PROPOSED PLAN OF REMEDIAL ACTION

Railroad Crossing Site
5th Avenue and Coleman Street
Wilmington, Delaware
DNREC Project No. DE-1392

December 2008

Delaware Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Site Investigation & Restoration Branch
391 Lukens Drive
New Castle, Delaware 19720

CONTENTS

- Proposed Plan: Questions and Answers
- Figures 1-4
- Glossary of Terms
- Attachment: *What is a Proposed Plan?*

PROPOSED PLAN OF REMEDIAL ACTION

Railroad Crossing Site
5th Avenue and Coleman Street
Wilmington, Delaware
DNREC Project No. DE-1392

Approval:
This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:

James D. Werner, Director
Division of Air & Waste Management

3 Dec 2008

Date

Railroad Crossing Site
5th and Coleman Street Site

What is the Railroad Crossing / 5th Avenue and Coleman Street Site?

The Railroad Crossing / 5th Avenue and Coleman St site is a certified Brownfield and former commercial property located in southwestern Wilmington, Delaware (Figure **1**). The 1.75 acre site is bounded by 5th Avenue, Coleman and Cedar Streets, and the Browntown Truck Route. Residential properties are located across Coleman Street, and several businesses are located across 5th Avenue from the site.

Tax Parcel Numbers: 26-049.10-209, 26-049.10-213, 26-049.10-214 and 26-049.10-223
Address: 5th Avenue and Coleman Street
Nearest major intersection: 5th Avenue, Coleman and Cedar Streets
Area: 1.75 acres
Surrounding Property: Surrounding land use is mixed commercial and residential
Zoning: 26M-1 Light Manufacturing
Site Utilities: public water, sewer, electricity and natural gas
Surface water: Christina River located 0.4-mi to the south/west of the site
Topography: Flat, with slight grade toward the Christina River
Groundwater: The site lies within the Wilmington Groundwater Management Zone (GMZ) where groundwater use is restricted. There is no known on-site groundwater use. Shallow groundwater was encountered throughout the site ranging from less than 2 feet near the Browntown Truck Route to 7 feet below ground surface in the up-gradient well location, at a slightly higher elevation

What happened at the Railroad Crossing Site?

Based upon available historical documents, the site historically operated as the Wilmington Coal and Coke Company, the Keystone Coal Company and most recently (through early 2006) as the Delaware Insulation Company, a warehouse and distribution center for insulation and pipe covering. These historical operations resulted in the generation of a variety of hazardous and non-hazardous materials at the site. A fire occurred at the site in 2006 and left one section of the plant partially demolished. The several remaining single-story buildings on site were subsequently demolished in April-May 2007.

What is the environmental problem at the Railroad Crossing Site?

- Concentrations of metals and polycyclic aromatic hydrocarbons (also known as "PAHs") were detected in soils on site. PAHs are constituents of petroleum products such as heating oil, lubricants, kerosene, coal, coke (coal by-product) and tar.

- Concentrations of aluminum, barium, iron, and manganese were also detected in groundwater samples collected from the site.

Many of these products were commonly in use or typical byproducts generated as a result of many years industrial and commercial operations at the site.

A Brownfields Assessment was conducted at the property by the DNREC in 2006. Based upon this assessment, DNREC initiated further environmental investigation. A Site Investigation was conducted in May 2007 and a Feasibility Study conducted in September 2008 for DNREC on behalf of the Wilmington Housing Partnership (WHP).

The investigation related work involved installation of soil borings, excavation of exploratory test pits and construction of monitoring wells. Soil and groundwater samples were collected during the investigation and submitted for laboratory analysis as part of these investigations. The laboratory results were compared to the DNREC Uniform Risk Standards (URS) unrestricted use (residential) criteria.

The findings of the reports indicate the following:

- Shallow soil (0-2"): seven (7) metals were detected above DNREC URS unrestricted use criteria, including aluminum, arsenic, antimony, copper, iron, manganese, and vanadium. Five (5) PAH compounds, including benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, indeno(1,2,3-cd) pyrene and dibenz(a,h)anthracene were also detected above the unrestricted-use criteria.

