

Brownfield Site Assessment & 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

EPA-Funded Brownfield Redevelopment
(DEC Brownfields Technical Assistance Grant)
Environmental Assessment & Remediation
Environmental Due Diligence
IRule Procedures
Phase I ESA ASTM E1527-27
Phase II ESA ASTM E1903-11
EPA Brownfield QAPP
Remedial Investigation / Phase III ESA
Asbestos and Building Material Abatement
Vapor Intrusion Mitigation (ASTM E2600-15)
Evaluation of Corrective Action Alternatives
Corrective Action Plan & Implementation
Development Soils Management
Green & Sustainable Cleanup (ASTM E2823)
VT DEC UST Program Guidance
TSCA & RCRA Waste Handling & Disposal
Ongoing Site Monitoring

Markets

Site / Property Owners
Commercial Developers

Project Location

Burlington, Vermont

Duration

2015 – Present

Project ID#

15-167

Project Team

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

Subconsultants

Clay Point Associates, NRC Services, Alpha
Laboratories, Phoenix Labs, NRC Services,
Con-Test Laboratories



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 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 has 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 that were 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 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 for the collection of additional data necessary to perform planning and engineering of remedial actions to keep with the

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developer's engineering team timeline. The Phase II ESA identified chlorinated and petroleum 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 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 CAP designed to allow for cost-effective redevelopment of the Site during construction activities. The Project Team worked collaboratively to design the project with elements that were protective of human health while also mindful of costs and project 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 its new South End Expansion on February 9, 2017

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 BRELLA 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, visit their website: <https://www.citymarket.coop/southend>.



In August 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

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DESCRIPTION FROM EPA MERIT AWARDS 2018

Onion River Cooperative opened the City Market South End in 2017, transforming a former Brownfields site into an environmentally-friendly supermarket. The project was led by John Tashiro, general manager, and J Patrick Burns, expansion project manager. This member-owned cooperative is dedicated to supporting the local economy and strengthening the local food system. The Co-op opened City Market community food store in downtown Burlington 15 years ago. In 2015, Co-op leaders found a 4.5-acre vacant industrial property in South End. Its asbestos, lead, petroleum, and volatile organic compounds needed to be cleaned before the property could be used for a second market. With support from the Chittenden County Regional Planning Commission and state Brownfields programs, the \$13 million, 23,000-square-foot facility was opened in November with a teaching kitchen, community space, and Co-op offices. 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. The Co-op, which employs more than 100 people, proves environmental protection, economic development, and healthy communities can go hand in hand.

Relevant Experience

- ✓ EPA-Funded Brownfield Redevelopment
- ✓ Phase I & II ESA
- ✓ Remedial Site Investigation
- ✓ Asbestos & Building Material Abatement
- ✓ Vapor Intrusion Mitigation
- ✓ Corrective Action Planning & Implementation
- ✓ Green & Sustainable Cleanup
- ✓ Vermont DEC UST Program Guidance
- ✓ VDH Lead & Asbestos Program
- ✓ TSCA & RCRA Compliance
- ✓ EPA Reporting, MBE/WBE, Davis-Bacon, QAPP, HASP