ARCHITECTURAL DETAIL
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STRUCTURAL COLUMN INSTALLATION (WITHOUT BALCONY / NO INTERIOR COLUMN)

IMPORTANT NOTICE: **If you are not going to be installing the columns immediately, place something underneath the ends so that one end is higher than the other. This allows air to pass beneath them, preventing moisture from damaging the paint primer on the columns.**

Three types of installation for structural columns:

1) Columns without uplift rating.
2) Columns with an uplift rating and the substrate / floor **has** been poured.
3) Columns with an uplift rating and the substrate / floor **has not** been poured.

Type (1) installation (No uplift rating):

- **Step 1:** The fiberglass column is slid into the final location. Leveling and positioning should be done using basic carpentry.
- **Step 2:** Now that the column is in place the fiberglass covered gusset at the top of the shaft can be attached to the soffit using Simpson Strong-Tie "L" brackets; see **Figure 1** below.
- **Step 3:** The bottom of the shaft is attached to the substrate using the same "L" brackets as mentioned before; see **Figure 1** below.
- **Step 4:** The capital and base are made with the SureFit installation system; see SureFit Column Installation for their installation. It may be necessary to cut the flashing on the capital because of the hardware that was used to attach the fiberglass shaft to the soffit. It is also important to align the capital to the correct angle. Fill any gaps with adhesive to create a weather-tight assembly. The fiberglass base slides down over the bottom of the shaft and is also adhered to the substrate. The small 1/8" gap between the top of the base and the column shaft is caulked. The adhesive is allowed to dry as indicated in the SureFit Column Installation. Finish the capital and base installation following the installation instructions.

Type (2) installation (Uplift, substrate / floor has been poured):

There are two similar ways of installing this type of structural column.

A) The substrate or cement floor has **been** constructed.
B) The substrate or cement floor has **been** constructed, and Simpson Strong-Ties have built into the structural Column.

A) This installation is shown in *.PDF* format on-line, go to:

http://www.strongtie.com/literature/tech-bulletins.html

Scroll down the list until ***T-COLUMN04*** is seen in the left hand column. This is an acceptable installation process for an uplift column.

B) Simpson Strong-Ties have been built into the column.

- **Step 1:** The fiberglass column is slid into the final location. Leveling and positioning should be done using basic carpentry. The capital and base can be made with the SureFit installation system and be installed after the shaft, or they can be installed all at once with the shaft. The flashing on the capital needs to be cut because of the hardware that is used to attach the fiberglass shaft to the soffit; see Step 2.
- **Step 2:** Now that the column is in place the shaft (and capital, if SureFit system not being used) are fastened to the soffit using the built-in Simpson Strong-Tie Strap; see **Figure 2** below.
- **Step 3:** The bottom of the shaft is attached to the substrate using Simpson Strong-Tie "L" brackets; see **Figure 2** below.
- **Step 4:** If the capital and base are SureFit follow the SureFit Installation Instructions. It is important to align the capital to the correct angle. Fill any gaps with adhesive to create a weather-tight assembly. The fiberglass base slides down over the bottom of the shaft and is also adhered to the substrate. The small 1/8" gap between the top of the base and the column shaft is caulked. The adhesive is allowed to dry.

Type (3) installation (Uplift, substrate / floor has not been poured):

- **Step 1:** A 0.5" to 1.0" threaded rod (approximately 40" long) is bent at 90º at one end. Cement is poured around the bent end and the rod is positioned vertically. About 24" or more should be below the cement. A thread coupler is attached to the protruding end of the threaded rod; see **Figure 3** below.
- **Step 2:** The column is lifted over the rod and a hole is cut in the capital's flashing for a second rod to pass through the top. The rods are attached to one another with the coupler.
- **Step 3:** The fiberglass column is slid into the final location. Leveling and positioning should be done using basic carpentry.
- **Step 4:** The second rod goes through the soffit and a large washer or plate is tightened down with a nut; see **Figure 3** below. The substrate, column, capital, and soffit are all tied together. If desired Simpson Strong-Tie "L" brackets can be used to attach the shaft to the substrate. The brackets will be covered by the base.

