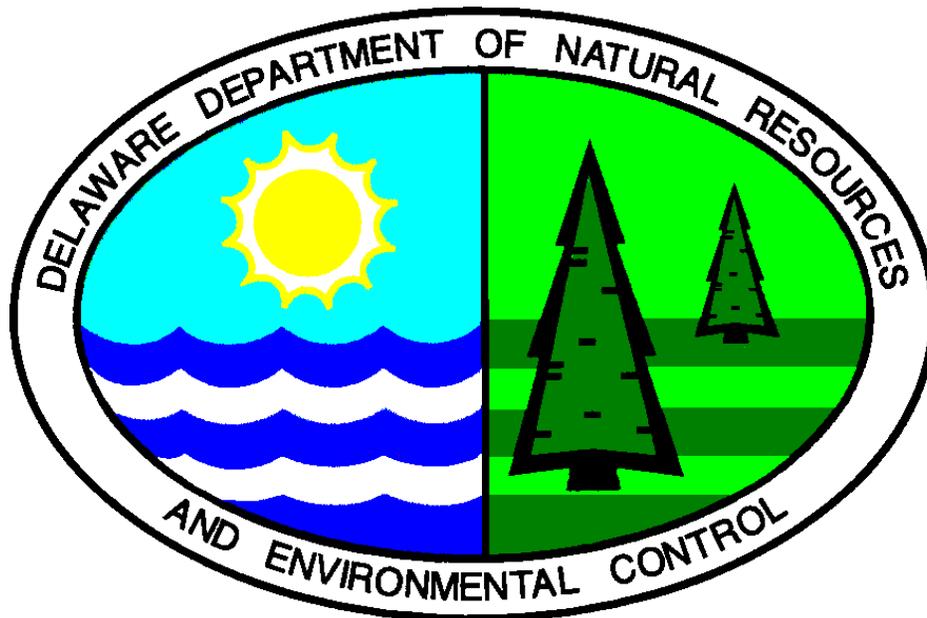


# PROPOSED PLAN OF REMEDIAL ACTION

Delaware Technical Community College

Wilmington, DE

DE 1089



August 1999

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

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## I. INTRODUCTION

The Delaware Technical Community College Site (“DTCC”) is located in Wilmington, Delaware between Orange and Shipley Streets. The Site was a parking lot and is currently the DTCC Education and Training facility.

The Department of Natural Resources and Environmental Control – Site Investigation and Restoration Branch (DNREC-SIRB) entered into a Voluntary Cleanup Program (VCP) Agreement with DTCC under 7 Del. C. Chapter 91, the Delaware Hazardous Substance Cleanup Act (HSCA). Through this agreement, DTCC agreed to investigate the potential risks posed to the public health, welfare, and the environment from the contaminants present at the site. The results of an investigation conducted by Duffield for DTCC revealed that metals, petroleum, and polyaromatic hydrocarbon contamination was present on site. In order to facilitate the construction of the new training facility, the Department of Natural Resource and Environmental Control (DNREC) oversaw the removal of approximately 11,000 tons of contaminated soil and solid waste debris for thermal treatment. Subsequent to the removal activities a soil investigation was conducted to ensure that all impacted soil was removed.

The purposes of the investigation were to: 1) understand the nature and extent of any soil contamination at the site for construction reuse or disposal, 2) evaluate risks to public health, welfare, and the environment associated with identified contamination, and 3) perform an Interim action during construction that would identify and recommend removal of contaminated soils, if required by DNREC. DTCC expressed its desire to obtain a Certificate of Completion of Remedy from DNREC upon completion of all required tasks.

This document is DNREC’s Proposed Plan of Remedial Action for the Site. It is based on the results of the previous investigations performed at the Site. This Proposed Plan is issued under the provisions of the Delaware Hazardous Substance Cleanup Act, 7 Del. C. Chapter 91 (HSCA) and the Regulations Governing Hazardous Substance Cleanup (the Regulations). It presents the Department’s assessment of the potential health and environmental risk posed by the Site.

In accordance with the Regulations, DNREC-SIRB provides notice to the public and an opportunity for the public to comment on the Proposed Plan in accordance with Section 12 of the Regulations. At the conclusion of the public comment period, DNREC-SIRB reviews and considers all of the comments received and then issues a Final Plan of Remedial Action. The Final Plan of Remedial Action designates the selected remedy for the Site. The Proposed Plan, the comments received from the public, DNREC-SIRB’s responses to those comments, and the Final Plan of Remedial Action will constitute the Remedial Decision Record.

