

VAPOR BARRIER SPEEDS REDEVELOPMENT OF FORMER TEXTILE MILL

CASE STUDY:

Tax Credits Pave the Way for Co-Work
Space Bringing Technology Jobs



OVERVIEW

A former textile mill operated from 1926 through 1983. Throughout the years in operation, there were no regulatory guidelines in place regarding the use and disposal of hazardous chemicals used on site. As a result, once operations ceased, the site was classified as a brownfield. The building has been vacant since the early 2000's and the hazardous environmental conditions have made redevelopment a challenge. However, tax credit financing made it possible for developers to purchase the 24,500 square-foot building in 2015. The developers received \$9 million in tax credit financing, making this remediation and restoration project possible. The tax credits included the New Markets tax credits and South Carolina Textiles Communities Revitalization Act.

The site owners partnered with EnviroSouth, an environmental consulting agency, for guidance on how best to remediate the contaminants at this brownfield site. South Carolina requires soil and groundwater testing if the site is under a brownfield contract and indoor vapor sampling is necessary if the soil or groundwater contaminant levels are above regulatory levels. While

the soil testing did not show trichloroethylene (TCE) or chlorinated solvents, low concentrations found in the groundwater warranted indoor air sampling. The indoor air samples showed high TCE contaminant concentrations. Additional tests were conducted to delineate the extent of the contamination and showed that the contaminant concentrations were widespread.

EnviroSouth recommended that the building renovations include a vapor barrier system installation between the foundation and the soil pad to prevent the TCE contamination from entering the building. The floor of this historic building was made partially of concrete and partially of wood laid directly on top of the soil. Because of the floor's poor condition and variability, EnviroSouth advised the owners to remove the floor slab completely. They also recommended that the owners install Land Science's Geo-Seal Vapor Intrusion Barrier. Geo-Seal is extremely chemically resistant and has the lowest diffusion rates in the industry. Additionally, Geo-Seal effectively seals all entry pathways into the building to ensure the highest level of protection.

BACKGROUND

The former textile mill was built in 1925 and was the first plush fabric mill in the state of South Carolina. This textile mill was a key business in the community, providing higher than average wages for generations of families. Unfortunately, the downturn of the U.S. textile industry in the 1980's led to the company's decline, eventually causing the textile mill to go out of business in 1983.

The redevelopment of the former textile mill consisted of remediation, historic preservation, and the creation of a pocket park for the city. This redevelopment will bring new jobs and businesses to the area while preserving the site's important cultural and historical features.

HIGHLIGHTS



TIMELINE MET

Site owners are pleased that the quick installation of Geo-Seal allowed the project to meet construction timeline goals



SAFE AND EFFECTIVE

Geo-Seal provides multiple layers of protection and effectively seals all entry pathways ensuring the safety of future tenants



TAX INCENTIVES

The support of the state of South Carolina through the tax incentive package made it possible for developers to redevelop this brownfield site into new jobs and businesses for the community



HISTORIC PRESERVATION

The construction and renovations included elements of historic preservation

PROJECT TIMELINE

1926-1983

Main building operated as a textile mill.



2015

The former textile mill was purchased for redevelopment.



2016

Environmental Assessments took place.



Early 2000's

Site was vacated.



2017-2018

Construction and renovations.





APPLICATION

Prior to remediation, several outbuildings were torn down because they were structurally unsound or had deteriorated to the point of collapse. The main building on the site was preserved and renovated. The flooring of the main building was made partially of concrete and partially of wood laid directly on the soil. Because of the floor's poor conditions and variability, EnviroSouth advised the developers to remove the floor slab completely. After removing the slab, the old flooring was not considered to be a risk and was disposed of as normal construction material.

Geo-Seal was installed to mitigate the harmful vapor intrusion from the 24,500 square foot building. The new floor slab features a polished grind and sealed concrete without any of the risk that the older, highly-variable flooring had.

 **Geo-Seal**
Vapor Intrusion Barrier



RESULTS

After the Geo-Seal installation, the first round of indoor air samples showed no TCE contamination while the roof vents showed high levels of the contamination. These results have confirmed that installing Geo-Seal and Vapor-Vent will protect the building tenants from harmful contaminants and that the system is working successfully.

The former textile mill is now leased by Serendipity Labs, a high-performance co-working and shared office space.

