

THE CITY OF
SHELTON
CONNECTICUT

ROI-16-C-019



Office of the Mayor

Mark A. Laretti
Mayor

December 18, 2015

Mr. Frank Gardner
Environmental Protection Agency
1200 Pennsylvania Avenue, N. W.
Washington, DC 20460

Dear Mr. Gardner:

On behalf of the City of Shelton, I am pleased to transmit our application for a Cleanup Grant for the former Chromium Process facility for environmental remediation at the Chromium Process site located at 113 Canal Street West, Shelton, Connecticut. I am writing in my capacity as Mayor of the City of Shelton. The properties in particular are located mostly in the downtown corridor where over 70 acres of brownfields have been a source of our focus. The applicant is the City of Shelton, a municipality organized under the laws of the State of Connecticut. Our funding request is for an EPA Cleanup grant for hazardous substances. The grant amount being requested by the City of Shelton from the EPA is \$200,000.

The City of Shelton is located in Fairfield County, Connecticut. The following information is specific to your threshold requirements:

Applicant Identification: City of Shelton
54 Hill Street
Shelton, CT 06484
(203) 924-1555 Ext. 11

Applicant DUNS Number: 07-541-4151

Funding Requested: Cleanup Grant –
Hazardous Substances - \$200,000

Location: Former Chromium Process facility
113 Canal Street West
Shelton, Fairfield County, Connecticut

Project Director: James E. Ryan, President
Shelton Economic Development Corporation
475 Howe Avenue, Suite 202
Shelton, CT 06484
(203) 924-2521 phone/(203) 924-0547 fax
sedc1@sheltonedc1.com



Office of the Mayor

Mark A. Lauretti
Mayor

Chief Executive: Mark A. Lauretti, Mayor
City of Shelton
54 Hill Street
Shelton, Connecticut 06484
(203) 924-1555 #11 phone/(203) 924-0185 fax
Shelton01@cityofshelton.org

This proposal is being submitted electronically to the EPA via grants.gov no later than December 18, 2015 in accordance with EPA guidelines.

The project period for this grant is three years estimated to be October 1, 2016 through September 30, 2019.

The City of Shelton has a population of over 39,000 people. The City of Shelton is a community under 100,000 in population.

The City of Shelton appreciates what the EPA has provided to date in terms of cleanup grants. A favorable result will be most welcome and used in the most efficient and expeditious manner possible. We believe that you will determine that the value to the environment, individuals of low-to-moderate income, and the ability to help stimulate new and significant economic growth will be the major outcomes from your investment in this activity.

As with all our program planning and implementation, our activities are conducted with meaningful and comprehensive community involvement on both local and regional levels. Our project narrative will provide you with a concise explanation of how we intend to implement and conduct this operation.

Thank you for the time and effort you will expend in evaluating our proposal. We look forward to hearing from you.

Very truly yours,

Mark A. Lauretti
Mayor

Appendix 3 Cleanup Other Factors Checklist

Name of Applicant: City of Shelton, Connecticut

Please identify (with an **X**) which, if any of the below items apply to your community or your project as described in your proposal. To be considered for an Other Factor, you must include the page number where each applicable factor is discussed in your proposal. EPA will verify these disclosures prior to selection and may consider this information during the selection process. If this information is not clearly discussed in your narrative proposal or in any other attachments, it will not be considered during the selection process.

Other Factor	Page #
<i>None of the Other Factors are applicable.</i>	
Community population is 10,000 or less.	
Applicant is, or will assist, a federally recognized Indian tribe or United States territory.	
Targeted brownfield sites are impacted by mine-scarred land.	
* Applicant demonstrates firm leveraging commitments for facilitating brownfield project completion by identifying amounts and contributors of funding in the proposal and have included documentation.	9 and Attachment D
Recent (2008 or later) significant economic disruption has occurred within community, resulting in a significant percentage loss of community jobs and tax base.	
Applicant is one of the 24 recipients, or a core partner/implementation strategy party, of a “manufacturing community” designation provided by the Economic Development Administration (EDA) under the Investing in Manufacturing Communities Partnership (IMCP). To be considered, applicants must clearly demonstrate in the proposal the nexus between their IMCP designation and the Brownfield activities. Additionally, applicants must attach documentation which demonstrate either designation as one of the 24 recipients, or relevant pages from a recipient’s IMCP proposal which lists/describes the core partners and implementation strategy parties.	
Applicant is a recipient or a core partner of HUD-DOT-EPA Partnership for Sustainable Communities (PSC) grant funding or technical assistance that is directly tied to the proposed Brownfields project, and can demonstrate that funding from a PSC grant/technical assistance has or will benefit the project area. Examples of PSC grant or technical assistance include a HUD Regional Planning or Challenge grant, DOT Transportation Investment Generating Economic Recovery (TIGER), or EPA Smart Growth Implementation or Building Blocks Assistance, etc. To be considered, applicant must attach documentation.	
Applicant is a recipient of an EPA Brownfields Area-Wide Planning grant.	

Narrative Proposal

City of Shelton

Former Chromium Process Facility - Site Cleanup

**Ranking Criteria for Cleanup Grants
Former Chromium Process Facility
City of Shelton, Connecticut**

1. Community Need

a. Targeted Community and Brownfields

i. Targeted Community Description

Shelton, Connecticut is located in the southeastern portion of Connecticut, northeast of Bridgeport and New York, at the intersection of major interstates. The City is mixed with a historic, but blighted, industrial downtown area that once supported major buildings with various production and finishing processes. The build out utilized the various canals along the adjacent Housatonic River and major freight rail. Other land away from this area was used mostly for farming and housing. In the target area, the surrounding downtown neighborhoods were built up over 100 years ago to support the once thriving industrial activities. A large fire in 1975 destroyed 10 acres of industrial buildings in this area, displacing 2,400 workers. These downtown areas are outdated with little public space to use. Outside the area there are more updated homes and new business growth.

The target area is the downtown area and economic corridor that abuts the river, a highway, the main street. This area includes the downtown housing, former and current industrial and commercial properties. The industrial history for this area is expansive, including an asphalt plant, multiple metal plating activities, chemical mixing, including solvents, and fuel oil blending, and rubber product manufacturing. Many of the remaining buildings are deteriorated and unoccupied, like the former Chromium Process facility (the target property). And, based on site data, there are environmental impacts that exceed risks to human and ecological health criteria. Hence, there is much need for both physical improvements as well as environmental remediation.

The census tract (1101) for this target area, which includes the cleanup site, the former Chromium Process facility, is by far the area with the lowest income, higher minority population and the most at risk due to their proximity to brownfield sites and on-going pollution associated with this area.

Although there are 20 key brownfield sites community-wide, by far the largest number of brownfields related sites are located in this target area, known as the Shelton Enterprise and Commerce Park area (a 70 acre area). The former Chromium Process facility, once a metals plating facility, is one brownfield site in a dozen along the riverfront, downtown area that the City has targeted for revitalization, and in need of cleanup based on environmental assessment data – and provide downtown employment and tax revenues that are currently absent.

ii. Demographic Information

The information provided below was obtained from a number of sources, including those with information available specific to the target area around the cleanup site.

	Target Area	City	State	National
Population:	2,330 ³	40,472 ³	3,592,053 ³	311,536,594 ¹
Unemployment:	11.5% ³	5.8% ³	6.4% ³	5.3% ²
Poverty Rate:	19.3% ³	5.0% ³	10.5% ¹	11.3% ¹
Percent Minority:	23% ³	10.3% ³	30.0% ³	36.7% ¹

Household income:	\$55,430 ³ \$31,856 for Hispanic homes ³	\$88,369 ³	\$69,899 ¹	\$53,046 ¹
Attains less than HS diploma:	14.6% ³	7.2% ³	10.5% ³	14.3 ³
<small> ¹Data are from the 2009 – 2013 American Community Survey (ACS) and are available on American FactFinder at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_5YR_DP03&src=pt and http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_5YR_DP05&prodType=table ²Data are from the Bureau of Labor Statistics available at www.bls.gov. ³Data are from the 2010-2014 ACS 5-Year Estimates </small>				

iii. Description of Brownfields

The former Chromium Process plating facility site at 113 Canal Street (West) is located directly within the brownfield target area. It became a brownfield site as the industry’s competition moved south and out of country for cheaper labor and materials, draining resources and eventually resulting in an abandoned building with environmental issues. The site hosts a large manufacturing building used at one time for a major metals plating and finishing facility. This building and its land is situated between Canal Street East and West, near a stretch of riverfront land in the downtown area that once housed acres of other industrial buildings – all of which are part of the downtown revitalization plan.

As demonstrated through data collection, the contaminants of concern at the site and surrounding area include asbestos, heavy metals like chromium and lead, polynuclear aromatic hydrocarbons (PAHs), and chlorinated volatile organic compounds (CVOCs) in the soil and groundwater. Industrial housekeeping issues, industrial fill, and waste metals and solvent releases are the primary sources of contamination. The levels exceed the state published risk values for direct contact to soil, dust from the site under dry and windy conditions, for drinking water, and for surface water protection (the adjacent river and also the brook that passes below the site). This information was provided in assessment reports and from recent data collected by a qualified environmental professional.

While there is no specific health-based data published that links brownfields in Shelton to explicit health issues, the target area sites host concentrations and a wide range of contamination that exceed State and Federal published criteria for human exposure. The adjacent brownfield sites include sites that have had partial cleanup activities occur. One site (BF Goodrich) nearby had over a dozen abandoned underground tanks for rubber manufacturing and one (Rolfite) had large tanks and vaults used to blend fuel and latex products. Adjacent sites (Axton Cross and Celastik) have a highly concentrated solvent plume in the soil and groundwater that extends across to the target site. Another site nearby is a former manufactured gas plant that has yet to be addressed. All these sites combine to present a host of environmental concerns across several acres of the target area from a number of toxic chemicals.

There is much industrial blight, many safety concerns, and regular crime and drug issues that spawn from the lack of occupancy and control of the buildings and sites. Many of the unoccupied, remaining buildings in this area are deteriorated and mostly unkempt. This situation is a deterrent to attracting people to the downtown to shop, businesses from using downtown resources, and enjoyment of the green space and riverfront available in the area.

iv. Cumulative Environmental Issues

In addition to brownfield impacts, the area is located in a traditionally industrial area which has been a source of blight and air and water quality issues. Currently the groundwater is considered “GB” by the State, which means it is not acceptable for drinking. The target area is located

downtown where there is the city’s highest congestion of traffic, hence higher air and noise pollution from vehicles. The area is adjacent also to a highway (Route 8) and train tracks which add to those issues. Until the recent increase in brownfield development resources, this area received little attention in comparison to improvements made in other non-urban settings.

According to the **EnviroFacts** source, there are 19 hazardous waste activities and 12 activities that are sources of air pollutants in this one area. These include manufacturing plants, auto body shops, and a former asphalt plant among others.