Section II presents a summary of the site description, site history and previous investigations of the site. Section III provides a description of the facility evaluation results. Section IV presents a discussion of the Remedial Action Objectives. Section V discusses the Interim Response Action conducted at the Site. Section VI discusses the Proposed Plan of Remedial Action and Section VII discusses public participation requirements.

## **II. SITE DESCRIPTION AND HISTORY**

### *Site Setting*

The site is located between Orange and Shipley Streets the city of Wilmington. (see Figure 1). Second Street borders the Site to the south. To the north is Third Street.

The Site is generally rectangular in shape and covers about one acre. The Site was being used as a parking lot for DTTC.

### *Site and Project History*

The site was utilized as a parking lot by DTTC.

## **III. INVESTIGATION RESULTS**

Between March 1997 and December 1998 Duffield conducted a soil investigations at DTTC, including the placement of direct push soil borings to collect soil samples for laboratory analysis.

The 1997 investigation indicated that petroleum, Lead, Arsenic, Polyaromatic Hydrocarbons impacted subsurface fill materials.

Several Underground Storage Tanks (UST) were removed between March 1997 and November 1998. Closure samples for each location were collected in accordance with UST regulations.

As a result of the site activities between March 1997 and December 1998, the underground storage tanks were removed or abandoned in place. In May to August 1998, approximately 11,000 tons of suspected contaminated soil was excavated during construction and sent off site for thermal treatment. Soil was removed to approximately 18 feet below grade. Laboratory confirmation samples were collected. The excavated area was then utilized for the new education and training facility.

The nature and extent of the contamination is detailed in Duffield's Closure Report; Environmental Remediation of the DTCC of the Proposed Education and Training Facility June 1999.

## **IV. REMEDIAL ACTION OBJECTIVES**

DNREC considers the data and information generated in the previous investigations of the Site to meet the criteria of a Remedial Investigation (RI), and hereby adopts the previous investigations as the RI. According to Section 8.4 (1) of the Regulations,site-specific remedial action objectives must be established for all Plans of Remedial Action.

Qualitative objectives describe, in general terms, what the ultimate result of the remedial action at the facility should be. Considering the Site will be used as a building, the qualitative objectives are to limit the potential spreading of regulated materials to sensitive environmental

receptors, limit the potential for any human contact with the site soils, reduce the potential for inadvertent ingestion of the site soils and limit dust generation during construction.

Quantitative objectives define specific levels of remedial action to achieve protection of human health and the environment. Based on the qualitative objectives, the quantitative objectives will be to ensure that contaminated soil above the Remedial Standards Guidance under HSCA levels is removed. In addition, soils in the building footprint that exceeds 1,000 mg/Kg petroleum hydrocarbon concentrations need to be removed.

## **V. INTERIM RESPONSE ACTION**

Based on the findings of the previous investigations, DTCC proposed to address the contamination by removing it. DNREC-SIRB concurred and decided to address the soil removal as an interim response activity. The interim response activity was performed in compliance with Subsection 8.2 of the Regulations.

The soil removal was performed in accordance with the Interim Response Action Work Plan dated February 1997.

The interim response activities were conducted between March 1997 to December 1998. 11,000 tons of soil were removed and taken to Clean Earth in New Castle, Delaware for thermal treatment.

To confirm that all contaminated soil has been removed from the Site, soil samples were collected during the removal activity. The results of the interim response activities are detailed in the Environmental Remediation Report prepared by Duffield Assocs., dated June 1999.

## **VI. PROPOSED PLAN OF REMEDIAL ACTION**

Based on the environmental investigations and the soil removal activity and UST removals, DNREC-SIRB proposes the following:

1. A deed restriction be placed on the property near the abandoned UST along Shipley Street (Figure 2) because minor petroleum contamination remains adjacent to underground utilities along Shipley St.. DNREC-SIRB will have to be notified before any construction or utility repair or removal takes place in this area.
2. A precautionary vapor survey will be conducted every six months at the proposed daycare facility and the findings will be reported to DNREC-SIRB.

