

### Sleep Inn Hotel Portland, Oregon



**Description:** 5-story concrete and wood frame hotel with partial basement parking.

**Subsurface Conditions:** The site is located near the Portland International Airport approximately ½ mile from the Columbia River. Subsurface conditions consist of over 70 feet of very soft potentially liquefiable flood plain deposits ranging from silty sands to sandy silts with Standard Penetration Test (SPT) “N-values” of 0 to 1 blows per foot.

**Design Details:** *Geopier*® elements extending to depths ranging from 18 to 20 feet below grade were selected as the most cost effective alternative. The combination of the rigid grade beam foundation and the stiff crust that the *Geopier* elements provided mitigation of the liquefaction hazard. Because of the extremely soft soils and groundwater near the ground surface, most of the piers were constructed through 30-inch diameter steel casing, which was withdrawn as each 12-inch lift of stone was placed and compacted. A total of 229 *Geopier* elements were constructed in only 12 working days at the site.

**Geopier Licensee:** Geopier Foundation Company-West

**General Contractor:** E. A. White Construction Co.

**Geotechnical Engineer:** Braun Intertec Corporation

**Structural Engineer:** TRT Engineering, Inc.

**Reference:** Mr. Pete White, E. A. White Construction Co., (503) 691-8311

Mr. Charles Lane, P.E., Braun Intertec Corporation, (503) 289-1778