



# VS 5 - Drain Project Report # 5

## Project:

**Sumner Brownstone  
Condominiums**

**NE Portland, OR**

approx. 4,400 sq.ft. VS 5 - Drain

The City of Portland uses several innovative approaches to reduce the amount of stormwater that flows through sewer pipes and discharges to rivers and streams. They offer discounts on commercial parking lots when they manage the storm water on their property.



VS 5-Drain permeable concrete paving stone system was chosen for the access drive between two rows of townhouses at the Sumner Brownstone Condominiums.

The paving stones were installed according to city specifications by **Stone Paving LLC**.

**Westlake Consultants Inc.** did the geo engineering with design recommendations from **Geotech Solutions**.



Native soil was excavated in a trench 8 feet deep, 3 feet wide with all grades sloping to the trench the length of the access drive.

The base layer of 8 inches consists of 3/4 in. open crushed gravel, the bedding of 1 in of washed gravel-sand and the joints were filled with 1/4-10 open gravel. The soil is all graded to the trench.

This pavement also receives rain amounts from the roofs, which size is estimated at 16,000 sq.ft.

Photo courtesy:  
Ray Johnson, Western Interlock

Report provided by:  
Ray Johnson, Western Interlock

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