



**Geotechnical Engineering**

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**Scientific & Environmental Consulting**

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**Field & Laboratory Testing**

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*At S.W. COLE ENGINEERING, INC., we've been providing consistent, objective "geo-solutions" to contractors, architects and land developers throughout northern New England for over 20 years.*

*In this brochure, you'll read about S.W. Cole's three major service divisions: Geotechnical Engineering, Scientific & Environmental Consulting, and Field & Laboratory Testing. You'll also get to know a bit about our professional philosophy—and how that philosophy directly benefits clients like you.*

*All of us at S.W. Cole Engineering truly appreciate your interest in our company, and hope you find this brochure informative and enjoyable to read.*

*We also hope to have the privilege of working with you on your next project.*

Sincerely,

**Stephen Cole, PE**  
President, S.W. Cole Engineering





# POWER IS

**S.W. COLE ENGINEERING** is truly a down-to-earth company. In fact, earth-related services—from engineering and testing to scientific and environmental consulting—have been our sole focus for over 20 years.

# STRENGTH

At S.W. Cole, we serve clients as varied as our services: from contractors and architects to corporate and public developers. Our firm is a diverse and dynamic team of engineers, scientists and technicians in five regional offices—all united in our dedication to providing clients with reliable “geo-solutions” and responsive service.

# OVER TIME.

With offices located throughout Maine and into New Hampshire, S.W. Cole Engineering responds quickly and cost-effectively to clients’ needs. And by maintaining the highest professional standards, we’ve earned a long-running reputation for delivering consistent, objective data, analysis and solutions—giving you the information and counsel you need to make better decisions in an increasingly complex marketplace.

IN PHYSICS, power is defined as work over time. At S.W. Cole Engineering, we’ve worked for over 20 years at delivering outstanding service.

THERE’S POWER in that track record. We’d like to put that power to work for you.

ARE YOU PLANNING an earth-related project? Then you have some important decisions to make. Call us today. We’d like the opportunity to help you make your next project—and the one after that—a success.

## GEOTECHNICAL ENGINEERING

*At S.W. Cole, We're Grounded in Construction-Related Solutions.*

 Engineers are problem solvers. As geotechnical engineers, technicians and geologists, our expertise is in solving the inevitable challenges created when man-made structures meet up with the complexities of natural strata and systems.

Because we understand the effects of variable ground conditions and the challenges of constructing year-round in a northern climate, we bring valuable expertise to the job site. Much of the engineering work we do is invisible in the finished product—yet critical to its structural integrity.

By combining two decades of problem-solving experience with “out-of-the-box” thinking, S.W. Cole Engineering is known for bringing creative, practical alternatives to difficult challenges.



*At S.W. Cole, Good Science Means Better Decisions.*

 The earth is generous to those who understand both its vast capacities and its limits. S.W. Cole Engineering's diverse team of scientists uses its knowledge of the interaction of groundwater and surface water on soil, rock and plants to help clients find cost-effective options and answers.

**Geology & Hydrogeology**

S.W. Cole's respected roster of geological scientists bring close to a century of combined experience to clients throughout New England. Though the projects vary, the rigor of their methods are the same: First, these scientists consult relevant publications and databases so that exploration programs consider prior knowledge before evaluating overburden, bedrock and groundwater conditions. They then use a combination of accumulated expertise and computer modeling to predict likely physical changes in the site over time, under various conditions. Specific applications include seismic risk analysis, water resource evaluations, fate and transport of groundwater contaminants, and modeling of spray and snow wastewater application rates.

**Soil & Wetlands Science**

Another longtime strength at S.W. Cole Engineering, Inc. is in Soil and Wetlands Science. In today's highly-regulated land use environment, S.W. Cole provides clients with reliable, objective soil mapping and site evaluation services, as well as wetlands identi-

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## SCIENTIFIC & ENVIRONMENTAL CONSULTING



fication, delineation, assessment and permitting. Compensating for wetland impacts is crucial to development in many areas, and we have a solid record of successfully designing mitigation plans that are prerequisite for permitting. We also provide specialized timberland consulting, using our proprietary ASIST (Assessment of Soil Indicators for Sustainable Timberlands) Method to help clients maximize long-term timber production yield by matching native tree species with optimal soil conditions.

### **Environmental Consulting**

In a commercial marketplace where location is everything, environmental due diligence for real estate transactions has become increasingly critical and complex. At S.W. Cole, our team of environmental scientists, technicians and geologists provide clients throughout the Northeast with comprehensive environmental assessment and remediation services, including Phase I and II Environmental Site Assessments, UST consulting, hazardous waste closure studies and Brownfields Redevelopment consulting. Whether the site is



a large tract of timberland or an abandoned urban mill, S.W. Cole possesses the expertise, experience and communication skills to bring vision to reality—from the ground up.



## FIELD & LABORATORY TESTING

*At S.W. Cole, We Deliver Information You Can Build On.*

 Gathering the right preliminary data—and interpreting that data correctly—is essential if your project is to both meet initial specs and stand the test of time. At S.W. Cole Engineering, we provide independent construction materials testing, both in the field and at our regional laboratory facilities.

In an industry where requirements and regulations are continually changing, we offer clients cost-effective options to meet current demands. One example of this is our Superpave Mobile Laboratory, which brings the latest asphalt testing equipment directly to your job site.

The cost of materials is considerable for any building project. And so is the cost of materials failure. At S.W. Cole Engineering, we utilize only the most reliable and appropriate methods for testing building and earthwork materials. That's why our technicians' presence on the job site can and often does result in both cost savings and increased structural durability.





**PROJECT PROFILE:** Portland Public Market opened to rave reviews, winning accolades from regional and national groups such as AIA and the Rudy Bruner Foundation, and attracting a loyal stream of local fresh food connoisseurs.

S.W. Cole played a truly “foundational” role in this \$6.5 million project, utilizing the company’s three major areas of expertise in Geotechnical Engineering, Scientific & Environmental Consulting, and Field & Lab Testing.



**Portland Public Market:**  
*A fresh approach from the ground up.*

### Scientific & Environmental Consulting

Hired by the August Corporation of Portland, S.W. Cole’s first task was to assess and review remedial options on the site of the Market and its adjacent parking lot, which had evidence of soil contamination from a series of gasoline service stations. Due to the site’s location in a busy section of the city, the cleanup was carefully orchestrated for heightened safety and minimum disruption.

As part of the above VRAP (Voluntary Response Action Plan), we also designed a passive vent system to remediate any residual contamination by providing the Market with a continual source of fresh air. Instead of the typical energy-consuming system, S.W. Cole’s design incorporates strategically tiered vent stacks which induce a natural air flow via the “chimney effect.”

### Geotechnical Engineering

As is often the case with Maine’s complex geology, this site contained several soil and rock configurations, including up to 10 feet of rubble fill, which had to be reinforced and/or compacted in order to minimize structural settlement. To accommodate the weight of the building’s column and beam design, S.W. Cole engineers incorporated spread footings in the market’s foundation.

The site of the Portland Public Market features a natural incline, which the planners wished to include in the building’s design. To accommodate this, S.W. Cole helped engineer an innovative concrete slab floor, featuring ADA-accessible sloping walkways amidst an intricate pattern of vendor platforms.

### Field & Laboratory Testing

During both the early and late phases of the foundation’s design and construction, S.W. Cole technicians provided full soil and concrete testing services for the project. This included monitoring remedial activities, from removal of contaminated soil to construction of the passive vent system.



# S.W. COLE

## ENGINEERING, INC.



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### S.W. Cole Engineering

*Office Locations*

#### **CORPORATE OFFICE**

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