



BALUSTRADE INSTALLATION INSTRUCTIONS

1. Installing Newel Posts

- Mark newel post locations and install base mounting plate at marked locations. Pre-drill holes and fasten mounting plate with adequate fasteners (not provided due to varying surfaces). Cut newel post to desired length. Cut threaded rods $\frac{1}{4}$ " shorter than newel post. Position newel post over thread rod and mounting plate, then lower newel post to conceal mounting plate. See figure 1.
- Install C-channel over the threaded rod into the recessed cavity on the top of the newel post. Install $\frac{3}{8}$ " flat and lock washers and tighten $\frac{3}{8}$ " nut to a torque of 100 lbs per foot. See figure 2.
- Glue the post cap to top of post with a $\frac{1}{4}$ " bead of PL Premium construction adhesive. Post cap conceals newel post mounting hardware. See figure 3.

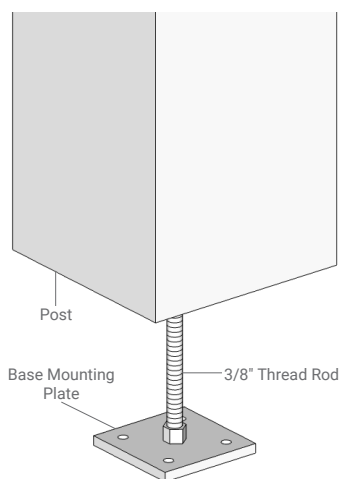


Figure 1

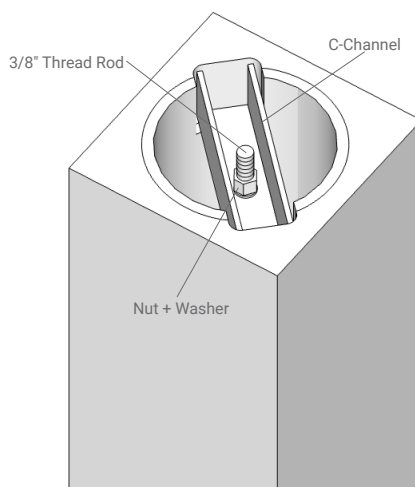


Figure 2

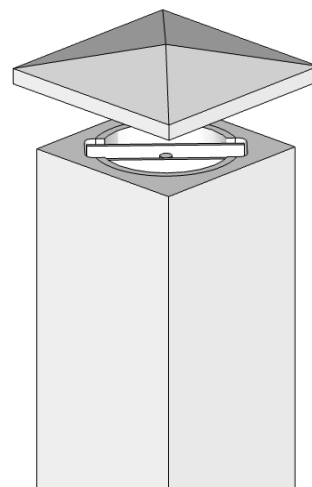


Figure 3

2. Cut rails to length, mark baluster locations on rails, drill holes

- Measure the length between posts/walls/columns and cut rails to required length.
- Mark along the center of each rail where baluster rods will be installed into rails using the recommended 'on-center spacing' (OCS). The recommended OCS prohibits a 4" sphere from passing through the balusters at any point in compliance with national building codes. If not spacing to code, use desired on center spacing. Apply same method for both top and bottom rail. See figure 4.
- Drill $\frac{3}{4}$ " diameter holes into the marked locations for baluster rods to insert. See figure 4.

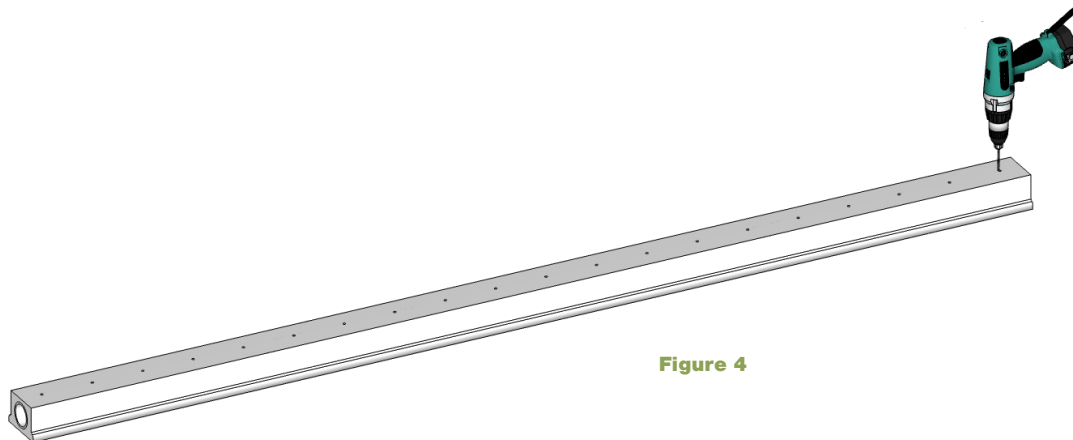


Figure 4



3. Assemble the rail section.

- A. Apply a 1/4" bead of PL Premium adhesive to the bottom of each baluster. See figure 5. Then, Insert the bottom of the baluster rods into the pre-drilled holes on the bottom rail. Repeat for each baluster until complete. See figure 6.
- B. Apply a small bead of PL Premium adhesive on the top of each baluster around the pipe.
- C. Place the top rail over the balusters, inserting the baluster rods into the pre-drilled holes on the top rail.
- D. Use straps to hold the balustrade section together while the adhesive cures. See figure 7.
- E. Remove any excess adhesive. NOTE: Adhesive takes 24 hours to cure.
- F. Rail support blocks are recommended for spans over 4'. Attach support blocks to bottom rail if applicable with fasteners and PL premium adhesive.

