DRAFT

ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES

FAIRFIELD HILLS CAMPUS

DUPLEX BUILDINGS 60, 61, & 63

NEWTOWN, CONNECTICUT

PREPARED FOR:

TOWN OF NEWTOWN

NEWTOWN, CONNECTICUT

PREPARED BY:

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Table of Contents

Tables

Figures

1 Introduction

This document presents an Analysis of Brownfields Cleanup Alternatives (ABCA) for the Duplex buildings 60, 61, and 63 at the Fairfield Hills property in the Town of Newtown, Connecticut. This ABCA was prepared by R. W. Bartley & Associates, Inc. (RWB&A) on behalf of the Town of Newtown as part of the receipt of a Valley Council of Governments, Lower Naugatuck Valley (VCOG) Brownfields sub-grant. The VCOG made regional Brownfields sub-grants from an overall Federal Environmental Protection Agency (EPA) Brownfields grant received by the VCOG. This Brownfields sub-grant awarded to the Town of Newtown by the VCOG is hereinafter referred to as the VCOG/EPA Brownfields grant. Notice of this document has been published and this document has been made available for public comment in accordance with the community relations plan of the VCOG/EPA Brownfields grant and requirements of the Federal National Contingency Plan (NCP).

1.1 Purpose and Scope

Under The VCOG/EPA Brownfields grant, recipients must supply an ABCA that includes:

- Information about the site and contamination issues (i.e., exposure pathways, identification of contaminant sources, etc.), cleanup standards, applicable laws, alternatives considered, and the proposed cleanup;
- Effectiveness, implementability, and the cost of alternatives, including the preferred or proposed cleanup alternative;
- A comparative analysis of the alternatives considered; and
- Assessment of whether additional land-use controls will be necessary after the environmental cleanup is complete.

2 Site Description and History

The Fairfield Hills campus is part of the former State of Connecticut Mental Health Hospital property. The campus is located to the south of Wasserman Way in Newtown, Connecticut (see the attached "Fairfield Hills-Location Map"). The hospital was operated by the State of Connecticut from the mid 1930s until it was closed in 1996. The property was farmland prior to the purchase and development of the property by the state.

The portion of the property that contained the institutional buildings, the "campus" portion of the property and a portion of the property along Deep Brook was offered by the State of Connecticut to the Town of Newtown for purchase. As part of the offer, the environmental remediation of soil and groundwater contamination, and the removal of hazardous materials and asbestos-containing materials were to be the responsibility of the Town of Newtown.

After deliberation by town officials, study by a committee established by the town, and public input, the town decided to purchase the property and created a master plan of redevelopment. The master plan indicated a mix of town use and private use. Private use is to be through the renovation and leasing of existing buildings with the town retaining ownership of the buildings and land.

Environmental remediation of the soil and groundwater to State of Connecticut Department of Environmental Protection standards is complete and redevelopment is underway. One building was demolished and a town baseball field was constructed in its place. Two additional buildings were demolished to make way for the construction of a private indoor athletic facility. Prior to demolition of the buildings, hazardous substances and asbestos-containing materials and hazardous substances were removed in accordance with state and Federal regulations and guidance. Two other buildings are in the process of removal of hazardous substances and asbestos-containing materials, and demolition to make way for the construction of a community center. Also the former main dining facility/building was renovated for use as a new Town of Newtown town hall/municipal center. Prior to starting the renovation, hazardous substances and asbestos-containing materials were also removed from this building.

Private concerns have expressed interest in leasing and renovating existing buildings for various enterprises, but no deals have been consummated. This is likely, in a large part, due to the poor economy and lack of financing, but also because of the cost of building renovations. A significant portion of the cost of these renovations is the removal of hazardous substances and asbestos-containing materials from the buildings.

Recently, the Town of Newtown applied to the VCOG, and was awarded, the VCOG/EPA Brownfields grant in the amount of $100,000 to remove hazardous substances and asbestos-containing materials from the Fairfield Hills campus Duplex buildings 60, 61, and 63. See the attached annotated "Fairfield Hills' Trails, Concept Plan" figure for the locations of the buildings on the Fairfield Hills Campus. The purpose of this project is to eliminate the potential exposure of the public, town personnel, and contractors to these materials, and to facilitate the leasing and renovations of these buildings by lowering the cost of renovation to private party/enterprise(s).

