



## INSTRUCTION MANUAL



**TAMKO**  
BUILDING PRODUCTS

RAILING PRODUCTS BEGIN TO AGE AS SOON AS THEY ARE EXPOSED TO NATURE. BUILDINGS EXPERIENCE AGING FACTORS DIFFERENTLY, SO IT IS DIFFICULT TO PREDICT HOW LONG RAILING PRODUCTS WILL LAST. THAT IS WHY TAMKO PROVIDES A 25-YEAR LIMITED WARRANTY FOR MARQUEE RAILING® SYSTEMS THAT INCLUDES A BINDING ARBITRATION CLAUSE AND OTHER TERMS AND CONDITIONS WHICH ARE INCORPORATED HEREIN BY REFERENCE. YOU MAY OBTAIN A COPY OF THE LIMITED WARRANTY AT [ENVISIONDECKING.COM](http://ENVISIONDECKING.COM) OR BY CALLING 1-800-641-4691.

# PREPARATION & TOOL CHECKLIST

## Before You Begin:

### Important Product Safety and Preinstallation Information

The following installation instructions are provided to guide you through the installation process of the Marquee Railing® System. TAMKO Building Products, Inc. shall not be held liable for improper or unsafe installations. **FAILURE TO FOLLOW THESE INSTRUCTIONS MAY LEAD TO AN UNSAFELY INSTALLED PRODUCT AND WILL ADVERSELY AFFECT COVERAGE UNDER THE LIMITED WARRANTY. TAMKO recommends that all designs be reviewed by a licensed architect, engineer, or local building official before installation to ensure that they are safe and in compliance with local building code requirements.**

Fire and other sources of excessive heat may damage Marquee Railing®. Damage caused by fire or other heat sources may include melting, sagging, warping, discoloration, charring, increased expansion or contraction, accelerated weathering, etc.

Low-E glass is one potential source of excessive heat because it is designed to reflect more sunlight than traditional glass. This enhanced reflectivity combined with any irregularity in the window glass can concentrate sunlight onto the railing and cause heat build-up on areas of the railing surface. When this occurs, damage to the Marquee Railing® is possible. Contact the manufacturer of the product which contains the Low-E glass for suggestions to reduce or eliminate the reflected heat.

**IMPORTANT: A railing system which has been damaged or exhibits signs of excessive wear or weakness must be replaced or repaired immediately as it may be a safety hazard.**

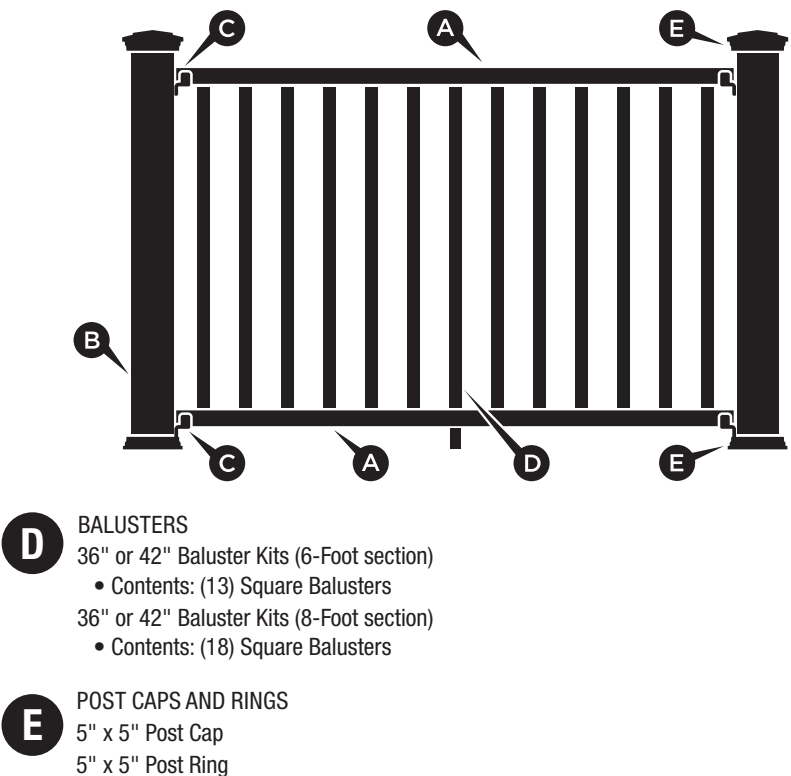
Marquee Railing® will retain heat when exposed to direct or reflected sunlight. Exercise caution around these heated surfaces.

### COMPONENTS NEEDED TO INSTALL ONE MARQUEE RAIL® SECTION:

#### KIT SELECTION GUIDE:

Customizing the look of a Marquee Railing® System is simple. Just select at least one of each component kit\* listed below to add style and distinction.

- A** STRAIGHT/STAIR RAILS
  - 6' or 8' Straight Rail Kit
  - 6' Stair Rail Kit
  - Contents: (2) Prerouted Rails and (1) Crush Block (no crush block in Stair Rail Kit)
- B** POST KITS
  - 5" x 5" x (48" or 120") Post Sleeve
  - Contents: (1) Post Sleeve and (2) Wood Post Spacers
  - Contents: (2) 1" Screws
  - 5" x 5" x (38" or 44") Wood Post Mount Kit
  - 5" x 5" x (38" or 44") Concrete Post Mount Kit
  - Contents: See pages 7—10 for full details.
- C** BRACKETS
  - Straight Bracket Kit
  - Stair Bracket Kit
  - Contents: (4) Brackets and (1) Rail Screw Pack
  - Multi Angle (Left) Bracket Kit
  - Multi Angle (Right) Bracket Kit
  - Contents: (2) Brackets and (1) Multi Angle Screw Pack



- D** BALUSTERS
  - 36" or 42" Baluster Kits (6-Foot section)
  - Contents: (13) Square Balusters
  - 36" or 42" Baluster Kits (8-Foot section)
  - Contents: (18) Square Balusters
- E** POST CAPS AND RINGS
  - 5" x 5" Post Cap
  - 5" x 5" Post Ring

**\*Note:** Each component kit is sold separately. Kit types and quantities vary by application.

**IMPORTANT: SUBSTITUTION FOR THESE COMPONENTS IS NOT ALLOWED, AS SUBSTITUTING COMPONENTS COULD CAUSE A SAFETY HAZARD.**

#### MEASURE SPAN BETWEEN POSTS:

Marquee Railing® Kits are designed for 6' or 8' lengths from center-to-center of posts. TAMKO recommends verifying the span between posts before beginning installation.

#### TOOLS REQUIRED FOR INSTALLATION:

Safety glasses, hearing protection, tape measure, miter saw or hack saw, drill, #2 square drive bit, and level. For larger construction projects, a miter saw and drill are strongly recommended for quicker installation.

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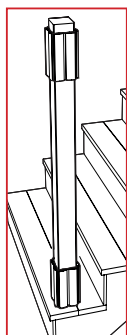
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# STRAIGHT RAIL INSTALLATION

## Installation Steps:

- 1 Install and prepare posts or other mounting surfaces for Marquee Railing® installation. Ensure mounting surfaces are level and plumb. (Fig. 1) TAMKO recommends using Marquee Post Mount systems or wood posts covered with our matching Marquee Post Sleeve and Marquee Wood Post Spacers. It is acceptable for direct attachment of Marquee Railing® sections to conventional 4"x 4" or larger wood posts without use of Marquee Post Sleeves.