The brownfield target area is also located in the census tract with the highest percentage of low-to-moderate income individuals in Shelton. In addition, most of the low-income housing resides within this downtown area. Other facts provided on EPA’s Environmental Justice mapping tool and the American Community Survey include the following specifics of the actual target area when compared to the rest of the city:

4 times the poverty level	40 to 60% less per capita income
2 times less HS graduates	4 to 5 times less English-speaking
2 times % minority residents	2 to 3 times cancer risk
5 to 6 times as many renters	3 times as many homes built <1960

This information provides a perceived if not real environmental justice concern.

b. Impacts on Targeted Community

There are no specific statistics yet accumulated that directly link brownfield risks to the community. However, the presence of contamination in soil, groundwater, and air are serious considerations, as many areas have concentrations above State and Federal published health risk criteria. There are several sensitive groups of the city’s population in this community. As noted in the table above, the highest percentage of lower income and minority residents are here. In addition, in accordance with the recent census, there are higher averages of low age (under 12) and older age (over 60) in this area – both additionally sensitive to brownfields contamination versus other age groups.

Past activities at the target site and those immediately adjacent to it include production of chemical cleaners and disposal practices resulting in contamination of soil and groundwater by solvents, primarily chlorinated ethenes, in addition to heavy metals, petroleum hydrocarbons and PAHs in soils and groundwater. Several of these contaminants are considered to be carcinogenic by the EPA. Without treatment, these unhealthy conditions would pose risk of exposure to these contaminants via direct contact to groundwater and to soils. They pose possibilities of increased skin and respiratory diseases and cancers in trespassers and future users of the site, those in the downtown area including the younger and older people.

The condition of the existing building is poor. There are many unsafe components and trespassing occurs despite attempts to barricade this major neighborhood blight. Besides continued vandalism, there is evidence of drug use in the building. Asbestos is also present in building materials, which can be easily released to the air as abandoned buildings deteriorate.

The collection of brownfield sites in the target area host concentrations and a wide range of contamination that exceed the State of Connecticut’s published criteria safe for various exposure scenarios. Much of this contamination has been identified at neighboring sites or from preliminary studies, and can easily aggravate sensitive health issues under exposure scenarios. These include, but are not limited to, the following (all of which are present at the Chromium Process site too):

- Volatile organic compounds (VOCs) from solvents dumped into the soil and groundwater, which present continued risk of exposure from inhalation (vapor intrusion to adjacent office and retail buildings and nearby homes), ingestion, and direct contact. Several of these VOCs are on EPA's list of carcinogens.
- Former metals processing activities resulted in metals in surface soils at levels 10 to 100 times state criteria for safe site use. Metals are toxic and cause harm particularly to children and are prevalent in low-income areas. One identified metal in soils, arsenic, is carcinogenic. Metals can be absorbed through dermal contact and ingestion.
- Other detected contaminants include hydrocarbons, PAHs, and PCBs at levels 10 to 100 times above state criteria. PCBs are carcinogenic and cause damage to immune system, reproductive system, nervous system. These are present also in the building materials.

The presence of contamination has been documented in reports provided by environmental professionals that include environmental data. The following summarizes key data already obtained from a few sites that are part of this target area.

Contaminants present that are known or anticipated to be human carcinogens* and present 10 to 100 times the State criteria** for polluted media:	Arsenic, asbestos, benzene, chromium, vinyl chloride, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), tetrachloroethylene (PCE), trichloroethylene (TCE)
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* Agency for Toxic Substances & Disease Registry | **State of Connecticut Remediation Standard Regulations

Lastly, the State has designated the groundwater in this area "GB", which means it is presumed not suitable for human consumption without treatment. The groundwater is highly contaminated with metals, solvents and hydrocarbons. The groundwater flows from beneath the site (a brook also flows under the site and directly to the river) and discharges into the adjacent Housatonic River. Levels of contaminants in groundwater exceed the state criteria for surface water protection, meaning it is very unhealthy to the river's ecosystem.

c. Financial Need

i. Economic Conditions

These funds for cleanup from EPA and other partners are considered key to redevelopment success because the city was left with this and other waste sites and have pulled together as many resources as possible to finance the tremendous effort that cleanup and revitalization can take. Without the tax revenue that once existed from businesses that could operate in this area, and with tighter and tighter budgets, support resources like EPA are necessary to continue the momentum generated already. The City of Shelton has undertaken a comprehensive program to address Brownfields related issues. Although there are 20 key sites city-wide, by far the largest number of Brownfields related sites are located in the Shelton Enterprise and Commerce Park target area. This has had a negative impact in stimulating new private investment opportunities. And, the extent of the impact (70 acres) and severity of the issues makes it almost impossible to fund all the cleanup work with increasing needs in other areas and the decreasing tax revenue.

More recently, storm damage has impacted budgets that could have been used for cleanup efforts. Superstorm Sandy and the Blizzard of 2013 drained nearly \$500,000 of the City's funds. Even still, a fire on January 5 and 6 of 2014 destroyed an entire city block located directly in the target area. The toll of the fire included the displacement of over 27 residents, loss of over 50 jobs, and the loss of an anticipated \$22,000 in yearly taxes. Although no one perished, the buildings have been destroyed. The cost to the city for cleanup and utility repair is significant but

has not yet been finalized. The cost of property damage is estimated at \$1.4 million. This could quite possibly become another brownfield site.

There has also been an increase in property abandonment. In 2012 there was a fire at the Apex Tool Company that left an unused, unsafe structure that the City now cares for. And, in 2013, there was another 3-story former manufacturing building that went into default, putting another burden on city resources to keep the building secure and safe, not to mention the decrease in tax revenue. The City now has to upkeep and secure five abandoned properties in this area alone.

For the target site, the City has spent funds on legal support and environmental assessment during the property ownership transition. This is the 5th foreclosure in 10 years in this area.

Note too that the City received \$1 million from the State for building abatement and demolition at this site. However, based bids received for the demolition activities, the project cost is project over the funding, and the project is at a temporary stand still. Additional funds will be needed to complete the work necessary to close out all remedial actions, including the anticipated subsurface remedial actions to remove contaminated soil and foundation materials (to be supported by this grant).

ii. Economic Effects of Brownfields

In the target area, the rate of unemployment, percent minority population and rate of those in poverty are all higher than the rest of the City (refer to the demographics table above). It is also noted that the population in this community earned far less income (40% less, and 60% less for minorities).

Brownfield's in our community have led to the decline and underutilization of our former Central Business District, currently known as the Shelton Enterprise and Commerce Park (where the Chromium Process site exists). A large, several-acre fire in 1975 initiated this downturn. This has led to job loss (over 2,400) and out migration and loss of tax revenue.

There are approximately 70 acres of land and buildings that are known to or most likely have some historical contamination which affects its productive economic use or presents a threat to the public health and safety. Until recent improvements, this area had continued to decline due to the depressed conditions of the buildings and infrastructure. Many of these buildings remain a major blight and have become hosts to vandalism and other activities that cause an increase in needs for police presence.

The City of Shelton has embarked on a program of Brownfields redevelopment, as demonstrated through its use of other Federal and State funding and revitalization of a portion of this area. However, there is a struggle to stay ahead of the security, monitoring, and maintenance of the other parcels while trying to complete scientific site assessments and cleanup activities.

In one recent year, one of the larger buildings shut its doors (75 jobs lost) and the City had to take ownership of the building and secure it with its own resources. Now, another 5 businesses and 50 jobs are gone after the January 2014 fire at one of the area's blocks of buildings.

Although the estimated unemployment rate has improved for the City, there is a total job loss documented at over 3,000 jobs in the past 3 years from key employers. There is a rate of 11.5% unemployed in the target area [2010-2014 ACS].

2. Project Description and Feasibility of Success

a. Project Description

i. Existing Conditions

The former Chromium Process facility is part of the Shelton Economic and Commerce Park of which several sites are brownfields. The site is situated between the east and west branches of Canal Street, a once vibrant industrial corridor along the Housatonic River. The Chromium facility includes a 33,000 square foot vacant, deteriorating building, a two-story brick and wood manufacturing facility that is littered with waste containers, asbestos-containing materials, contaminated walls and flooring, and unknown tanks. The building conditions are a concern, as there are many locations with deteriorated flooring and stairwells. Many windows and doors are boarded to reduce trespassing. Beyond its environmental impacts, it is a major safety hazard to trespassers and first responders. Soil below the building and tank areas are also impacted. Contaminants are heavy metal such as chromium, arsenic, and lead; hydrocarbons, including PAHs; and VOCs from past use and from the extent of the solvent plume from the neighboring site.

The future use will be part of the mixed use area of the Shelton Enterprise and Commerce Park plan, which includes the rejuvenation of the brownfields corridor into a range of uses, including a public park (already exists), commercial and residential spaces, and a river walk which is partially constructed. The mixed use includes also high density and affordable housing units. Affordable housing units address a need identified in the area for the elderly population.

The Shelton Enterprise and Commerce Park Project Plan (a Municipal Development Plan [MDP] under Connecticut State Statutes) provides a guide for planning and development decisions, both public and private for phased improvement to the project area. It includes objectives for physical, social, economic and aesthetic development as well as criteria and standards for conducting specific program activities as they are found to be timely and economically feasible. The target site is a key component in this overall plan.

Once cleanup is complete, the City will build the site out for parking. Parking is currently limited in the area, and the space is needed in order to attract additional redevelopment at neighboring sites. This need has been identified during negotiations with developers, and also in a reuse study conducted by the City. With the building standing, and the presence of contaminated materials and soil, the site cannot be reused. A clean site will allow for the much needed parking that is beginning to incent nearby development by private investors looking for site access and parking improvements. The site reuse is consistent with the City of Shelton's Plan of Conservation and Development and the State of Connecticut's Smart Growth Principles.

ii. Proposed Cleanup Plan

Currently, the City is utilizing a grant from the State of Connecticut to decontaminate and demolish the existing building. This work will include asbestos abatement, contaminated walls and floors removal, and safe demolition of the structure. However, based on engineering design and a competitive bidding process for the building demolition work, the funding is not sufficient to also address the subsurface impacted materials (contaminated foundations and soil).

Under the EPA grant, contaminated soil and foundation walls that are below the ground surface will be removed for off-site disposal. These materials contain concentrations of chemicals that exceed State direct exposure criteria and pollutant mobility criteria. The excavated materials will be transported to an approved facility for recycling via thermal desorption, asphalt batching or landfill cover soils. Clean fill will be placed into the excavations.

A land use restriction (institutional control) will provide the mechanism to allow continued monitoring and oversight by the City and the CT DEEP if deep soils are found impacted or groundwater remains polluted. This approach has already been successfully accomplished at the Farm and Public Market site in Shelton, an EPA cleanup success story, located across Canal Street, directly adjacent to the former Chromium Process facility. However, because the building has covered the site, deeper soil impact is not anticipated and the excavation proposed is expected to meet project cleanup objectives.