The majority of the grant will be used to pay for the removal and disposal of the materials. This VCOG/EPA Brownfields grant will also used to provide project coordination; provide community outreach services; and to secure an environmental engineering consultant to: prepare this ABCA, prepare hazardous substances and asbestos-containing materials removal specifications, to assist in acquiring a remedial contractor, and to oversee and monitor the removal of the asbestos-containing materials and hazardous substances.

In the summer of 2008 the town was awarded a Brownfields matching grant directly from the EPA in the amount of $200,000. This grant money, and the towns 20% matching funds were used to remove asbestos-containing materials, paint chips and hazardous substances from the campus Stratford and Duplexes 58 and 59 buildings. This work is now complete. There are a total of five duplexes (no number 62). The work proposed under this grant will remove asbestos-containing materials, paint chips, and hazardous substances from the remaining duplexes.

3 Hazardous Substances On-Site

The hazardous materials at the buildings include asbestos-containing building materials, lead-based paint, and building components and contents containing miscellaneous hazardous substances as summarized below. The inventory of hazardous materials at the buildings was estimated by performing a sampling survey of asbestos-containing materials by a Connecticut certified asbestos inspector, sampling painted surfaces for lead content, and general industry knowledge of materials and equipment containing hazardous substances.

3.1 Asbestos-Containing Materials

A Connecticut Certified Asbestos Inspector from the TRC Environmental Corporation performed sampling and surveys of the Duplex buildings 60, 61, and 63. The asbestos-containing materials based upon this assessment in each of the buildings are estimated as follows:

3.1.1 Duplex 60

Material	Estimated Quantity
Floor tiles and mastic	650 SF[1]
Sink undercoat	2
Ceramic tile glue	450 SF
Attic damp proofing	300 SF
Pipe insulation	350 LF[2]
Floor surfacing plaster	650 SF
Window glazing and caulk	42 Windows
Door caulk	4 Doors
Transite roof shingles	3,400 SF
Flashing cement	200 SF
Tar paper	300 SF

[1] Square feet
[2] Linear feet

3.1.2 Duplex 61

Material	Estimated Quantity
Floor tiles and mastic	650 SF
Glue behind wall tiles	320 SF
Vapor barrier under transite shingles	3400 SF
Pipe insulation	350 LF
Floor surfacing plaster	650 SF
Window glazing and caulk	40 Windows
Door caulk	6 Doors
Transite roof shingles	3,400 SF
Flashing cement	250 SF

3.1.3 Duplex 63

Material	Estimated Quantity
Floor tiles and mastic	650 SF
Sink undercoat	2
Ceramic tile glue	450 SF
Attic damp proofing	300 SF
Pipe insulation	350 LF
Floor surfacing plaster	650 SF
Window glazing and caulk	42 Windows
Door caulk	4 Doors
Transite roof shingles	3,400 SF
Vapor barrier under transite shingles	3400 SF
Flashing cement	250 SF
Tar paper	300 SF

Asbestos is a concern because asbestos minerals have a tendency to separate into microscopic-size particles that can remain in the air and are easily inhaled. Persons occupationally exposed to asbestos have developed several types of life-threatening diseases, including asbestosis and lung cancer. Although the use of asbestos and asbestos products has dramatically decreased, they are still found in many residential and commercial settings and continue to pose a health risk to workers and occupants.

Exposure to asbestos would be likely to occur in those areas identified as containing friable asbestos-containing materials. Since the asbestos-containing materials identified are currently damaged or have the potential for significant damage, it may be assumed that airborne asbestos fibers are present in the buildings and will continue to be present in the buildings, if the asbestos-containing materials are not removed. The main exposure pathway in this case would be inhalation of airborne asbestos fibers for those inside the buildings. Additional exposure could occur through ingestion. Indirect exposure could occur through transport of asbestos fibers out of the buildings on occupants' clothing or hair, with subsequent inhalation or ingestion.