### TO INSTALL A MARQUEE POST SLEEVE WITH A CONVENTIONAL 4" X 4" WOOD POST:



1. Slide the first Marquee Wood Post Spacer over the 4" x 4" wood post and secure in place flush with the deck surface using the 1" screw provided.
2. Next, slide the second Marquee Wood Post Spacer over the 4" x 4" wood post and secure in place (using the screws provided) with the bottom of the Marquee Wood Post Spacer, 31" above the deck surface for a 36" rail height, or 37" for a 42" rail height.
3. Finally, place the Marquee Post Ring on the bottom of the Marquee Post Sleeve and slide Marquee Post Sleeve over the wood post.

**IMPORTANT:** Use of the Marquee Wood Post Spacer is required for 4" x 4" wood post applications where the Marquee Post Sleeve is utilized. Marquee Wood Post Spacer is not used when attached directly to conventional 4" x 4" or larger wood posts. **Failure to follow these instructions may lead to an unsafely installed product and will adversely affect coverage under the Limited Warranty.**

To install the Marquee Post Mount Kit, see the full post mount instructions on pages 7 — 10.

- 2 Measure the length between posts, and confirm which Marquee Railing® Kit is required (Fig. 2)

### Marquee Railing® Kit Lengths:

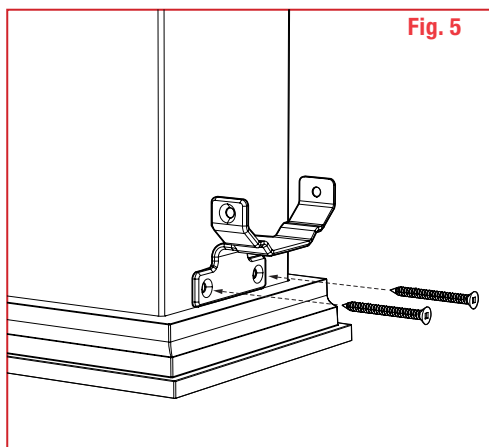
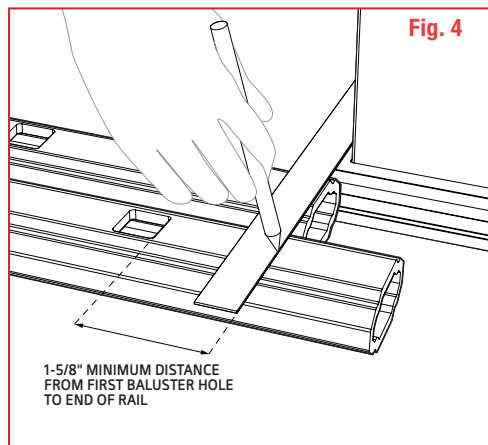
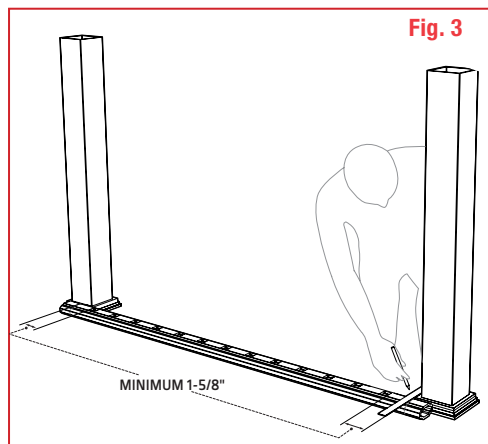
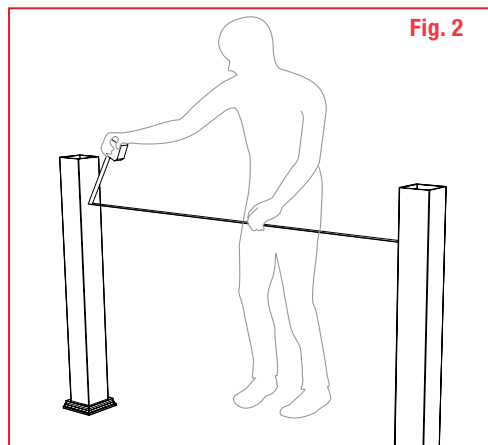
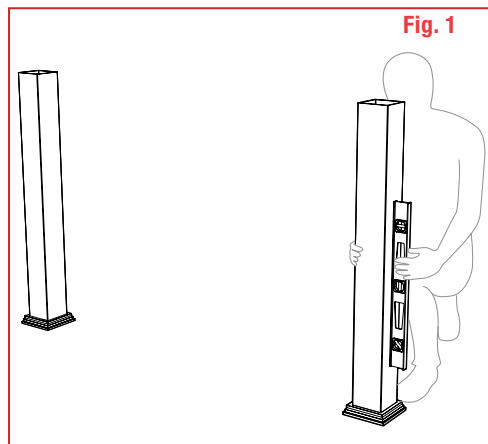
Nominal Rail Length	6'	8'
Actual Rail Length	67"	91"

- 3 Lay the bottom rail beside the post sleeves with the prerouted Baluster holes facing upward and evenly spaced. The rails should extend past the post sleeves on each side. Mark both ends of the rail where they cross the post sleeve. (Fig. 3)

**IMPORTANT:** A minimum of 1-5/8" rail length is required from the end of rail to first baluster on both ends of the rail. (Fig. 3) Check end spacing, and shift the position of the rail before cutting if required. Ensure that the gap between posts and balusters will not exceed 4".

When positioned and marked properly, cut the bottom rail.

- 4 Lay the top rail beside the bottom rail with the prerouted Baluster holes aligned. Mark and cut the top rail to match the bottom rail length and end spacing. (Fig. 4)
- 5 To install the bottom rail brackets, place the bottom of the bracket on the top edge of the Marquee Post Ring and center it on the post. Secure in place using two of the screws provided in the Marquee Straight Bracket Kit. Use 2" screws when mounting to a wood post or the 1-1/4" screws when mounting to Marquee Post Mount. Repeat on post at opposite end of rail section. (Fig. 5)



# STRAIGHT RAIL INSTALLATION (Continued)

**6** Attach the Crush Block included with the Marquee Railing® Kit on the underside of the bottom rail using the screw provided with the Crush Block. (Fig. 5) The Crush Block should be centered, both front, back, and left to right, on the underside of the bottom rail. There is not a designated or predrilled hole in the bottom rail.

**7** Insert bottom rail into the bottom rail brackets, making sure the rail is fully nested in the bracket and that the bottom rail is level. Secure the bottom rail in place by installing two self-drilling 1" screws provided in the Marquee Straight Bracket Kit on each side of the brackets. (Fig. 6)

**8** Pull down on the bottom portion of the Crush Block until it sits flush with the deck surface. Secure in position by installing the supplied retaining screw to lock both pieces together to prevent vertical movement. Install the color-matched snap cap into the side of the Crush Block to cover the retaining screw head. (Fig. 7)

**IMPORTANT:** Be sure to check with your local building code officials for any bottom rail clearance or rail height requirements. **Improper rail clearance or rail height could cause a safety hazard.**

**9** Insert Balusters into prerouted holes on the bottom rail, making sure each one is fully nested.

**10** Align the top rail over the Balusters, and install the Balusters one at a time into the prerouted holes. Ensure the top rail is fully nested, level, and parallel with the bottom rail. Position the top rail brackets on the rail, center the bracket on the post, and mark the bracket locations on each post. When using Multi Angle Brackets, center the angled rail onto the post. Mark the Mutli Angle Bracket location in relation to the centered rail. (Fig. 8)

**11** Remove the brackets from the rail. Tilt the rail outward from the post slightly to expose the face of the post. Reposition the top rail brackets at the marked locations on each post and install with the screws provided in the Marquee Straight Bracket Kit. Use 2" screws when mounting to a wood post or the 1-1/4" screws when mounting to Marquee Post Mount. (Fig. 9) Repeat on post at the opposite end of the rail section.

