

Foundation block vibration analysis

The majority of [damping](#) for a massive foundation block would be from radial or geometric damping provided by the surrounding soil. The effect of material damping within the foundation block itself would likely be much smaller than that of geometric damping.

When modeling soil-structure interaction with a single [link](#) object, the damping assigned on the Linear Link/Support Directional Properties menu should represent radial damping, as described in Wilson 2004, and given in units of Force-Sec/Length (Force/Velocity). The [modal](#) damping value specified through Analysis Case Data > Linear Modal History should represent the material or structural damping inherent to the foundation system itself.

References

- Wilson, E. L. (2004). *Static and Dynamic Analysis of Structures* (4th ed., pp. 197). Berkeley, CA: Computers and Structures, Inc. Available for purchase on the [CSI Products > Books](#) page