Shelton has been working with the CT DEEP consistently on all its brownfields activities and will continue its relationship with the agency. CT DEEP was highly involved on the site through assessment oversight and monitoring of the building demolition. CT DEEP's requirements specifically guide the assessment of potential human health risks and the subsequent mitigation of these effects. Furthermore, remediation will only be initiated upon CT DEEP approval of the final Remedial Action Plan as part of the state's Voluntary Remediation Program. This program provides for accelerated review of documents by the CT DEEP upon registration and full regulatory cooperation by the site owner. This was successfully accomplished at Shelton's Farm and Public Market cleanup.

Shelton's state certified Licensed Environmental Professional will ensure all cleanup activities meet the approved cleanup plan and consider public health issues, such as odors, fugitive dust, traffic control and erosion control. During site activities, measures to protect the public will be required of the contractors. These measures will include dust and air monitoring during intrusive activities, including a controlled excavation that limits dust and lowers the frequency of truck traffic. Signs and fencing will be utilized as additional public safety measures.

To maintain public awareness, all remedial planning documents will be submitted to the CT DEEP, the Valley Health Department, and other CBOs for review and comment.

b. Task Description and Budget Table

i. Task Descriptions

The anticipated remediation costs for this grant are \$200,000 for subsurface soil and foundation remediation. Cost share from the City will provide the remaining costs associated with this phase of the project. Grant budget details are as follows:

Task 1. Community Involvement (\$1,000): A portion of the budget will be used to update information repository, hold two community meetings, provide opportunity for public comment on cleanup alternatives (including the final ABCA), and respond to any related concerns raised by groups or individuals. Shelton plans to hold a meeting prior to the remediation activities and post information and comment responses. Because the project has been initiated under the State funding, limited EPA resources are needed for this activity. Under this grant, it is expected that utilization will include one public announcement (\$350), copies of related documents for the archive (\$50), and support from the qualified environmental professional (\$600).

Task 2. Cleanup Planning (\$12,000): Costs for cleanup planning include those for an environmental professional to prepare final plans and specifications for competitive bidding process for the site remediation activities (output is a final ABCA, a Remedial Action Plan and the QAPP). Plans and specifications will include requirements that will address health and safety, remedial quantities, monitor well installation, remediation monitoring, and site restoration. Costs are included to support a competitive procurement process, including the means to address the EPA's goals for disadvantaged businesses and meet the Davis Bacon requirements. The estimate was provided by an environmental professional (\$12,000 estimated).

Task 3. Site Cleanup (\$177,000): Costs included for site cleanup are based on the estimated costs to excavate and dispose of contaminated materials and place a clean fill cap. Outputs will include a remedial action report (RAR). The following estimates are included in the draft ABCA.

- Mobilization (signage, temporary fencing, dust controls) – (\$9,500 estimated)
- Excavation of solvent impacted soil – 200 tons at \$25/ton (\$5,000)
- Excavation of impacted foundation walls – 500 tons at \$25/ton (\$12,500)
- Transportation and disposal of 750 tons hazardous materials at \$200/ton (\$150,000)

The City will utilize cash bond funds for the cost share portion of this grant unless, in-kind services can be provided, such as reusable fill, police details, water service, or the like if possible. The budget will otherwise include a cost share of \$40,000 for the furnishing and placing of 750 tons of clean fill estimated at \$22,500, plus the installation and initiation of the state-required post-remedial groundwater monitoring program (\$17,500 or about 50% of the monitoring costs estimated). The City will utilize remaining state-funded grant money or low interest loan to complete the project, which will include the completion of the groundwater monitoring, survey, and close out documentation.

Task 4. Cooperative Agreement Oversight (\$10,000; grant funded): The Shelton Economic Development Corporation will provide the project management necessary to initiate the project on behalf of the City of Shelton, respond to specific grant requirements, monitor the procurement of an environmental professional, submit quarterly report, update ACREs and monitor cleanup subcontractors (estimated at 80 hours of effort at \$75 per hour plus 25% fringe = \$7,500). Costs also include estimated travel expenses (\$2,500 using estimated mileage, airfare, and hotel for two people to attend one national conference).

The City will provide its cost share as monetary funds (from City cash bond funds) for a portion of the preparation of the cleanup and project management activities. If possible, the city will provide in-kind services for these tasks, such as reusable fill, police details, water service, or the like. This will be determined prior to the project implementation.

ii. Budget Table

Budget Categories	Project Tasks				
	Task 1 Community Involvement	Task 2 Cleanup Planning	Task 3 Site Cleanup	Task 4 CA Oversight	Total
Personnel				6,000	6,000
Fringe Benefits				1,500	1,500
Travel				2,500	2,500
Equipment					0
Supplies	400				400
Contractual	600	12,000	177,000		189,600
Other					0
Total	1,000	12,000	177,000	10,000	200,000
Cost Share			40,000		40,000

It should be noted that since the city will enlist the Shelton Economic Development Corporation (non-profit implementing agency) to manage the grant, budgeted as personnel and fringe in the

table above. Also, there are no “other” costs budgeted and there are no “equipment” costs anticipated. Note the cost share discussion under Task 3.

c. Ability to Leverage:

For its brownfields target area projects and redevelopment, the City has been successful in its efforts to leverage private and public funding. Specific to the Chromium Process facility, prior to taking the abandoned property, the City expended its own resources to complete an All Appropriate Inquiry (AAI). The City utilized its relationship with EPA Region 1 for support in its help review the site for possible immediate removal needs at the site (imminent releases or significant issues). The City then applied for and was awarded a cleanup grant from the State of Connecticut. As the State (through the DECD) is investing over \$1,000,000 for building decontamination and demolition of the building, the EPA grant will complete the work anticipated for the subsurface impacts to soil and building foundations. The work under the State funding has begun. See the attachments for the State cleanup funding awarded to the City. Note too that since the project began, it was realized that funds greater than the State allocation of \$1 million were needed to complete the project. The City approached the State and discussed applying for the EPA grant, a loan from the State and obtaining an additional grant funds from the State to complete the entire project. This was received favorably and the City is obtaining additional funds and a loan from the Site within the next fiscal quarter.

The City has also received notice from the area’s Naugatuck Valley Council of Governments (NVCOG) that additional funds could be applied for under their revolving loan fund program. The likelihood of obtaining support from this source, if needed, is very high.

3. Community Engagement and Partnerships

a. Plan for Involving Targeted Community/Stakeholders/Communicating Progress:

The community has already been involved in reuse planning, as the overall brownfield corridor development process has been discussed at several community meetings beginning in 2000. And, specifically, there was a recent meeting to review the cleanup plans and this grant application (refer to the Attachments). The community will continue to be involved through announcements by and participation in the Citizens Advisory Board (CAB), which has been involved in previous brownfields assessments and clean up activities. The City’s implementation agency, the SEDC, will manage this project and work on a monthly basis with the CAB (its regularly scheduled meeting) to keep them informed of all brownfield and development progress. The proposed plan will also be discussed at community involvement meetings, where members are provided opportunities to input ideas and discuss concerns. Additionally, community leaders have met already to discuss concerns related to the site cleanup, including the police chief to discuss traffic controls and safety, the fire chief to review first responder concerns, and public work officials to review utility awareness and closure.

A free community newsletter (called *Shelton Life*, available by mail and posted on the City’s website) will continue to report on proposed schedules and cleanup and reuse developments at the property, and to announce open informational meetings. An additional open informational meeting will occur after the selection and prior to the grant award, which will be announced via the community newsletter, mailings to the target community residents, website posting, and cable television, and discussed with the Valley Health Department (the regional public health agency).

The City will continue to use its multi-media, multi-outreach approach to communicating with the citizens. The targeted community will be addressed specifically prior to cleanup activities to review health and safety plans. Site safety will include signage, fencing, and dust control measures such as water spray and dust monitoring as well as reduced traffic impact plans.

The City will use its resources to provide interpretation of documents if requested, although there have been no requests to date. It will also provide assistance for those that may be visually-impaired, if requested. A repository of documentation is available for public review at the SEDC's downtown office, as mentioned in prior press releases and meetings.

b. Partnerships with Government Agencies:

For starters, the City has established a relationship with the EPA project officers in the region. Through the SEDC, the City regularly updates the EPA via email, phone calls, invitations to walk the brownfields areas, and visiting the regional office. This partnership is important for sharing ideas, complying with grant requirements, and locating other resources.

The City has worked closely with CT DEEP on various brownfield issues through its enrollment in the State's Voluntary Remediation Program. Under the program, the CT DEEP provides oversight in an expedited manner and allows the city-selected, privatized Licensed Environmental Professional to verify cleanup activities. To date, two staff members of the CT DEEP, Mr. Anthony Gyasi and Ms. Camille Fontanella, have been assigned to support the City, and they will continue to provide guidance with their reviews of cleanup planning documents and the execution process.

The City also works with the State DECD and the Regional Brownfields Partnership. Shelton has representation on the Regional Brownfields Partnership through the SEDC's James E. Ryan's appointment to the group. This provides strong linkage to state offerings through DECD and DEEP and EPA programs. The DECD is a current provider of funds for the overall project, and has already reviewed the existing plans and met with the City regarding the approach to reuse.

The local health agency (Naugatuck Valley Health District [NVHD]) is informed about site assessment and remediation plans. This agency, however, allows oversight of remediation work to remain under the jurisdiction and guidance of the CT DEEP. Still, the NVHD reviews information and plans and provides advice on health issues where the issues may fall within their jurisdiction and area of expertise (lead-based paint and dust monitoring, for instance).

All brownfields are managed by the City with the assistance of the SEDC.

c. Partnerships with Community Organizations

Efforts to support Brownfields Redevelopment activities occur on a comprehensive local and regional level. Locally the SEDC, the implementing agency, works with their Board of Directors and a Citizens Advisory Board consisting of local residents and businesses, some residing in the project area. These efforts are combined with the activities of our Naugatuck Valley Council of Governments who administers a multi-town and city Regional Brownfields Pilot which has been historically funded and supported by the EPA, State DECD, and the Community Foundation for Greater New Haven.

Another asset in the Brownfields dialogue is the recent 20 town Naugatuck Valley Corridor Economic Development District which has been approved by the United States Economic Development Administration. This administration has recognized Brownfields issues as one of the top priorities for the region and has ranked the Shelton Enterprise and Commerce Park (location of the Chromium Process site) as a top tier infrastructure priority in terms of the potential for new job creation or new private investment.