**12** Slide the top rail into the top rail brackets and secure in place by installing two of the self-drilling 1" screws provided in the Marquee Straight Bracket Kit on each side of the brackets.

**13** Attach the post cap using PVC adhesive (not provided).

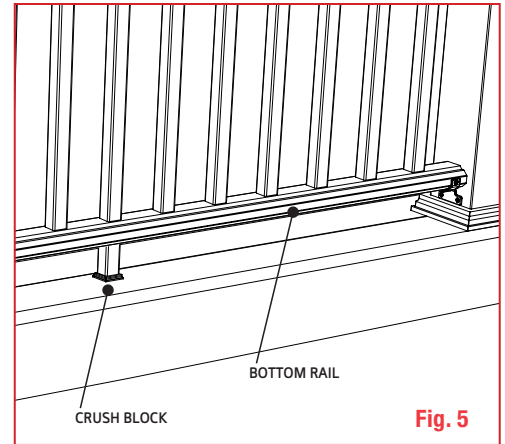


Fig. 5

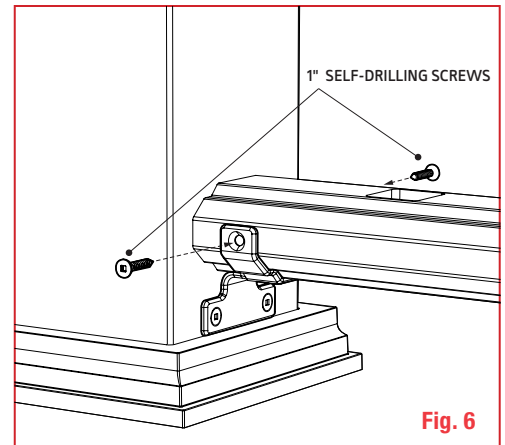


Fig. 6

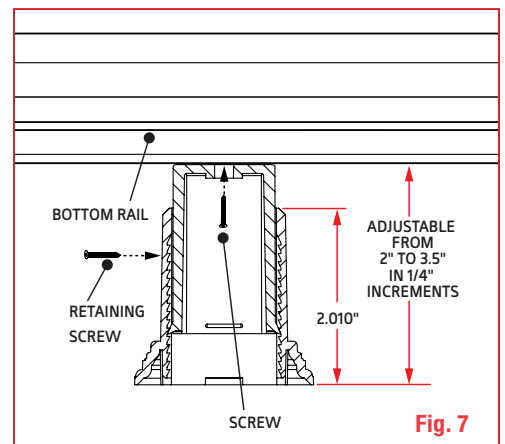


Fig. 7

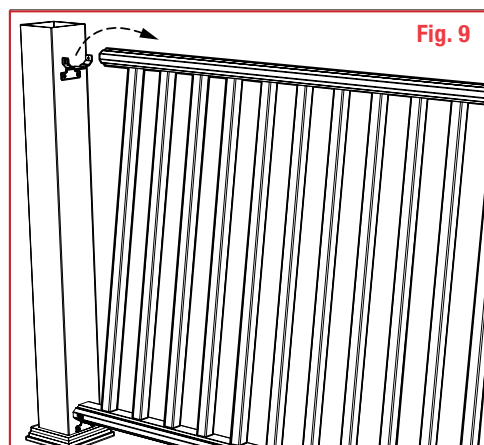


Fig. 9

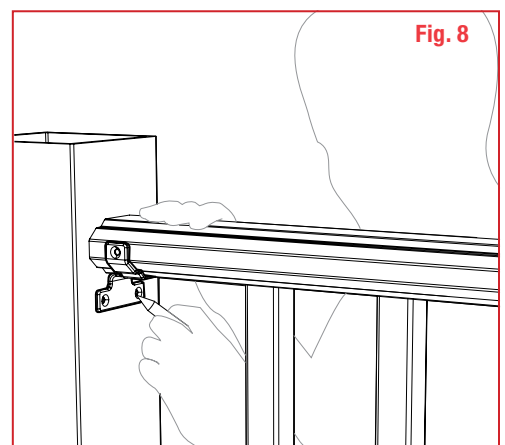


Fig. 8

# HORIZONTALLY ANGLED RAIL INSTALLATION

**1** This installation is limited to use with conventional 4" x 4" wood posts only. **NOT FOR USE WITH WOOD/ COMPOSITE OR CONCRETE POST MOUNT KITS.** It is acceptable for the direct attachment of the Marquee Railing® sections to conventional 4" x 4" or larger wood posts without use of Marquee Post Sleeves. Follow steps 1 and 2 of the Straight Rail Installation Instructions on page 2 to prepare the area for installation.

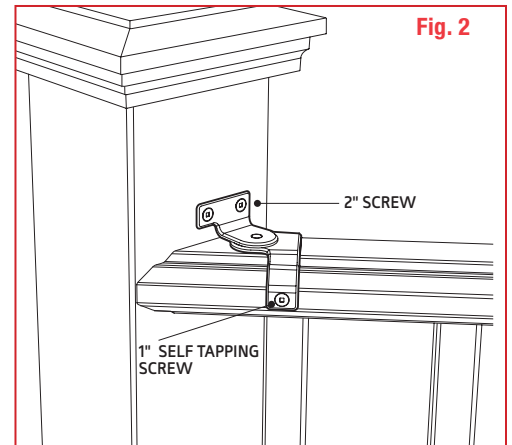
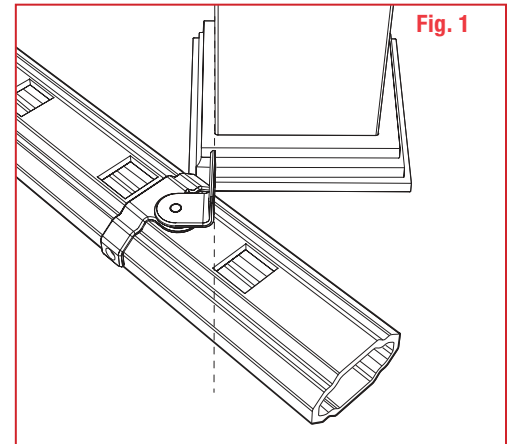
**2** Mark and cut the top and bottom rails to the desired angle.

**NOTE:** Fit the Left or Right Multi Angle Bracket onto the rail at the desired angle from the end of rail to the first Baluster hole on both ends of the rail before cutting. Check end spacing, and shift the position of the rail before cutting if required. Ensure that the gap between posts and Balusters will not exceed 4". (**Fig. 1**)

If the Baluster interferes with the installation of the bracket, the top rail bracket may also be installed on top of the rail instead of underneath the rail. (**Fig. 2**)

**3** To install the bottom rail brackets, place the bottom of the bracket on the top edge of the Marquee Post Ring, and rest the rail onto the bracket. Center the rail on the post as shown in **Fig. 2**, and secure the bracket to the post using the two 2" screws provided in the Marquee Straight Bracket Kit. Repeat on post at the opposite end of the rail section.