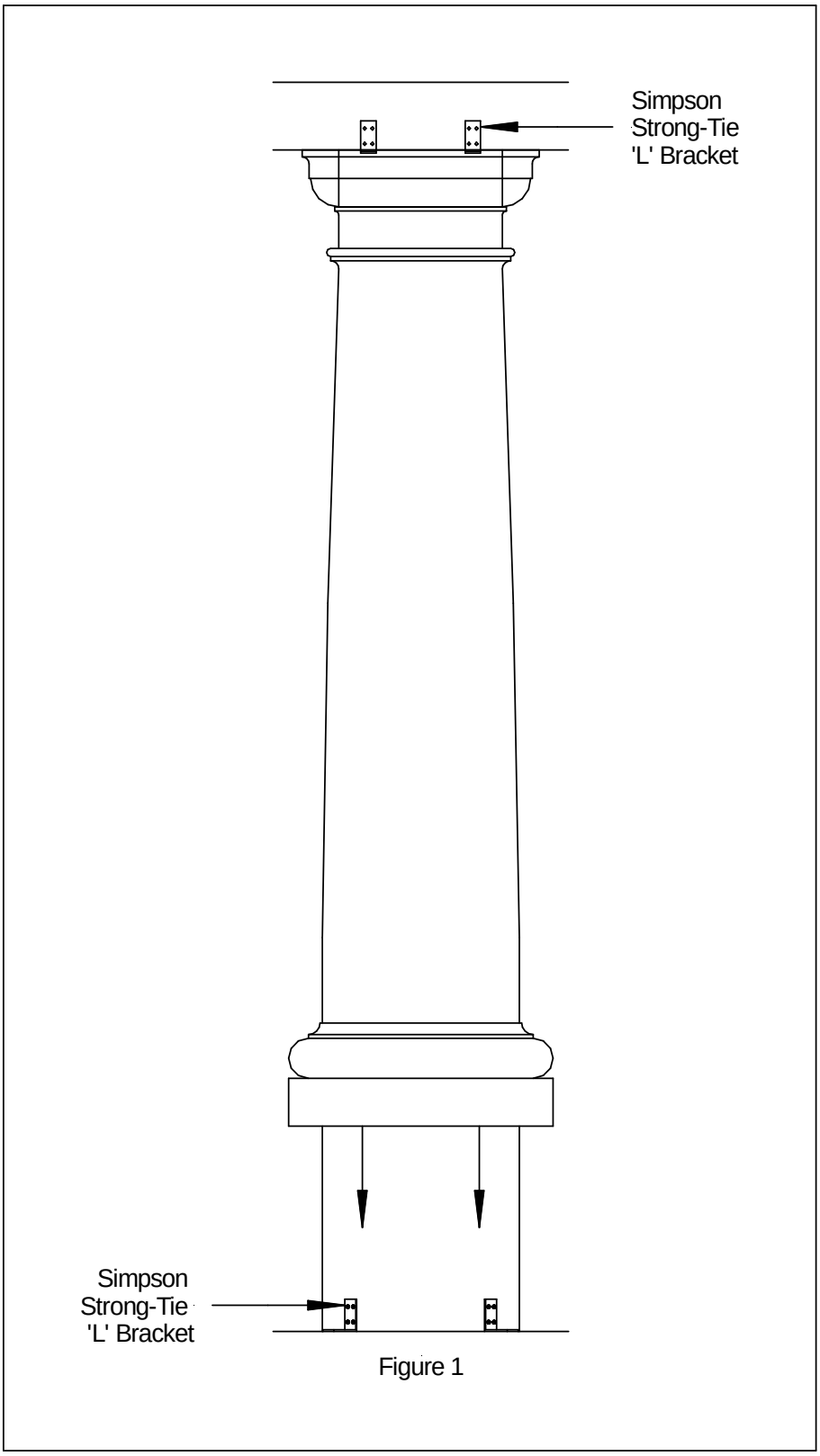

Figure 1