Additional exposure to asbestos can be expected from identified areas of non-friable asbestos-containing materials if any future maintenance or renovation activities result in damage to these materials. Such damage could occur during activities such as drilling or cutting of existing asbestos-containing flooring/mastic material. Typical maintenance activities such as floor polishing or buffing could also release asbestos fibers. Under these conditions, the exposure pathways would be the same as described above.

3.2 Lead-based Paint

Lead-based paint surveys of Fairfield Hills Campus buildings and duplexes have shown that the white trim paint on the buildings contain significant concentrations of lead. The lead content of Interior paints varies.

Exposure pathways for lead-based paint include inhalation and ingestion of lead dust from the deterioration of lead-based paint and ingestion of paint chips or paint. Increased levels of the metal lead in the blood due to inhalation or ingestion of lead may cause irreversible neurological damage as well as renal disease, cardiovascular effects, and reproductive toxicity.

3.3 Miscellaneous Hazardous Substances

Regulated hazardous substances can be contained in the following building components, and materials that remain in the buildings. Below are typical items in buildings that can contain hazardous substances:

- Mercury Lamps from fluorescent or mercury vapor light fixtures
- PCB/DEHP Ballasts from fluorescent light fixtures
- Smoke detectors
- Exit signs
- Water fountains
- Mercury Thermostat Ampules
- Halogen bulbs
- Unknown liquids
- Disinfectants
- Transformers

- Fire alarm control panels
- Batteries
- Fuel sensor control panels
- Emergency lighting control panels
- Flood lamps

Exposure pathways to regulated hazardous substances contained in the building components and materials remaining in the building will depend upon the state of the hazardous substance but can include inhalation, ingestion, and dermal contact. Health effects to these exposures will vary by the substance, the type of contact, and the level and duration of the exposure.

4 Nature of Threat to Public Health

The current threat to public health is the exposure to asbestos, lead-based paint dust, and miscellaneous hazardous substances by individuals entering the building. Certain asbestos-containing materials and lead-based paint in the buildings are in poor condition that could cause the release of asbestos fibers to the air, and lead paint chips to building floors and surfaces. Lead dust can be created by walking on and disturbing lead-based paint chips on the floors of the buildings.

These buildings are currently vacant and are slated for redevelopment that will involve renovation of the buildings. Under current conditions, risk pathways include: ingestion, and inhalation of potentially hazardous materials and substances by site visitors and/or trespassers.

During any renovation or demolition activities, asbestos-containing materials, lead-based paint, and miscellaneous hazardous substances remaining in the building will potentially pose an exposure risk to site construction workers through inhalation, ingestion, and contact.

5 Cleanup Standards

Even though cancer risk from exposure to asbestos is most appropriately viewed as a chronic concern, short-term standards have been established by OSHA to limit exposures of workers in the workplace. There are two types of short-term limits, as follows:

STEL (Short-term exposure limit): 1.0 PCM f/cc (fibers per cubic centimeters as detected using phase-contrast microscopy).

TWA PEL (8-hr time-weighted average permissible exposure level): 0.1 PCM f/cc (Source: USEPA, 2003 - Libby Asbestos Site Residential/Commercial Cleanup Action Level And Clearance Criteria Technical Memorandum, Draft Final - December 15, 2003).

EPA AHERA regulations, (40 CFR 763) require aggressive clearance sampling after asbestos abatement activity. Leaf blowers and fans are used to disturb interior air and air samples are collected according to the standard method set forth in Appendix A of Subpart E of 40 CFR Part 763. The clearance criteria as set forth in this regulation are:

- PCM clearance criteria (for small areas): 0.01 f/cc
- TEM clearance criteria: 70 structures/mm^2 on the filter, or no significant increase from exterior air sample results

Although AHERA regulations apply to abatement in schools, the same standards are generally used for all abatement projects.

The USEPA issued a final rule regarding dangerous levels of lead in pre-1978 housing and children-occupied buildings January 5, 2001 (40CFR Part 745). Under the new standards, lead is considered a hazard if there are greater than:

- 40 micrograms of lead in dust per square foot on floors;
- 250 micrograms of lead in dust per square foot on interior window sills and
- 400 parts per million (ppm) of lead in bare soil in children's play areas or 1200 ppm average for bare soil in the rest of the yard.