- Deep soil (>2"): five metals (5) were detected above DNREC URS unrestricted use criteria, including aluminum, arsenic, antimony, iron, and manganese. Five (5) PAH compounds, including benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, indeno(1,2,3-cd) pyrene and dibenz(a,h)anthracene were detected above unrestricted-use criteria.

- Groundwater contamination was detected on site. Four (4) metals were detected in groundwater above DNREC URS concentrations, including aluminum, barium, iron, and manganese. These concentrations are typical of urban Wilmington groundwater and are associated with aesthetic values only.

What does the owner want to do at the Railroad Crossing Site?

Current redevelopment plans for the site include construction of new multi-family residential housing. The development is being conducted under the guidance of the Wilmington Housing Partnership (WHP) and its environmental contractors. In October 2007 the DNREC entered into a Brownfields Voluntary Cleanup Program Agreement with the Wilmington Housing Partnership, the current owner of the property.

Proposed improvements to the site will include construction of approximately 40 residential units. A new residential access road will be constructed that runs across the site from Fifth Avenue to the Browntown Truck Route, with a small parking lot connected to it. The residential units will not have basements, but will be built on poured concrete slabs instead. The proposed layout of the residential units and the road are shown on **Figure 3**.

What clean-up actions have been taken at the former Railroad Crossing Site?

A variety of hazardous and non-hazardous waste materials were removed from the buildings during January through February 2007, prior to demolition of the buildings. Wastes removed from the building included waste oil, light ballasts, batteries, mercury switches, and numerous containers of spent/used product. In addition several small fuel oil tanks were cleaned then cut up and removed for scrap during this time period.

What additional clean-up actions are needed at the former Railroad Crossing Site?

DNREC plans to excavate and remove contaminated soil (including soil in utility corridors) from the site, install marker fabric and then place a protective barrier of clean soil (**Figure 4**)

The proposed remedial action will include the placement of a two-foot thick protective barrier of clean soil in areas that will remain as permeable surfaces (not improved with housing, sidewalk, or road). The purpose of the barrier is to be protective of human health by controlling potential contact with the underlying contaminated soil. The three (3) existing monitoring wells that were installed as part of the Site Investigation will be properly abandoned to prevent injury or potential human exposure to groundwater. Institutional controls in the form of an Environmental Covenant will be implemented as part of this remedy include a deed restriction which effectively prohibits disturbance to the underlying soil or groundwater without first notifying the DNREC and a regular site inspection.

What are the long term plans for the Site after the cleanup?

- DNREC plans to issue a Certificate of Completion of Remedy (COCR) for the site after the completion of clean-up, the redevelopment of the property, and the implementation of the uniform environmental covenants at the site.
- As part of the long-term stewardship the site owner will record an environmental covenant consistent with Delaware's Uniform Environmental Covenants Act (UECA). The environmental covenant will prohibit land disturbing activities without DNREC's prior written approval (except in landscaping areas), prohibit the installation of wells and use of any groundwater at the site. In addition an Operation and Maintenance (O&M) Plan will be prepared to provide for an annual site inspection, to be conducted to ensure the integrity of the cap and to make sure that no subsurface disturbances have occurred.

How can I find additional information or comment on the Proposed Plan?

The complete file on the site including the Brownfields Investigation and subsequent environmental investigation reports and documents are available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found on:

http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/

The 20-day public comment period begins on December 7, 2008 and ends at close of business (4:30 pm) on January 7, 2009. Please send written comments to the DNREC office or call Todd Keyser, Project Manager, at:
302-395-2600.

