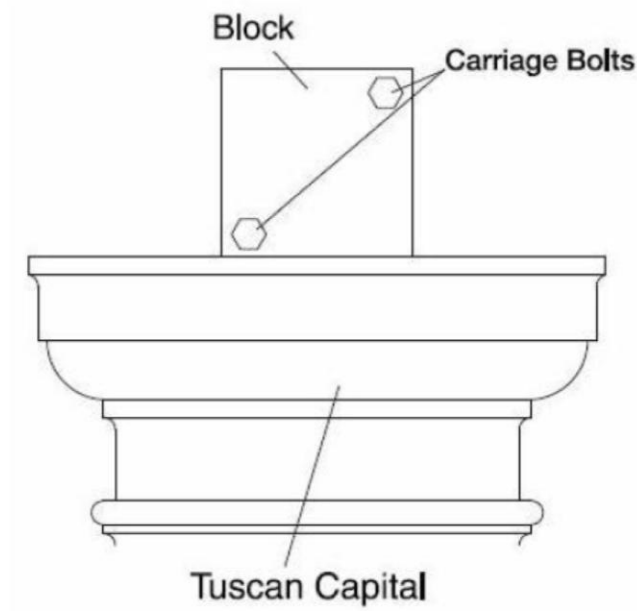
In this installation, it will be easier to install the capital and Pergola components if you just flash the shaft. Any number of materials may be used such as copper, tin, aluminum, PVC, plastic, fiberglass and vinyl. This material does not need to be thick. A 1/8" thickness of material in many cases will be plenty. Take a piece of one of the materials listed large enough to cover the top of the column shaft (approximately 10" in this case). Drill a hole in the center of the material large enough for the threaded rod to fit through. Then place the material over the shaft and trace the outline of the shaft onto the material. Remove the flashing material from the shaft and cut to this shape. Dry fit the cut out round flashing material to the top of the shaft and glue down with a waterproof construction adhesive.

Using a Block to attach the Pergola Beams:

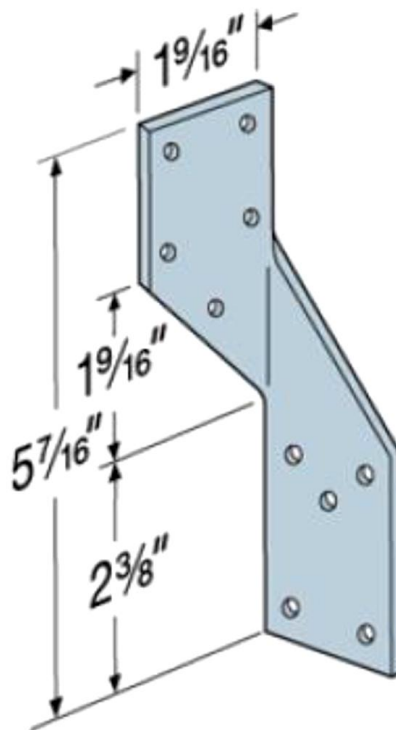
In this type of installation, you will fabricate a block to which the Pergola Beams will then attach. Decide upon the spacing desired between the two main Pergola beams. For instance, if you want approximately 3 1/2" between the beams, a standard 4" x 4" treated wood post will suffice as it is approximately 3 1/2" x 3 1/2" square. If less is desired, you may need to trim this piece. If more is desired you may use a 6" x 6" wood post, and etc. You can also use a steel beam or any other material available that would be considered structural (however, it will be an easier installation to keep to square material).