6 Applicable Laws and Regulations

The following are applicable laws and regulations for asbestos-containing materials, lead-based paint, and materials containing miscellaneous hazardous substances.

6.1 Asbestos Laws and Regulations

Asbestos is regulated by the AHERA, the Toxic Substances Control Act (TSCA), the Clean Air Act (CAA), and Regulations of Connecticut State Agencies (RCSA), Sections 19a-14, 19a-17, 19a-332 to 19a-333, 20-435 to 20-442.

Further, to protect asbestos abatement workers, all asbestos abatement work must be performed in accordance with Occupational Safety and Health Administration (OSHA) asbestos regulations as promulgated in Title 29 of the Code of Federal Regulations (29CFR), Section 1926.1101.

The following work practices should be followed whenever demolition/renovation activities involving asbestos-containing materials occur:

- Prepare abatement specifications by a Connecticut Department of Public Health licensed Asbestos Designer
- Notify the Connecticut Department of Public Health of intention to demolish/renovate by the required notification form and receive approval for abatement activities
- Remove all asbestos-containing materials from facility being demolished or renovated before any disruptive activity begins
- Handle and dispose of all asbestos-containing materials in an approved manner (USEPA, 2006a; Asbestos/NESHAP Regulated Asbestos-Containing Materials Guidance)
- Monitor asbestos abatement activities by a Connecticut Licensed Asbestos Abatement Supervisor
- Perform air clearance testing upon completion of asbestos-containing materials abatement
- Prepare an asbestos abatement Compliance Report

6.2 Lead-Based Paint Laws and Regulations

Lead-based paint in pre-1978 housing and children-occupied buildings is regulated under the authority of the Toxic Substances and Control Act (TSCA; 15 U.S.C. 2601 et seq.) as amended by the Residential Lead-Based Paint Hazard Reduction Act of 1992, generally referred to as Title X (of The Housing and Community Act of 1992 - Public Law 102-550). Title X mandates the training, certification and licensing of lead-based paint abatement contractors, inspectors, risk assessors, and the training and certification of abatement workers and project designers. The Act also amended the Toxic Substances Control Act section 402 & 403. The provisions of Title X apply to residential buildings and child-occupied facilities.

The USEPA issued a final rule regarding dangerous levels of lead in pre-1978 housing and children-occupied buildings on January 5, 2001 (40CFR Part 745). Under the new standards, lead is considered a hazard if there are greater than:

- 40 micrograms of lead in dust per square foot on floors;
- 250 micrograms of lead in dust per square foot on interior window sills and
- 400 parts per million (ppm) of lead in bare soil in children's play areas or 1200 ppm average for bare soil in the rest of the yard .

The Connecticut Department of Public Health regulates and licenses lead paint consultants and workers under RCSA Sections 20-474 through 20-482 and lead-containing debris must be handled in accordance with the USEPA RCRA Hazardous Waste Regulations (40 CFR Parts 260 through 274), and the Connecticut Department of Environmental Protection Hazardous Waste Regulations (22a-209-1 and 22a-449(c)).

The Occupational Safety and Health Administration has published regulations regarding worker safety during activities involving lead-based paint abatement. The Construction Standards (29 CFR Part 1926) and the Occupational Safety and Health Standards (29 CFR Part 1910) promulgate a permissible exposure limit for lead construction workers, including workers performing demolition, salvage, or renovation of lead-containing materials at sections 1926.62 and 1910.1025 as follows:

> "The employer shall assure that no employee is exposed to lead at concentrations greater than fifty micrograms per cubic meter of air (50 ug/m^3) averaged over an 8-hour period." (29 CFR 1926.62)

Additional regulations under these chapters address other worker safety precautions such as respiratory protection programs, work practices, and medical monitoring.

Lead-based paint debris (material containing or surfaced with lead-based-paint) from commercial buildings may be classified as hazardous waste if lead concentrations exceed the Toxicity Characteristic Rule (40 CFR 261.24, 40 CFR 262.11) concentration limit of 5.0 mg/L in sample extract prepared according to the Toxicity Characteristic Leaching Procedure, test Method 1311 in ``Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.