The Housatonic Valley Association is aware of the project and is involved with overseeing the preservation and well being of the Housatonic River. Still, several neighbors support the project such as the Boys and Girls Club and the Farm and Public Market. More specifics follow:

CBO	Role	Contact
Naugatuck Valley Health District	Assist in the review of plans and advise on issues related to public health (air monitoring, for instance).	Karen Spargo (203) 881-3255
Citizens Advisory Board	Schedule, advertise, host and attend public meetings and provide input on plans and reports. (see also Section 3.a)	James Oram (203) 924-9134
Naugatuck Valley Corridor	NVC will coordinate brownfield best practices in the valley development district and include Shelton in its regional meeting updates.	Sheila O'Malley (203) 736-5940
Housatonic Valley Association	Attend public meetings and review plans and provide input related to river preservation.	Lynn A. Werner (860) 672-6678
Boys and Girls Club of the LNV	Provide neighborhood based outreach and participation in community meetings.	Shaye Roscoe (203) 924-7462
Rotary Club	Continue to encourage public input and review reports and plans for cleanup and reuse of the site.	Drew Scott (203) 231-6156
Training, Education & Manpower, Inc.	Review cleanup plan work scope and provide lists of possible applicants for technical support positions as may be needed for existing work or future monitoring.	David Morgan (203) 736-5420

4. Project Benefits

This is one site in a dozen along the riverfront, downtown area that the city has targeted for revitalization. In its neighborhood, already three sites have been cleaned up, and two more are in the planning process. The Chromium Process parcel will provide another part of this major future success story, ridding the downtown area of blight, potential air-borne particulates, and future concerns from direct contact with soils and leaching to groundwater. The parking area that will exist after cleanup places another piece of the development puzzle in this revitalization area.

a. Health and/or Welfare and Environment

i. Health and/or Welfare Benefits

The health and welfare of the targeted community will benefit in several manners:

A site cleanup will reduce threats to human health due to hazardous contaminants (asbestos, solvents, metals like chromium and lead) that migrate from the shallow soils into the air as dust and onto skin (inhalation and direct contact mitigation). The contaminants are present above state risk-based cleanup levels, and will be addressed via the planned removal and clean backfill plans, after the building is removed.

Cleanup will facilitate the site's redevelopment as part of an area wide plan to add housing, business, and open space to the downtown, riverfront area. This will provide an expanded tax base to the city that can be reinvested for yet more improvements to the target area – ultimately providing a better quality of life to those residents. The site will provide much needed parking in the area to support the continued growth.

In addition, through its RFP process for property transfers and permitting process for development, future uses of hazardous substances (or wastes) will be eliminated from the newly developed sites in the area. Overall, there will be far less pollution than in the past that would otherwise contribute to health risks such as asthma and blood lead levels. The target site will be used for parking only, and not for industrial activities.

Note that the project as a whole, from the state-funded building demolition to the EPA-funded soil cleanup, will provide an enormous reduction of risks related to health, safety, and crime here.

ii. Environmental Benefits

Cleanup will improve groundwater and surface water conditions by reducing concentrations of contaminants migrating to the immediately adjacent Housatonic River (currently well above state criteria). A brook that runs under the site is directly impacted from the site's conditions, and the brook leads directly into the adjacent river. The removal of the soil and foundations enhance the conditions because they currently contain concentrations of metals and solvents above pollutant mobility criteria (ability of soil to leach to groundwater). The cleanup will also provide the ability to remove or replace outdated stormwater conveyances that lead from the site's subsurface directly into the brook below the site.

b. Environmental Benefits from Infrastructure Reuse/Sustainable Reuse

i. Planning, Policies, and Other Tools

Shelton worked with the community to develop a plan for the Shelton Enterprise and Commerce Park that was immediately embraced by the Housatonic Valley Association as the first mixed use development they have endorsed combining public space investments, riverfront recapture, with new economic development prospects and linking the downtown with an attractive river walk treatment. By linking these projects to our commuter connections and highway access, future development will address one of the livability principles and reduce resource consumption associated with traffic from sprawling development. This will also increase transportation choices for existing and new residents and workers in the area.

The reuse of the target site and other parcels will make use of the infrastructure already available to the site - a smart growth principle that the City is utilizing. Future site use for hazardous material use or storage will not be permitted per the reuse plan, thus future pollution will be virtually eliminated from the site. And, regarding long-term and preservation, the area's new green spaces are preserved through the City's modifications to its zoning regulations and maintained through its Parks Department.

Future development in the area will also be green as the City will use its RFP process to enlist green, sustainable, and LEED principles in the development agreement. The City of Shelton has a "Going Green" policy and is working with each department to ensure that new plans and changes to existing plans are consistent with those principles. Under this policy, it has already completed the conversion of the school bus fleet to "all propane" fuel, an air pollution reduction step.

Specific to the cleanup project, green measures have been employed for the building demolition – such as separating demolition materials to maximize recycling and minimize disposal. For the soil removal efforts, preferences will be given to disposal opportunities that utilize treatment (such as incineration) and recycling (reused as landfill cover materials), rather than direct disposal.

ii. Integrating Equitable Development or Livability Principles

Shelton has invested heavily in the infrastructure on adjacent plots including but not limited to major utility upgrades and under grounding of utilities, street widening and handicapped barrier elimination, new street trees and furniture, and other infrastructure. Thus, development of the Chromium Process facility and the area will use existing resources and infrastructure. Furthermore, the development will allow the expansion of the river walk, adding a public walkway for enjoyment, access to resources such as the river, and connectivity to businesses and shops. This is part of the master plan and smart growth efforts mentioned above. The City has also embarked on a Transit Oriented Development approach to improve the Shelton-Derby bridge (entrance is located in the target area) for pedestrian and bicycle traffic opportunities to the Derby downtown and the commuter train line, which is located within 1/2 mile of the target community.

Additional acknowledgment for Shelton's efforts has come through the State Office of Policy and Management's recognition of Shelton as an example consistent with the State's smart growth guidelines and the Connecticut Economic Resource (2011 and 2013 Celebrate Connecticut awards). Lastly, one of the area's sites just became designated for additional affordable housing for the elderly, a much needed lift for that part of the population.

c. Economic and Community Benefits

i. Economic or Other Benefits:

This grant will lead to another EPA success story. The site cleanup can be completed with the grant and cost share resources, which in turn can lead to site development in the very near term, bringing both economic and non-economic benefits. A remediated site provides many benefits such as attracting additional local and regional business operations. Combined with the neighboring sites (the former Spongex, Rolfite and Chromium Process land parcel [a separate parcel from the target site]), a mixed-use project can be completed that would enlist short term construction jobs for nearly 100 people about one year following cleanup. Full-time employment in commercial and retail space is expected to be about 50 people the year following. The potential tax revenue will go from 20 years of minimal revenue to over \$50,000 per year for new buildings placed nearby, utilizing the target site as a new parking area.

The traffic to visit the target area will also be exposed to the other business opportunities available in the downtown area. The local Planning and Zoning Commission has recently approved a new Riverfront Development District which will allow for the parcels to include construction of a riverfront restaurant or other commercial development to attract visitors to the downtown area. High density housing will also be allowed. This will provide increased consumers for the downtown area, while providing additional housing using a smart growth principle.

The EPA investment in the proposed remediation activities will complement the community's commitment to meaningful community economic development. As one example of recent benefits, especially with the cleaned up Farm and Public Market (an EPA success story), hundreds of people have visited the downtown each summer and fall.

The site cleanup fully integrates it with the other development in the immediate vicinity, including the Public Square, the Veterans Memorial, the Shelton Riverwalk, Farm and Public Market, a recently built Pavilion and a skateboarding park. Over 10 acres have recently been restored (through brownfields cleanup) to green space in this downtown area, thus the redevelopment on the site has a direct impact towards maintaining the newly created green way and public use area. The City has also submitted a proposal to the Naugatuck Valley Council of Governments and State DOT for expansion of the existing river walk, which would traverse adjacent to the site. This proposal has received Federal funding of \$1.4 million for implementation.

ii. Job Creation Potential with Workforce Development Programs

The development of this site is included in an estimate of the creation of over 25 short-term (construction related) jobs. In addition, through the relationship developed with the SEDC, the City has the commitment of several local workforces, specifically Training, Education & Manpower, Incorporated (TEAM). The SEDC will continue its relationship with TEAM, including them in its meetings related to site development, and share knowledge on the pending new job opportunities. A meeting will be facilitated between TEAM and the developer so TEAM can make the developer aware of the local resources available. The same partnering idea will be implemented as each new business considers operating at nearby developed sites. Since this site will become a parking lot, long term jobs are not applicable, but the existence of the parking area promotes greater use of the downtown area for residents, shoppers and commuters alike.

5. Programmatic Capability and Past Performance

a. Programmatic Capability

The City of Shelton has designated the Shelton Economic Development Corporation (SEDC) non-profit local development corporation, with a 501-c-3 tax designation, as its “implementing agency” or “designated development agency” under Connecticut General Statutes for the management of the Shelton Enterprise and Commerce Park (Phases 1 through 4), and other key development interests within the City. Hence, the SEDC will manage this grant. The SEDC has 44 directors and a 12 member executive committee. They have been operating for over 30 years. The SEDC has the financial record keeping systems and compliance capabilities which will be required by the EPA funding. An annual audit is performed of SEDC financial records.

The SEDC staff consists of a full-time President, James Ryan, who has over 38 years of experience in economic development, community development, brownfields management, grant administration, infrastructure oversight, and related work. It should be noted that Mr. Ryan and the SEDC have overseen the implementation of several brownfields grants from EPA, including the Farmers Market success story and a targeted brownfield assessment that helped launch the brownfields development momentum in downtown Shelton. The SEDC has a management succession strategy that addresses unanticipated changes in staff to lessen any impact on ongoing programs.

The City and SEDC will obtain technical expertise such as qualified environmental professionals and remedial action contractors from a competitive procurement process. Legal expertise is not anticipated because the city owns the land and the adjacent properties. Still, the SEDC has legal counsel available to help resolve unforeseen issues. In addition, the SEDC has worked with EPA to exceed the requirements of each grant such as MBE/WBE utilization and ACRES reporting. Mr. Ryan has maintained a professional relationship with the key oversight staff at the State DEEP and the partners at the regional EPA office, among other stakeholders.

b. Audit Findings

Regarding the EPA cleanup grants, there have been no adverse findings or problems with grant management. There are no adverse audit findings related to Office of Management and Budget (OMB) Circular A-133 audits, or other state or local or other party. The City of Shelton and its agent (SEDC) have never been required to comply with “high risk” terms and conditions under agency regulations implementing OMB Circular A-102.

c. Past Performance and Accomplishments

The City of Shelton and the SEDC has managed several brownfield grants from the EPA and has met the compliance requirements for financial reports, technical reports, and closeout documentation. Including those projects listed below, work plans have been submitted and completed as required. The SEDC updates the schedules and submits quarterly progress reports on time. ACRES is also updated each quarter for each project site and the SEDC updates the public each month via its website and regularly scheduled meetings and through *Shelton Life*, as presented in the community relation plans. MBE/WBE goals have also been tracked and results reported.

