Cable Dampers:

It is well documented that the low inherent damping characteristics of the long cables used on cable-stayed bridges results in vibrations with very high amplitudes. The vibrations are caused by a lifting effect on the cables that results from rivulets of water that form on the bottom of the cables during rain storms. Once a rivulet forms, the cable takes on the shape of a wing and under moderate winds, the cable is easily lifted.

Taylor Devices has developed a line of passive damping devices specifically designed to minimize cable vibrations. These devices provide continuous energy absorption and are designed for millions of cycles without maintenance requirements.

Rigorous testing programs show that Taylor Cable Dampers are effective in reducing damaging cable vibrations caused by wind and rain storms. Left unprotected, the vibrations in the highly tensioned supporting cables can cause fatigue and breakage of transition pipes, or even anchorages, while reducing public confidence in the bridge. It is critical to maintain the stability and integrity of these essential, supporting cables.

Taylor Cable Dampers are attached perpendicularly to the cables and can be used for both vertical and lateral cable vibrations. The Dampers are connected near one end of the cable, most often at the deck location. In some applications, the dampers can be placed at the tower/cable interface. The effect of the cable damper is to provide a soft damping enhancement to the vibration frequency of the cable to reduce vibration amplitude and minimize the motion.

Contact your Taylor Devices’ representative for a custom drawing of the Cable Damper that meets your requirements.
Some Examples of Taylor Cable Damping Applications:

Damper Testing Program

Damper Installation
Veteran’s Memorial Bridge
Houston, TX

Small Cable Dampers

Cable Bracket Manufacturing