6.3 Miscellaneous Hazardous Substances Laws and Regulations

Activities involving building components and materials left in the building that may contain miscellaneous hazardous substances shall be performed in accordance with, but not limited to, the current revision of the USEPA & Connecticut Department of Environmental Protection Hazardous Waste Regulations (40 CFR 260-282, 22a-209 and 22a-449(c)), USEPA PCB Regulations (40 CFR 761), USEPA Protection of Stratospheric Ozone (40 CFR 82), OSHA Hazard Communication (29 CFR 1910.1200), OSHA Hazardous Waste & Emergency Response Regulations (29 CFR 1910.120), USDOT Hazardous Materials Regulation (49 CFR 171-180), OSHA, RCRA, CERCLA, CAA, TSCA, and all other laws and regulations.

7 Analysis of Cleanup Alternatives

Reasonable Alternatives for hazardous substances abatement considered for the Fairfield Hills Duplex buildings 60, 61, and 63 include: Alternative 1, the No-Action Alternative; Alternative 2 consisting of removal of: high-risk asbestos-containing materials, materials remaining in the buildings containing miscellaneous hazardous substances, and lead-based paint chips; and Alternative 3 consisting of complete removal/abatement of existing asbestos-containing material and lead-based paint, and removal of building components and materials remaining in the buildings containing miscellaneous hazardous substances. The Town of Newtown prefers Alternative 2 as the method of cleanup for the buildings. A short summary of each of these alternatives is provided below:

Alternative 1: No-Action. A no-action alternative would leave the buildings in their present condition making them unusable and difficult to obtain private interest for the renovation and reuse of the building. The only advantages to no action are those related to immediate avoidance of expenses that would be incurred by taking action. However, in the long term, expenses associated with no action may exceed those related to taking action at the present time due to the continued deterioration of the condition of the buildings and an inability to lease the buildings for renovation and reuse. Leasing and renovation of the buildings will eliminate potential impacts to human health and the environment due to the buildings present condition, and generate funds for hazard abatement and reuse of other buildings on the campus.

Alternative 2: Removal of High Risk Asbestos, Lead-Based Paint, and Miscellaneous Hazardous Materials: This alternative would address deteriorated and friable asbestos-containing materials and deteriorated lead-based paint in the interior of the buildings including asbestos pipe insulation, asbestos floor tiles and mastic, floor plaster, wall tile glue, lead-based paint chips, and pealing lead-based paint. This alternative will also remove miscellaneous hazardous substances contained in the buildings.

Alternative 3: Removal all Asbestos-Containing Materials, Lead-Based Paint and Miscellaneous Hazardous Materials: This option would include all of the activities associated with Alternative 2 but also include removal of asbestos-containing window and door caulking and glazing, removal of asbestos transite roofing shingles, roofing tar paper, roofing vapor barriers, roofing tars, attic damp proofing materials, and removal of all lead-based paint. This alternative has all of the advantages of Alternative 2 and has the additional advantage of the removal of all asbestos and lead-based paint. The disadvantage of this alternative is that the removal of window caulking and glazing will destroy the windows, and the destruction of the windows and the removal of the roofing tiles will accelerate the weather-related deterioration of the buildings. The removal of window caulking and glazing, roofing tiles, and lead-based paint in good condition will not

appreciably lower the risk to individuals entering the building because these materials are intact and in relatively good condition which limits the airborne release of asbestos and lead.

The objective of the Fairfield Hills Duplex buildings 60, 61, and 63 Brownfields project is to reduce or eliminate the potential exposure to asbestos, lead, and miscellaneous hazardous substances for individuals entering the buildings; and to facilitate the private leasing and renovation/reuse of the buildings. The following sections describe the three alternatives considered in terms of their effectiveness, feasibility of implementation, and costs with regard to achieving the project objectives.

7.1 Alternative 1: No-Action Alternative Analysis

Effectiveness: The effectiveness of the No-Action alternative in achieving project goals would be negligible. The continued presence of asbestos-containing materials, lead-based paint, and miscellaneous hazardous substances in buildings, as would be the case under the no-action alternative, would pose a long-term health risk to the public and also to workers entering the buildings. Also, the presence and projected costs of removal of the materials will make it difficult to obtain private interest in leasing and renovating/reusing the buildings. The no-action alternative would be highly ineffectual in achieving the goals of reduction of health risks and facilitating the renovation/reuse of the buildings.