A summary of the most recent EPA brownfield grants and their successes in the City of Shelton include the following:

Chromium Process Land Parcel (in progress):

The City is currently utilizing a cleanup grant for the cleanup of contaminated soil at the site known as the former Chromium Process land parcel, located across Canal Street from the target site of this grant. The two parcels are separated by tax identification, former ownership, and use; but were once used by the same operator. The site work has been limited due to the plans for the river walk extension. The delay in startup will not change the outcome or budget, but rather improves the ability of the City to utilize leveraged funding available for the river walk that will cross the site. The preparation and construction of the river walk can now be coordinated with the cleanup work (soil removal and backfill) for efficiency. The City has been in contact with the EPA regional representative and has been updating ACREs with quarterly reports and other relevant information. The final ABCA has been submitted and site clearing has been completed.

Axton Cross Cleanup (completed):

The total \$200,000 allocated from this cleanup grant was used to address the VOC/solvent plume that is situated on that site and permeates beyond its borders, located within the target area. The funding was in part used to finalize the remedial action plan, register the site with the State's voluntary remediation program, and develop the QAPP. Remedial additives were then applied using injection wells for in-situ groundwater treatment (a green and sustainable remedy). ACREs has been updated and the grant is closed. Outcomes and outputs were reached as expected – there was a major reduction in concentrations of VOCs in the groundwater as reported in quarterly reports to the CT DEEP. The complexity of this situation will require additional remediation efforts and those are expected to be addressed using other leveraged funding (State grant).

Cel-Lastik Cleanup (completed):

The City was awarded a \$200,000 grant for this target area property that contains a highly contaminated VOC plume. These funds (entire allotment) were used to help treat a major part of the plume via a green and sustainable in-situ remediation (bioremediation of groundwater contaminants), eliminated the need to remove nearly 10,000 tons of soil. The City was able to utilize the existing work plan and QAPP from the Axton Cross site work (above) for efficiency since the work was similar. The funds were expended with expected results – continued reduction of toxic contaminants in the groundwater. A report was prepared to document the treatment success. Still, additional work is needed and the City is currently in the process of utilizing its leveraged funding from the State to continue towards its cleanup goals.

The City of Shelton's incremental approach to tackling these brownfield sites and completing work has resulted in favorable progress on several major development parcels. We look forward to the next EPA success story at the Chromium Process facility site.

Attachment A – Threshold Criteria
City of Shelton
Former Chromium Process Facility - Site Cleanup

Attachment A – Threshold Criteria
City of Shelton
Former Chromium Process Facility - Site Cleanup

1. Applicant Eligibility:

a. **Eligible Entity:**

The applicant is the City of Shelton, Connecticut, a municipal government.

b. **Site Ownership:**

The City of Shelton took sole ownership of a site known as the former Chromium Process facility located at 113 Canal Street West, Shelton, Connecticut 06484 through tax foreclosure in 2013. An AAI was completed prior to the site acquisition.

2. Letter from State Environmental Authority:

See attached letter from the State of Connecticut Department of Energy and Environmental Protection.

3. Site Eligibility and Property Ownership Eligibility

a. **Basic Site Information**

- a. Former Chromium Process Facility
- b. 113 Canal Street West, Shelton, Connecticut, 06484
- c. City of Shelton owns the property
- d. The City acquired the property in April 2013

Note that this is a separate address and parcel from the property known as Chromium Process land parcel at 113a Canal Street (East).

b. **Status and History of the Contamination at the Site.**

This site contaminated by hazardous substances was an industrial manufacturing site and hazardous material storage. There are known hazardous substances (metals (chromium, lead, arsenic and others), VOCs, PAHs and petroleum hydrocarbons) in the soil, foundation walls and groundwater as detected in various assessment activities. Industrial use and poor housekeeping practices resulted in the release of substances to the ground, walls, and groundwater from various floor penetrations and outlets. Concentrations of these various chemicals in the soil (various depths) and groundwater exceed the various applicability state risk-based criteria for direct exposure and pollutant mobility (leaching to groundwater from soil).

c. **Sites Ineligible for funding.**

The site is not listed or proposed for listing on the National Priorities List, not subject to unilateral administrative orders and not subject to the jurisdiction of the U. S. government.

d. **Site Requiring a Property-Specific Determination**

This site is not subject to property- specific determination.

e. **Environmental Assessment Required for Cleanup Proposals**

The site has been characterized in several manners:

- Draft Phase II Environmental Investigation – 37-123 East Canal Street, Shelton, Connecticut (GZA, 1995) [focused on groundwater conditions as a result of various releases from multiple properties]
- All Appropriate Inquiry (AECOM, updated April 2013)
- Hazardous Building Materials Survey (AECOM, August 2015)
- Decontamination and Demolition Plans and Specifications – Former Chromium Process Facility (AECOM September 2015).
- Draft Subsurface Remedial Action Plan - Former Chromium Process Facility (AECOM, December 2015). *Note that this plan will be finalized after the building demolition is completed, and observations and data from the subsurface below the building can be bolstered under safe conditions.*

f. **CERCLA Liability**

The City is not potentially liable for contamination at the site under CERCLA §107 can affirm that is the current owner and has not conducted any activities on the site other than secure the building, and later initiated site assessment activities and asbestos abatement of the building. The City took ownership through tax foreclosure.

The City was not the owner or operator at the time of disposal; was not a party that arranged for treatment or disposal to or from the site; was not a party that accepted hazardous substances for transport to disposal or treatment.

g. **Enforcement or Other Actions.**

There are no ongoing or anticipated environmental enforcement or other actions related to the brownfield site for which funding is sought. There have been prior inquiries made and actions required by the State during site historical operations, before the operations were shut down and the City took ownership of the site. Under the City's ownership, the cleanup is being conducted in cooperation with the State DECD and DEEP and will be entered into the State's voluntary cleanup program.

h. **Information on Liability and Defenses/Protections.**

i) Information on the Property Acquisition.

The former Chromium Process Facility was obtained by the City of Shelton through tax foreclosure in 2013. The City of Shelton is the sole owner and acquired the property from the Chromium Processing Company. There were no familial, contractual, corporate or financial relationships or affiliations with the prior owners.

ii) Timing and/or Contribution Toward Hazardous Substances Disposal.

All site activities that would have contributed to environmental impacts occurred prior to the City's ownership. The City did not cause any of the contamination as it never operated at the site – only took a vacant site for tax purposes and redevelopment. The City of Shelton has not, at any time, arranged for the disposal of hazardous substances at the site. It has initiated assessment and cleanup activities only.

iii) Pre-Purchase Inquiry.

Prior to the taking, the City conducted an AAI/Phase I Assessment using a qualified Licensed Environmental Professional (AECOM, updated April 2013).

iv) Post-Acquisition Uses

The City has maintained security of the site including monitoring for trespassing, removing trespassers and boarding the building windows and doors. Assessment activities have occurred and the City has also initiated the abatement of asbestos-containing materials from the building. There have been no other users of the site since City ownership.

v) Continuing Obligations

The City maintains site security and monitors the site in case there are trespassers or others misusing the site. No dumping or other activities have been noticed since the City has taken ownership. By maintaining a secure site, further exposure and releases have been mitigated. In addition, the City has initiated assessment and cleanup, such as asbestos abatement of the building.

The City will continue its commitment to comply with all land use restrictions and institutional controls (none to date), assist and cooperate with those performing cleanup including access (self performing), comply with all information requests, and provide all legally required notices.

4. Cleanup Authority and Oversight Structure

a. **Describe how you will oversee the cleanup**

The City has initiated the cleanup of the existing building in preparation of its demolition. The asbestos abatement has been overseen by state certified asbestos planners and monitors, under coordination with the City's qualified environmental professional.

For the soil remediation, the City will enroll the site in the State's voluntary cleanup program following the State's process for the Urban Sites Remedial Action Program, a program that the City has been working within on other brownfield sites.

As with prior work, the City will procure a qualified environmental professional – a firm with a Licensed Environmental Professional as defined in the State of Connecticut. The City also has, through the SEDC, an existing agreement with an environmental professional firm that was competitively procured, consistent with the competitive procurement provisions of 40 CFR 31.36 (for eligible government entities).

b. **Plan to acquire access to adjacent properties**

Access is not needed – the City owns the property.

5. Cost Share

a. **Statutory Cost Share**

The City plans to use bond funding or cash on hand to provide the cost share. If possible, in-kind services will be used, such as clean fill, police detail, water supply or the like, if possible. The cost share is expected to be \$40,000.

6. Community Notification

The City has informed the community and maintains an outreach program utilizing multiple media outlets and the Community Advisory Board. See also the attachments for compliance with this item.

Attachment B – Letter from State

City of Shelton

Former Chromium Process Facility - Site Cleanup



79 Elm Street • Hartford, CT 06106-5127

www.ct.gov/deep

Affirmative Action/Equal Opportunity Employer

December 9, 2015

Mr. James E. Ryan
Shelton Economic Development Corp.
475 Howe Ave., Suite 202
Shelton, CT 06484

Subject: State Letter for City of Shelton for 113 Canal St., Shelton

Dear Mr. Ryan:

The Connecticut Department of Energy and Environmental Protection acknowledges that the City of Shelton has stated its intent to conduct and/or oversee cleanup activities if Brownfields grant funds for cleanup, as authorized by the Small Business Liability Relief and Brownfields Revitalization Act, signed into law on January 11, 2002, are awarded by EPA. The City of Shelton is submitting an application for clean-up funding for the following site:

- 113 Canal St., Shelton

Please note that at any site for which the City receives cleanup funding from EPA, cleanup work must be performed in one of Connecticut's formal remediation programs, including among others the Voluntary Remediation program pursuant to CGS § 22a-133x, the Property Transfer Program, (if applicable) pursuant to CGS §22a-134, the Urban Sites Remedial Action Program pursuant to CGS §22a-133m, or the Brownfields Remediation and Revitalization Program pursuant to CGS §32-769.

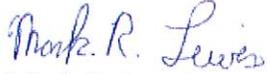
To reflect participation in a formal cleanup program, the work plan and budget for this site should include the following elements:

- Preparation and submittal of the completed Environmental Condition Assessment Form (ECAAF) and associated documents.

Information regarding various state cleanup programs is available at http://www.ct.gov/deep/cwp/view.asp?a=2715&q=324950&deepNav_GID=1626.

If you have any questions about this letter, please contact me at (860) 424-3768 or by e-mail at mark.lewis@ct.gov. Good luck with your application.

Sincerely,



Mark R. Lewis
Brownfields Coordinator
Office of Constituent Affairs & Land Management

C: Mayor Mark A. Lauretti, City of Shelton, 54 Hill St. Shelton, CT 06484 (via e-mail)

Ms. Dorrie Parr, EPA (via e-mail)

Attachment C – Letters of Commitment
City of Shelton
Former Chromium Process Facility - Site Cleanup



98 Bank Street • Seymour, CT 06483 • Tel: (203) 881-3255 • Fax: (203) 881-3259 • Website: nvhd.org

December 3, 2015

Mayor Mark A. Laretti
City of Shelton
54 Hill Street
Shelton, CT 06484

RE: U. S. EPA Grant Application

Dear Mayor Laretti:

The Naugatuck Valley Health District (“NVHD”) endorses the City of Shelton’s application to the U. S. EPA for a cleanup grant for the Chromium Process Company located at 113 Canal Street. The NVHD has previously given its endorsement to the environmental remediation efforts in the Shelton downtown revitalization area. The existing remediation efforts have resulted in the reclamation of previously contaminated and unusable areas that are now available for public use.