**4** Complete installation by following steps 6 — 13 of the Straight Rail Installation Instructions on page 3.



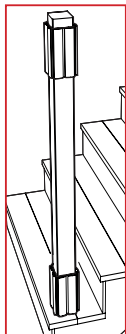


# STAIR RAIL INSTALLATION

## Installation Steps:

- 1 Install and prepare posts or other mounting surfaces for the Marquee Railing® installation. Ensure mounting surfaces are level and plumb. (Fig. 1) TAMKO recommends using Marquee Post Mount systems or wood posts covered with our matching Marquee Post Sleeve and Marquee Wood Post Spacers. It is acceptable for direct attachment of Marquee Railing® sections to conventional 4" x 4" or larger wood posts without use of the Marquee Post Sleeves.

### TO INSTALL MARQUEE POST SLEEVE WITH A CONVENTIONAL 4" X 4" WOOD POST:



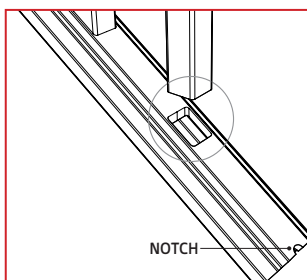
1. Slide the first Marquee Wood Post Spacer over the 4" x 4" wood post and secure in place flush with the deck surface using the 1" screw provided.
2. Next, slide the second Marquee Wood Post Spacer over the 4" x 4" wood post and secure in place with the bottom of the Wood Post Spacer 29-1/2" above the deck surface for a 36" rail height, or 35-1/2" for a 42" rail height.
3. Finally, place the Marquee Post Ring on the bottom of the Marquee Post Sleeve and slide the Marquee Post Sleeve over the wood post.

**IMPORTANT:** Use of the Marquee Wood Post Spacer is required for 4" x 4" wood post applications where the Marquee Post Sleeve is utilized. The Marquee Wood Post Spacer is not used when attached directly to a conventional 4" x 4" or larger wood post without the use of the Marquee Post Sleeves. **Failure to follow these instructions may lead to an unsafely installed product and will adversely affect coverage under the Limited Warranty.**

To install the Marquee Post Mount Kit, see the full post mount instructions on pages 7 — 10.

- 2 Lay the bottom rail beside the posts **with the notched end of the rail on the lower end of the stair section** and the prerouted Baluster holes facing upward. (Fig. 2) The rail should extend past the post sleeves on each side. Mark both ends of the rail where they cross the post sleeve.

**NOTE:** Routed Baluster holes are angled and must be installed with the notched end of the rail in the proper direction. For the bottom rail, be sure the notched end of the rail is on the lower end of the stair section.



**IMPORTANT:** A minimum of at least 2-1/2" rail length is required from the end of rail to the first baluster on both ends of the rail. Check to make sure end spacing is even; if required, shift the position of the rail before cutting. Ensure that the gap between posts and Balusters will not exceed 4".

Refer to the Stair Slope Chart on page 11 to determine the correct angle to cut stair rails. Always double check measurements before cutting. After verifying the measurement is correct and marked properly, cut the bottom rail.

- 3 To install the bottom rail brackets, position the bottom rail between posts at the desired height and angle, being sure to leave at least 2" clearance from the stair treads. Hold the bracket in place on the rail so that it is centered on the post, and mark the locations on the post. (Fig. 3)

**IMPORTANT:** Always follow local building codes when determining height of bottom rail.

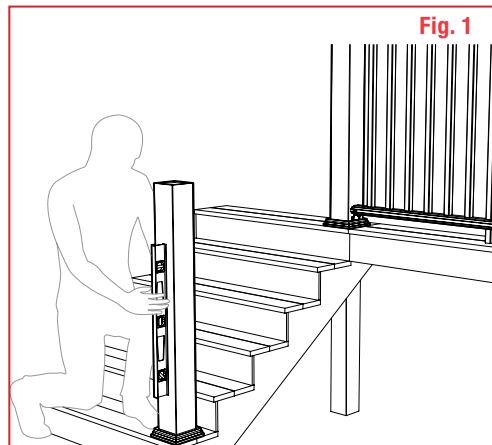


Fig. 1

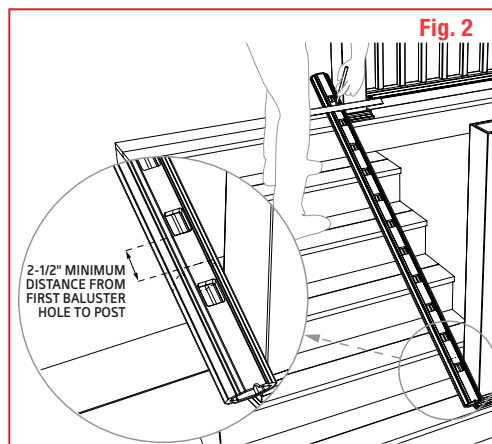


Fig. 2

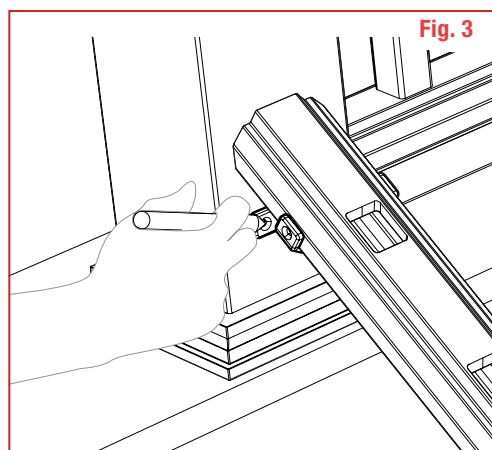
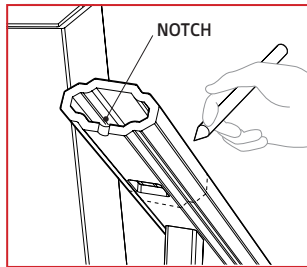