Implementation: Implementation of the No-Action alternative would be fairly straightforward. The buildings would be left in the current unused state in which they currently exist. The identified asbestos-containing materials and lead-based paint would still pose a hazard to those entering the buildings.

Transfer and/or lease of the property to other parties would require notification of the presence of asbestos-containing materials, lead-based paint, and miscellaneous hazardous substances; and controls would be necessary to manage exposure to those entering the buildings.

Under the No-action Alternative, if the buildings remain unused for an extended period of time, the buildings will continue to deteriorate increasing the risk to those entering the buildings and making it more difficult to obtain private interest in leasing and renovating/reusing the buildings The value of the buildings will decrease due to deterioration unless they are regularly maintained.

Cost: Direct costs associated with the No-Action Alternative and associated non-use of the buildings would consist of providing site security. Indirect costs could include the continuing inability to obtain private interest for the leasing and renovation/reuse of the buildings.

7.2 Alternative 2: Removal of High Risk Asbestos and Lead-Based Paint Analysis

Alternative 2 would involve removal of deteriorated and friable asbestos-containing materials, and deteriorated lead-based paint from the interior of the buildings including asbestos pipe insulation, asbestos floor tiles and mastic, wall tile glue, floor surfacing plaster, sinks undercoating material, lead-based paint chips, and pealing lead-based paint. Miscellaneous hazardous substances will also be removed. Non-friable transite roofing tiles, roofing materials, window caulking/glazing, and interior paint in good condition would not be removed.

Effectiveness: Alternative 2 would be effective at removing asbestos-containing materials, lead-based paint, and miscellaneous hazardous substances related health hazards to individuals entering the buildings. Alternative 2 will also facilitate the leasing and reuse/renovation of the buildings by lowering the cost of renovation/reuse and removing the stigma of deteriorating asbestos and lead-based paint. Alternative 2 would also make the interior of the buildings much more presentable to private interests. However, if any future renovation were to take place that would disturb the remaining asbestos-containing materials, the asbestos-containing materials would have to be removed prior to such renovation or controls would have to be put in place.

Implementation: Implementation of Alternative 2 would be performed by certified asbestos and lead abatement contractors. The approximate quantities of asbestos-containing materials that would be removed are: 2,000 SF of floor tiles and mastic, 4 sinks with asbestos undercoating, 1,200 SF of ceramic tile glue, 1,050 LF of pipe insulation, and 1,300 SF of floor surfacing plaster. In addition, interior lead-based paint chips and loose lead-based paint would be removed. Miscellaneous hazardous substances will also be removed by the abatement contractor.

Cost: The estimated cost of this asbestos and hazardous substances work using established state/municipal contract rates is approximately $70,000. In addition, project reports, project management, and asbestos abatement monitoring/sampling are estimated at $30,000 for a total estimated cost of $100,000.

7.3 Alternative 3: Abate all Asbestos-Containing Materials and Lead-Based Paint Analysis

Alternative 3 would completely abate all asbestos-containing materials and lead-based paint from the buildings.

Effectiveness: Alternative 3 would be highly effective in achieving the goal of reduction of potential exposures to asbestos and lead for individuals entering the buildings. Alternative 3 would not be effective for the goal of facilitating the leasing and renovation/reuse of the

buildings because removal of the transite roofing and the destruction of the windows would lead to rapid weather-related deterioration of the buildings.

Implementation: Implementation of Alternative 3 would be by certified asbestos and lead abatement contractors. In addition to the asbestos-containing materials and lead-based paint to be removed in Alternative 2, asbestos-containing window caulking and glazing, asbestos transite roofing shingles and roofing tars, and all lead-based paint, including paint in good condition, would be removed. This includes approximately 126 windows, 6,000 SF of miscellaneous roofing/flashing materials, and 10,200 SF of transite roofing shingles.

Cost: The removal of these materials is estimated to cost an additional $150,000 for total cost for the alternative of $250,000.