In addition to our endorsement, the NVHD plans to be part of the review process of any future and continuing rehabilitation efforts ensuring all health standards are met. We understand that prior to environmental assessment work, the contractors will prepare health and safety protocols that will be protective of the workers and the general public. We are available to participate in the review of site planning documents and to attend meetings to discuss the remediation plans that are related to appropriate health precautions.

The NVHD believes it is in the interest of public health to promote the rehabilitation and reclamation of contaminated properties; as such rehabilitation is beneficial to the health of residents within our district.

Kind regards,

Karen N. Spargo
Director of Health

Naugatuck Valley Health District

Ansonia • Beacon Falls • Derby • Naugatuck • Seymour • Shelton

**CITY OF SHELTON
CITIZENS ADVISORY BOARD
54 HILL STREET
SHELTON, CT 06484**

December 5, 2015

Mayor Mark A. Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

RE: U. S EPA Grant Application :

Dear Mayor Lauretti:

This letter is to voice our support and show our commitment for the city's application to the U. S. EPA for a cleanup grant for the Chromium Process Company located at 113 Canal Street. As you know, the Citizens Advisory Board has given its endorsement to the revitalization efforts taking place within our city. The city has already shown considerable success in attracting private investment especially in an area that has already been environmentally rehabilitated downtown with the construction of two large residential projects, the Birmingham Condominiums and the new Avalon Bay rental properties. These developments exemplify the potential of public/private partnerships.

If this grant is awarded to the city, it will begin the next step in our efforts to continue the progress that has already been evidenced. As you are aware, there are a number of other former industrial properties that would benefit from revitalization efforts similar to those already conducted. The decontamination and demolition of the Chromium Process Company and eventual cleanup of this site is an essential element of our progress.

A meeting is being held on Wednesday, December 16, 2015, to review and discuss these applications and provide specific brownfields initiatives. We pledge to continue to hold brownfields information sessions at our publicly-held monthly meetings, where our board is continuously updated on these redevelopment efforts by the President of the Shelton Economic Development Corporation. Our board will continue to urge and provide citizen involvement and is prepared to further engage the community by hosting public hearings as may be required specific to this application and other applications. Meetings will be held jointly with other city agencies to comment on cleanup activities. As part of the monthly meetings, we will post and recruit public participation for special meetings on specific brownfields topics.

Furthermore, we are available to participate in a review of site planning documents and attend a meeting to discuss site remediation plans.

Mayor Mark A. Laretti
December 5, 2015
Page Two

We support the inclusion of this information in the city's quarterly Shelton Life newsletter which is widely available to all Shelton residents. Our board will review and comment on the brownfields related articles for each issue following their publication.

Shelton's community partnerships have been very successful in combining local, state, and federal funds to remove or remediate much of the environmental legacy that stems from our once industrial downtown.

Very truly yours,



James F. Oram
Chairperson



City of Ansonia
OFFICE OF THE MAYOR
CITY HALL
253 MAIN STREET
ANSONIA, CONNECTICUT 06401

Attachment C

David S. Cassetti
Mayor

Office: (203) 736-5900
Fax: (203) 734-3853
Email: dcassetti@ansoniac.org

December 2, 2015

Mayor Mark Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

Dear Mayor Lauretti:

As chairperson of the Naugatuck Valley Corridor/Economic Development District (CEDS), I am writing this letter in strong support of the City of Shelton's application for funding for a cleanup grant for the former Chromium Process Company located on 113 Canal Street, Shelton, Connecticut.

The City of Ansonia which is a member of this CEDS partnership will include the Shelton Economic Development Corporation on their agenda for a regional program update on their brownfields best practices at least once a year with the 20 towns and cities in this district. As Chairperson, I will provide a platform to help Shelton partner regionally. As a neighboring community and partner, the City of Ansonia is pleased to support Shelton in this manner as it will have major local and regional significance by connecting ideas and fostering regional partnerships for development.

I believe these grants are vital to the ongoing efforts of Shelton and the region and will provide resources to inventory, characterize, assess and conduct planning related activities throughout the city. It will help continue the significant progress you have made in economic development.

I am available to participate in the review of site planning documents and attend a meeting to discuss site remediation plans.

Very truly yours,



Sheila O'Malley
Chairperson
NVC EDD
Economic Development Director
City of Ansonia



Housatonic Valley Association

150 Kent Road
P.O. Box 28
Cornwall Bridge, CT 06754
860-672-6678

www.hvatoday.org

1383 Pleasant Street
P.O. Box 251
South Lee, MA 01260
413-394-9796

Attachment C

19 Furnace Bank Road
P.O. Box 315
Wassaic, NY 12592
845-789-1381

December 14, 2015

Mayor Mark A. Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

RE: U. S EPA Grant Application

Dear Mayor Lauretti:

It is our understanding the City of Shelton will be applying to the U. S. EPA for consideration of a cleanup grant for work associated with the cleanup of the former Chromium Process Company located at 113 Canal Street.

The Housatonic Valley Association's mission is to save the natural character and environmental health in the 83 communities of the Housatonic River watershed. We work directly and in partnership with municipal leadership, grassroots groups and individuals to achieve our principal objectives of land protection, water protection and community education. Shelton hosts public meetings through their Citizens Advisory Board and local agencies, and it is our intention to participate in these meetings to review plans and provide public input related to river preservation and well-being.

For over twenty years HVA has partnered in numerous projects and initiatives in southern Housatonic Valley communities. We are pleased to have collaborated with the City of Shelton and the Shelton Economic Development Corporation on numerous occasions. We share the city's pride and accomplishment in its restoration and renewal of the Housatonic riverfront and the downtown area.

If you require additional information, please feel free to contact me. HVA is available to participate in a review of site planning documents and attend a meeting to discuss site remediation plans.

Very truly yours,


Lynn A. Werner
Executive Director



BOYS & GIRLS CLUB
OF THE LOWER NAUGATUCK VALLEY

Joseph A. Pagliaro, Jr.*
Chairman of the Board

Donald W. Smith, Jr., P.E.
President

Susan M DeLeon*
1st Vice President

Richard Carroll
2nd Vice President

William M. Miller, Jr.*
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- Superintendent Dr. Carol Merlone
- Superintendent Dr. Matthew Conway
- Superintendent Christine Syriac
- Superintendent Ana V. Ortiz

December 1, 2015

Mayor Mark A. Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

RE: U. S EPA Grant Application

Dear Mayor Lauretti:

The Lower Naugatuck Valley Boys and Girls Club in downtown Shelton serves over 500 children daily. The location of this club is in close proximity to the City of Shelton's downtown revitalization area. In fact, the club itself is located in a former industrial building that was rehabilitated for its current use in 1999. While this location has served well in the club's recent history, it is somewhat less than ideal in that it borders a number of vacant industrial buildings each with their own environmental concerns. If the revitalization effort is able to continue north towards the club property, it would make the area immediate to the club more desirable for the use of the youth that we serve.

The City of Shelton continues to keep the club apprised of proposed activities and ongoing remediation efforts. To show our support, we plan to offer the following:

1. Use our space for disseminating public information related to the redevelopment of the neighborhood.
2. Provide information to our kid's parents to alert them to the positive changes that are coming and make them aware of their ability to participate in information sharing and report review.
3. Provide outreach and education to the hundreds of kid's that use our facility to increase their awareness of the impacts of unhealthy brownfields and the benefits to environmental cleanup and development.

On behalf of the LNV Boys and Girls Club, I strongly support the City of Shelton's application to the U. S. EPA for a cleanup grant for the Chromium Process Company located at 113 Canal Street. This can only have a positive impact on many of the children and families the club serves from this geographic and socioeconomic area within Shelton. We have worked closely with the City of Shelton for many years helping make the city a better place for our children, and we certainly support this application to continue those efforts for generations to come. I am available to participate in a review of site planning documents and attend a meeting to discuss site remediation plans.

Very truly yours,

Shaye A. Roscoe
Executive Director



December 4, 2015

Mayor Mark A. Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

RE: U.S. EPA Grant Application

Dear Mayor Lauretti:

As President of the Derby-Shelton Rotary Club, we understand the City of Shelton will be applying for consideration of a cleanup grant from the U. S. EPA for the Chromium Process Company located at 113 Canal Street. In Shelton and throughout Connecticut, EPA and its brownfields' assessment and remediation programs have played an integral part of ongoing efforts to revitalize communities.

The construction of a \$460,000 Pavilion in the downtown on a former brownfields site in collaboration with our Rotary Club and the City of Shelton is proof of continued reformation of this once blighted area. In close proximity to the existing Farm and Public Market and Veterans Memorial, the Pavilion has already provided a venue for dances and gatherings. The Chromium Process Company is located in this area.

Over the years, you have met each of the difficult challenges faced when revitalizing former industrial sites. Your efforts have yielded public support, private partnerships, regional participation and a well thoughtout plan for economic development. In particular, the partnerships you have helped cultivate along with the Shelton Economic Development Corporation (SEDC) and the federal, state and private entities, over the years have resulted in one of the Valley's most successful downtown revitalization efforts.

We believe the consideration of an award of this grant is vital to the ongoing efforts of Shelton. It will help to continue the significant progress you have made in economic development.

The Derby-Shelton Rotary Club is pleased to support this application which will have a major local impact. We are available to participate in the review of site planning documents and attend a meeting to discuss the remediation plans as necessary.

Very truly yours,

Drew Scott, President 2015 - 2016

Drew Scott



Training Education And Manpower, Inc.

30 Elizabeth St. Derby, CT. 06418-1846*203.736-5420*FAX: 203.736-5425*www.teaminc.org

December 1, 2015

Mayor Mark A. Lauretti
City of Shelton
54 Hill Street
Shelton, CT 06484

RE: Application to U. S. EPA

Dear Mayor Lauretti:

TEAM, Inc. fully endorses the City's request for federal funds to undertake a cleanup of the former Chromium Process Company located at 113 Canal Street in regard to its downtown revitalization objectives. As the federally designated anti-poverty agency for the region, TEAM is fully cognizant of the need to continue the redevelopment of Shelton's former industrial core area. The improvements that have been made during the past two decades have been substantial but much still remains to be done.

As a tribute to your efforts and willingness to partner in the community, we will be available to participate in the review of site planning documents and attend a meeting to discuss the remediation plans.

We support your efforts and pledge to help in every way that we can to ensure success. Best wishes for a positive outcome.

Sincerely,

A handwritten signature in blue ink, appearing to read "David Morgan", written in a cursive style.