Fig. 3

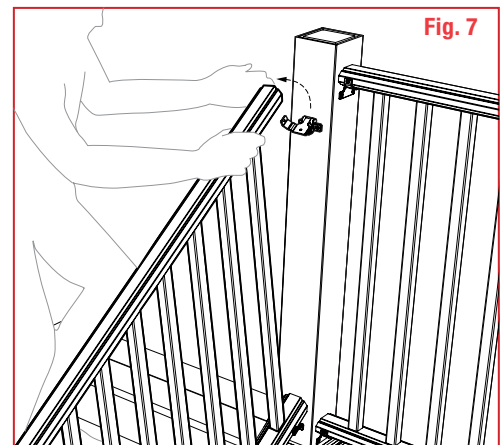
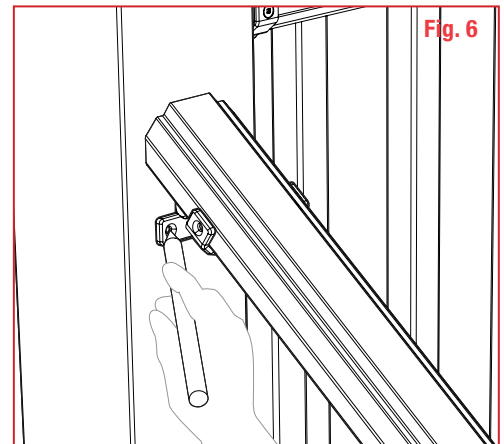
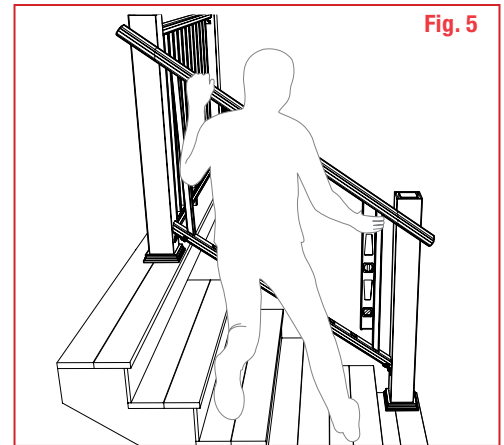
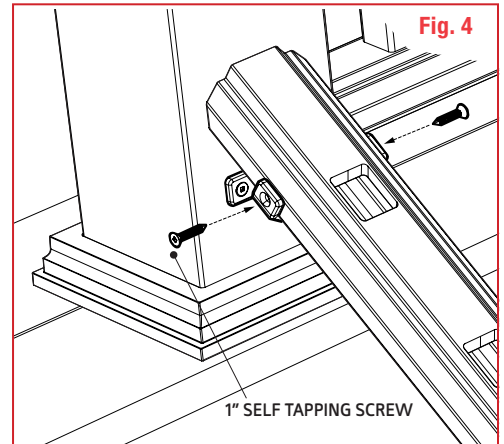
# STAIR RAIL INSTALLATION (Continued)

- 4 Set the bottom rail to the side. Position the bracket at the marked location and secure using two of the screws provided in the Marquee Stair Bracket Kit. Use 2" screws when mounting to a wood post or the 1-1/4" screws when mounting to Marquee Post Mount. Repeat on post at the opposite end of rail the section.
- 5 Insert the bottom rail into the brackets, making sure the rail is fully nested into the bracket and is at the desired angle. Secure the bottom rail in place by installing two of the self-drilling 1" screws provided in the Marquee Stair Bracket Kit on each side of the brackets. Repeat on post at the opposite end of the rail section. (Fig. 4)
- 6 Insert a Baluster into the first and last prerouted holes of the bottom rail, making sure each one is fully nested. Align the top rail over the Balusters, and install the Balusters into the prerouted holes **with the notched end of the rail at the upper end of the stair section**. The rail should extend past the post sleeves on each side. Use a level on the Balusters to ensure they are vertical. (Fig. 5) Mark both ends of the rail where they cross the post sleeve.

**NOTE:** Because the prerouted Baluster holes are angled, be sure the notched end of the top rail is on the upper end of the rail section. This is opposite of the bottom rail.



- 7 After the top rail is properly marked, remove it from the stair section and cut the top rail.
- 8 Install the remaining Balusters into the prerouted Baluster holes on the bottom rail, making sure each one is fully nested.
- 9 Align the top rail over the Balusters, and install the Balusters one at a time into the prerouted holes. Ensure the top rail is fully nested and parallel with the bottom rail at the desired angle. Position the top rail brackets on the rail, center the bracket on the post, and mark the bracket locations on each post. (Fig. 6)
- 10 Remove the brackets from the rail. Tilt the rail outward from the post slightly to expose the face of the post. Reposition the top rail brackets at the marked locations on each post and install with screws provided in the Marquee Stair Bracket Kit. (Fig. 7) Use 2" screws when mounting to a wood post or the 1-1/4" screws when mounting to a Marquee Post Mount. Repeat on post at the opposite end of the rail section.
- 11 Slide the top rail into the top rail brackets and secure in place by installing one of the self-drilling 1" screws provided in the Marquee Stair Bracket Kit on each side of the brackets.
- 12 Attach the post cap using PVC adhesive (not provided).



# POST MOUNT INSTALLATION WOOD/COMPOSITE APPLICATION

Marquee Wood/Composite Post Mount Kit 5" x 5" x 38" for use with all 6' and 8' Marquee Railing Kits with 36" Rail Heights  
Marquee Wood/Composite Post Mount Kit 5" x 5" x 44" for use with all 6' and 8' Marquee Railing Kits with 42" Rail Heights

## COMPONENTS:

### POST MOUNT COMPONENTS:

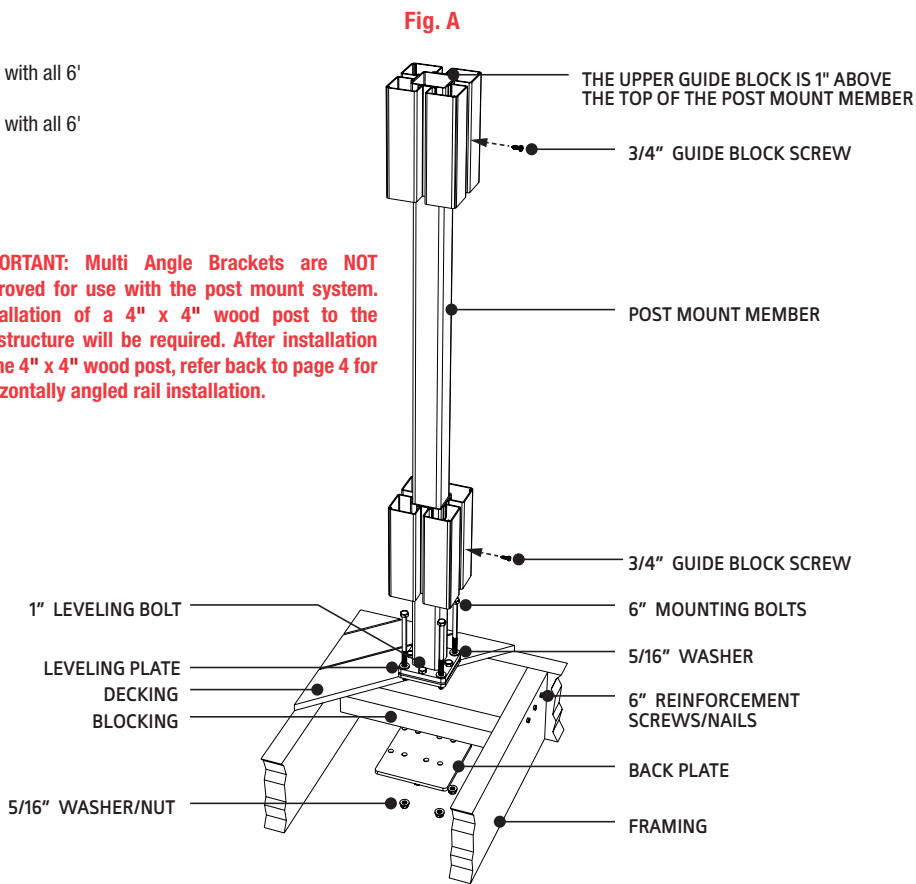
- ▶ Post Mount Member (1)
- ▶ Guide Blocks (2)