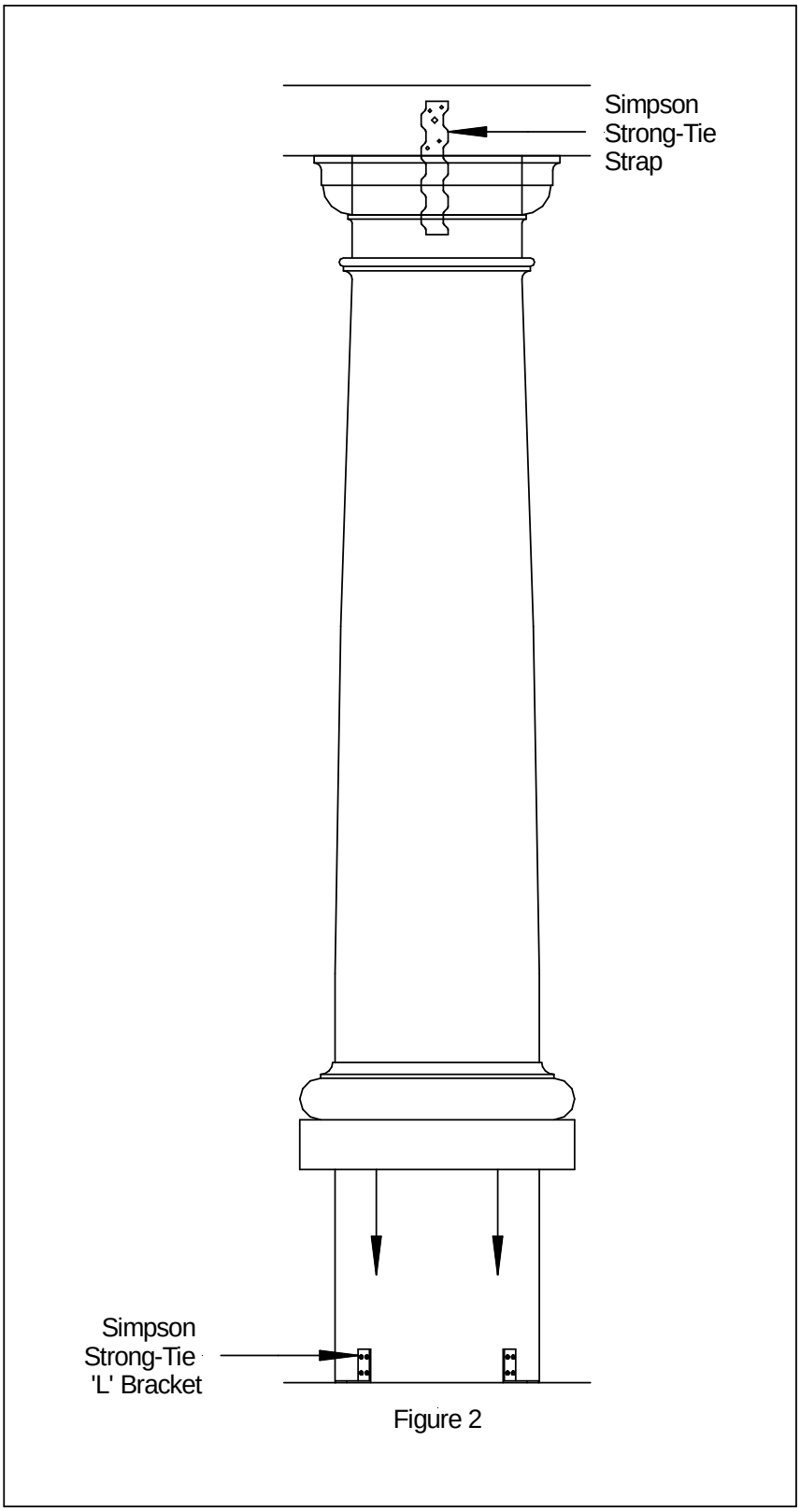

Figure 2

