Example 1: a 30-foot-high, 1 million-square-foot roof area, Category III, Exposure C, building in Oklahoma City has an ASCE 7-16 and ASCE 7-22 design uplift pressure value of 30.5 psf in Zone 1’. The same building has a design tornado load of 36.3 psf in Roof Zone 1’.

A similar 30-foot-high, 1 million-square-foot roof area, Exposure C, building in Oklahoma City that is Risk Category IV has an ASCE 7-16 and ASCE 7-22 design uplift pressure value of 33.2 psf in Zone 1’ and a design tornado load of 50.4 psf in Roof Zone 1’.

Example 2: a 40-foot-high, 40,000-square-foot roof area, Category III, Exposure B, building in Little Rock, Arkansas has an ASCE 7-16 design uplift pressure of 51.4 psf, ASCE 7-22 design uplift pressure value of 51.9 psf in Zone 2. The same building has a design tornado load of 39.5 psf in Roof Zone 2.

A similar 40-foot-high, 40,000-square-foot roof area, Exposure B building in Little Rock, Arkansas that is Risk Category IV has an ASCE 7-16 design uplift pressure of 56.1 psf, ASCE 7-22 design uplift pressure value of 55.6 psf in Zone 2. The same building has a design tornado load of 70.5 psf in Roof Zone 2.

Example 3: a 30-foot-high, 4 million-square-foot roof area, Category III, Exposure C, building in Duluth, Minnesota has an ASCE 7-16 and ASCE 7-22 design uplift pressure value of 52.1 psf in Zone 1. The same building has a design tornado load of 41.2 psf in Roof Zone 1.

A similar 30-foot-high, 1 million-square-foot roof area, Exposure C, building in Oklahoma City that is Risk Category IV has an ASCE 7-16 and ASCE 7-22 design uplift pressure value of 56.8 psf in Zone 1 and a design tornado load of 67.5 psf in Roof Zone 1.

Example 4: a 60-foot-high, 4 million-square-foot roof area, Category III, Exposure D, building in Jackson, Tennessee has an ASCE 7-16 design uplift pressure of 120.9 psf, ASCE 7-22 design uplift pressure value of 125.2 psf in Zone 3. The same building has a design tornado load of 106.3 psf in Roof Zone 3.

A similar 60-foot-high, 4 million-square-foot roof area, Exposure D building in Jackson, Tennessee that is Risk Category IV has an ASCE 7-16 design uplift pressure of 131.9 psf, ASCE 7-22 design uplift pressure value of 134.1 psf in Zone 3. The same building has a design tornado load of 170.1 psf in Roof Zone 3.