### WOOD/COMPOSITE ACCESSORY KIT:

- ▶ 3/4" Self-Drilling Guide Block Screws (4)
- ▶ Leveling Plate (1)
- ▶ 5/16" x 1" Leveling Bolts (4)
- ▶ 5/16" Washers (8)
- ▶ Back Plate (1)
- ▶ 5/16" x 6" Mounting Bolts (4)
- ▶ 5/16" Mounting Nuts (4)

**IMPORTANT: SUBSTITUTION FOR THESE COMPONENTS IS NOT ALLOWED, AS SUBSTITUTING COMPONENTS COULD CAUSE A SAFETY HAZARD.**

**IMPORTANT: Multi Angle Brackets are NOT approved for use with the post mount system. Installation of a 4" x 4" wood post to the substructure will be required. After installation of the 4" x 4" wood post, refer back to page 4 for horizontally angled rail installation.**



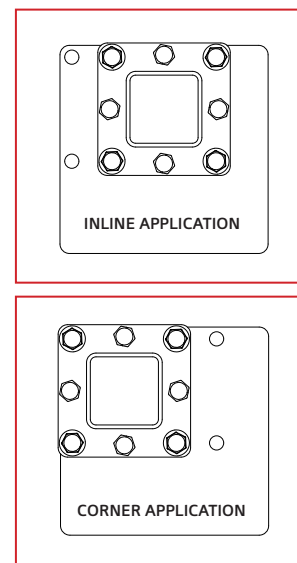
## TOOLS REQUIRED FOR INSTALLATION:

Safety glasses, hearing protection, tape measure, level, drill, 3/8" drill bit, and wrench.

## Installation Steps:

- 1** Reinforce post mount location by installing a minimum 3" of blocking under the mounting location. Cut blocking to the length of the joist span opening and secure with 3" deck screws or nails (not provided) directly under the deck surface.
- 2** Using the leveling plate as a template, mark the locations of the four mounting holes to be drilled. The leveling plate should be placed so that the four mounting holes will be drilled through the blocking and not into the framing (not less than 1-1/2" from edge of decking). Drill four holes through the deck and blocking using a 3/8" diameter drill bit.
- 3** Install the four leveling bolts into the post mount member. Place the leveling plate on the decking surface and align over the four drilled holes. Place the post mount member on top of the leveling plate, and align the four holes. Adjust the leveling screws to ensure the post mount member is level.
- 4** Install the four 6" mounting bolts with 5/16" washers as shown. **(Fig. A)** On the underside of the blocking, place the back plate over the exposed mounting bolts. Use the centered holes for in-line applications and the offset holes for corner applications. Secure the back plate by using the supplied 5/16" mounting nuts and 5/16" washers. **(Fig. B)**
- 5** Install the two guide blocks onto the post mount member. Position the lower guide block at the bottom of the post and secure in place by installing one of the supplied 3/4" self-drilling screws through the center of the guide block and into the post until firmly seated. Position the upper guide block so that the top of the guide block is 1" above the top of the post member and secure in place by installing one of the supplied 3/4" self-drilling screws through the center of the guide block and into the post until firmly seated.
- 6** Position the post ring over the post sleeve and slide over the post mount system until the post sleeve is flush to the deck surface. Attach the post cap to the post sleeve with PVC adhesive (not provided). To install a Marquee Straight or Stair Rail Kit to the Marquee Post Mount, use the 1-1/4" screws provided with Marquee Straight or Stair Bracket Kit. Refer to the Marquee Straight Rail Instructions, pages 2 — 3, or the Stair Rail Installation Instructions, pages 5 — 6, for details.

**Fig. B**





# POST MOUNT INSTALLATION CONCRETE APPLICATION

Marquee Wood/Composite Post Mount Kit 5" x 5" x 38" for use with all 6' and 8' Marquee Railing® Kits with 36" Rail Heights  
 Marquee Wood/Composite Post Mount Kit 5" x 5" x 44" for use with all 6' and 8' Marquee Railing® Kits with 42" Rail Heights

## COMPONENTS:

### POST MOUNT COMPONENTS:

- ▶ Post Mount Member (1)
- ▶ Guide Blocks (2)

**IMPORTANT: Multi Angle Brackets are NOT approved for use with the post mount system.**

### CONCRETE ACCESSORY KIT:

- ▶ 5-1/2" x 5-1/2" Concrete Surface Plate (1)
- ▶ 3/8" x 2" Coated Hex Bolts (4)
- ▶ 3/8" Coated Lock Washers (4)
- ▶ 3/8" Coated Hex Nuts (4)
- ▶ 5/16" x 1" Leveling Bolts (4)
- ▶ 3/4" Self-drilling Guide Block Screws (4)

### CONCRETE ANCHORING SYSTEM:

- ▶ 3/8" x 5-1/8" Stainless Steel Threaded Rods (4)
- ▶ 3/8" Stainless Steel Washers (4)
- ▶ 3/8" Stainless Steel Nuts (4)

**IMPORTANT: SUBSTITUTION FOR THESE COMPONENTS IS NOT ALLOWED, AS SUBSTITUTING COMPONENTS COULD CAUSE A SAFETY HAZARD.**

## CONCRETE ANCHORS:

TAMKO requires one of the adhesive brands listed below to be used in the anchoring system for this post mount:

- Simpson Strong-Tie® SET-XP® adhesive  
 The anchoring system must be installed in accordance with the manufacturer's instructions and ICC-ES ESR-2508, [www.icc-es.org/reports/pdf\\_files/ESR-2508.pdf](http://www.icc-es.org/reports/pdf_files/ESR-2508.pdf). See [www.strongtie.com](http://www.strongtie.com) for additional tools or materials required to use this adhesive.
- Simpson Strong-Tie® AT-XP® adhesive  
 The anchoring system must be installed in accordance with the manufacturer's instructions and IAPMO ER #263, [www.iapmoes.org/Documents/ER\\_0263.pdf](http://www.iapmoes.org/Documents/ER_0263.pdf). See [www.strongtie.com](http://www.strongtie.com) for additional tools or materials required to use this adhesive.

Concrete anchors must be installed in dry, normal weight concrete\* with a specified compressive strength of 2,500 psi to 8,500 psi. In addition, it is the installer's responsibility to ensure that the application and conditions for use of this post mount are in accordance with Marquee Railing® System CCRR-0194\*\* and the Requirements and Limitations provided in Appendix A on page 10 of these instructions. **Failure to correctly anchor the post mount in accordance with the above requirements could result in a safety hazard.**

\* Concrete made with the standard mix of component materials and weighing approximately 148 lbs. per cu. ft.

\*\* CCRR-0194 can be found at [www.intertek.com/building/ccrr/](http://www.intertek.com/building/ccrr/).

