

# PROVEN PROTECTION AGAINST PETROLEUM GAS AND WATER MIGRATION

Vapor intrusion has become a significant environmental issue for regulators, industry leaders, and concerned residents nationwide. The use of a spray-applied gas vapor barrier to protect against the threat of vapor intrusion has become a widely recognized application by numerous local and state regulatory and guidance groups.



### PROJECT

500 Fifth Avenue North

Design Engineer: GeoEngineers, Inc.

General Contractor:  
Sellen Construction

Certified Installer:  
Division Seven Waterproofing

### LOCATION

Seattle, Washington, USA

### PRODUCTS

LIQUID BOOT® Gas Vapor  
Mitigation System

ULTRASEAL® Waterproofing System

GeoEngineers, Inc. was chosen to assess the project site's soil conditions and offer solutions for contaminated soils and water. Ultimately, LIQUID BOOT® Gas Vapor Barrier was chosen to mitigate the subsurface soil contamination issues resulting from residual petroleum hydrocarbon contamination. CETCO certified installer, Division Seven Waterproofing, was the chosen installer on the project.

### CHALLENGE:

To install a seamless and gas-tight membrane to the 250 000 square foot underlab and to cost-effectively seal around the numerous penetrations, columns and tie backs and to protect the 70 000 square feet of vertical walls from water ingress.

This renowned and prestigious school campus site is the home to a world-class headquarters facility, located in Seattle, WA. The campus is situated on a site with petroleum gas issues from a former maintenance facility. The campus has a large underground parking structure with two buildings and a plaza on top.

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### **SOLUTION:**

CETCO provided solutions for both the soil contamination and perched groundwater conditions. CETCO's Dual System, featuring LIQUID BOOT® Gas Vapor Barrier and ULTRASEAL® Waterproofing, was installed to 70 000 square feet of vertical walls to protect the new structures from both water and gas migration into the enclosed areas. The LIQUID BOOT® Gas Vapor system was also installed to the 250 000 square foot underslab portion to protect against potential vapor intrusion, as well as a permanent drainage system. The structures required a cost effective solution that could effectively seal around thousands of pipe penetrations, 200 columns and 600 tie backs.

### **RESULT:**

LIQUID BOOT® Gas Vapor Barrier and ULTRASEAL® Waterproofing, provided by CETCO Building Materials, proved to be the most cost effective solution for the project. CETCO's certified installers were able to quickly, effectively and safely install the 320 000 sq. ft. of material within the set deadline.