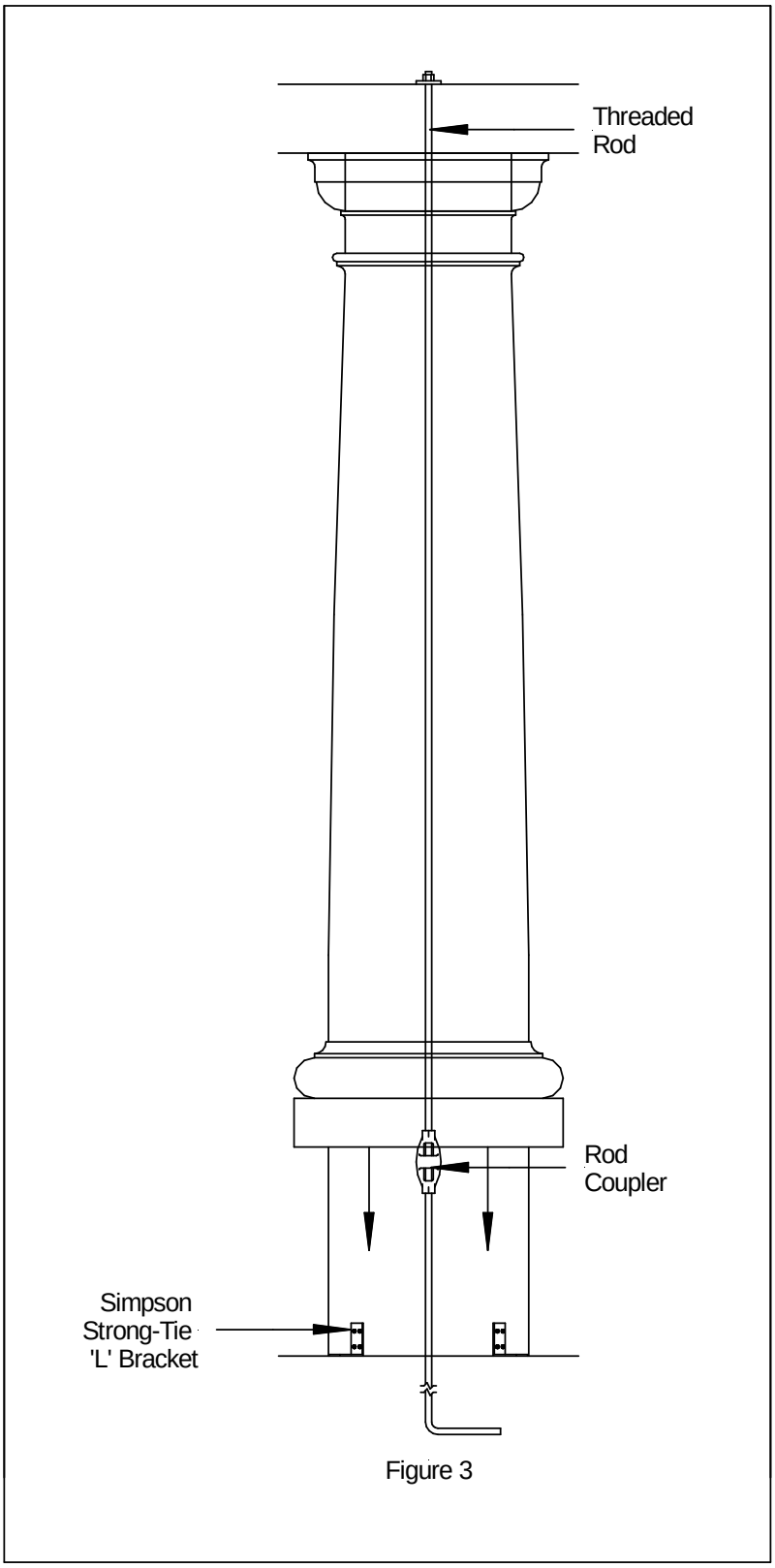

Figure 3