



Fox Peak Cinema

Fallon, Nevada

Lights, Camera ... Geopier Impact® System!

Description: The Fox Peak Cinema project was a new construction of a theater complex which housed eight-screens totaling over 31,000 square feet of floor area. The site required ground improvement in order to mitigate liquefaction potential of the near surface soils.

Subsurface Conditions: The site generally consisted of loose to medium dense silty sand and poorly-graded sand layers with some interbedded clay to a depth of approximately 20 feet. Below 20 feet, the site consisted of dense to very dense sand. Groundwater was present at a depth of approximately 8 feet.

Geopier Solution: Due to the liquefiable potential of the upper 20 feet of soil the geotechnical engineer recommended a number of mitigation options including; the use of either helical piers, drilled piers, or driven piles to extend to the underlying non-liquefiable soils; a reinforced earth pad combined with a concrete mat foundation system and grade beams; and improving the soil through aggregate piers. The Geopier Impact® system was selected over the alternative mitigation options for their cost and speed of construction. 20-inch diameter Rammed Aggregate Piers® were installed to depths of 13 to 20 feet under the conventional spread footings to reduce liquefaction-induced settlement and lateral spreading.



PROJECT TEAM

Owner:

Fallon Paiute Shoshone Tribe

Geotechnical Engineer:

HEM Consulting

Structural Engineer:

Calder Richards

General Contractor:

Tricor Construction

Geopier Installer:

Geopier Northwest

Geopier Designer:

Geopier Northwest