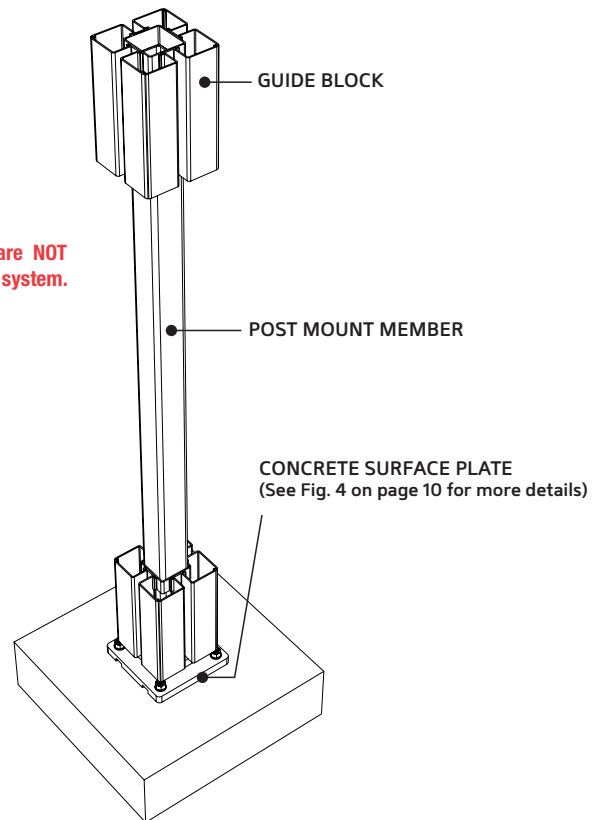
## REQUIREMENTS FOR USE WITH MARQUEE 6' RAILING KITS:

	Minimum Concrete Thickness		Minimum Threaded Rod Embedment		Maximum Anchor Torques (lb-ft)	Service Concrete Temperatures	
	38" Post Mount System	44" Post Mount System	38" Post Mount System	44" Post Mount System		Max Short Term	Max Long Term
Simpson Strong-Tie® AT-XP®	5"	5-1/2"	3-1/2"	4"	10	180° F	110° F
Simpson Strong-Tie® Set-XP®	5-3/4"	7-1/4"	3-3/4"	5-1/4"	10	150° F	110° F

\* Minimum 6-1/4" #304 Stainless Steel threaded rods must be purchased separately for this application.

## TOOLS REQUIRED FOR INSTALLATION:

Safety glasses, hearing protection, tape measure, 7/16" round steel brush, compressed air, torque wrench, hammer drill, 7/16" masonry drill bit, PVC glue, and other tools or items required by the adhesive manufacturer.



# POST MOUNT INSTALLATION CONCRETE APPLICATION (Continued)

## Installation Steps:

- 1 Attach the concrete surface plate to the bottom of the post mount member as shown using four of the supplied 2" coated hex bolts, 3/8" coated lock washers, and coated 3/8" hex nuts. (Fig. 1) Tighten nuts to 33 lb-ft using a torque wrench. Ensure that the hex bolt heads are firmly seated inside the surface plate channels.
- 2 Determine the post mount location. Using the 5-1/2" x 5-1/2" concrete surface plate as a guide, ensure that the distance from the edge of the concrete to the edge of the surface plate is at least 4-1/4". (Fig. 2)
- 3 Mark the location of the four concrete surface plate corner holes for drilling. (Fig. 2)

**IMPORTANT:** Before continuing with installation, the installer must review and ensure compliance with all Simpson Strong-Tie® adhesive instructions and guidelines.\* Failure to do this could result in an unsafe railing system.

- 4 Drill four boreholes into the concrete to the required embedment depth using a hammer drill and 7/16" masonry drill bit. When drilling, check periodically to ensure boreholes remain plumb and aligned with all four of the concrete surface plate corner holes.

### REQUIRED EMBEDMENT DEPTH FOR THREADED RODS:

Marquee 38" Post Mount Kits: Refer to chart on page 8

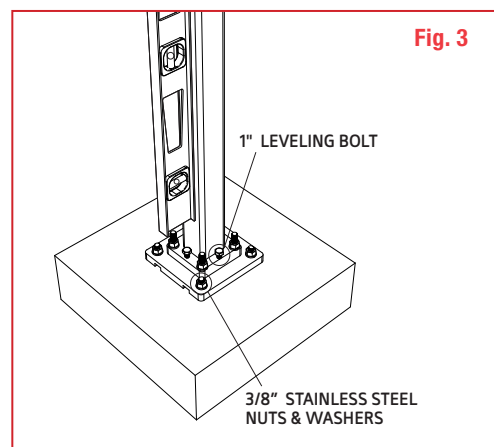
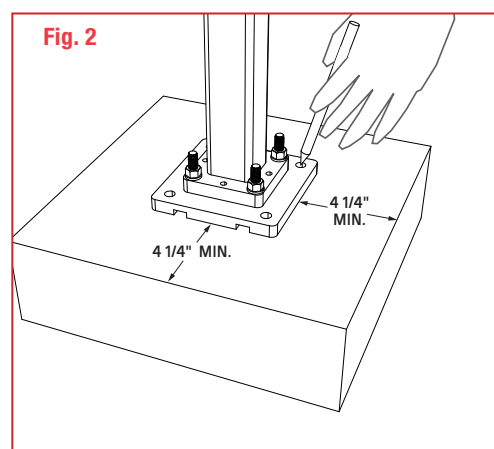
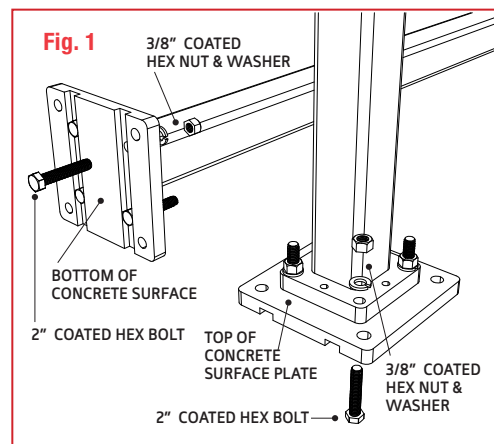
Marquee 44" Post Mount Kits: Refer to chart on page 8

- 5 Properly clean all boreholes using a 7/16" round steel brush and compressed air (see the Simpson Strong-Tie® adhesive manufacturer's instructions\*). Boreholes must be free of dust, debris, ice, oil, grease, and other contaminants.
- 6 Prepare the Simpson Strong-Tie® adhesive according to the manufacturer's instructions.\*
- 7 Inject adhesive into the boreholes without forming air voids, starting from the bottom of each borehole and slowly withdrawing the dispenser. Fill holes approximately 2/3 full or as required to ensure that the annular gap between the threaded rod and concrete is completely filled (see the Simpson Strong-Tie® adhesive manufacturer's instructions\*).
- 8 Insert the supplied threaded rods into the boreholes to the required depth, slowly twisting the rods as they are inserted (see the Simpson Strong-Tie® adhesive manufacturer's instructions\*). Remove excess epoxy above the boreholes, and ensure that the mounting surface remains clear of debris (see the Simpson Strong-Tie® adhesive manufacturer's instructions\*).

**IMPORTANT:** Once installed correctly, do not disturb the threaded rods until the setting time, as designated by the epoxy manufacturer, has elapsed. Do not install the post mount or apply load to the concrete anchors until the adhesive is fully cured. Follow the adhesive setting guidelines published in the Simpson Strong-Tie® adhesive manufacturer's instructions.\*

- 9 After the concrete anchors are fully cured, carefully position the post mount over the threaded rods and install flush onto the concrete surface.
- 10 Install four of the supplied 3/8" stainless steel washers and nuts over the threaded rods (Fig. 3), and tighten the nuts to 10 lb-ft using a torque wrench.
- 11 Check the post with a level. If the post needs to be adjusted for plumb, install four of the supplied 1" leveling bolts. (Fig. 3) Adjust the 1" leveling bolts until the post is plumb and all four leveling bolts are in contact with the concrete surface plate.