They will provide state-of-the-art office spaces for established companies, start-ups, and independent professionals. In addition to elements of historic preservation, the renovations have preserved design features of the former textile mill including its high-ceilings, open floor plan, and skylights. The site owners and the city are pleased with the successful redevelopment of this brownfield site.

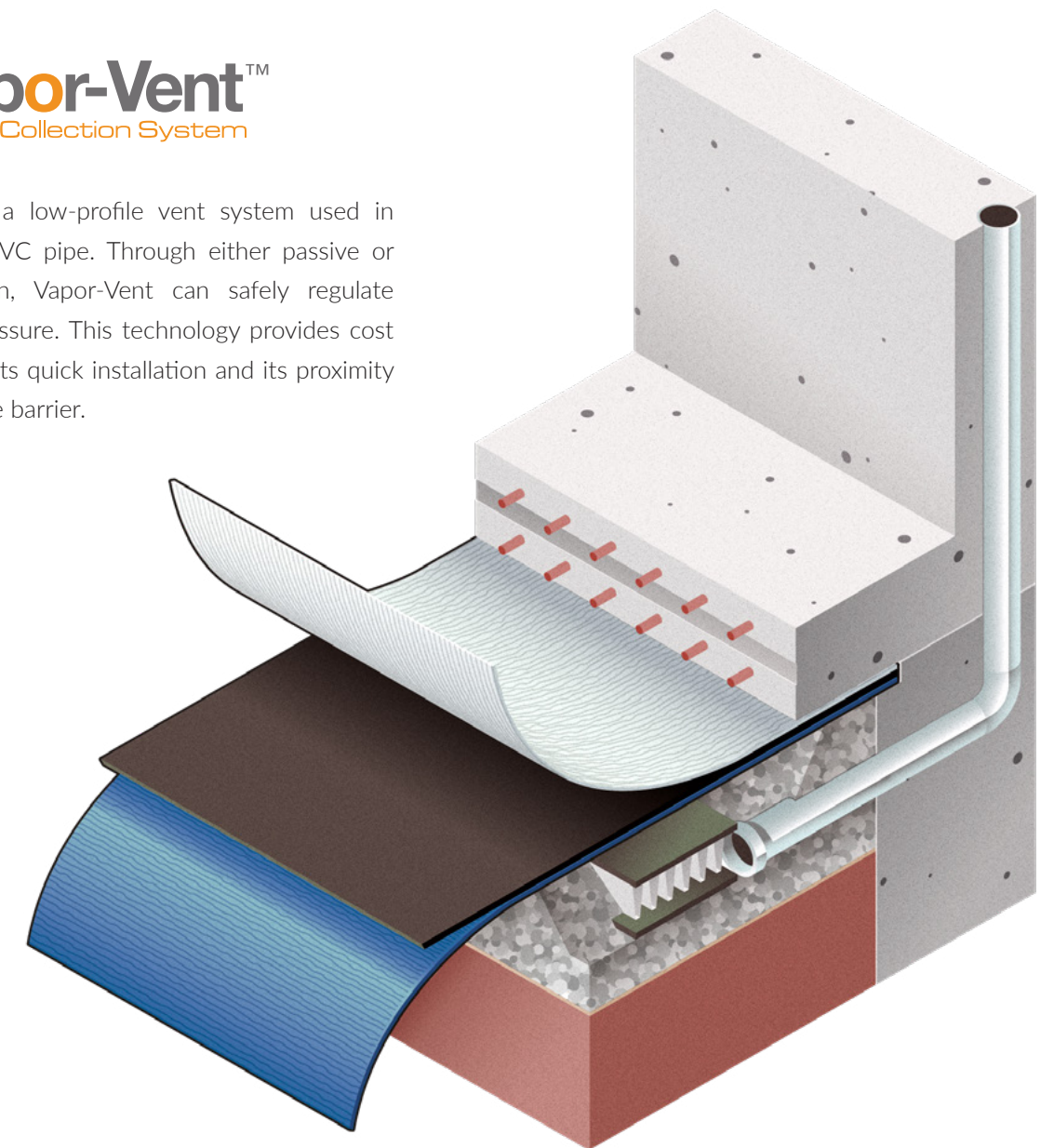
TECHNOLOGY

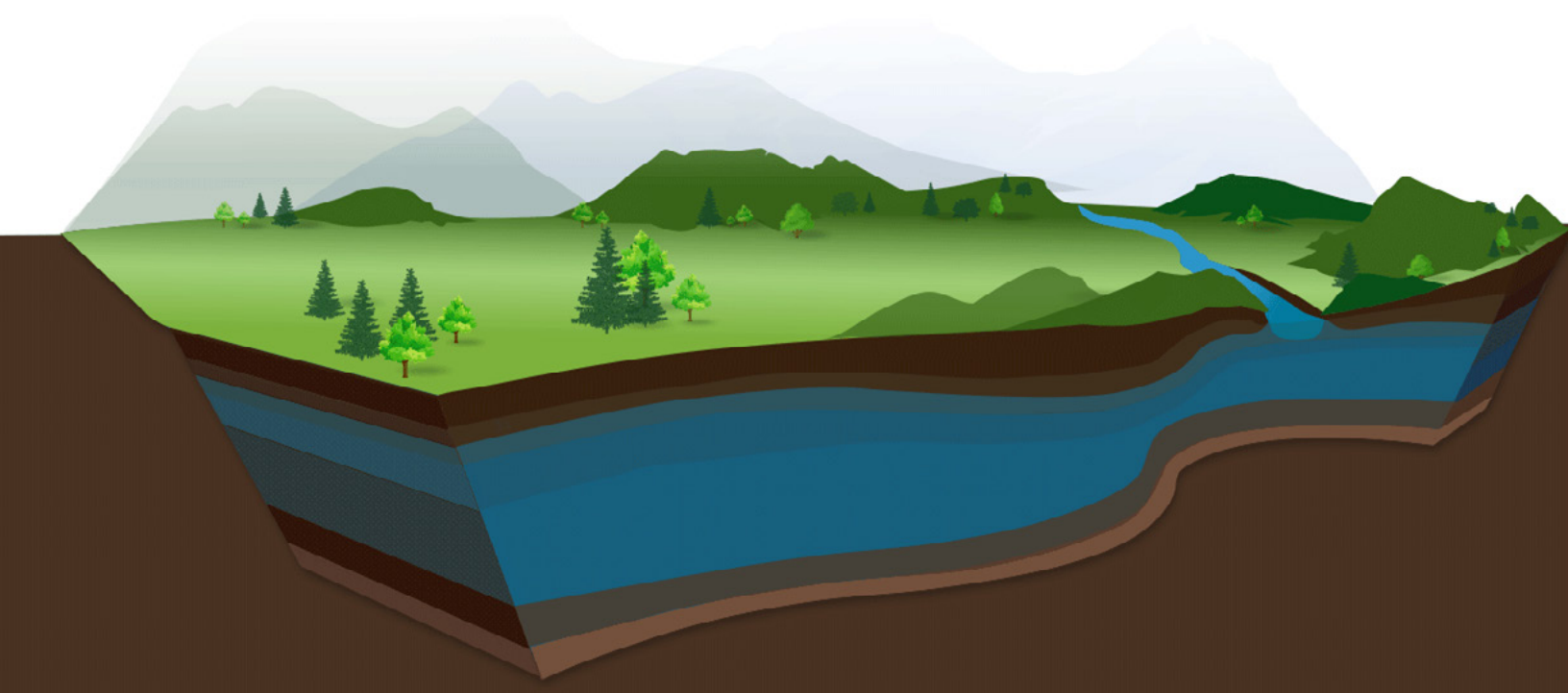


Geo-Seal® is a gas vapor management technology designed to eliminate vapor intrusion on Brownfields or any type of environmentally-impaired site. Geo-Seal is a chemically-resistant material placed between the foundation of the building and the soil pad to eliminate vapor intrusion pathways and stop contaminant vapors from permeating through the slab. By deploying Geo-Seal, developers can ensure a healthy indoor environment while reducing the cost of site remediation and expediting site construction.



Vapor-Vent® is a low-profile vent system used in lieu of slotted PVC pipe. Through either passive or active ventilation, Vapor-Vent can safely regulate underground pressure. This technology provides cost savings through its quick installation and its proximity of the vent to the barrier.