David Morgan
President/CEO

pc: James E. Ryan, SEDC

Attachment D – Leveraged Fund Documentation

City of Shelton

Former Chromium Process Facility - Site Cleanup



Catherine H. Smith
Commissioner

Department of Economic and
Community Development

Connecticut
still revolutionary

August 27, 2014

Mr. Mark A Lauretti
Mayor
City of Shelton
54 Hill Street
Shelton, CT 06484

Re: Chromium Process Company – 113A/113 Canal Street Site Remediation & Reuse

Dear Mayor Lauretti:

Congratulations! The Department of Economic and Community Development is pleased to award The City of Shelton a GRANT in the amount of \$1,019,470 in response to your application for funding under the Remedial Action and Redevelopment Municipal Grant Program & Targeted Brownfield Development Loan Program.

This award represents Governor Malloy's continuing commitment to support Connecticut's municipalities, remediate the vacant and blighted properties that are a legacy of our manufacturing history, and repurpose the properties for redevelopment and job creation.

As a next step, DECD will work with your staff to develop a Financial Assistance Proposal ("Proposal"). This proposal will outline the key terms of the grant funding as well as any conditions that Shelton will need to meet in order to access this funding. To facilitate this process, DECD will schedule a kickoff conference call with your staff in the next two weeks.

We expect to deliver a draft Proposal to Shelton by September 25th.

Once the Proposal is delivered you, you will then have fifteen (15) days to review the Proposal, accept the terms and conditions, and return the signed acceptance sheet to the project manager's attention. If you do not return the signed acceptance within the allotted time, this offer of assistance may be withdrawn.

Upon receipt of the signed acceptance sheet, DECD will initiate the contracting process and have counsel appointed to draft the Assistance Agreement ("Agreement") and other closing documents. You will then return a signed Agreement to our closing attorney with the required closing documents. Once the Agreement is signed, the contract will be forwarded to the Office of the Attorney General for Approval as to Form. The Agreement process should take 6-8 weeks.

Importantly, as of the date of this letter, you may begin incurring costs that would be eligible for reimbursement under the Agreement.

Our staff will continue to be available to you and your staff throughout the duration of the project. If you have any questions concerning this proposal please contact Ned Moore, your project manager, at (860) 270-8148.

We are pleased to have an opportunity to work with you on this project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim Sullivan', with a long horizontal flourish extending to the right.

Tim Sullivan
Director of Waterfront, Brownfield and Transit-Oriented Development

Cc: James E. Ryan

Attachment E – Documentation of Community Notification

City of Shelton

Former Chromium Process Facility - Site Cleanup

CONNECTICUT POST

Attachment E

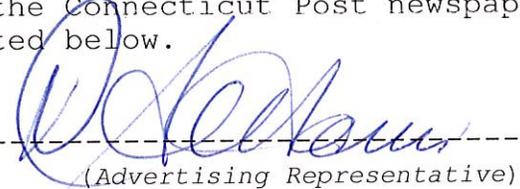
410 State Street • Bridgeport, CT 06604

Shelton ECONOMIC DEV. CORP.
475 HOWE AVENUE
SHELTON CT 06484

RECEIVED DEC 11 2015

CONNECTICUT POST CERTIFICATE OF PUBLICATION

This is to certify that the attached advertisement was published in the Connecticut Post newspaper as stated below.



(Advertising Representative)

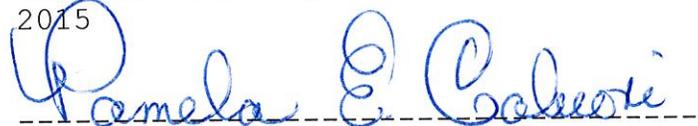
PUBLIC NOTICE

The Shelton Economic Development Corporation (SEDC), acting on behalf of the City of Shelton, hereby invites Public Comment on a draft application for a U. S. EPA brownfields cleanup grant for the environmental remediation of the Chromium Process site located at 113 Canal Street, Shelton. This grant is valued at \$200,000. Historical documentation on the site is located at the SEDC office at 475 Howe Avenue, Suite 202, Shelton, Connecticut and on the SEDC website www.sheltonedc.org

A public meeting of the Citizens Advisory Board with the assistance of the SEDC will be held on Wednesday, December 16, 2015, at 7:30 PM at the SEDC office to review the grant application and seek comments. The SEDC office is handicapped accessible. If requested, assistance will be provided to anyone with additional needs, including language interpretation and hearing. An alternate time to review and provide comments can be made by calling the SEDC office.

A draft version of the application, including the Analysis of Brownfield Cleanup Activities (ABCA), can be found at the office of the SEDC after Thursday, December 3, 2015, and on the SEDC website. Public comments should be submitted to: Mr. James E. Ryan, President, SEDC, 475 Howe Avenue, Suite 202, Shelton, Connecticut 06484 or by phone at (203) 924-2521 or by email at sedc1@sheltonedc1.com.

Subscribed and sworn to before me, on this 7.th day of December, A.D. 2015



Notary Public
State Commission Expires 1/31/2018

PO Number

Amount
\$269.20

Publication
Connecticut Post

Ad Number
0002129910-01

Publication Schedule

Ad Caption
PUBLIC NOTICE The Shelton E

12/3/2015

City of Shelton, Citizens Advisory Board
Agenda for December 16, 2015 Regular Meeting

To: City of Shelton, City Clerk, SEDC, Citizens Advisory Board Members

From: James Oram, Chairperson

Date: December 2, 2015

The December, 2015 meeting of the Citizens' Advisory Board will be held on **Wednesday, December 16th**, at the SEDC Office, 475 Howe Avenue Suite 202, Shelton CT. at **7:30 P.M.**

1. AGENDA:

Old Business:

1. Approval of Minutes

New Business:

1. Review and comment on City's application to the USEPA for a cleanup grant for the environmental remediation of the Chromium Process site located at 113 Canal St. Shelton CT 06484.
2. Downtown update – Rick Schultz – Planning and Zoning
3. Other reports

The public is invited to attend, and may contact James F. Oram at **jamesf45@sbcglobal.net** or call (203) 924-9134 (afternoons or evenings)

CITY OF SHELTON
CITIZENS ADVISORY BOARD
MEETING
WEDNESDAY, DECEMBER 16, 2015

A meeting was held of the Citizens Advisory Board on Wednesday, December 16, 2015, at 7:30 PM at the offices of Shelton Economic Development Corporation. The following people were in attendance:

James Oram, Chairman
Guy Beardsley
Rebecca Twombly
Judy Augusta
Regis Dognin
Joseph DeFilippo
Betty Kingersky, Secretary

Also attending: Rick Schultz, Planning and Zoning Administrator
James Ryan, President, Shelton Economic Development Corporation
Elspeth Lydon, Plumb Memorial Library

Mr. Oram asked Jim Ryan, President of the Shelton Economic Development Corporation, to address the upcoming application to the U. S. EPA for the Chromium Process facility.

Mr. Ryan updated the Citizens Advisory Board on Brownfields progress and detailed the proposed activities at the Chromium Process facility. The Citizens Advisory Board asked about the timing for the project, and Mr. Ryan provided the updated schedule. Mr. Ryan explained the budget and the end use of the land.

MOTION: A motion was made by Rebecca Twombly and seconded by Guy Beardsley to endorse the application to the U. S. EPA for a cleanup grant for the environmental remediation of the Chromium Process site located at 113 Canal Street West, Shelton, Connecticut. All in favor. Motion passed.

Attachment F – Draft ABCA

City of Shelton

Former Chromium Process Facility - Site Cleanup

Draft Analysis of Brownfields Cleanup Alternatives (ABCA)

Subsurface Removal Actions Former Chromium Process Facility Shelton, Connecticut

December 2015

Introduction and Background

The site is the Former Chromium Process Facility at 113 West Canal Street. It was a former metals plating facility that has been vacant for several years. The owners performed a preliminary removal of process equipment and residual chemicals after operations ceased, but 60 years of plating operations have left residual contamination in and below the building footprint.

A Phase I Environmental Site Assessment was performed by AECOM in 2012 (updated in April 2013 prior to the site acquisition), while much of the plating equipment was still in place. Observations included those of sumps and drains in the basement with suspected discharge into floor penetrations and the brook below the building, the locating of metals cleaning equipment (source of VOCs), storage areas and a UST.

Current investigations and actions include asbestos removal and assessment of the building interior and construction materials for hazardous impacts. Hazardous materials include foundation walls stained with heavy metal salts. Plans for the site include demolition of the building after removal of hazardous materials followed by the removal of impacted soil and foundation walls located below the building.

Forecasted Climate Conditions

According to the US Global Change Research Program (USGCRP), climate trends for the northeast region of the United States include increased temperatures, increased precipitation with greater variability, increased extreme precipitation events, and rises in sea level. Some of these factors, most specifically increased precipitation that may affect flood waters and stormwater runoff, are most applicable to the cleanup of the site.

The southern portion of the site is currently mapped within the 100-year (1%) flood zone for the Housatonic River, according to FEMA Flood Insurance Rate Map 09001C0305F. The northern portion is mapped within the 500-year (0.2%) flood zone. This mapping likely dates to a time when Burying Ground Brook flowed over the surface within a swale. However; currently, the brook is culverted and the land surface over the culvert is mostly flat. The mapped 100-year flood elevation at the site is between 21 and 22 feet NGVD, while the street elevation at the site is approximately 25 feet NGVD. Typical river elevations fluctuate with the tides between 0 and 8 feet NGVD. It is also important to note that the river is dammed just upstream. Hence, there are controls on the river and flooding is very unlikely at this site.

With the changing climate, greater storm frequency and intensity may result in more frequent and more powerful flood waters within the river, which may result in changes to the flood zone. The building basement floor elevation is approximately 16 feet NGVD; with a likely direct connection between floor drains and the Burying Ground Brook, a 100-year flood could introduce up to 6 feet of flood water into the building basement and lower-level entry areas. Once the building is razed and the basement is backfilled, the site will not be at a greater flood risk than the surrounding streets.

Based on the nature of the Site and its proposed reuse, changing temperature, rising sea levels, wildfires, changing dates of ground thaw/freezing, changing ecological zone, saltwater intrusion and changing groundwater table are not likely to significantly affect the Site.

Applicable Regulations and Cleanup Standards

a. Cleanup Oversight

The cleanup will be overseen by a state-certified Licensed Environmental Professional (LEP). In addition, all documents prepared for this site are submitted to the Connecticut Department of Energy and Environmental Protection (CT DEEP) for review and comment. The subsurface remediation work will be conducted in accordance with a remedial action plan.

b. Cleanup Standards for major contaminants

The City currently anticipates that the cleanup criteria will be the Industrial/Commercial Direct Exposure Criteria, the GB Pollutant Mobility Criteria, and the Industrial/Commercial Soil Vapor Volatilization Criteria for soil. Groundwater in the area is designated as GB because of its industrial history and availability of public water supply. Groundwater cleanup criteria are the Surface Water Protection Criteria and the Industrial/Commercial Groundwater Volatilization Criteria.

c. Laws & Regulations Applicable to the Cleanup

Laws and regulations that are applicable to this cleanup include the Connecticut Remediation Standard Regulations, (Sections 22a-133k-1 to 22a-133k-3, inclusive, of the Regulations of Connecticut State Agencies). Federal, state, and local laws regarding procurement of contractors to conduct the cleanup will be followed. In addition, all appropriate permits (e.g., Call Before You Dig, City demolition permit, soil transport/disposal manifests) will be obtained prior to the work commencing.

