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# Brownfields development - What are the hidden challenges?

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"Brownfields" - the word calls to mind opportunities for urban revitalization and necessary re-use, as well as development and progress. However, brownfields also can make one think of urban decay and environmental contamination, and, with that can come a broad range of project complexities, as well as expensive and time-consuming solutions. Understandably, mentioning brownfields sends some developers scurrying in one direction (as far away as possible) and other developers in another (back to their drawing boards and their calculators).

Since New England is the site of our nation's earliest manufacturing traffic, we are rich in both identified and still-to-be discovered projects with many years of history. From Hartford to Bridgeport, Conn., from Boston to Worcester, Mass., from Providence to Fall River, R.I., and from Springfield, Vt. to Manchester, N.H., hundreds of factories, plants and shops of the past few centuries have left their legacies deep in the grounds where they once operated or still stand today.

Typically, our region's oldest brownfields are located in urban districts. Many were developed before environmental safeguards were first employed and have long histories of multiple businesses and usages on that site, many with operations or activities which resulted in environmental impact.

As a longtime environmental consultant for New England commercial, industrial, and residential clients, I know that working with older buildings can be exciting and rewarding for developers and building owners. But they may face a range of specific challenges and issues, including some for which they did not anticipate or plan.

Historical types of waste disposal practices, particularly those in buildings in existence for centuries, include: waste lagoons - depressions used for direct disposal of liquid and solid waste sludges; direct discharge of waste into the ground; burial of waste; open top waste containers or dumpsters that allowed rain to seep into the ground; and stockpiling of waste and scrap in backyards.

Older buildings with long histories can contain hidden or forgotten contamination resulting from continual building additions, removals and/or modifications. Imagine a building that was built in the 1800s, then was enlarged and reconfigured years later for different purposes, and then reworked again decades after. Think about the manufacturing companies with huge new equipment that didn't fit in their original building, so they built around them, digging machine pits that collected oil and coolant. Some of those machines were two stories high and buried down below street level. Fast forward 20 years later, when a new company came in and the pit or the machine was still there but no longer needed. Instead of removing the waste, the pit was often filled in with dirt and concrete. Old piping trenches, basement storage rooms closed off for decades, and unused stairways sealed off by steel plates or even filled in can be found in older structures. When a building has experienced a number of generations of this type of activity, we often discover many hidden environmental issues.

It is important to be prepared for unexpected challenges, considerations, remediation and expenses.

For example, a developer may want to demolish a building and construct a new one it believes will be safer and more appealing, only to hear that the local historical commission will not grant the necessary permission. Or, a landlord or developer wants to save or beautify an historic structure, but in the process of doing so learns that the lead paint must be cleaned off the walls - a step that will generate hazardous waste. In some cases, old buildings are in such poor condition that the owner is not able to allow access for a complete environmental assessment at the beginning of the project. This makes it even more important for a consultant to be involved throughout the process so that additional issues can be immediately addressed as they are identified.

The primary challenge to redevelopment or construction on a brownfields site is to make sure that environmental issues are fully understood, and to attend to historical site concerns prior to committing extensive financial resources. Do your "history homework" with an environmental consultant to learn as much as you can about the site's past uses. This includes the spectrum of contamination problems common to older buildings, and the range of environmental regulatory issues relating to cleanup.

In many New England states, federal and state funds are available to facilitate the redevelopment of brownfields. In Connecticut, loans, grant funds and tax credits are available from the State of Connecticut's Department of Economic & Community Development and the Connecticut Brownfield's Redevelopment Authority. Massachusetts, Vermont, New Hampshire, Rhode Island, and Maine have similar programs (see www.geoquestinc.com for more information).

A well-researched and healthy respect for your New England's site's past will help to ensure an efficient and cost-effective development plan for your future. Experienced environmental consultants can knowledgeably take developers and builders from start to finish in order to achieve an historic result.

Marc Casslar is president and founder of GeoQuest, Inc., Bloomfield, Conn.