8 Alternatives Evaluation and Recommendation

An Analysis of Brownfields Cleanup Alternatives (ABCA) has been performed for hazardous substances abatement alternatives at the Town of Newtown Fairfield Hills campus Duplex buildings 60, 61, and 63 that are to be addressed using monies provided by the VCOG/EPA Brownfields grant. Three alternatives were considered for implementability, cost, and effectiveness:

1. No Action

2. Removal of High Risk Asbestos, Lead-Based Paint, and Miscellaneous Hazardous Substances.

3. Abate all Asbestos-Containing Materials, Lead-Based Paint, and Miscellaneous Hazardous Substances.

Based upon an evaluation of these criteria, it is determined that Alternative 2 Removal of High Risk Asbestos, Lead-Based Paint and Miscellaneous Hazardous Substances, is the preferred alternative. It meets the implementability and effectiveness criteria at a cost that is compatible with the funds available. Neither of the other two options meets both of these criteria. Alternative 1 does not meet the effectiveness criteria. Alternative 3 meets the effectiveness criteria, and is slightly more effective, but cannot be implemented because of unacceptable consequences and cost. The evaluation is summarized in the tables below.

Table 1: Summary of Evaluation Criteria

Alternative		Effectiveness	Implementability
1	No Action	Not Effective	Implementable
2	Removal of High Risk Asbestos and Lead-Based Paint	Effective	Implementable
3	Abate all asbestos-containing materials and lead-based paint	Effective	Not Implementable

Table 2: Alternative Costs

Alternative		Cost
1	No Action	N/A
2	Removal of High Risk Asbestos and Lead-Based Paint	$100,000
3	Abate all asbestos-containing materials and lead-based paint	$250,000

9 Authorization and Implementation

The Town of Newtown, as a government entity is authorized under CERCLA 104(k) to perform cleanup activities at the Fairfield Hills campus. The site is eligible as it is not listed or proposed for listing on the National Priorities List. It is not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA. It is not subject to the jurisdiction custody, or control of the United States government.

The Town of Newtown has contracted with R.W. Bartley & Associates, Inc. for management and consulting services on the project. Assessments of the quantities of asbestos-containing materials have been performed by a State of Connecticut Licensed Asbestos Inspector from TRC Environmental Corporation.

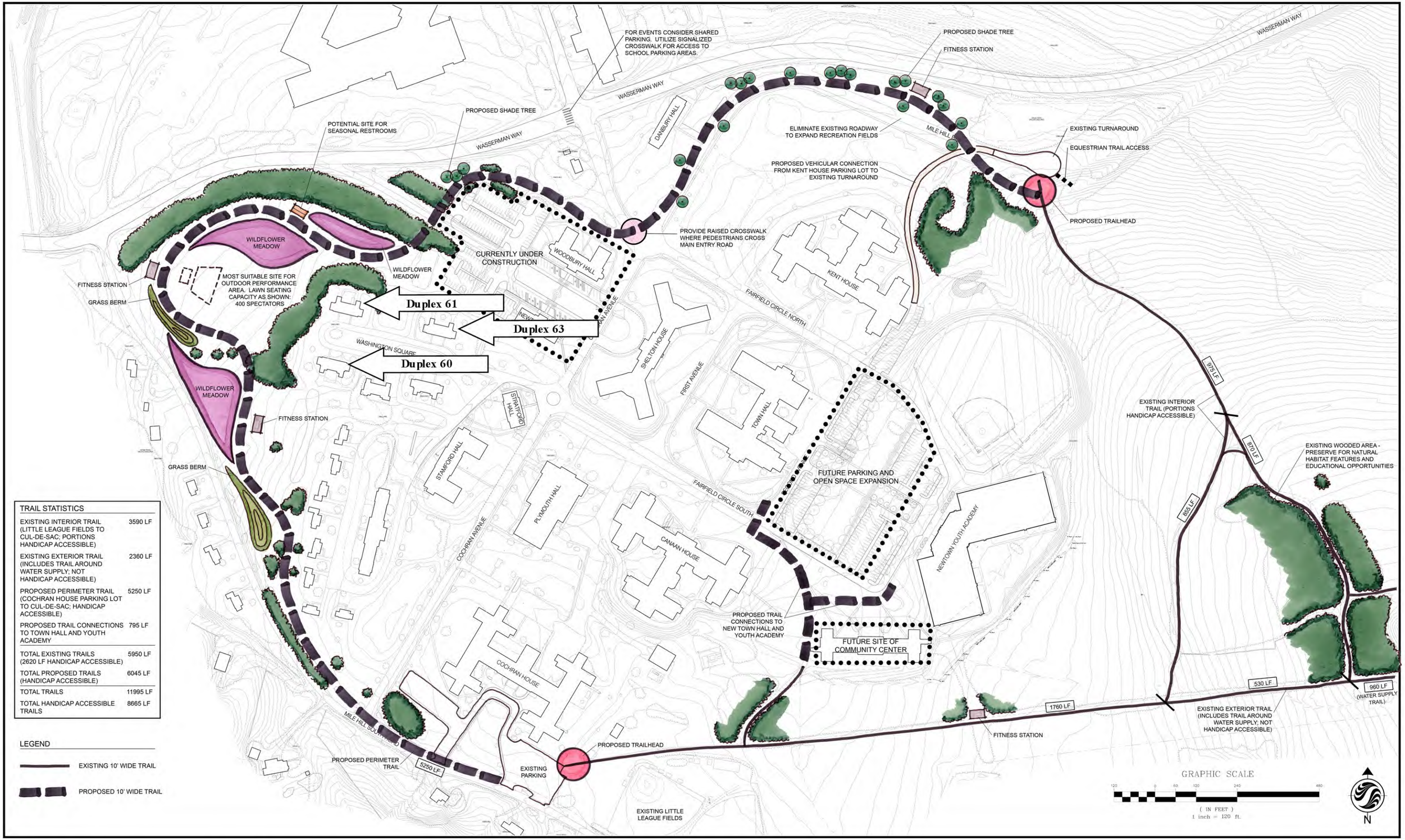
Upon completion of the comment period, consideration of comments, and final decision by the Town of Newtown, the selected cleanup will be implemented, if appropriate. Implementation will consist of the preparation of asbestos abatement and hazardous substances removal plans

