

## PROJECT DESCRIPTION

**PROJECT:** The Hazelwood Apartments  
**LOCATION:** NE 122<sup>nd</sup> Avenue & NE Glisan St., Portland, OR  
**DESIGN TEAM:** *Architect/Structural Engineer:* Walker/DiLoreto/Younie  
*Geotechnical Engineer:* Braun Intertec Northwest  
**CONTRACTOR:** R.A. Gray & Co.



### DESCRIPTION:

- 4-story, 120-unit apartment building with commercial space on ground level
- Concrete block construction for first level, wood frame for upper 3 stories
- Column loads up to 486 kips

The geotechnical investigation of the site revealed random fill to depths of 17' underlain by a dense gravel formation. Initial plans were to overexcavate the old fill and install new structural fill for foundation support. An existing block wall for a Target store, which bordered one full side of the project, would have required that the excavation be shored to prevent damage to the existing wall.

267 Rammed Aggregate Pier® (RAP) elements with diameters of 24" and 30" were installed as a Value Engineering alternative. The elements extended through the fill to the underlying gravel formation. Using RAP elements eliminated all shoring and over-excavation. During drilling for the piers, large concrete pieces and miscellaneous debris, including 2' boulders and an old automobile engine block, were removed.

RAP's were installed immediately adjacent to the existing block wall and footing.

### REFERENCES:

Mr. Doug Roberts  
R.A. Gray & Co.  
(503) 639-6127

Mr. Charles Lane  
Braun Intertec Northwest  
(503) 289-1778