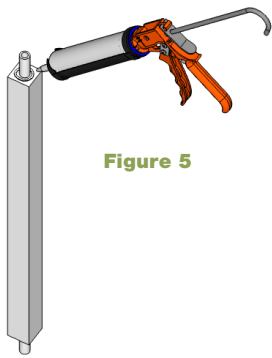


Figure 5

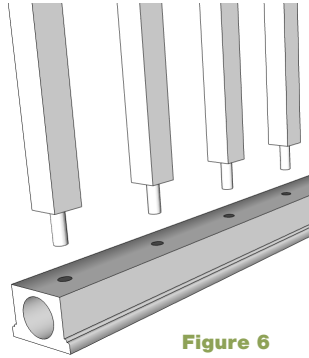


Figure 6

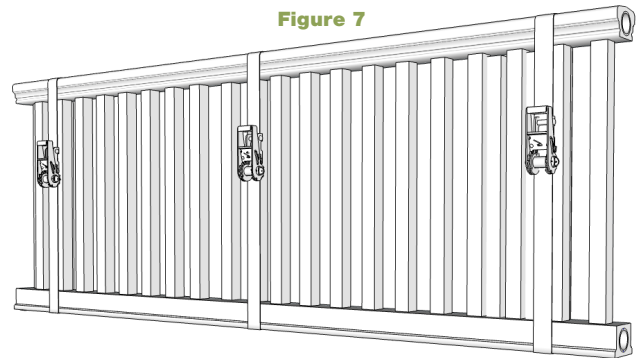


Figure 7

4. Attach the assembled sections to the newel posts, wall, or column

- A. Position top mounting brackets on posts/wall/column at the desired location so they attach to the bottom side of the top rail. Drill 1/8" pilot holes and fasten the top rail bracket to the post/wall/column. Drill 1/8" pilot hole and fasten the bottom rail bracket to the bottom of the bottom rail. Dry fit the assembly. See figure 8.
- B. Apply adhesive to the ends of the rails and position the assembly into the opening. Drill 1/8" pilot holes and fasten the bottom rail brackets to the post, and the top rail brackets to the rail. See figure 9. Repeat for each section until completion.

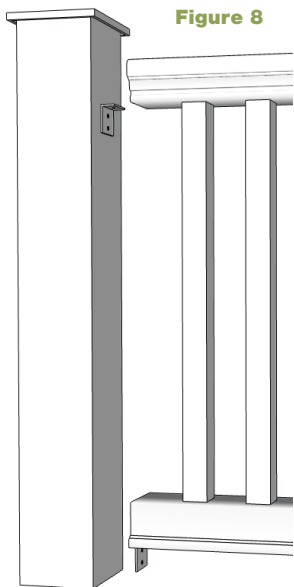


Figure 8

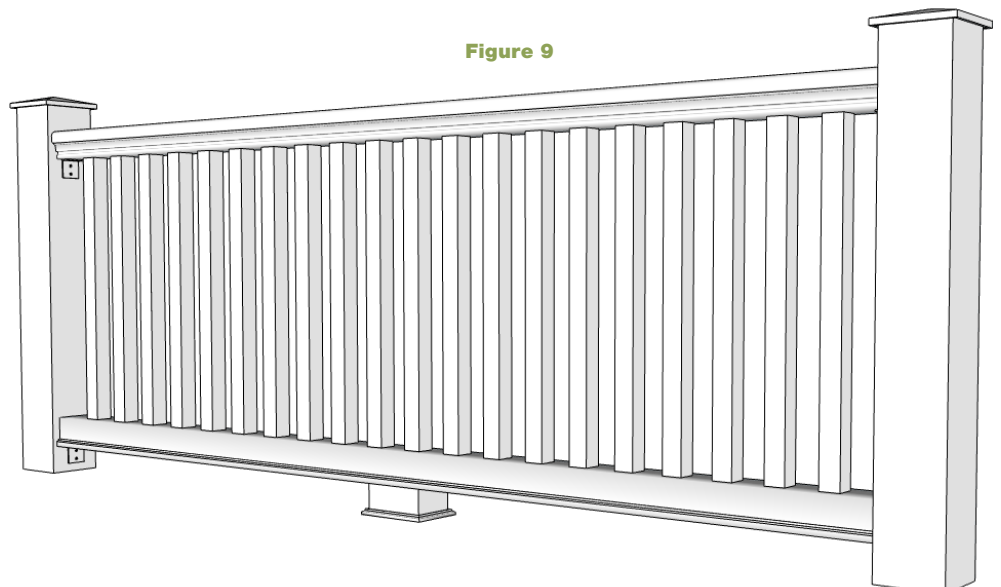


Figure 9

NOTE: Endurathane balustrade must be painted with an exterior grade 100% acrylic latex paint. Installation instructions are general in nature and discretion should be used when installing.