**NOTE:** It may be necessary to slightly loosen the 3/8" coated hex nuts to allow the post mount member to be adjusted. Do not adjust the 3/8" stainless steel hex nuts used for concrete anchoring. When the post is level, reapply 33 lb-ft torque on the 3/8" coated hex nuts.



\*[www.strongtie.com/products/anchoring-systems/technical-notes/anchoring-adhesives/installation-instructions](http://www.strongtie.com/products/anchoring-systems/technical-notes/anchoring-adhesives/installation-instructions)

# POST MOUNT INSTALLATION CONCRETE APPLICATION (Continued)

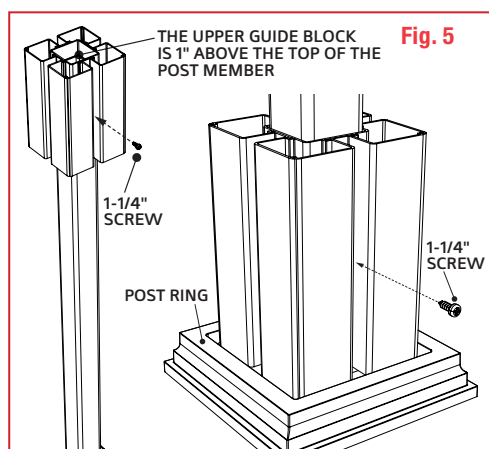
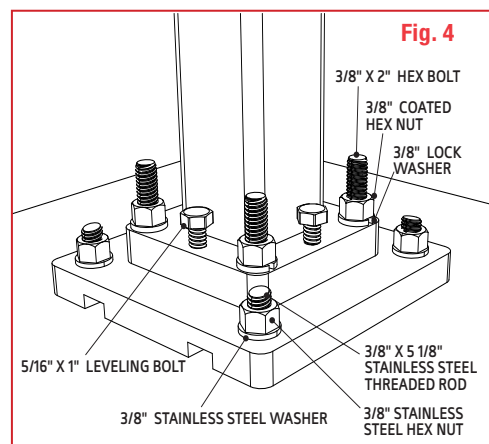
- 12 Install the post ring over the concrete surface plate.

**NOTE:** For 38" Post Mount Systems, a portion of the 5-1/8" threaded rods may need to be removed for proper post ring fit. If required, carefully trim the threaded rods ensuring that a minimum of three threads remain above each of the stainless steel nuts. (Fig. 4) Recheck and reapply the required torque on each of the stainless steel hex nuts.

- 13 Install the two guide blocks onto the post mount member (Fig. 5). Position the lower guide block at the bottom of the post and secure in place by installing one of the supplied self-drilling screws through the center of the guide block and into the post until firmly seated. Position the upper guide block so that the top of the guide block is 1" above the top of the post member and secure in place by installing one of the supplied self-drilling screws through the center of the guide block and into the post until firmly seated.

- 14 Trim the Marquee Post Sleeve (sold separately) to the desired length and install over the post mount.

- 15 Apply PVC adhesive (not provided) to the post cap and install over the top of the post sleeve. To install a Marquee Straight or Stair Rail Kit to the Marquee Post Mount, use the 1-1/4" screws provided in the Marquee Straight or Stair Bracket kit. Refer to the Marquee Straight Rail Instructions, pages 2 — 3, or the Stair Rail Installation Instructions, pages 5 — 6, for details.



## APPENDIX A: MARQUEE RAIL POST MOUNT SYSTEM CONCRETE INSTALLATION REQUIREMENTS AND LIMITATIONS\*

- 1 Installation of this post mount system requires the use of adhesive listed in the CONCRETE ANCHORS section; refer to page 8 in these instructions.
- 2 Installation must be in cracked or uncracked normal weight concrete with a specified compressive strength of 2,500 to 8,500 psi.
- 3 Use only the fasteners included with Marquee Post Mount Kits during this installation.  
**EXCEPTION:** Minimum 6-1/4" #304 Stainless Steel threaded rods must be purchased separately for 44" Concrete Post Mount applications.
- 4 Installation condition must be dry.
- 5 Boreholes must be drilled in accordance with the adhesive anchoring system requirements.
- 6 Special Inspection and Jobsite Quality Assurance must be provided in accordance with each respective manufacturers' adhesive evaluation report.
- 7 In-service concrete temperature must be per each respective manufacturer's anchor evaluation report and per the Requirements Table on page 8.
- 8 Applied torques to concrete anchors shall not exceed limits established by each manufacturer's adhesive anchoring system evaluation reports.
- 9 Installation must be in structures assigned to Seismic Design Categories A and B as defined in the currently adopted version of either the International Building Code, International Residential Code, or Florida Building Code.
- 10 Installations are not subject to fatigue or shock loading.
- 11 For installations not consistent with the requirements and limitations noted above, calculations and details demonstrating compliance must be prepared by a licensed professional engineer and submitted to the building official having jurisdiction in that area. Otherwise, this installation could be improper and create a safety hazard.

\*See Marquee Railing® System CCRR-0194 at [www.intertek.com/building/ccrr/](http://www.intertek.com/building/ccrr/).

# STAIR SLOPE CHART

## Stair Slope Chart

**RUN (inches)**

	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15
<b>RISE (inches)</b>																		
3.5	28	27	25	24	22	21	20	19	18	18	17	16	16	15	15	14	14	13
4	32	30	28	27	25	24	23	22	21	20	19	18	18	17	17	16	15	15
4.5	35	33	31	29	28	27	25	24	23	22	21	21	20	19	18	18	17	17
5	38	36	34	32	30	29	28	27	25	24	23	23	22	21	20	20	19	18
5.5	40	38	36	35	33	31	30	29	28	27	26	25	24	23	22	21	21	20
6	43	41	39	37	35	34	32	31	30	29	28	27	26	25	24	23	22	22
6.5	45	43	41	39	37	36	34	33	32	31	29	28	27	27	26	25	24	23
7	47	45	43	41	39	38	36	35	34	32	31	30	29	28	27	27	26	25
7.5	49	47	45	43	41	40	38	37	36	34	33	32	31	30	29	28	27	27
8	51	49	47	45	43	42	40	39	37	36	35	34	33	32	31	30	29	28
8.5	53	51	49	47	45	43	42	40	39	38	36	35	34	33	32	31	30	30
9	54	52	50	48	47	45	43	42	41	39	38	37	36	35	34	33	32	31
9.5	56	54	52	50	48	47	45	44	42	41	40	38	37	36	35	34	33	32
10	57	55	53	51	50	48	46	45	44	42	41	40	39	38	37	36	35	34







## Building products for the professional.

Since 1944, building professionals and homeowners have looked to TAMKO® for building products. Our extensive line of residential products includes: Heritage® series and Vintage® laminated asphalt shingles, Elite Glass-Seal® 3-tab shingles, MetalWorks® steel shingles, EverGrain® and Envision® composite decking, Tam-Rail® and Marquee Railing®, rolled roofing products, waterproofing materials, ventilation products and asbestos-free cements and coatings.

**It is the responsibility of the installer to meet all building code and safety requirements and to obtain all required building permits. For Marquee code compliance information, see CCRR-0194. TAMKO Building Products, Inc. shall not be held liable for improper or unsafe installations.**

**These application instructions were current at the time of printing. To obtain a copy of the most current version of the application instructions or of Marquee CCRR-0194, visit us online at [envisiondecking.com](http://envisiondecking.com) or call us at 1-800-641-4691.**



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