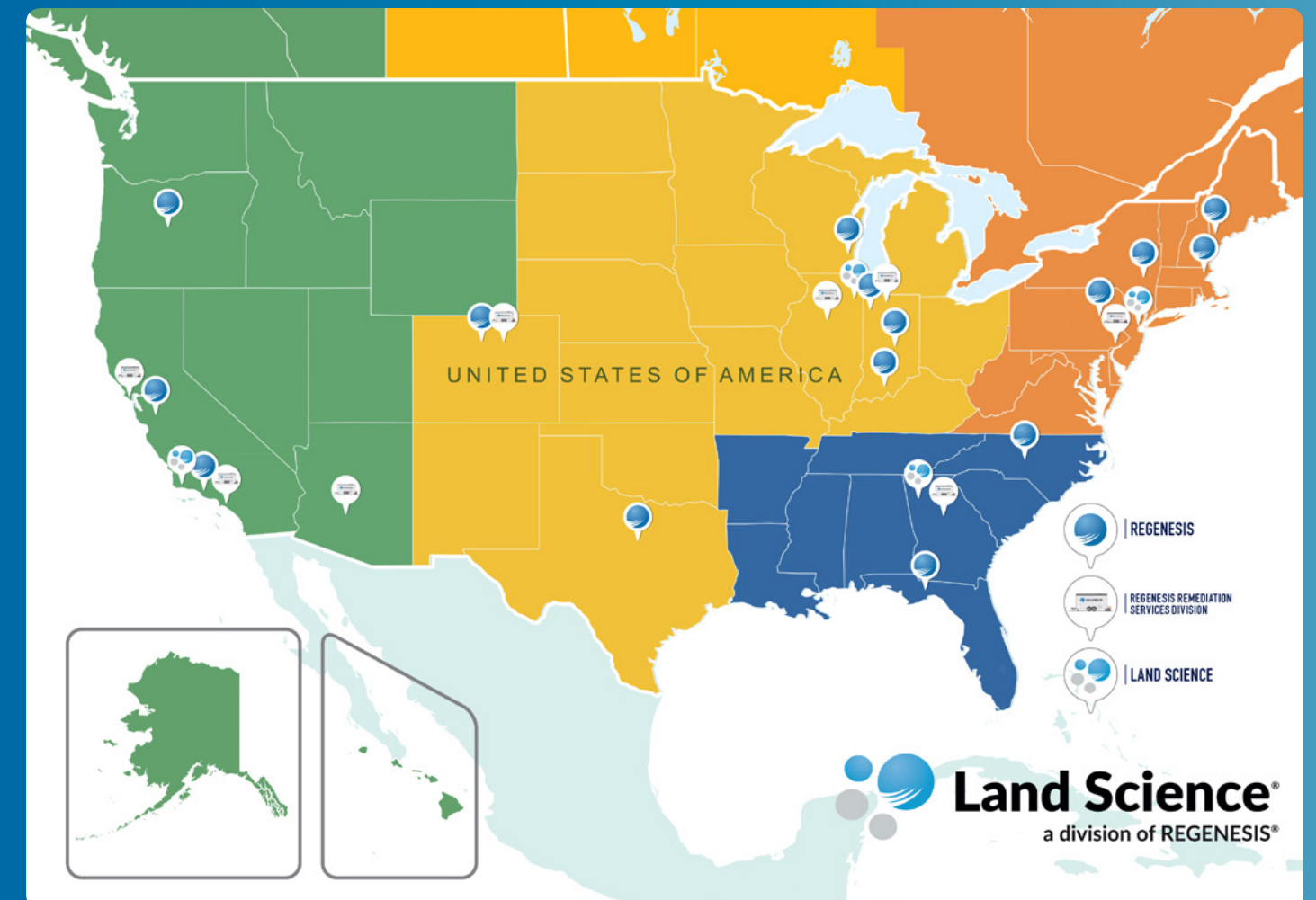
ABOUT ENVIROSOUTH

EnviroSouth Environmental Consulting, a regulatory savvy firm based in Greenville, South Carolina, was created to provide insightful environmental consulting services to a wide array of clients. They are known to provide their clients with great opportunities to turn “environmentally challenged” properties into long-term financial gains. Their experience with the South Carolina Brownfield regulatory program, as well as other Southeast State programs, has guided numerous investors to great success in purchasing these properties without painful surprises along the way. The key to their success lies in their detailed understanding of the costs, timelines, and regulatory process before a project starts allowing them to navigate their clients through the process of applying for and carrying out the terms required by State contracts, as in the case of a former textile mill.



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