

Site Investigation & Remediation Services for the City Market South End Expansion Project in Burlington, Vermont



Awards & Recognition



Vermont Governor's Award for Environmental Excellence, August 2017



2018 Environmental Merit Award, EPA New England

Services / Expertise

Environmental Assessment & Remediation
Environmental Due Diligence
IRule Procedures
Phase I ESA (ASTM E1527-27)
Phase II ESA (ASTM E1903-11)
Remedial Investigation / Phase III ESA
Vapor Intrusion Mitigation (ASTM E2600-15)
Vermont DEC UST Program Guidance
TSCA & RCRA Waste Handling & Disposal
Development Soils Management
Asbestos and Building Material Abatement
Remedial Action Planning & Implementation
Green & Sustainable Cleanup (ASTM E2823)
Ongoing Site Monitoring

Markets

Site / Property Owners
Commercial Developers

Project Location

Burlington, Vermont

Duration

2015 – Present

Project Owner

City Market, Onion River Co-op

Project Team

Dan Voisin (Project Manager), Dan Curran, Lee Rosberg, Katrina Mattice, PE, Kim Watson, Branden Martin, PE



Photo of the new coop following remedial implementation and construction. Source: City Market

IN SEPTEMBER 2015, Stone was hired by Onion River Cooperative (City Market) to perform an ASTM E1527-13 Phase I Environmental Site Assessment (ESA) of the former Vermont Structural Steel Corporation property located at 207 Flynn Avenue in Burlington, Vermont. At the time of the Phase I ESA, the 4.6-acre property was owned by Vermont Rail Systems, which had operated a road salt terminal at the site since 1990. Past land uses included steel and iron foundering, metal fabrication and machining, brass foundering, bulk petroleum storage, and automotive and truck maintenance. At the time of the Phase I ESA, the site included ten structures divided into twelve lease spaces that were occupied by various contractors and a local trucking company.

During the Phase I ESA, Stone identified twelve recognized environmental conditions (RECs) with the site, including: historical use for iron and steel foundering, machining, fuel storage and blast cleaning; evidence of releases of petroleum materials in several areas of the site; presence of and past use of a hydraulic lift/elevator within one building; presence of a leaky air compressor in one site building; suspected underground storage tank (UST) adjacent to a former taxi garage; past operation of the property by Gulf Oil Refinery for bulk petroleum storage; past use of two historical USTs by Vermont Structural Steel Corporation; past use of the property for bronze and brass foundering; past and current use of the site for vehicle and equipment maintenance; documented tetrachloroethylene (PCE) hot spot associated with the former machine shop; proximity of the site and past use of the site for rail conveyance; and potential for vapor intrusion in existing and future buildings.

The Phase II ESA was performed using a dynamic work plan to assess whether past uses of the site had resulted in a release to environment. Stone designed the Phase II ESA to adapt to site conditions and allow additional data collection necessary to

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perform planning and engineering of remedial actions to maintain the timeline of the developer's engineering team. The Phase II ESA identified chlorinated and petroleum volatile organic compounds (VOCs) in soil gas at concentrations that could result in vapor intrusion into the proposed grocery store if not properly mitigated during construction. Foundry wastes and coal ash were observed to be widespread in shallow site soil and contain polycyclic aromatic hydrocarbons (PAHs), lead, and arsenic at concentrations exceeding US EPA regional screening levels (RSLs) for both residential and industrial soils.

In May of 2016, Stone prepared a corrective action plan (CAP) designed to allow for cost-effective redevelopment of the site during construction activities. The Project Team collaborated on a project design with elements that protected human health and maintained the projects' costs and objectives. The CAP was approved in August, marking less than one year between initiating environmental due diligence and finalizing the remediation plan, and subsequently awarded funding through the Agency of Commerce and Community Development Brownfield Revitalization Fund and the Chittenden County Regional Planning Commission Brownfield Assessment Grant. Local contractors were used for all phases of the project and included SD Ireland, Casella, DEW Construction, Alderson Environmental, and NRC Services.

City Market celebrated the groundbreaking of site on February 9, 2017, initiating the start of remedial activities outlined in the CAP and the last step towards redevelopment. Abatement of asbestos containing building materials, building demolition, and remedial actions were completed in October. The sub-slab depressurization system is currently exceeding design expectations while soil management activities included the transport and disposal of approximately 8,000 tons of urban soil and installation of engineered barriers.

On November 16, 2017, City Market opened the \$13 million, 23,000-square-foot facility with a teaching kitchen, community space, and Co-op offices. The Co-op, which employs more than 100 people, proves environmental protection, economic development, and healthy communities can go hand in hand. Besides providing healthy food and cleaning a contaminated property, City Market South End is pedestrian-friendly, and has a covered bicycle parking area. The refrigeration system uses a fraction of the energy typical in grocery stores, and solar tubes, LED lighting, and high-efficiency blowers and fans also minimize electricity usage. Surplus food is transported to Chittenden Emergency Food Shelf.

Stone is currently working with City Market to obtain a Certificate of Completion under the State of Vermont BRELLEA program.

This project received the Vermont Governors Award for Environmental Excellence in 2017 and an EPA Environmental Merit Award in 2018. For more information about City Market's South End Expansion project, you visit City Market's website: <https://www.citymarket.coop/southend>.



City Market celebrated the groundbreaking of its new South End Expansion on February 9, 2017



In 2017, Dan Voisin joined City Market as they received the prestigious Vermont Governor's Award for Environmental Excellence for the South End Expansion Brownfield Redevelopment project. This annual award recognizes the efforts and actions of Vermont individuals, businesses, and organizations to conserve and protect natural resources, prevent pollution, and promote environmental sustainability.