TAK:tlw; TAK08031.doc; DE 1392 II B 8

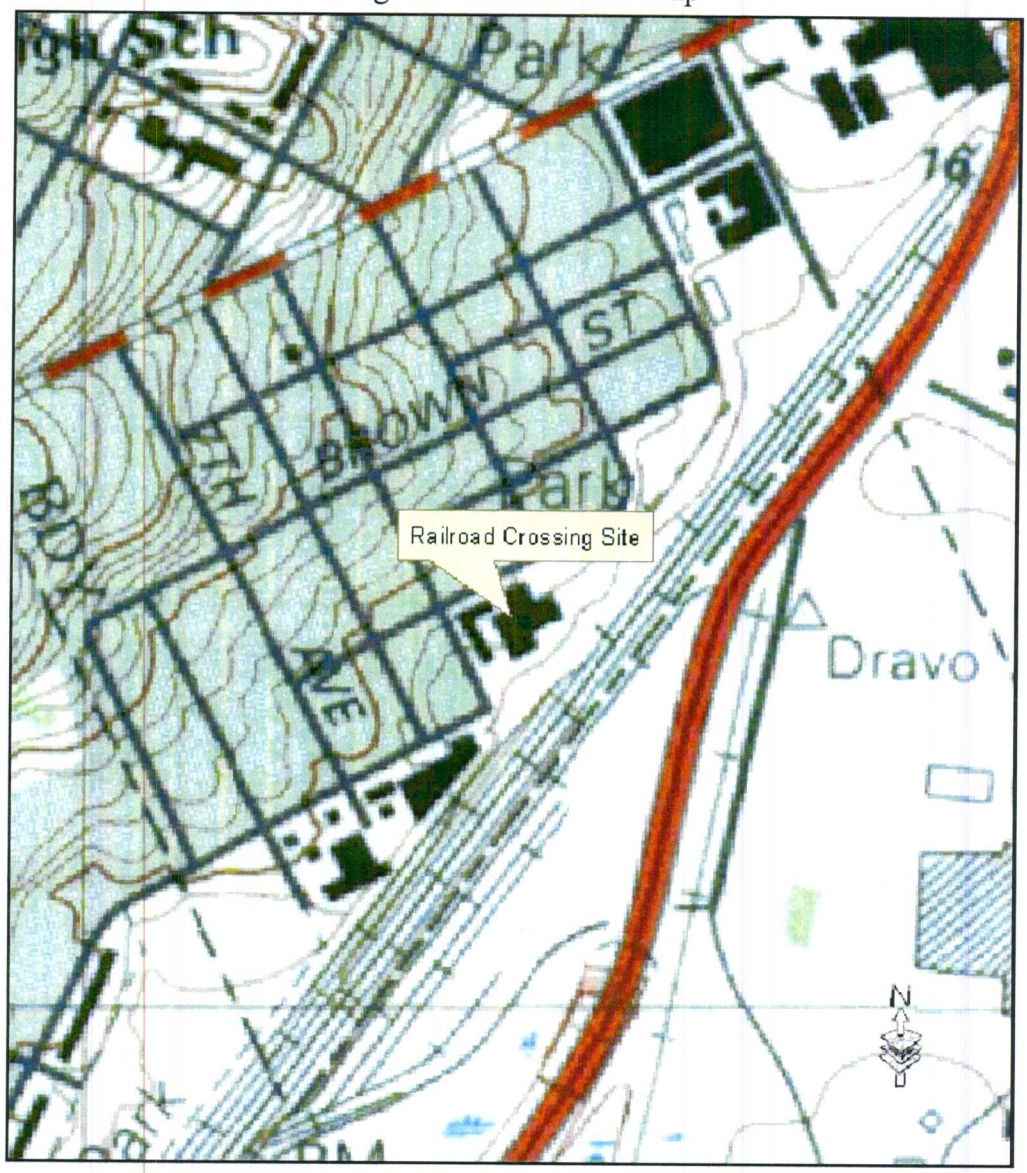
Figure 1: Site Location Map

Figure 2: Site Boundary

Figure 3: Site Photos (Photos A, B, C)

Figure 4: Proposed Development Plan

Figure 1 Site Location Map



This map is provided by DNREC-SIRB solely for display and reference purposes and is subject to change without notice. DNREC-SIRB will not be held responsible for the assumed accuracy contained in the map or for use other than the intended purpose.

DNREC
SITE INVESTIGATION &
RESTORATION BRANCH
391 LUKENS DR
NEW CASTLE, DE 19720-2774
302.395.2600

Figure 2 Site Boundary

0.25 0.125 0 0.25 Miles

1 inch equals 0.080544 miles

DNREC
SITE INVESTIGATION &
RESTORATION BRANCH
391 LUKENS DR
NEW CASTLE, DE 19720-2774
302.395.2600

Figure 3 Site Photos

Photo A - Site when certified as Brownfield

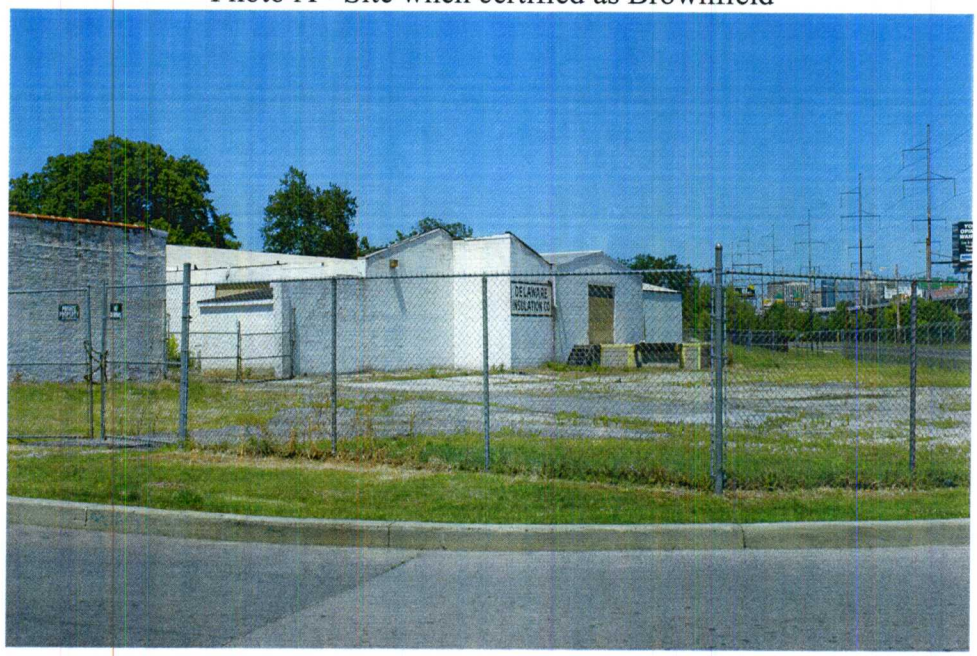
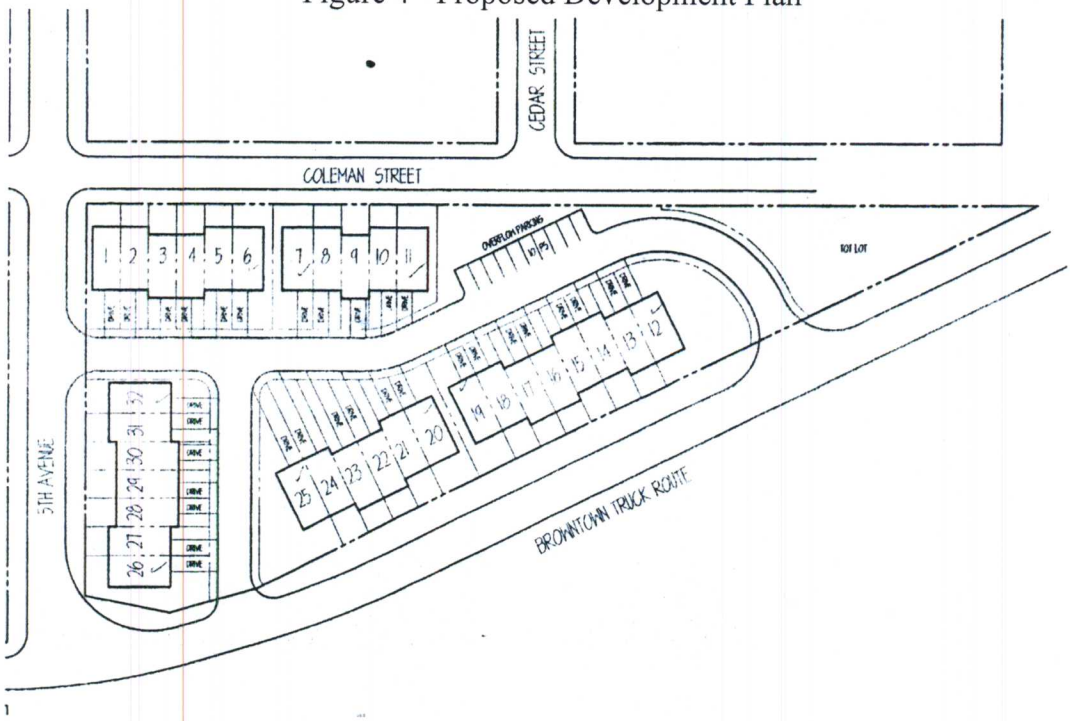


Photo B - Structure Demolition

Photo C - Current Site Conditions -

Figure 4 - Proposed Development Plan



Glossary of Terms
Used in this Proposed Plan

Brownfield	Property that is vacant or underutilized because of the perception or presence of an environmental problem.
Certified Brownfield	A brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program.
Contaminant of Concern (COC)	These are potentially harmful substances at concentrations above acceptable levels (e.g., metals and PAH).
Certificate of Completion of Remedy (COCR)	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
***Exposure**	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
Final Plan of Remedial Action	DNREC's proposal for cleaning up a hazardous site after it has been reviewed by the public and finalized.
Hazardous Substance Cleanup Act (HSCA)	Delaware Code Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
Human Health Risk Assessment (HHRA)	An assessment done to characterize the potential human health risk associated with exposure* to site related chemicals.
Proposed Plan of Remedial Action	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
Risk	Likelihood or probability of injury, disease, or death.
Risk Assessment Guidance for Superfund (RAGS)	An EPA guidance document for superfund sites
Site Specific Assessment (SSA) and Site Inspection (SI)	Environmental studies of a site including sampling of soils, groundwater, surface water, sediment and/or wastes on the property.

What is a *Proposed Plan?*

A Proposed Plan of Remedial Action (Proposed Plan) is a summary of how DNREC plans to clean up a contaminated site. A Final Plan of Remedial Action (Final Plan) is the adoption of the Proposed Plan, after all comments made by the public within the comment period of twenty days have been considered and addressed by DNREC.

The Delaware State Legislature passed the Hazardous Substance Cleanup Act (HSCA) in 1990. The Legislature made sure that members of the public would be informed about environmental problems in their own neighborhoods and have a chance to express their opinion concerning the clean up of those environmental problems before DNREC takes action.

After DNREC studies a site, it summarizes the problems there and proposes one or more possible solutions in a Proposed Plan. The Proposed Plan contains enough information to allow lay persons to understand the site. More detailed information can be found in the reports and documents approved by DNREC. All of the documents and reports created by DNREC or consultants during the course of the investigation of the site are available to the public at the offices of DNREC-SIRB or at DNREC's website:

http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/sitefiles.asp

DNREC issues the Proposed Plan by advertising it in at least one newspaper in the county where the site is located. The legal notices for the Proposed Plans and the Final Plans usually run on Wednesdays or Sundays in the legal classified section of the News Journal and/or the Delaware State News. The public comment period begins on the day (Wednesday), or the day after (Sunday) the newspaper publishes the legal notice for the Proposed Plan.

DNREC frequently holds public meetings during the comment period. Those meetings are usually held near the site in the evening. Citizens can request a public meeting if DNREC did not already schedule one.

Comments are collected at the public meetings, by phone or in writing. DNREC considers all comments and questions from the public before the Proposed Plan is finalized and adopted as a Final Plan.