

## PROJECT DESCRIPTION

**PROJECT:** Shadle Branch Library, Spokane Public Libraries  
**LOCATION:** Spokane, Washington  
**DESIGN TEAM:** *Architect:* Northwest Architectural Company  
*Structural Engineer:* Structural Design NW  
*Geotechnical Engineer:* Gifford Consultants, Inc.  
**CONTRACTOR:** Hartanov/Fuller General Contractor



### DESCRIPTION:

The site contains up to a 17' thickness of loose sand and silt fills, which contain some debris and compressible silty layers. The fill materials were very loose and unsuitable for support of building foundations.

Approaches considered for site preparation included complete overexcavation and recompaction of the loose fills and deep dynamic compaction. Deep dynamic compaction was initiated and halted due to extensive vibrations that occurred in nearby residences.

Rammed Aggregate Piers® (RAP) elements, extending 8' beneath the foundation grade, were selected as a cost effective alternate to support the library foundations. The RAP's provided uniform support in the variable fills and reduced magnitudes of settlement for the sensitive structure to tolerable values.

Geopier® System to support all of the building columns and the foundation walls were installed in only 8 working days on-site, which allowed footing construction to begin immediately.

### REFERENCES:

Mr. Alan Gifford  
Gifford Consultants, Inc.  
(509) 534-3670

Mr. Tom Hartanov  
Hartanov/Fuller General Contractors  
(509) 467-1209