Evaluation of Alternatives

This evaluation of remedial alternatives provides the basis for alternative selection and meets the goals of an Analysis of Brownfields Cleanup Alternatives (ABCA) required for cleanups supported by EPA brownfield grants. This analysis refers to the near-term remediation of contaminated materials located below and around the former building known as the former Chromium Process facility. The objective is to remove contaminated soils and building foundation components, followed by the placement of a layer of clean fill to render remaining soils inaccessible. Additional activities are planned for future redevelopment and will include a final approach such as engineered controls included with the site development (pavement and landscaping as part of a future parking area) and land use restrictions.

As a result of historic operations at the facility, metals and solvents were released to the subsurface and have impacted the foundation walls and soils below and around the building. Although the current funding will be utilized to decontaminate and demolish the existing building, the foundation walls (made of stone and brick with mortar) and soils below the footprint will need to be addressed. The concentrations of several metals and organic compounds are above the criteria published by the State of Connecticut in the Remediation Standards Regulations (RSRs). The criteria exceeded include those for direct exposure to soil as well as pollutant mobility criteria, which protect against transport of contaminants from soil to groundwater. Some results have indicated the presence of hazardous wastes which should be removed once the building is demolished to mitigate the possibility of migration into the groundwater.

Because of the nature of the work and the conditions at the site, limited options exist. The soil and old foundation walls are polluted with several constituents including heavy metals (chromium, lead, copper, cyanide) and solvents. Hence, treatment is difficult and expensive because multiple treatment efforts would be required to reduce all the contaminants to levels below risk criteria. There is also very limited space at the site to conduct treatment.

This leaves removal (excavation and disposal) as the most effective option along with placement of cover materials to eliminate future exposures to the remaining soils. The depth of polluted materials ranges from shallow (0 to 2 feet below ground surface) to very deep (10 to 12 feet in some locations). The regulations

allow for polluted soil to remain in place if the soil is inaccessible (below a building or below 4 feet of fill or pavement) or there are modified controls in place (capping materials) and land use restrictions are filed and enforced. The materials must also meet pollutant mobility criteria if left in place, or otherwise an impermeable barrier must be placed.

The alternatives evaluated in this analysis were the following:

- (1) No Action
- (2) Removal (excavation) of soil and impacted foundation walls
- (3) Capping in place all subsurface materials

Note that future development may include the proposed use of the site is likely for parking.

The alternatives are comparable for effectiveness. See attached summary tables. Note that No Action alternative is placed as a benchmark only.

Recommended Cleanup Alternative

The recommended alternative is removal of the impacted soil and foundation walls, replaced with clean fill. No Action cannot be recommended because it does not meet project objectives and is not protective of human health or the environment. Capping is effective, but it cost more and it is a deterrent to future development. Costly repairs in the future are possible. The removal option is recommended because the concerns of exposure and migration of contaminants are eliminated in the short term and the site is more easily developed without restrictions.

Green and Sustainable Remediation Measures for Selected Alternative

To make the selected alternative greener, or more sustainable, several techniques are planned. The most recent Best Management Practices (BMPs) issued under ASTM Standard E-2893: Standard Guide for Greener Cleanups will be used as a reference in this effort. The City will require the cleanup contractor to follow an idle-reduction policy, use heavy equipment with advanced emissions controls operated on ultra-low sulfur diesel and minimize the number of mobilizations to the site. The City will also require that the material be disposed in a manner that maximizes its reuse (off-site treatment or landfill cover, for instance).

Screening of Remedial Alternatives
No Action

Description: Under this alternative, no activities would be conducted.

EFFECTIVENESS	IMPLEMENTABILITY	COST
Advantages	Advantages	Advantages
<ul style="list-style-type: none">• None	<ul style="list-style-type: none">• No Action is easy to implement.	<ul style="list-style-type: none">• There are no costs associated with No Action.
Disadvantages	Disadvantages	Disadvantages
<ul style="list-style-type: none">• No Action is not effective	<ul style="list-style-type: none">• None.	<ul style="list-style-type: none">• None.

**Screening of Remedial Alternatives
Option to Remove Soil and Foundation Walls**

Description: Under this alternative, the estimated volume of polluted soil and foundation walls would be excavated across the site and replaced to grade with clean fill. Land use restrictions on the property would not be required.

EFFECTIVENESS	IMPLEMENTABILITY	COST
Advantages	Advantages	Advantages
<ul style="list-style-type: none"> • Effective as a near-elimination of risk from polluted materials in soil. Removal and replacement eliminates exposure pathway to contaminants. • Land use restriction not required. • Most flexible for future use. 	<ul style="list-style-type: none"> • Relatively easy to implement as excavation is common approach to removal of subsurface materials. 	<ul style="list-style-type: none"> • Long term costs are avoided by removal of all polluted materials under this option.
Disadvantages	Disadvantages	Disadvantages
<ul style="list-style-type: none"> • Potential for short-term risks to workers and community from emissions during excavation and transport. Possibly disruptive to road access on Canal Street during site activities. 	<ul style="list-style-type: none"> • Will take longer and require more truck traffic in the neighborhood. • Deep excavation will likely require engineered supports for protection of the adjacent streets. 	<ul style="list-style-type: none"> • Highest capital cost for the alternatives.

Engineers planning level estimate of costs:

Task	QTY	Unit	U/P	Total
Preparation of remedial action plan	1	Each	\$12,000	\$12,000
Contractor mobilization and security	1	Each	\$9,500	\$9,500
Excavation of soil below former solvent tank	200	Ton	\$25	\$5,000
Excavation of foundation walls	500	Ton	\$25	\$12,500
Transport and disposal of materials (1,000 tons)	750	Ton	\$200	\$150,000
Backfill placement	750	Ton	\$30	\$22,500
Groundwater compliance monitoring	1	Each	\$25,000	\$25,000
Survey and closeout	1	Each	\$15,000	\$15,000
Total cost				\$251,500

Screening of Remedial Alternatives
Option to Place Engineered Barrier with Long Term Monitoring

Description: Under this alternative, engineering controls would be placed as a cap with long term monitoring required per state regulations. Land use restriction would be required.

EFFECTIVENESS	IMPLEMENTABILITY	COST
Advantages	Advantages	Advantages
<ul style="list-style-type: none"> • Effective as a reduction to risk to polluted soil. Engineered control eliminates exposure pathway to subsurface materials. 	<ul style="list-style-type: none"> • Eliminates the need to expose workers to soils since excavation and transportation of soils is not performed under this scenario. 	<ul style="list-style-type: none"> • None, except that it reduces the risks of additional costs should more soil be encountered under excavation scenario.
Disadvantages	Disadvantages	Disadvantages
<ul style="list-style-type: none"> • Potential for short-term risks to workers and community from emissions during installation of barrier material. • Land use restriction required. • Contamination remains below the surface. 	<ul style="list-style-type: none"> • A cap makes it more difficult to conduct future site work like installation of utilities or regrading for new construction. This is not ideal if future development is pending. 	<ul style="list-style-type: none"> • More costly over time, and future costs are less certain due to needs for continued monitoring, and possible repairs should cap be compromised.

Engineers planning level estimate of costs:

Task	QTY	Unit	U/P	Total
Preparation of remedial action plan	1	Each	\$15,000	\$15,000
Permit (engineered control)	1	Each	\$15,000	\$15,000
Contractor mobilization and security	1	Each	\$10,000	\$10,000
Grading and surface preparation	15000	SF	\$5	\$75,000
Installation of impermeable barrier	15000	SF	\$12	\$180,000
Survey for land use control documentation	1	Each	\$15,000	\$15,000
ELUR preparation	1	Each	\$20,000	\$20,000
Closeout documentation	1	Each	\$10,000	\$10,000
Installation of monitoring wells and program	1	Each	\$35,000	\$35,000
Monitoring (\$10,000 year 1; \$2,500 years 2-29)	1	Each	\$25,000	\$25,000
Total cost				\$400,000

Application for Federal Assistance SF-424

* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify): <input type="text"/>
--	--	--

* 3. Date Received: <input type="text" value="12/18/2015"/>	4. Applicant Identifier: <input type="text"/>
--	--

5a. Federal Entity Identifier: <input type="text"/>	5b. Federal Award Identifier: <input type="text"/>
--	---

State Use Only:

6. Date Received by State: <input type="text"/>	7. State Application Identifier: <input type="text"/>
---	---

8. APPLICANT INFORMATION:

* a. Legal Name:

* b. Employer/Taxpayer Identification Number (EIN/TIN): <input type="text" value="06-6001896"/>	* c. Organizational DUNS: <input type="text" value="0754141510000"/>
--	---

d. Address:

* Street1:	<input type="text" value="54 Hill Street"/>
Street2:	<input type="text"/>
* City:	<input type="text" value="Shelton"/>
County/Parish:	<input type="text"/>
* State:	<input type="text" value="CT: Connecticut"/>
Province:	<input type="text"/>
* Country:	<input type="text" value="USA: UNITED STATES"/>
* Zip / Postal Code:	<input type="text" value="06484-3207"/>

e. Organizational Unit:

Department Name: <input type="text"/>	Division Name: <input type="text"/>
--	--

f. Name and contact information of person to be contacted on matters involving this application:

Prefix: <input type="text" value="Mr."/>	* First Name: <input type="text" value="James"/>
Middle Name: <input type="text" value="Edward"/>	
* Last Name: <input type="text" value="Ryan"/>	
Suffix: <input type="text"/>	

Title:

Organizational Affiliation:

* Telephone Number: <input type="text" value="203-924-2521"/>	Fax Number: <input type="text" value="203-924-0547"/>
---	---

* Email:

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

C: City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.818

CFDA Title:

Brownfields Assessment and Cleanup Cooperative Agreements

*** 12. Funding Opportunity Number:**

EPA-OSWER-OBLR-15-06

* Title:

FY16 Guidelines for Brownfields Cleanup Grants

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

*** 15. Descriptive Title of Applicant's Project:**

City of Shelton's Chromium Process Facility Cleanup Program

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="200,000.00"/>
* b. Applicant	<input type="text" value="40,000.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="240,000.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

a. This application was made available to the State under the Executive Order 12372 Process for review on

b. Program is subject to E.O. 12372 but has not been selected by the State for review.

c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

Yes No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: * Date Signed: