



# NAUGATUCK VALLEY COUNCIL of GOVERNMENTS

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## **Healey Main Street, LLC Proposed Cleanup Project**

### Community Relations Plan

17-19 Henry Healey Drive and 520 Main Street, Ansonia, Connecticut

**March 11, 2016**

## **1.0 Overview**

The purpose of the Community Relations Plan (CRP) is to describe a strategy to address the needs and concerns of City of Ansonia residents potentially affected by the proposed cleanup of environmental contamination present at three parcels located at 17-19 Henry Healey Drive and 520 Main Street Ansonia, Connecticut. An adjacent parcel at 522 Main Street is a piece in the larger project proposed by Healey Main Street, LLC (hereafter referred to as “Healey Main Street”) but is outside the scope of the EPA funded cleanup proposal discussed in this plan. The CRP outlines how the Regional Brownfields Partnership of West Central CT (RBP) with the Naugatuck Valley Council of Governments (NVCOG), on behalf of Healey Main Street, has involved and will continue to involve affected residents, Town officials, and local organizations in the decision-making process regarding the environmental cleanup at the site. This CRP is funded by the NVCOG via EPA Brownfields Revolving Loan fund grant BF 97128501-2.

Involved residents are essential resources to the success of this project. Their comprehensive understanding of the Main Street corridor will inform the project strategy and outcomes, ensuring the efficacy of environmental cleanup and redevelopment of these three parcels for the proposed relocation and expansion of Healey Main Street’s business operations.

## **2.0 Spokesperson and Information Repository**

The spokesperson for this project is

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The Information Repository is located at the NVCOG offices (address indicated above). Documents are available for public viewing Monday through Friday, 8:30am to 4:30pm. All public meetings will be held at Ansonia City Hall, unless otherwise noted.

## **3.0 Site Description**

A full description of the site and history of use are contained in the Phase I environmental study. A Phase I report details the past uses of a site. It contains maps from different periods that indicate when and where buildings may have been constructed. A Phase I also helps to define areas where hazardous substances may have been used and where current conditions raise concerns. A Phase II investigation, built on the findings of the Phase I, includes collection and analysis of environmental samples. The data collected through previous Phase I and Phase II reports will be used as a basis for cleanup and confirmatory sampling to occur. These studies and other pertinent documents are available for public review at the Information Repository.

### **3.1 Site Location:**

The properties involved are located at 17 and 19 Henry Healey Drive and 520 Main Street, Ansonia. The three parcels occupy 2.86 acres at the corner of Main Street and Henry Healey Drive along a commercial

corridor one half mile south of Ansonia's historic Downtown. 17 Henry Healey Drive is bounded by three parcels – 19 Henry Healey Drive to the west, 522 Main Street to the east, and 540 Main Street to the south. 19 Henry Healey Drive abuts the Naugatuck River to the west in addition to 5 other parcels. 520 Main Street, the site of the dealership showroom, has access to Henry Healey Drive to the south and Chestnut Street to the north. The properties are within an area characterized by a mix of large-scale commercial activity, automotive repair facilities, and shopping plazas along the Rt. 115 corridor.



### **3.2 History of site use and ownership**

17 and 19 Henry Healey Drive and 520 Main Street are currently owned by Healey Main Street Associates, LLC. and are vacant properties. 520 Main Street was the site of a former automotive dealership's main showroom, constructed in 1966 and operated by Healey Ford through 2010. 17 and 19 Henry Healey Drive served as additional capacity and storage for the company from the 1980s through 2010. After Healey Ford ceased business operations in 2010, the properties were held by the Ford Motor Credit Company of Dearborn, Michigan. The Regional Water Authority and City of Ansonia provide water and sewer to the buildings of the properties.

#### **520 Main Street**

The showroom and automotive servicing and body shop of the former Healey Ford automobile dealership were built in 1966. An additional showroom and service bays were added in 1988. The remainder of the parcel is covered by asphalt. The parcel had previously been residential from the late 1800s to 1920s and utilized as coal storage from the 1920s to 1950s.

#### **17 Henry Healey Drive**

A 2,500 square-foot concrete pad located on the parcel was the foundation for a warehouse utilized by Kasden Fuel operations, demolished in 2005. The remainder of the parcel is paved in asphalt. Prior to purchase by Healey Ford in the 1980s, the site had a history of petroleum fuel storage and coal storage.

### 19 Henry Healey Drive

A vacant 3,600 square foot warehouse building with a concrete slab floor was originally constructed by Kasden Fuel in 1982 at the southern end of the site. There are decommissioned in-ground hydraulic lifts within the structure. The western edge of the parcel, which abuts the Naugatuck River, is undeveloped and unpaved. The remainder of the site is partially covered by asphalt and concrete surfaces.

### **3.3 Nature of the threat to public health and environment**

Phase I assessments completed by Cody Ehlers Group in November of 2015 summarize the results of previous assessment and removal activities, which include Phase I, Phase II, and Phase III reports completed by Golder Associates in November 2014 at 520 Main Street, a construction completion and source removal report completed by Golder Associates in November 2014 at 520 Main Street, Phase I and Phase II assessment completed by Golder Associates in 2013 and 2014 at 17 & 19 Henry Healey Drive, and a supplemental subsurface investigation report completed by Zuvic-Carr Associates in June 2015 at 17 & 19 Henry Healey Drive.

There are no current operations at the properties that pose a potentially significant threat to public health, or to underlying soil and ground water. The Cody Ehlers Phase I assessment concluded that remaining concerns at the sites include: releases from former underground and aboveground storage tanks, former loading racks, and two unconfirmed 3,000 gallon spill tanks not yet located. Constituents of concern include ETPH and arsenic in subsurface soil. Detectable concentrations of chemicals in groundwater were determined to have originated at up-gradient sources. The South Central Connecticut Regional Water Authority and the City of Ansonia provide potable water and sanitary sewer services to the area, and there was no evidence of water wells at the property.

The properties will enter into the Connecticut Department of Energy and Environmental Protection (CT DEEP) Voluntary Remediation Program (VRP). Per the VRP, a Connecticut Licensed Environmental Professional (LEP) will oversee the remediation of the sites following a series of milestones complying with the Connecticut Remediation Standard Regulations. The EPA Revolving Loan Fund funding will be used to aid cleanup activities including soil removal, confirmatory sampling, addition of clean soil, and soil isolation by installation of asphalt pavement as a self-implementing control, and any other approaches subject to CT DEEP and EPA approval. Groundwater monitoring will also be conducted.

### **4.0 Community Background**

Ansonia has been the site of heavy manufacturing for more than a century. It was settled in 1652 as a part of Derby and became separate in 1889 and incorporated in 1893. The land area is 6.2 square miles. Area companies produce electric supplies, brass and copper, and silk goods. It is home to Farrel Corporation that makes the Banbury Mixer and to Ansonia Copper and Brass which made metal rods, wire and tubing through the end of 2015. It was the home of the Ansonia Clock company from 1851 – 1878. There is a Metro North train stop downtown along the Waterbury branch line.

The decrease in manufacturing activity in the City and the state has caused some smaller suppliers to close and a concurrent decrease in the economic activity of the downtown. However, the City has revitalized much of the downtown area with new retail facilities.

#### **4.1 Community Profile**

The parcels at 17-19 Henry Healey Drive and 520 Main Street are located along a commercial corridor south of Ansonia's historic downtown. The City is listed as a "distressed community" by the Connecticut Department of Economic and Community Development. As such, the community is in the fourth quartile of the state in terms of 1) per capita income, 2) adjusted equalized net grand list per capita, 3) equalized mill rate, 4) per capita aid to children receiving Temporary Family Assistance Program benefits and 5) unemployment rate.

Total population is 19,188 according to the CT Economic Resource Council report for 2012. 36% of the population are people of color. The poverty rate is 13.9%. The median household income is \$54,720. The unemployment rate in the region is 6.8% as of December 2015.

#### **4.2 Chronology of Community Involvement**

The City of Ansonia supported an application by Healey Main Street to the NVCOG's EPA Revolving Loan Fund. Healey Main Street's application was followed by the submission of an EPA Eligibility Determination, which was approved. NVCOG staff aided Healey Main Street in its application to the Abandoned Brownfield Cleanup Program, which was approved by CT DEEP. Healey Main Street's application to NVCOG's EPA Revolving Loan Fund was subsequently approved by the NVCOG Revolving Loan Fund Committee.

#### **4.3 Key Community Concerns**

To date, there have been no direct comments to the NVCOG from the public concerning the proposed cleanup. However, NVCOG staff and the Licensed Environmental Professional engaged by the developer have been in contact with CT DEEP about the cleanup. A plan for public involvement and comment will be implemented as described in Section 5.0.

#### **4.4 Benefit to Targeted Community**

The community will no longer be exposed to the risk of on-site contact with identified contaminants. The investment by EPA will help realize a favorable outcome for the City and area residents and return an unproductive, vacant site to active use. Cleanup of known soil contamination will protect groundwater quality and water quality along the nearby Naugatuck River. New landscaping, paving, and the elimination of blight will reinvigorate a large expanse of abandoned buildings, increase the City of Ansonia's grand list, and will provide both temporary and permanent employment opportunities. The project will also support a well-established local business in expanding and improving its operations. The long standing commitment by the City and the Regional Brownfields Partnership to reusing challenging urban properties, bolstered by effective collaboration between EPA and CT DEEP, will have resulted in the complete turnaround of the site.

#### **5.0 Continued Community Involvement**

NVCOG staff will schedule a public meeting at an ADA accessible location within the City of Ansonia to coincide with the 30-day public comment period on the Analysis of Brownfields Corrective Action (ABCA) / Remedial Action Plan (RAP). Among the items on the agenda for this public meeting are the findings of

the ABCA/RAP, the nature of proposed environmental land use restrictions, a discussion of the proposed cleanup plan, EPA's Green Remediation Policy, and the proposed redevelopment plan for the site.

Notice of all public meetings will be posted at Ansonia City Hall, 253 Main Street, Ansonia, CT 06401, at the NVCOG website at [www.nvcogct.org](http://www.nvcogct.org), and on social media. Additionally, NVCOG staff will inform area business owners and residents through a door-to-door notification strategy. A news release will be issued when the cleanup has begun. Updates of project progress will be provided as necessary at the NVCOG website and on social media. The City of Ansonia economic development office and the Office of the Mayor will be informed of project progress directly. Materials in the Information Repository will be updated as new information is gathered and finalized. A news release will announce when cleanup is complete.

## **6.0 Proposed Project**

Additional investigations will be completed to resolve data gaps at 17 Henry Healey Drive. With the approval of the RAP, soils known to be contaminated will be removed and sampled for proper disposal. Additional characterization of these areas will confirm the efficacy of soil removals. Once these actions are complete and all necessary soil removals have occurred, the installation of new pavement and landscaping will isolate all remaining soils. An Environmental Land Use Restriction on all three properties will exclude residential use of the site in the future thereby protecting public health, subject to a required release from CT DEEP prior to excavation of soils. The cleanup of the site will allow Healey Main Street to occupy currently vacant buildings.

### Proposed Project Schedule

<b>March 15, 2016</b>	Submission of the Community Relations Plan, Analysis of Brownfields Cleanup Alternatives, and Quality Assurance Project Plan
<b>June 2016</b>	Field Investigation
<b>July 2016</b>	Public Comment Period on ABCA begins Public Meeting on Proposed Cleanup Plan
<b>August 22, 2016</b>	45-day public comment period ends
<b>July 26, 2016</b>	Meeting at City Hall to announce start of project
<b>September 2016</b>	Beginning of site cleanup work, excavation of contaminated soils
<b>September 2016</b>	Installation of pavement
<b>Spring 2017</b>	Completion of compliance monitoring
<b>Spring 2017</b>	Final verification

# **ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES**

**Former Healey Ford Properties  
Ansonia, Connecticut**

**MARCH 2016**

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# 1 INTRODUCTION

Cody Ehlers Group, on behalf of Road Ready Used Cars Inc. of Bridgeport, Connecticut (Road Ready), has prepared this Analysis of Brownfields Cleanup Alternatives (ABCA) for the Naugatuck Valley Council of Governments (NVCOG). The ABCA has been prepared for the Former Healey Ford Dealership Property at 520 Main Street, Ansonia, Connecticut (also designated as “500 Main Street”) and the Former Healey Ford Annex Property at 17 and 19 Henry Healey Drive, Ansonia, Connecticut (in this ABCA, these properties are collectively referred to as the Site while the remediation of the Site is referred to as the Project). Figure 1 shows the general locus for the Site and Figures 2 and 3 show the site plans for the two properties. Road Ready has recently purchased and plans to redevelop the Site for their car sales and reconditioning operations.

For the environmental clean-up of these properties, Road Ready has been awarded a loan from NVCOG, disbursed under the United States Environmental Protection Agency (USEPA) Brownfields Revolving Loan Fund Grant BF 97128501-2.

The Sardo’s Automotive Repair Garage Property at 522 Main Street, which has also been acquired by Road Ready and will be redeveloped concurrently by Road Ready, is not part of this ABCA as it is an operating gas station and is not eligible for Brownfield’s funding. Therefore, loan proceeds will not be used for remediation of the Sardo’s property.

Under EPA Brownfields Revolving Loan Funds agreement, the ABCA needs to include:

- Information about the site and contamination issues (i.e., exposure pathways, identification of contaminant sources, etc.); cleanup standards; applicable laws; alternatives considered; and the proposed cleanup.
- The evaluation of alternatives must include effectiveness, implementability, and the cost of the response proposed.
- The evaluation of alternatives must also consider the resilience of the remedial options in light of reasonably foreseeable changing climate conditions (e.g., sea level rise, increased frequency and intensity of flooding and/or extreme weather events, etc.).
- The alternatives may additionally consider the degree to which they reduce greenhouse gas discharges, reduce energy use or employ alternative energy sources, reduce volume of wastewater generated/disposed, reduce volume of materials taken to landfills, and recycle and re-use materials generated during the cleanup process to the maximum extent practicable.
- The evaluation will include an analysis of reasonable alternatives including no action.
- The clean up method chosen must be based on this analysis.

The EPA Brownfields Revolving Loan Fund also requires that a Quality Assurance Project Plan (QAPP) and Community Relations Plan (CRP) be prepared. A QAPP, required whenever EPA oversees the collection of field data, is prepared to assure that the data will be accurate and precise to the needs of the project. The QAPP describes the work to be performed, the types of samples that will be collected, the analytical procedures that will be used, and quality assurance practices that will be followed during the work. The CRP presents a plan for informing and obtaining input from the neighboring public at key milestones in the process. A QAPP and a CRP are being submitted to EPA concurrently with the ABCA.

### ***1.1 Scope and Purpose***

The scope for the Project includes remediation of contaminated soil containing petroleum hydrocarbons, polycyclic aromatic hydrocarbons, volatile organic compounds, and metals caused by potential releases from former property uses including storage and handling of fuels, maintenance of automobiles including a repair facility and a body shop, and potentially historic manufacturing. There is also historic fill at the Site that contains fly ash with components of metals and polycyclic aromatic hydrocarbons that requires a remedy.

The purpose of this ABCA is to develop, evaluate and recommend potential remedial alternatives for the remedy of these soil impacts. Potential remedies will need to meet criteria defined in the Connecticut Remediation Standard Regulations (CGS 22a-133k-1 to -3 - RSRs).

The Site has also been accepted into the Connecticut Abandoned Brownfield Cleanup (ABC) program pursuant to CGS 32-768. As part of this acceptance, the Project is exempt from Transfer Act filing, but needs to proceed through the Voluntary Remediation Program (VRP) pursuant to CGS 22a-133x until the Site is remediated to the RSRs. This program will include the following milestones:

- characterizing to “prevailing standards and guidelines” with submission of environmental characterization reports and LEP certification,
- the completion and public notice of a Remedial Action Plan (RAP) with LEP certification to the requirements of the RSRs,
- implementation of the remedy defined in the RAP,
- groundwater monitoring to demonstrate groundwater compliance as required by the RSRs, and
- submission of the Final Verification Report with LEP certification documenting the entire remedial process and demonstrating that the Project has been completed to the RSRs.

While the vast majority of the characterization work is completed, the Site requires some pre-remedial characterization work in preparation for the Site remediation. This additional characterization will be done using other funds (not funds from the Brownfields Revolving Loan Fund) and will be completed before the remedy, described in this ABCA, is undertaken.

Remediation will allow for transfer and reuse of these properties for Road Ready operations. Road Ready plans to reuse the 520 Main Street car sales building and the 19 Henry Healey Drive warehouse for their car sales and reconditioning operations. The remainder of the 17/19 Henry Healey Drive property will be used for car storage for future sales. Once redeveloped, the site operations will require 10 additional jobs, with further expansion possible. The City will see increased tax revenue from the redeveloped Site. A large, blighted and visible brownfield site will be revived and brought back to productive use.

## **2 BACKGROUND**

### ***2.1 Previous Environmental Reports***

Several environmental investigations have been conducted on the Site. Information developed from the following studies was used as part of this ABCA:

- April 2009, LFR, 500 (520) Main Street and 17&19 Henry Healey Drive, Ansonia, CT, Phase I Environmental Site Assessment.
- November 2014, Golder Associates, 500 (520) Main Street, Ansonia, CT, Phase I Environmental Site Assessment and Non-Domestic Wastewater Collection Device Inspection.
- November 2014, Golder Associates, 500 (520) Main Street, Ansonia, CT, Phase II and Phase III Environmental Site Assessment.
- March 2015, Golder Associates, 500 (520) Main Street, Ansonia, CT, Construction Completion and Source Removal Report.
- August 16, 2013, Golder Associates, 17/19 Henry Healey Drive, Ansonia, CT, Phase I Environmental Site Assessment.
- May 2014, Golder Associates, 17/19 Henry Healey Drive, Ansonia, CT, Phase II Environmental Site Assessment.
- July 2015, Zuvic-Carr, 17/19 Henry Healey Drive and 522 Main Street, Ansonia, CT, Supplemental Subsurface Investigation.
- November 2015, Cody Ehlers Group, 500 (520) Main Street Ansonia, CT, Phase I Environmental Site Assessment.
- November 2015, Cody Ehlers Group, 17/ 19 Henry Healey Drive, Ansonia, CT, Phase I Environmental Site Assessment.

### ***2.2 Site Description and History***

The two former Healey Ford properties are designated as the Former Healey Ford Dealership Property at 520 Main Street, and the Former Healey Ford Annex Property at 17 and 19 Henry Healey Drive. These properties are adjacent to each other in downtown Ansonia in a primarily commercial area.

Groundwater in the vicinity of the parcels is classified by the CTDEEP Groundwater Classification Map of Connecticut as GB. The GB classification indicates that groundwater in the area is not suitable for potable water supply. The parcels are located approximately 500 feet east of Naugatuck River. The Naugatuck River is designated as a Class C/B river by the CT DEEP. There are no public or private water supply wells in this area.

Much of the parcels contain non-native fill material, which includes coal fly-ash. The US Department of Agriculture's Soil Conservation Service classifies soils in the vicinity of the Property as urban land. Geologic units underlying the Property belong to the Pumpkin Ground Member of the Harrison Gneiss.

Each of these properties is described below:

### **2.2.1 Former Healey Ford Dealership Property**

The 1.28-acre Former Healey Ford Dealership Property at 520 Main Street (Dealership Parcel) contains a 28,850 square foot building surrounded by asphalt pavement. This parcel occupies the southwest corner at the intersection of Main Street and Chestnut Street in an industrial/commercial section of Ansonia, Connecticut. Multi-tenant office buildings are located across Main Street to the east and across Chestnut Street to the north. Valley Home Decor is adjacent to the west of the Property, and the Naugatuck River is located just west of that. Henry Healey Drive is adjacent to the south of the Property. Sardo's Automotive is located further south, across Henry Healey Drive.

The site building was constructed in 1966 for use as the Healey Ford automobile dealership. In addition to auto sales, the facility was used for automotive servicing and body shop activities. In 1988, an addition was constructed onto the original building to add a second show room and additional service bays. In 2010, Healey Ford closed the dealership. Ford Motor Credit Company of Dearborn, Michigan, the current owner, obtained the property through foreclosure in 2013.

Prior to initiation of auto dealership activities in 1966, historical uses at the Property included residential use (late 1800s to 1920s) and coal storage (1920s to 1950s). The area surrounding the Property was developed by the late 1800s. Historical uses of surrounding properties included residential, lumber yards, brass manufacturing, apparel manufacturing, coal storage and sales, and several retail sales establishments.

The property has been connected to the municipal water supply and sewer systems since at least 1966, when the existing building was constructed. No evidence of historical on-site septic systems or water supply wells was identified. However, an oil/water separator, trench drains and floor drains were present in former dealership service areas.

The Dealership Parcel is approximately 300 to 500 feet east of the Naugatuck River. Groundwater is approximately 9 to 10 feet below ground surface with groundwater contours showing flow in a northwesterly direction toward the river. 520 Main Street

Based upon a review of the above documents, a summary of the site environmental conditions for the Dealership Parcel is as follows:

- Healey Ford operated its dealership showroom and repair facility at this address. Activities included auto body and mechanical repair operations. The former dealership property has been vacant for over five years.

- Prior work by Golder included Phase I and II assessments followed by the removal of several in-ground hydraulic lifts and soil within the former repair garage. The Golder identified Areas of Concern (AOCs) included areas where former Healey Ford operations occurred and also areas that could have been affected by either on-site historical activities or up-gradient, off-site sources. The Golder Phase II ESA included the drilling of twenty seven soil borings with six of the soil borings completed as groundwater monitoring wells. A total of twenty three shallow soil samples were collected from depths ranging from 1.5' – 2.0' below ground surface. Each shallow soil sample was analyzed for total metals. A total of twenty seven deep soil samples were collected from depths ranging from 9.0' to 13.0' below ground surface. Each sample was submitted for laboratory analysis of volatile organic compounds (VOCs), semi volatile organic compounds (SVOCs) and extractable total petroleum hydrocarbons (ETPH). One sample was analyzed for PCBs. Golder sampled the six monitoring wells for VOCs, SVOCs, ETPH and total metals.
- The extent of soil and groundwater contamination has been well-documented by Golder and the property has been adequately characterized for the purposes of achieving compliance with the “prevailing standards and guidelines” requirements of the CTDEEP.
- Following the Phase II, Golder oversaw the removal of several in-ground hydraulic lifts and impacted soil from the vehicle repair garage. Post-excavation soil sampling in this area confirmed that no soil remained in place above applicable criteria. In addition, impacted soil beneath a compressor blow-down pipe was removed under LEP direction. Certified clean gravel was backfilled into the excavated areas

### **2.2.2 Former Healey Ford Annex Property**

The 17 and 19 Henry Healey Drive property (Annex Parcel) consists of two separate adjacent lots of land totaling, according to assessor records, approximately 1.6 acres in size. The 17 Henry Healey Drive portion is further east and adjacent to Sardo's service station while the 19 Henry Healey Drive portion is closer to the river. A former railroad spur runs between the two parcels.

The 17 Henry Healey Drive parcel consists of an asphalt parking lot and a 2,500 square-foot concrete pad on which rested a warehouse used by Kasden Fuel operations. The building was demolished in 2005. The adjacent Sardo's Service Station at 522 Main Street presently uses this parcel for vehicle storage.

The 19 Henry Healey Drive parcel contains a 3,600 square foot warehouse building used by Mr. Sardo for vehicle storage and repair. The warehouse has a concrete slab floor with decommissioned in-ground hydraulic lifts. There is a small office area and restrooms that are provided with water and sewer services by the regional water authority and the City of Ansonia, respectively. The building was constructed by Kasden Fuel in 1982 as a mechanic's garage. The remainder of this parcel is partially covered with asphalt and concrete surfaces

along its eastern half. The western area is undeveloped and unpaved. A chain-linked fence and locking gates secure the property.

The Annex Parcel is bound to the north by Henry Healey Drive and the former Healey Ford dealership property at 520 Main Street and the Valley Lighting & Home Décor showroom building to the north-northwest. Sardo's Automotive abuts the property to the northeast and a small retail center abuts the property directly to the east. Across Main Street are retail shops including an automotive parts center. South of the property is a vacant lot with one small commercial building and west of the property is the flood control dike for the Naugatuck River.

A review of historical records showed the following:

- 1890-1911: Residential properties were shown on the property in an 1890 Sanborn Fire Insurance Map depicting the property and surroundings. The 1906 Sanborn map indicates a wooden shed on the property owned by the Schneller, Osbourne and Cheesman Co., a manufacturer of brass products. The 1911 Sanborn map shows the shed is gone and the property is vacant.
- 1924-1950: In 1924, the Ansonia Coal Company was operating a coal storage shed on the property. Aerial photography shows a similar structure until 1950. Ansonia Coal changed its name to Kasden Coal Company ("Kasden") and constructed additional buildings.
- 1950-1980s: Kasden operated the coal company, adding three new buildings. Subsequently, Kasden Fuel Company began operating a small bulk petroleum fuel distributorship until the property was purchased by Healey Ford in the 1980s. Kasden operated a series of underground storage tanks with a loading and unloading dock to supply fuel oil and distillates to customers. During that time, it constructed a small building where the concrete pad now exists in the northeastern corner of the property.
- 1980s-2009: Healey Ford had been operating its dealership at 520 Main Street and then purchased the Annex Parcel for additional parking and the use of the warehouse building. Reportedly the current warehouse building had been used as a vehicle body shop in the 1980s before the body shop operations were moved to the 520 Main Street building. In 2005, the smaller warehouse was demolished and the concrete pad is all that remains. The two in-ground hydraulic lifts located inside the garage were removed in 2009, when Healey Ford ceased operations.
- 2010-Present: Sardo's began using the Property for vehicle storage and parking. The warehouse is used for vehicle repair and body work. FMCC took over the ownership following Healey Ford bankruptcy filing.

Historical information indicates that there are no wells or septic systems on the Annex Parcel.

The Annex Parcel is approximately 100 to 300 feet east of the Naugatuck River. Groundwater is approximately 10 to 12 feet below ground surface with groundwater contours showing flow in a southwesterly direction toward the river. Beaver Brook, which has been channelized to flow



under the properties along Main Street, flows to the south and east of this parcel discharging into the Naugatuck River.

Based upon a review of the above documents, a summary of site environmental conditions for the Annex Parcel is as follows:

- The Annex Parcel collectively operated as part of Healey Ford operations and included an auto body repair operation for a few years before that operation was transferred to the 520 Main Street property. Historically, the site was operated as a coal and fuel oil distributorship (Ansonia Coal and Kasden Fuel Oil) from the 1920s until the 1980s after which Healey Ford began operations. The former Annex property has been vacant for over five years. .
- The #19 parcel contains a 3,600 square foot building with limited paved surfaces. Prior uses at #19 were car storage lots and in the building, car preparation and, for a limited time, auto body repair work. Several AOCs were investigated with a determination that no releases to the soil or groundwater had occurred except for oil spillage in the southwestern corner of the parcel.
- The #17 parcel has a 2,500 square foot concrete pad that remains from a former building. Most of the parcel is unpaved. Parcel #17 also had historic uses as an oil storage facility and coal yard. The Phase II findings established that there were no significant releases. However, the historic previous use as a coal yard left some evidence of coal and coal ash and evidence of residual petroleum in the vicinity of the former oil storage tanks.
- Previous assessment work was completed by both Golder and Zuvic Carr. The Golder Phase II ESA included the advancement of 16, continuously sampled, 15 foot deep soil borings. A total of 13 shallow soil samples were collected from depths ranging from 1.5' – 2.0' below ground surface and were analyzed for total metals. A total of 16 deep soil samples were collected from depths ranging from 9.0' to 13.0' below ground surface. Each sample was submitted for laboratory analysis of VOCs, SVOCs and ETPH. Four soil borings were completed as groundwater monitoring wells. Four groundwater samples were collected and analyzed for VOCs, SVOCs, Polychlorinated Biphenyls (PCBs), ETPH and RCP 15 total metals.
- The Zuvic Carr Supplemental Subsurface Investigation included the advancement of 14 soil borings, sampled continuously to a total depth of approximately 15 feet. A total of 15 soil samples were collected from depths ranging from 2.5' to 15.0' below ground surface. Each sample was submitted for laboratory analysis of ETPH and VOCs. Select samples were analyzed for total metals, PCBs, herbicides and SVOCs. Four of the soil borings installed were completed as groundwater monitoring wells. A total of four groundwater samples were collected and submitted for laboratory analysis of VOCs, SVOCs, ETPH and total metals.
- Golder and Zuvic Carr found no ETPH and no petroleum-related VOCs or PAHs in any groundwater samples. Golder found traces of barium, copper, lead and zinc in the

groundwater while Zuvic Carr found concentrations of barium, copper and zinc. The metal detections were attributed to be from the fill materials which contained traces of metals.

- The characterization work conducted by both Golder and Zuvic Carr produced a fundamental understanding of soil and groundwater conditions and identified impacts to shallow soil and groundwater from historical operations. For all but two of the identified AOCs, site conditions are well understood and no further characterization work is anticipated. The two AOCs requiring characterization work to define remedial extent are:
  - A suspected drum disposal site –based on hearsay evidence provided by Mr. Sardo to Zuvic Carr, and
  - Former Kasden Fuel Storage and Distribution System that included the operation of several fuel tanks and associated unloading and loading racks and spill containment equipment.
- Except for the above-described characterization tasks, the extent of soil and groundwater contamination has been well-documented by Golder and Zuvic Carr and the property has been adequately characterized for the purposes of achieving compliance with the “prevailing standards and guidelines” requirements of the CTDEEP.

### **2.3    *Exposure Pathways***

Portions of the soils at the Site are not currently compliant with RSR criteria and may represent exposure potential to people in proximity to the Site. While there is always some risk, once remediation is completed and the Site is RSR compliant, the exposure potential is reduced to levels considered to be safe according to state laws and regulations.

During construction when contaminated soil is handled, potential additional short term risk may be created. However, these are short term impacts and risk equations are sensitive to “time of exposure” and, therefore, the risk is small from this short-duration construction work. In addition, measures can be taken to reduce the risk further (e.g., implementation of health and safety plan, wearing protective equipment, field practices to reduce dust, etc.)

A summary of potential exposure pathways is presented in Table 1 below:

**TABLE 1**  
**SUMMARY OF POTENTIAL EXPOSURE PATHWAYS**

<b>Pathway</b>	<b>Regulatory Driver</b>	<b>Mitigation Method</b>
Direct ingestion or dermal exposure of contaminants from shallow soil. Shallow contaminants can be windblown into breathing zone and inhaled or ingested.	RSR Direct Exposure Criteria either industrial/commercial or residential sets protective criteria in shallow soil.	Excavation of non-compliant shallow soils removes risk. Pavement or cover over shallow soil prevents wind erosion or incidental contact, with ELUR to protect future property uses.
Direct ingestion or dermal exposure of contaminants from deep soils	RSR Direct Exposure Criteria require compliance to 15 feet deep.	No exposure unless excavating. ELUR will provide notice on deed preventing excavation without proper precautions.
Percolating water mobilizes contaminants to groundwater. Person contacts or drinks groundwater.	RSR GB Pollutant Mobility Criteria sets protective criteria in soils above water table	No public or private wells in area to complete pathway. Groundwater classified as "GB". Groundwater shows minimal impact from site contaminants
Contaminants volatilize from soil or groundwater. Person breaths volatile chemical.	RSR Volatilization Criteria in groundwater and Soil Vapor Volatilization Criteria in soil gas	Volatile constituents have not been measured at levels that would cause a concern.
Percolating water mobilizes contaminants to groundwater. Groundwater impacts local surface water providing exposure point.	RSR Surface Water Protection Criteria in groundwater	Minimal constituents in groundwater. No constituents above surface water protection criteria.

## **2.4     *Future Land Use***

Road Ready intends to redevelop the Site for its used automobile sales and maintenance operations. Current structures on the Site will be primarily preserved for their office and garage operations with Annex Parcel used for storage of inventory of automobiles.

### **3 APPLICABLE LAWS AND REGULATIONS**

#### **3.1 *CT Brownfields Program Acceptance***

The Site has been accepted into the Connecticut Abandoned Brownfield Cleanup (ABC) program pursuant to CGS 32-768. By acceptance into the program, the following provisions apply:

- The site owner needs to enter and remain in the Voluntary Remediation Program (VRP) established in CGS section 22a-133x; to investigate pollution in accordance with prevailing standards and guidelines and to remediate pollution in accordance with RSRs. Designation of a property in the abandoned brownfield cleanup program also exempts from filing as an establishment under the Transfer Act.
- The site owner is not responsible for investigating or remediating sources of pollution that have emanated from the property prior to taking title to the property.
- Upon completion of the requirements of the VRP to the satisfaction of the CTDEEP, the owner will qualify for a covenant not to sue without fee.
- The site owner is not liable to the CTDEEP for conditions preexisting or existing on the brownfield property as long as the site owner (1) did not cause release, (2) does not exacerbate the conditions; and (3) complies with reporting of significant environmental hazard requirements.

#### **3.2 *Voluntary Remediation Program***

As part of the ABC acceptance, the project is exempt from Transfer Act filing, but needs to proceed through the VRP pursuant to CGS 22a-133x until the property is remediated to the RSRs. While CTDEEP has the option to oversee this project, generally a Licensed Environmental Professional (LEP) oversees the investigation and remediation of these types of Brownfield projects. In addition, there are no conditions (for example, affected drinking water wells) that would indicate that CTDEEP would take the lead.

This VRP program will include the following milestones:

- characterizing to “prevailing standards and guidelines” with submission of Investigation Report(s) and LEP certification,
- the completion of a Remedial Action Plan (RAP) with public notice and LEP certification defining a remediation program meeting the requirements of the RSRs,
- implementation of the remedy as defined in the RAP,
- as applicable, groundwater monitoring to demonstrate groundwater compliance, and
- submission of the Final Verification Report with LEP certification documenting that the remediation work has been completed to the RSRs.

### 3.3 Remediation Standard Regulations

In 1996, the RSRs were promulgated. The RSRs set the approach to site remediation and define performance criteria (i.e., clean-up levels) for soil and groundwater at industrial/commercial sites in Connecticut. Because the Site is regulated under the Voluntary Remediation Program, the RSRs define standards for remediation of soil and groundwater at the Site.

The RSRs define a two tiered approach for cleanup of soil and groundwater at “GA” versus “GB” groundwater classified areas. “GA” areas (or drinking water areas) require a more stringent cleanup approach. The RSRs define several sets of specific cleanup numeric criteria for different environmental pathways (for example, drinking water, surface water, volatilization to breathing zone, etc.). These sets of criteria represent a conservative model of different pathways that constituents could travel to potential human or environmental receptors. The RSRs also allow “alternative criteria” to be developed for a site based on meeting specific requirements defined in the RSRs (self-implementing provisions) or based on a risk-assessment demonstration approved by CT DEEP.

Since the Site is in a “GB” groundwater area, the applicable criteria for soil are the “GB” pollutant mobility criteria (GBPMC) and the residential direct exposure criteria (RDEC). If the property chooses, the industrial/commercial direct exposure criteria (ICDEC) may be used in lieu of the RDEC provided an environmental land use restriction (ELUR) is obtained on the deed that prevents the property from changing to residential use without taking action on these environmental issues. Soil is defined in the RSRs for “GB” areas as above the seasonal high water table. The RSRs consider conditions where soil is ‘inaccessible’ (not subject to the DEC) or is ‘environmentally isolated’ (not subject to the GBPMC).

The applicable criteria for “GB” classified areas for groundwater are the surface water protection criteria (SWPC) and the residential volatilization criteria (RVC). If the property chooses, the industrial/commercial volatilization criteria (ICVC) may be used in lieu of the RVC provided an ELUR is obtained on the deed requiring continued industrial/commercial use. The volatilization criteria is only applicable beneath buildings and if the water table is less than 15 feet deep; however an ELUR would be required to prevent future construction in areas without present buildings where volatilization criteria are exceeded.

Provisions that could potentially apply to the Site include:

- The RSRs have an exception that states that PMC do not apply to polluted fill (specifically including fly ash) provided 1) there are no VOCs above their applicable PMCs, 2) the applicable DEC is met, 3) the site does not affect a drinking water supply or private drinking water wells, 4) a public water supply is available within 200 feet of the site, and 5) the placement of the fill was not prohibited by law at the time it was placed [RSCA Section 22a-133k-2(c)(4)(B)]. The Site meets these conditions.
- If a specific site situation meets the definition of “inaccessible soil” then it will not be subject to the RDEC. Inaccessible soil is defined as i) soil greater than 4 feet in depth,

ii) soil greater than 2 feet depth below 3 inches of pavement or iii) polluted fill soil immediately below pavement with metal contamination that is less than 2 times the RDEC. Inaccessible soil would also require an Environmental Land Use Restriction (ELUR).

### **3.4    *Institutional Controls***

It is anticipated that one or more ELURs will be part of the approved remediation program for the Site.

The purpose of an ELUR is to minimize the risk of human exposure to pollutants and hazards in the environment by preventing specific uses or activities at a property or a portion of a property. The ELUR permits the remedial goals for a property to be dependent on the exposure risk associated with its intended use. The CT DEEP in its June 27, 2013 amended ELUR Regulations, provided updated forms and guidance designed to improve the process.

In accordance with the RSRs, the use of an ELUR would be required to be part of the remedy if the remedy includes “inaccessible soil” which eliminates the direct exposure pathway and the need to comply with the DEC. By defining the location, depth and type of materials left in place in the permanent notice on the deed, future potential exposure by construction workers and others will be prevented or controlled. This will allow for leaving materials such as the metals-containing fill in place. An ELUR may also be appropriate to designate future use of the Site as industrial/commercial (non residential) as this will allow the use of higher clean-up criteria.

## 4 ANALYSIS OF CLEANUP ALTERNATIVES

Based on the anticipated future land use, environmental conditions, contaminants of concern and applicable regulations identified above, the various options for remediation were evaluated.

### 4.1 *Screening of Remedial Technologies*

There are technologies that have been effective at providing remedies at sites similar to the Project with petroleum compounds and metals in soil and groundwater. The success of a given technology is very sensitive to the particular site conditions and the correct application of a technology.

Table 2 provides a screening of possible technologies. Based on a review of site conditions, the specifics of each remedial area, and a review of relevant literature, individual technologies were either retained for further analysis or eliminated as summarized on Table 2. The eliminated technologies were technically infeasible, not well suited to site conditions, or too costly – see comment field on Table 2.

Only two technologies (Institutional Controls and Excavation and Offsite Disposal) have been retained and are formulated as parts of alternatives to clean up the Site. These are discussed below.

#### 4.1.1 Institutional Controls

Institutional controls such as an ELUR are allowed for commercial/industrial sites to 1) define ‘environmentally isolated soil’, 2) define ‘inaccessible soil’, and 3) restrict the future use of a property. ELURs require property owner approval. ELURs relevant to all or a portion of the Site are summarized as follows:

- **Industrial/Commercial Use:** An ELUR can be attached to the Site to restrict the subject properties to industrial/commercial (IC) use. This ELUR would reduce the theoretical exposure to receptor populations and therefore will allow the application of ICDEC for soil, ICVC for ground water and the IC soil vapor volatilization criteria for soil vapor. This ELUR is defined in the Regulations of Connecticut State Agencies (RCSA) Sections 22a-133k-3 (c) (2), 22a-133k-2 (b) (2) (A), and 22a-133k-3 (c) (3) (A).
- **Inaccessible Soil:** An ELUR defining ‘inaccessible soils’ for soils beneath a building, or under certain conditions (4 feet below grade or 2 feet below pavement or polluted fill soil immediately below pavement with metal contamination that is less than 2 times the RDEC) which exceed the DEC can be obtained. This ELUR would allow soil with concentrations above the DEC at these locations to remain because the exposure pathway is incomplete. This ELUR would require appropriate soil management activities if future excavation was to occur at these defined locations. This ELUR is defined in RCSA Section 22a-133k-2 (b) (3).



**TABLE 2**  
**SCREENING OF ALTERNATIVES**

<b>Technology</b>	<b>Effectiveness in Meeting Objectives</b>	<b>Acceptable Engineering Practices</b>	<b>Cost</b>	<b>Status</b>	<b>Reasoning/Comments</b>
No action	Not Effective	Acceptable	Very Low	Retained for comparison	Constituents above state criteria. CT Transfer Act requires cleanup at transfer
Institutional controls	Effective	Acceptable	Low	Retained	Land use restrictions under specific circumstances will prevent exposure
Engineered control variance	Effective	Acceptable	High	Eliminated	Long term monitoring, and financial assurance requirements make it undesirable and costly. Better options available
Monitored natural attenuation	Not Effective	Acceptable	Low	Eliminated	Not really relevant for issues at site – groundwater meets criteria
Vapor control at future building	Not Effective	Acceptable	Low	Eliminated	Volatile contaminants not at issue
Extensive Excavation and Offsite Removal	Effective	Acceptable	High	Retained	Allows unrestricted use.
Hot Spot Excavation and Offsite Removal	Effective	Acceptable	Moderate	Retained	Commonly applied to similar sites
Air Sparging/ Vapor Extraction	Not Effective	Acceptable	Low	Eliminated	Not relevant for site issues.
Enhanced anaerobic biological	Not Effective	Acceptable	Moderate	Eliminated	Not relevant for site issues
Enhanced aerobic biological	Not Effective	Acceptable	Moderate	Eliminated	Not relevant for site issues
Chemical Oxidation	Not Effective	Acceptable	Moderate	Eliminated	Could reduce petroleum hydrocarbon concentrations but may mobilize metals in fill

The RSRs define a prescriptive process to obtain an ELUR and obtaining ELURs has become fairly routine in Connecticut. This process includes submission of application to CTDEEP for approval. The application includes an A-2 survey, identification of the areas where ELURs are proposed and non-complying materials remain in place, and the preparation of a decision document in which the rationale for the use of an ELUR is presented. Following CTDEEP approval and a public notice period, the ELUR will be recorded on the deed. Since the ELUR needs to reflect the site conditions at filing, the ELUR is typically submitted for CTDEEP approval following the completion of the remedial actions.

#### **4.1.2 Excavation and Offsite Disposal**

The most common soil remediation technology at hazardous waste sites is excavation and offsite disposal. It is simple, used at many sites, and found to be effective. It can be a large scale operation on a site or small scale “hot-spot” removal. In many cases, it is the default technology used to compare to other technologies which may have a higher risk of failure but may cost less to implement. Depending on the volumes of soil involved, it can be comparable to other technologies in cost (smaller volumes) or very expensive (large volumes).

The excavation process at a site typically will involve the following steps:

- The extent of excavation and the constituents of concern will be initially defined based on the borings and sampling conducted during site investigation and comparison to the Connecticut RSRs. A plan for excavating will be formulated. Potential soil disposal facilities will be contacted for acceptance criteria and sampling requirements.
- A contractor will be hired for excavation work. Site health and safety plan will be created based on constituents expected to be encountered during the excavation and other below grade excavation safety concerns. The health and safety plan will be reviewed and implemented by the contractor.
- If contaminated soil exists at depth with clean materials above, these clean materials may be removed and separately stockpiled for reuse.
- During excavation, trained field personnel will oversee the contractor to insure compliance with the plan. On site personnel will observe the encountered soils and screen soils for volatile compounds with a portable photoionization detector (PID). At the completion of the defined extent of the excavation, confirmation soil samples will be collected from the sidewalls and bottom of each excavation area at a prescribed frequency.
- Samples will be transported to a certified laboratory for the analysis of constituents of concern. If the applicable RSRs are exceeded, additional excavation and sample collection process will be repeated until laboratory results are obtained that meet RSR criteria.
- Stockpiled soil awaiting off-site disposal or on-site reuse will be placed on polyethylene sheeting and surrounded with hay bales. The stockpiles will be maintained as to prevent run off of the soil to the ground surface. Polyethylene

sheeting will be used to cover the stockpiles. Samples will be collected and analyzed for constituents as required to meet disposal facilities acceptance criteria.

- The excavation will be backfilled with previously removed clean material or offsite clean fill and restored to match the surrounding grade. The location of the limits of the excavation will be surveyed or tied to existing permanent features (e.g., buildings, walls).
- Once accepted by the disposal facility, the soils will be loaded onto trucks and brought to the disposal facility using a bill-of-lading or manifest.
- The excavation and disposal process will be documented with photos during the process, with laboratory reports, with field reports, and bills-of-lading from transporter and disposal facility.

#### **4.2 Remedial Alternatives**

Using the retained technologies above, the following three alternatives were evaluated for remediation of the Site:

- Alternative #1 - No action.
- Alternative #2 - Extensive Soil and Fill Removal Allowing Future Unrestricted Use.
- Alternative #3 - Hot Spot Soil Removal with Inaccessible Soils and ELUR.

The two parcels are treated together as the most reasonable program would include similar remedial approaches for both parcels. Each alternative is evaluated based on:

- Effectiveness – the ability of the alternative to meet cleanup goals and to protect human health and the environment.
- Implementability – the ability of the alternative to be implemented with current and proven construction methods.
- Resiliency to Climate Changes – the ability of alternative to cope with future climate changes such as sea level rise, increased frequency and intensity of flooding and/or extreme weather events, changing temperature/precipitation patterns, changing flood zones, increased salt water intrusion, and higher or lower groundwater table.

The site is located in Ansonia Connecticut adjacent to the Naugatuck River approximately 13 miles upgradient from the Long Island Sound at elevation of approximately 20 to 23 feet above mean sea level. The Naugatuck River is a medium sized river (average annual flow of 560 cfs) and a tributary to the Housatonic River with its confluence approximately 1.5 miles south of the Site in Derby, Connecticut. The river flow is affected by the rise and fall of the tide to a point south of Ansonia approximately 1/2 mile south of the site. The Naugatuck River was subject to extensive flooding in the 1955 floods with many flood control and channel changes made in the area of the site by the Army Corp in reaction to damage caused by the flood. These changes included an earthen dike west of the site protecting the area from river flood stage.

Based on its location adjacent to the river, the most likely climatic changes would be to move the tidal influence to a point near the Site, increase the potential for flooding, increase the groundwater table at the Site. The area has already been subject to flooding in the past. Future severe weather is also possible for the Site as well as lowering the water table.

- Green Factors – the impact and assessment of the alternative on production of greenhouse gas discharges, reducing energy use, employing alternative energy sources, reducing volume of wastewater generated/disposed, reducing volume of materials taken to landfills, and recycling of materials generated during the cleanup process.
- Cost – an estimate of costs of implementation of the alternative.

#### **4.2.1 Alternative #1 – No Action**

A No Action alternative means that no remediation would be implemented at the Site and that the soil and groundwater would remain in their present condition. The alternative is presented as a baseline comparison of existing conditions.

Effectiveness- The alternative is not effective in eliminating or reducing the toxicity, mobility or volume of the soils containing concentrations of hazardous constituents and no permanent solution is achieved. Further, the No Action alternative does not result in the cleanup or containment of materials at the Site and therefore is not protective of human health and the environment.

Implementability - This alternative is implementable in that it is the present condition of the Site. Because of environmental laws in Connecticut that require investigation and cleanup at transfer, the No Action alternative does not allow the transfer, and therefore redevelopment, of the Site.

Resiliency to Climate Change – The No Action alternative does not remove any of the contaminated soils. If there is increased flooding, severe weather events or water table height in the future, there may be greater mobility of environmental contaminants.

Green Factors - There is no energy use so there is no effect on the carbon footprint. The No Action alternative does not allow the transfer of the site; therefore, the site would remain an abandoned building and not be redeveloped to a beneficial use.

Cost – Costs are summarized in Table 3. This alternative has no cost in the short term, however the risks associated with the contaminants present at the Site would remain, and expenses associated with No Action may exceed other alternatives over a longer period of time due to the inability to redevelop the Site.

#### **4.2.2 Alternative #2 - Extensive Soil and Fill Removal Allowing Future Unrestricted Use**

Alternative #2 would include the complete remediation by excavation and offsite disposal of both parcels without the need for deed restrictions. Therefore, all RSR non-compliant soil would need to be removed from the Site including contaminated historic fill. Because there is fill beneath the buildings, the buildings would be demolished as well under this scenario. (Other options are available similar to this scenario, for example soils could be removed around the buildings and the buildings could be left in place. However, the fill is present over the entire property and to obtain unrestricted use requires removing all the fill; therefore, this case has been considered).

Effectiveness - Removal of these contaminants would be effective as it would eliminate the risk to human health and would represent a permanent solution. Removal will eliminate the toxicity, mobility and volume of the contaminants in the soils at the Site. Implementation of this alternative will increase the potential for short term health effects on workers as large volumes of building materials and soil would need to be handled and disposed of offsite; however this risk can be reduced through adherence to a comprehensive Health & Safety Plan. The site work would produce dust which could be inhaled by personal at neighboring properties, although construction measures can be taken to reduce dust.

Implementability - Extensive excavation is an accepted form of remediation at many sites with large impacted soil areas. The work is implementable as it involves use of conventional equipment for removal, handling and off-site transport and it is frequently undertaken. Services and equipment are available to implement this alternative. Temporary local construction impacts will occur due to nuisance noise and traffic issues during the excavation, removal and transportation of contaminated soil.

Resilience to Climate Change - Alternative #2 is resilient to flooding, severe weather events and water table rising, as contaminated soils and fill with hazardous constituents are removed to a licensed facility, (although the net effect would need to consider the degree to which the licensed facility is resilient to these factors).

Green Factors - This option has apparent negative “green” effects with increase energy use during demolition and excavation and increased materials taken to landfills. In addition, buildings would be destroyed that have the potential to be reused.

Cost - The preliminary cost estimate for soil removal (see Table 3) is based on razing the buildings, excavating the fill (0 to 5 feet depth – estimated at 35,000 tons) over the entire Site, transporting it to and disposing it at a regulated site, and filling the excavation with clean fill. In addition, 500 tons of deeper soil with ETPH concentrations above criteria would be excavated and disposed offsite. Demolition of buildings was estimated at \$120,000. The Alternative 2 cost is estimated at \$3.2 million dollars.

#### **4.2.3 Alternative #3 – Hotspot Soil Removal with Inaccessible Soils and ELUR**

Alternative #3 includes excavation and offsite disposal of soils with criteria exceedances from site releases as well as a designation of “inaccessible soil” with two ELURs pursuant to the RSRs for 1) to designate the properties industrial/commercial and increase the soil cleanup criteria and 2) to designate the contaminated fill as “inaccessible soil”. Because “polluted fill” with fly ash is excepted from PMC requirements and “polluted fill” may be immediately below 3 inches of pavement, an efficient approach to remediation may be undertaken. The ELUR for industrial commercial use prevents future residential use. In addition, the ELUR for inaccessible soil would put restrictions on work that requires excavating in the future, preventing or controlling future exposure.

Based on the existing characterization data, hot-spot soil removal includes approximately 50 tons in the drum disposal area on the Annex Parcel and approximately 450 tons at the former Kasden Fuel loading and unloading rack areas on the Annex Parcel. Final volumes will be determined through the pre-design characterization borings. Per the RSR requirements for “inaccessible soil”, 3 inches of asphalt pavement will be installed on the remaining Annex Parcel effectively providing compliance requirements with the RSRs and removing the potential for direct exposure of any metals or petroleum constituents in shallow fill materials. The plan calls for filling of cracks and improving the pavement on the Dealership Parcel to meet the “inaccessible soil” requirements.

Effectiveness - This remedy would reduce the risk to human health as required by state regulations and would generally be a permanent solution with periodic maintenance of the pavement undertaken to maintain its barrier properties. Removal will be effective in eliminating the toxicity, mobility and volume of the contaminants in the hot spot areas. Leaving in place historic fill and making it inaccessible with a pavement cap will protect potential pathways to human receptors. As historic fill such as fly ash is widespread in Connecticut, removing this fill is not deemed in the State’s interest as this practice is allowed in the RSRs. The toxicity and mobility of constituents within the fill are low and pathways to receptors can be prevented with soil or pavement cover. Implementation of this alternative will slightly increase the potential for short term health effects on workers (but to a lesser extent than Alternative #2 as less soil is excavated); however this risk can be minimized through adherence to a Health & Safety Plan.

Implementability - These remedies are common and tried; many of these types of remedies have been undertaken in Connecticut and other states. Hot spot excavation is an accepted form of remediation at many sites with small impacted soil areas. The work is implementable as it involves use of conventional equipment for removal, handling and off-site transport. Services and equipment are available to implement this alternative. In accordance with the RSRs, the use of ELURs are required to be part of the remedy since the remedy includes “inaccessible soil” which eliminates the need to comply with the direct exposure criteria as well as defining future non residential use. By defining the location, depth and type of materials left in place in the permanent notice on the deed, future potential exposure by construction workers or others will

be prevented. This will allow for leaving materials such as the metals-containing fill materials in place. Environmental deed restrictions are now a common practice all over the country with many ELURs now in effect at Connecticut properties.

Resilience to Climate Change – Alternative #3 is resilient to flooding, water table increases and severe weather events, as the most contaminated soils with hazardous constituents are removed to a licensed facility. The fill materials would remain and, if increased flooding or an increase in water table occurred, there could be increased mobilization of hazardous constituents. Present groundwater conditions and geochemical factors suggest that constituents in the fill (such as metals) are relatively immobile so this factor of increased mobility is expected to be small.

Green Factors – As recognized in the RSRs, it is not economically practical to remove fill all over the state. By minimizing material to be taken off site, this alternative when compared to Alternative #2 reduces volume of materials taken to landfills. This alternative allows the redevelopment of the buildings for beneficial reuse. During reconditioning, efforts are being made to upgrade HVAC and electrical systems to be high efficiency systems and more energy efficient than the former building systems.

Cost - The cost of this alternative is summarized on Table 3. The excavation and disposal of the two “hot-spot” areas is estimated at \$75,000 based on estimated volumes of soil. Putting a land use restriction on the site is estimated to cost \$20,000. The pavement cap is estimated to extend over an area of approximately 66,000 square feet on the annex parcel with an estimated cost of \$230,000 with \$40,000 allotted for paving upgrades on the dealership parcel.

**TABLE 3**  
**ESTIMATED COSTS OF ALTERNATIVES <sup>(1)</sup>**

	<i>Alternative 1 – No Action</i>	<i>Alternative 2 – Extensive Soil Removal – Unrestricted Use</i>	<i>Alternative 3 – Hot Spot Soil Removal and ELUR</i>
<i>Demolition</i>	<b>\$0</b>	<b>\$120,000</b>	<b>\$0</b>
<i>Shallow soil excavation, transport, and disposal</i>	<b>\$0</b>	<b>\$3,000,000</b>	<b>\$0</b>
<i>Deep soil excavation and disposal</i>	<b>\$0</b>	<b>\$75,000</b>	<b>\$75,000</b>
<i>Paving and paving repair</i>	<b>\$0</b>	<b>\$0</b>	<b>\$270,000</b>
<i>ELUR</i>	<b>\$0</b>	<b>\$0</b>	<b>\$20,000</b>
<b>TOTAL</b>	<b>\$0</b>	<b>\$3,200,000</b>	<b>\$365,000</b>

- 1) *These costs represent construction phase of soil removal only and are presented as a way to compare costs. There are other project costs not represented (e.g., engineering and regulatory compliance costs). These are preliminary costs based conceptual design only and may change once there is more detailed design.*

#### 4.3 *Evaluation and Selection of Preferred Alternative*

Three alternatives were developed. Each alternative is evaluated based on effectiveness, implementability, resiliency to climate change, Green factors, and cost. The three alternatives were:

- Alternative 1 - No action
- Alternative 2 - Extensive Soil and Fill Removal Allowing Unrestricted Use, and
- Alternative 3 - Hot Spot Soil Removal with Inaccessible Soils and ELUR

The No Action alternative is not acceptable, because the Site cannot be re-developed in its current condition, without a willing developer who needs to file and comply with the Transfer Act. Ford Credit Corporation has been unsuccessful in trying for many years to find such a developer. Furthermore, the No Action alternative, while advantageous in avoidance of immediate cost, is not protective of public health and the environment.

If Alternative #2 was implemented, there could be future uncontrolled use of the parcels as there would be no need for a land use restriction. However, the cost is very high and beyond the value of the properties. The industrial/commercial location and the local economy does not seem conducive to this outlay of funds to obtain unrestricted use. Extensive excavation also goes beyond the requirements of the Connecticut RSRs, which allow the leaving of historic fill in place. The extensive excavation and demolition of the building also have negative Green impacts as a building is not reused (that could be), and a large amount of energy is consumed to excavate and transport the soil to another site.

Due to the presence of soil impacted by petroleum releases during operation of the Site by Healey Ford and earlier owners, as well as contaminated fill with fly ash, some action to reduce the risk from the Site is important. While Alternative #2 theoretically removes all the contaminated soil and polluted fill, it is done so at extreme cost with little gained in environmental improvement. In addition, to completely remove all fill requires demolition and removal of buildings. Restoration of buildings is a preferred and environmentally-green alternative. This remediation goes beyond the requirements of the RSRs which have built in provisions to leave polluted fill in place. Further, the economic value of the property does not make it likely that a developer would take on this kind of cost. It would seem that the only way to implement Alternative #2 would be with state or federal grant funds, but it is unlikely they could be obtained for such a project.

The area is adjacent to the Housatonic River but is diked and protected from flooding. If flooding did occur more frequently in the future climate change scenarios, there may be some slight additional mobilization of constituents in the fill versus solutions that would remove all



the fill to a controlled site. However, groundwater mostly meets state criteria as the fill constituents are relatively immobile. The natural occurrence of background metals as well as the omnipresence of fly ash in soils around the country would indicate that this minor increase in potential concentrations is insignificant.

Therefore Alternative #3 – Hot spot removal with Inaccessible Soil and an ELUR is the preferred alternative. This alternative meets all the evaluation criteria, eliminates the potential for future exposure to those contaminants, is compliant with RSRs, and can be practically implemented with available funds.

## 5 AUTHORIZATION AND IMPLEMENTATION

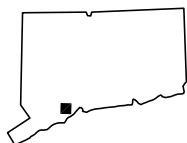
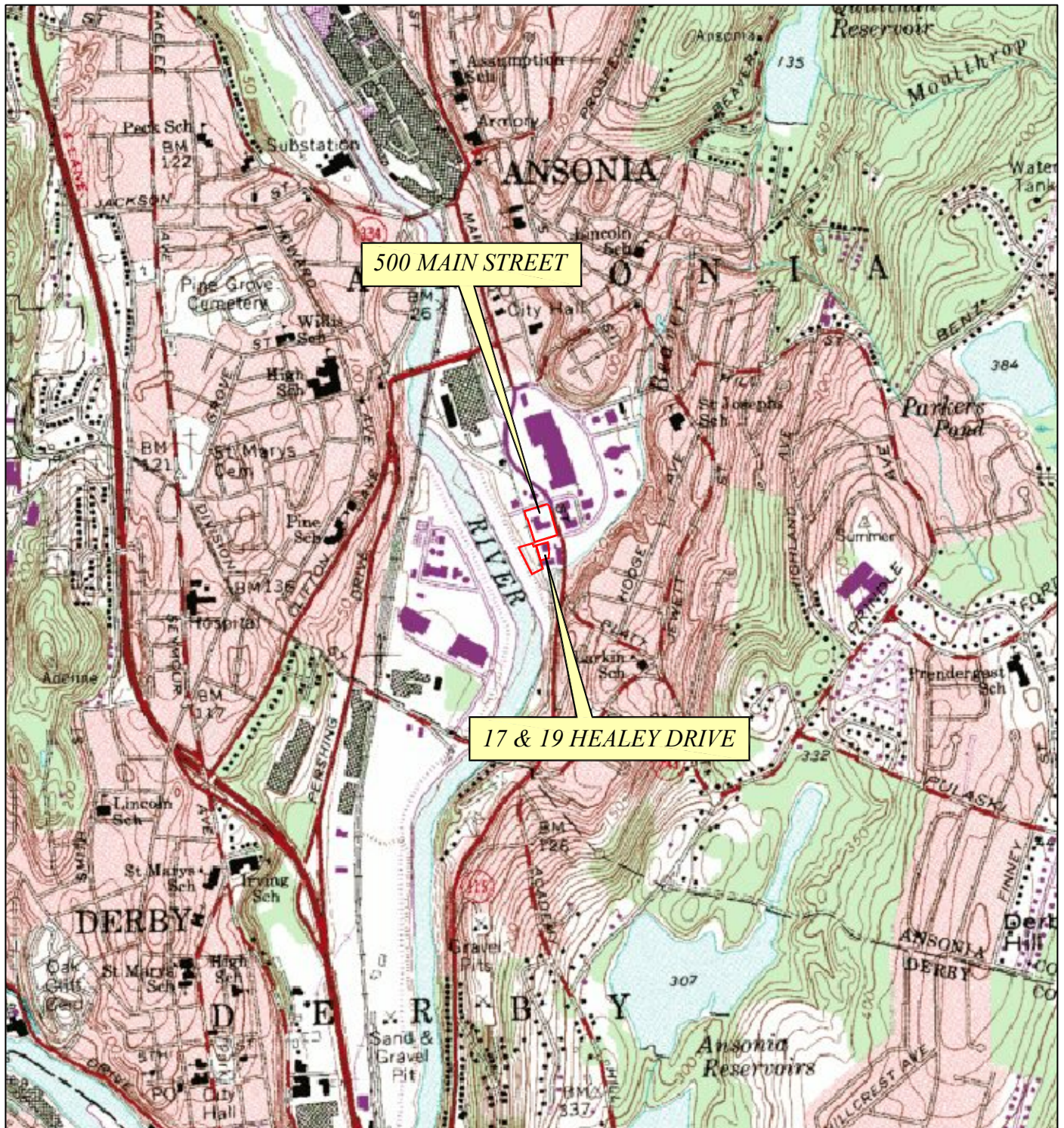
The selected alternative, Alternative 3 - Hot Spot Soil Removal with Inaccessible Soils and ELUR, will allow for redevelopment of these properties while meeting state regulations and protecting human health and the environment. This redevelopment is an important step for downtown Ansonia.

The implementation plan for the selected alternative is consists of the following steps:

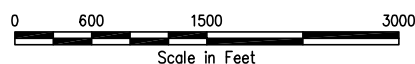
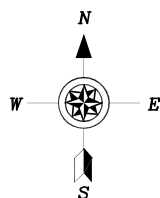
- Enter 520 Main Street and 17/19 Henry Healey Drive into the VRP pursuant to CGS 22k-133x by submitting a cover letter, an Environmental Condition Assessment Form, and applicable fee to the CTDEEP. Upon acceptance by CTDEEP, submit the name of the LEP and a schedule of activities defining submission dates for the key milestone deliverables and activities.
- Submit ABCA, QAPP, and CRP to EPA Region 1 for review and comment. Complete documents to EPA satisfaction. Complete public notice requirements.
- Prepare work plan for additional Phase III Investigative work at the Annex Parcel. This work plan will characterize the extent of releases at the former loading/unloading rack and the alleged drum disposal area in preparation for remediation. Implement Phase III work plan by advancing borings, collecting additional soil samples, installing monitoring wells, and analyzing for applicable constituents.
- Compile and summarize characterization work of Golder, Zuvik Carr, and Cody Ehlers Group to define the Site Conceptual Model. Submit characterization reports as required by the VRP along with the Completion of Investigation Form and LEP certification.
- Prepare the RAP for the Site. Perform public notice as required in the VRP. Submit the RAP, the RAP Form with LEP certification, and the documentation of public notice to CTDEEP.
- Implement the RAP. Conduct hot spot removal as defined in the RAP. Conduct confirmatory sampling to the requirements of the RSRs and the QAPP. Characterize the waste as required by the QAPP and acceptance facility requirements. Transport waste soils to disposal facility. Backfill with clean fill. Prepare report documenting all remedial and confirmatory work.
- Conduct 4 quarters of groundwater monitoring to the requirements of the RSRs and the QAPP to confirm soil removal impact on groundwater (as necessary).
- Prepare the ELUR application to make the Site industrial/commercial and to make soil inaccessible. The application includes an A-2 survey, identification of the areas where materials remain in place under the cap, and the preparation of a decision document in which the rationale for the use of an ELUR is presented. Following CT DEEP approval and a public notice period, the ELUR will be recorded on the deed.

- Prepare the Final Verification Report (FVR) documenting the entire remedial process and accompanying form certifying completion by the LEP. CTDEEP will review the FVR and approve, will request additional information or will audit. Perform work as necessary to obtain approval.
- Obtain “Covenant- Not-to-Sue” from CTDEEP as defined by the Connecticut Abandoned Brownfield Cleanup (ABC) program pursuant to CGS 32-768.

## FIGURES



QUADRANGLE LOCATION



SOURCE: MAPCARD - USGS ANSONIA, CT QUADRANGLE, 1984  
LAT./LONG. 41.3359, -73.0766; ELEVATION = 39'

## CODY EHLERS GROUP

EHS CONSULTING AND SERVICES

935 WHITE PLAINS ROAD, TRUMBULL CONNECTICUT 06611

TITLE:	SITE LOCATION MAP 500 MAIN STREET AND 17 & 19 HENRY HEALEY DR. ANSONIA, CT	DATE:	3/22/16
		SCALE:	AS SHOWN
FIGURE:	1	PREPARED FOR:	ROAD READY USED CARS, INC. 897 RESERVOIR AVENUE, BRIDGEPORT, CT 06606
		DRAWING NO:	467-001C
		APPR. BY:	K.K.