www.COLUMNS.com

PERGOLA BEAMS – INSTALLATION



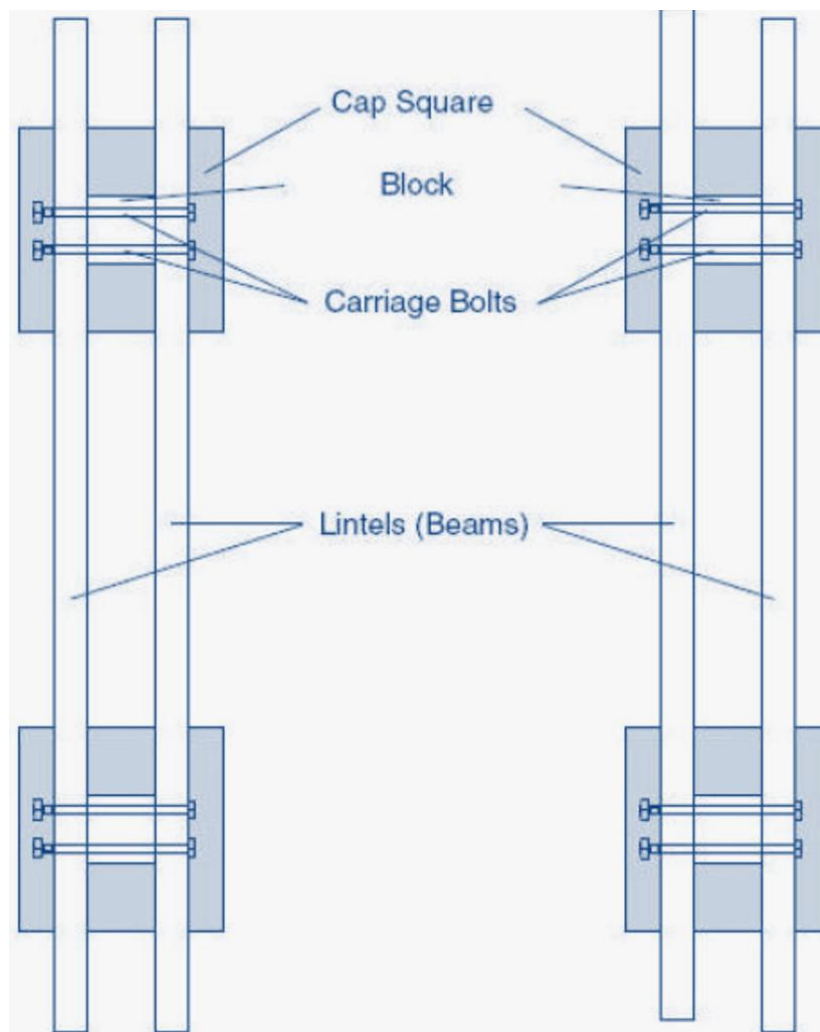
After you have determined the spacing of the beams and chosen the material to be used (and trimmed to size if necessary), the beam will need to be cut to size to become the block to attach the Pergola beams to. In other words this beam will need to be cut to a size at least larger than the diameter of the column shaft (10" approximately) and smaller than the size of the capital (14 1/2" approximately). The smaller the size, the more of the block will be hidden. The larger the size, the more of the block will show. The block does not need to be as tall as the Pergola beams.



www.COLUMNS.com

PERGOLA BEAMS – INSTALLATION

Now that you have the block cut to size, drill a hole through the center to accept the threaded rod. Dry fit the block. Place the capital over the shaft and let it slide down to allow the shaft to rise above. Install the block by placing it on the shaft with the threaded rod thru the center and tighten down by hand. You will need to adjust the angle of the block to ensure the proper alignment of the Pergola beams when installed. You can attach the block to the column shaft with 90 degree brackets (example below). Pre-drill any holes in the column shaft.



***** Note:** Depending on the type of bracket used, these can be installed prior to cap and block installation to give more room to make connections. These brackets only help to prevent twisting and are not designed to be the structural attachment. That is the purpose of the threaded rod. ******* Once the block is attached to the column and aligned, finish tightening the threaded rod.

***** Do not over tighten this nut as it could cause problems. *****

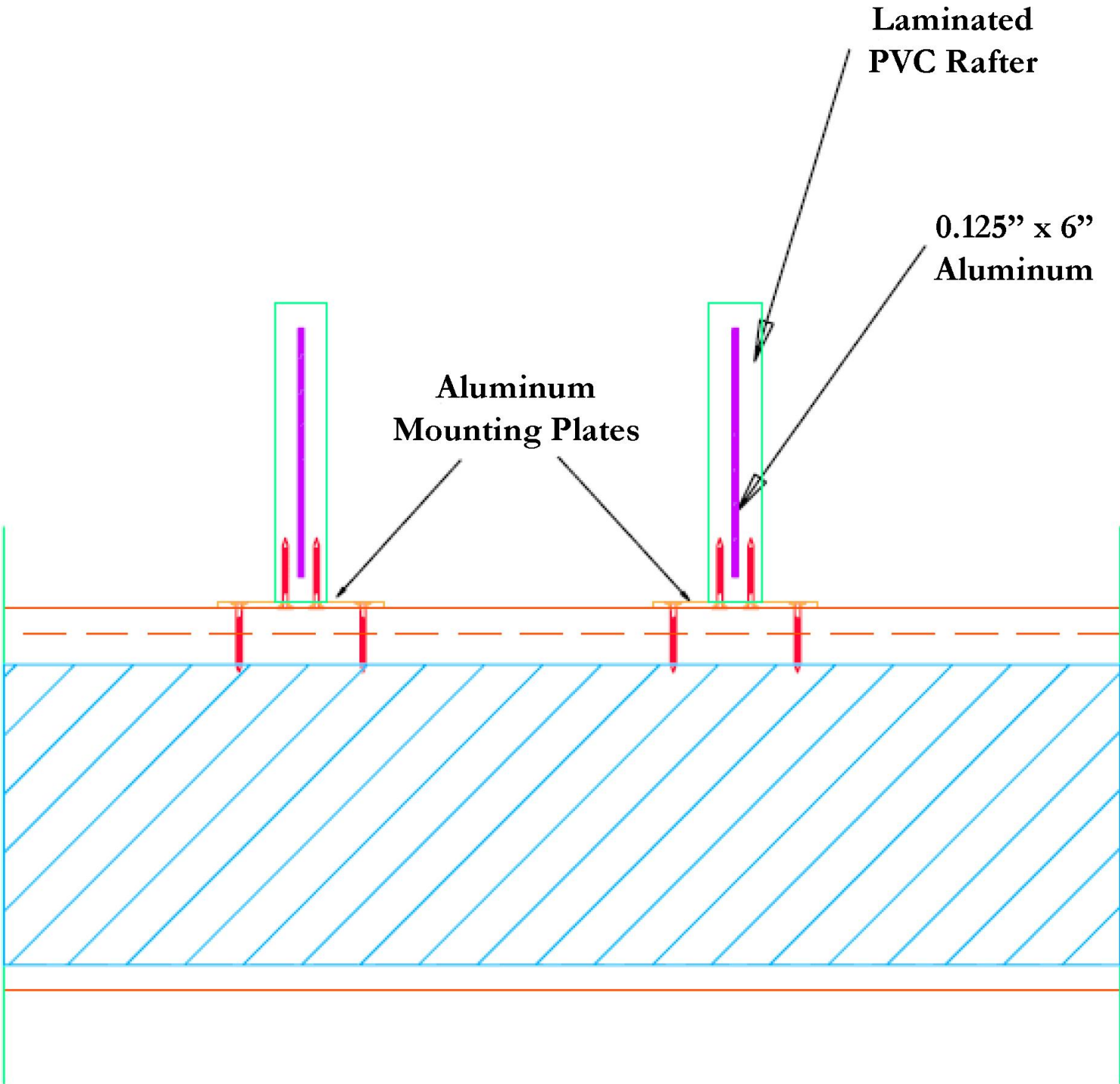
Now the Pergola beams can be attached to the blocks with galvanized screws or brackets, the capital can be attached to the bottom of the Pergola beams by pre-drilling holes and using galvanized screws and all painted.

www.COLUMNS.com

CHADSWORTH INCORPORATED

277 NORTH FRONT STREET ▪ HISTORIC WILMINGTON, NC 28401 ▪ PHONE: 1.800.486.2118 ▪ FACSIMILE: 1.910.763.3191 ▪ E-MAIL: sales@columns.com

RAFTER MOUNTING DRAWING



www.COLUMNS.com

FINISHING YOUR PERGOLA

PolyStone® Columns for Pergolas:

Finishing & Painting

1. Make sure all surfaces are clean prior to painting. Use mineral spirits if oil or alkyd products are used. Warm soapy water should be used if latex products are utilized.
2. It is necessary to sand the column and caps and bases prior to priming and painting. Some surface filling may be required. *Note: the surface on polyurethane caps and base/plinths must be thoroughly scuff sanded with 120 grit sandpaper and wiped clean prior to priming and painting.*
3. Alkyd or oil based primer and paint are recommended. Latex products can be used, but additional sanding is required. Only alkyd or oil based primer and paint must be used on PolyStone® columns, caps, astragals, and bases/plinths.
4. Use a good, high-quality exterior paint, at least one coat of primer and two coats of a final paint should be used.
5. Do not use paint or solvents containing acetone.

PVC Component Pergola Parts (Beams, Rafters, Lintels, & Purlins):

Finishing & Painting

1. Caulk any joints using Siroflex Brand DUO-SIL Urethane Acrylic Emulsion Sealant and Adhesive proved by manufacturer. Wipe off any excess caulk with a damp rag. Do not let caulk dry before trying to wipe it off.
2. Fill in any nail or screw holes with painter's putty, lightweight spackle, or automotive body filler such as "Bondo". Painter's putty is easier in use; however "Bondo" provides the best results.
3. When you are ready to paint, clean the surface of the parts to remove any dirt or soil residue with denatured alcohol followed by a wipe down with Windex. Do not use paint thinner to clean the surface of the PVC parts. It leaves a residue.
4. Apply coat of high quality, 100% acrylic latex exterior primer and one or more finish coats of high quality, 100% acrylic latex exterior paint.

Delivery, Storage, Handling and Repairs

- Transport, lift, and handle PVC parts with care, avoiding excessive stress and preventing damage. If a part is dented, fill dent with plastic automotive body filler such as "Bondo". Sand filler flush with face of pergola component, prime, and repaint.
- If PVC part is struck by a hammer or other hard object and cracked, glue crack with 5-minute epoxy glue. Then, fill area over crack surrounding crack with "Bondo".

Installation Precautions and Methods

- Temperature –PVC component parts may become brittle in colder temperatures and are more susceptible to damage. It is recommended that the parts be warmed to 50 to 55 degrees before installing.
- Cutting and Fastening – Pneumatic finish nailers and staplers can be used to fasten cellular PVC parts together. Large pneumatic framing staplers and nailers are not suitable for fastening this material.
- Painting – It is recommended that PVC component parts are painted in light colors in climates that typically have high temperatures.

www.COLUMNS.com

CHADSWORTH INCORPORATED

277 NORTH FRONT STREET ▪ HISTORIC WILMINGTON, NC 28401 ▪ PHONE: 1.800.486.2118 ▪ FACSIMILE: 1.910.763.3191 ▪ E-MAIL: sales@columns.com

FINISHING YOUR PERGOLA

Polyurethane Component Pergola Parts (Beams, Rafters, Lintels, & Purlins):

Finishing & Painting

1. All polyurethane component parts are supplied with a white double primed finish ready for customer to apply finish topcoat.
2. Quality latex or oil based paint should be used.
3. As with any construction, these materials will settle in to place after installation. As such, you may wish to wait before caulking and painting your product, otherwise please be aware that caulking, finishing, and reapplying paint will be necessary when your product completely settles.

Recommended Compounds for Finishing

1. **Bondo/Crème Hardener** – Used to fill large, deep holes, uneven surfaces, or broken corners and edges. Must be manipulated to desired form quickly due to 5-minute drying time.
2. **Lepage Poly-Filla** – Used for filling of seams and porous holes caused by air bubbles formed during production process of many cast/molded products. Product is applied with a putty knife, let stand to dry for 25-30 minutes, sanded to a smooth flared finish and re-primed.
3. **Dap Vinyl Spackle** – All purpose putty for repair of scratches, dents, and screw/nail holes. Dries in about 25-30 minutes, 1 hour for larger areas. Sand to a smooth finish and re-prime.
4. **Chalk (Fill Sticks)** – Use as a touch-up on a small areas or tiny noticeable openings. Does not need to be sanded. Apply to product and shape to desired form, scrape away excess material and prime.
5. **K-5 Densite** – Used for large areas and to form broken or chipped profiled areas like crosshead corners. May be used as an alternative to Bondo. Dries in about 5 minutes to an extremely hard finish. Product must be molded to shape quickly and then sanded with different grade of sandpaper to achieve desired form. Edges of repair should be patched with Dap spackle to mask repair.

www.COLUMNS.com