and specifications, implementation of the abatement by award under State of Connecticut existing asbestos and lead abatement contracts containing fixed rates, notification of abatement to the CTDPH, the monitoring of the abatement work including clearance sampling, and the production of post-abatement compliance reports.

Sufficient grant funds may not be available to complete work on all three duplexes. In addition to the costs detailed herein there are other administrative and engineering costs such as costs associated with public participation and the costs for initial planning and engineering. Also, actual abatement bids and costs may exceed estimates. Should sufficient funds not be available to complete all of the work, work at duplexes 60 and 63 will take precedence over the work at duplex 61, and removal of friable asbestos materials and lead paint chips shall take presence over removal of non-friable asbestos materials.

The Brownfields Cleanup will conform to all applicable Federal and State laws. Connecticut certified asbestos and lead inspectors, designers, and abatement contractors will be used to perform all abatement activities.

Location Map
Fairfield Hills
Newtown, CT



TRAIL STATISTICS	
EXISTING INTERIOR TRAIL (LITTLE LEAGUE FIELDS TO CUL-DE-SAC; PORTIONS HANDICAP ACCESSIBLE)	3590 LF
EXISTING EXTERIOR TRAIL (INCLUDES TRAIL AROUND WATER SUPPLY; NOT HANDICAP ACCESSIBLE)	2360 LF
PROPOSED PERIMETER TRAIL (COCHRAN HOUSE PARKING LOT TO CUL-DE-SAC; HANDICAP ACCESSIBLE)	5250 LF
PROPOSED TRAIL CONNECTIONS TO TOWN HALL AND YOUTH ACADEMY	795 LF
TOTAL EXISTING TRAILS (2620 LF HANDICAP ACCESSIBLE)	5950 LF
TOTAL PROPOSED TRAILS (HANDICAP ACCESSIBLE)	6045 LF
TOTAL TRAILS	11995 LF
TOTAL HANDICAP ACCESSIBLE TRAILS	8665 LF

LEGEND

EXISTING 10' WIDE TRAIL

PROPOSED 10' WIDE TRAIL

FAIRFIELD HILLS' TRAILS

NEWTOWN, CT

CONCEPT PLAN

MAY 12, 2009

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