

Utah State Capitol Base Isolation and Restoration

Location: Salt Lake City, Utah

Submitted by: Forell/Elsesser Engineers, Inc.

Owner: State of Utah

Engineer(s): Forell/Elsesser Engineers, Inc. and Reaveley Engineers

Contractor: Jacobsen / Hunt Joint Venture

P/T Supplier: VSL and DSI



Overview:

The state of Utah recently embarked on a complete historic preservation and base isolation retrofit of their historic capitol. To protect this massive, yet ornate building in an earthquake, the structural engineering team strengthened the building using 256 state-of-the-art seismic isolators under the building. The plan involved permanently re-supporting the capitol's rotunda with a unique circumferential post-tensioned concrete load transfer scheme. Due to the high strength and stiffness afforded by bonded post-tensioning, the design team produced an innovative, safe and economical load transfer system that protects the historic fabric of the rotunda of the newly renovated Utah capitol.