## **VII. PUBLIC PARTICIPATION**

The Department actively solicits public comments on the Proposed Plan of Remedial Action and welcomes opportunities to answer questions. Please direct written comments to:

Department of Natural Resources and Environmental Control  
Division of Air and Waste Management

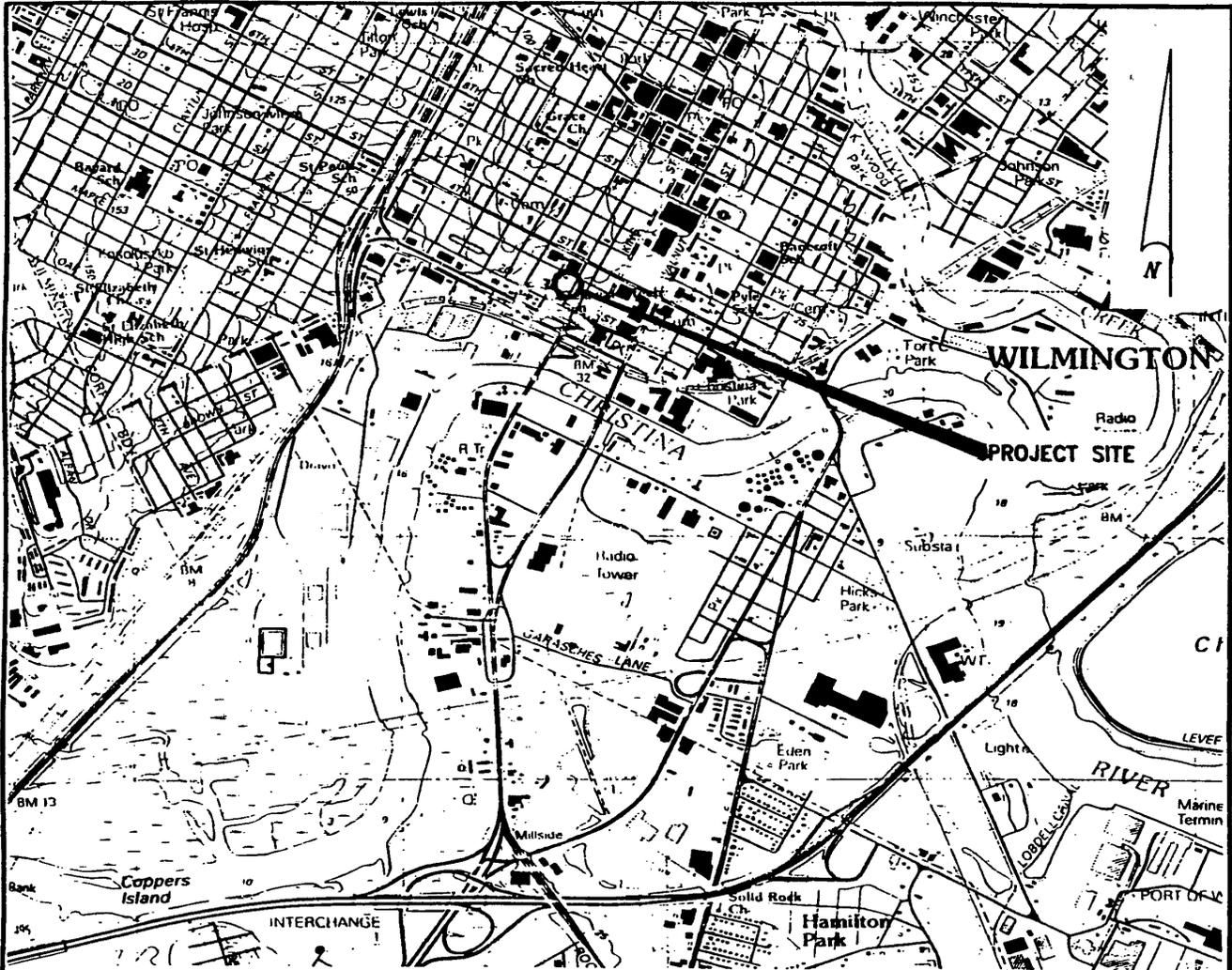
Site Investigation and Restoration Branch  
391 Lukens Drive  
New Castle, Delaware 19720  
Attention: Robert M. Schulte

The comment period begins Sunday, August 1, 1999, and ends by the close of business Monday, August 23, 1999. Comments and/or requests for a public meeting may be submitted in writing to Robert M. Schulte, at the above referenced address.

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**Figure 1: Site Map**

Prepared by Duffield Associates  
October 1998



**NOTE:**

THIS LOCATION MAP IS ADAPTED FROM THE U.S.G.S. TOPOGRAPHIC MAP, 7.5 MINUTE SERIES, FOR WILMINGTON SOUTH, DEL.-N.J. (1993).

**SITE LOCATION MAP  
 DELAWARE TECHNICAL  
 & COMMUNITY COLLEGE  
 PROPOSED EDUCATION BUILDING ESA  
 WILMINGTON, NEW CASTLE COUNTY, DELAWARE**



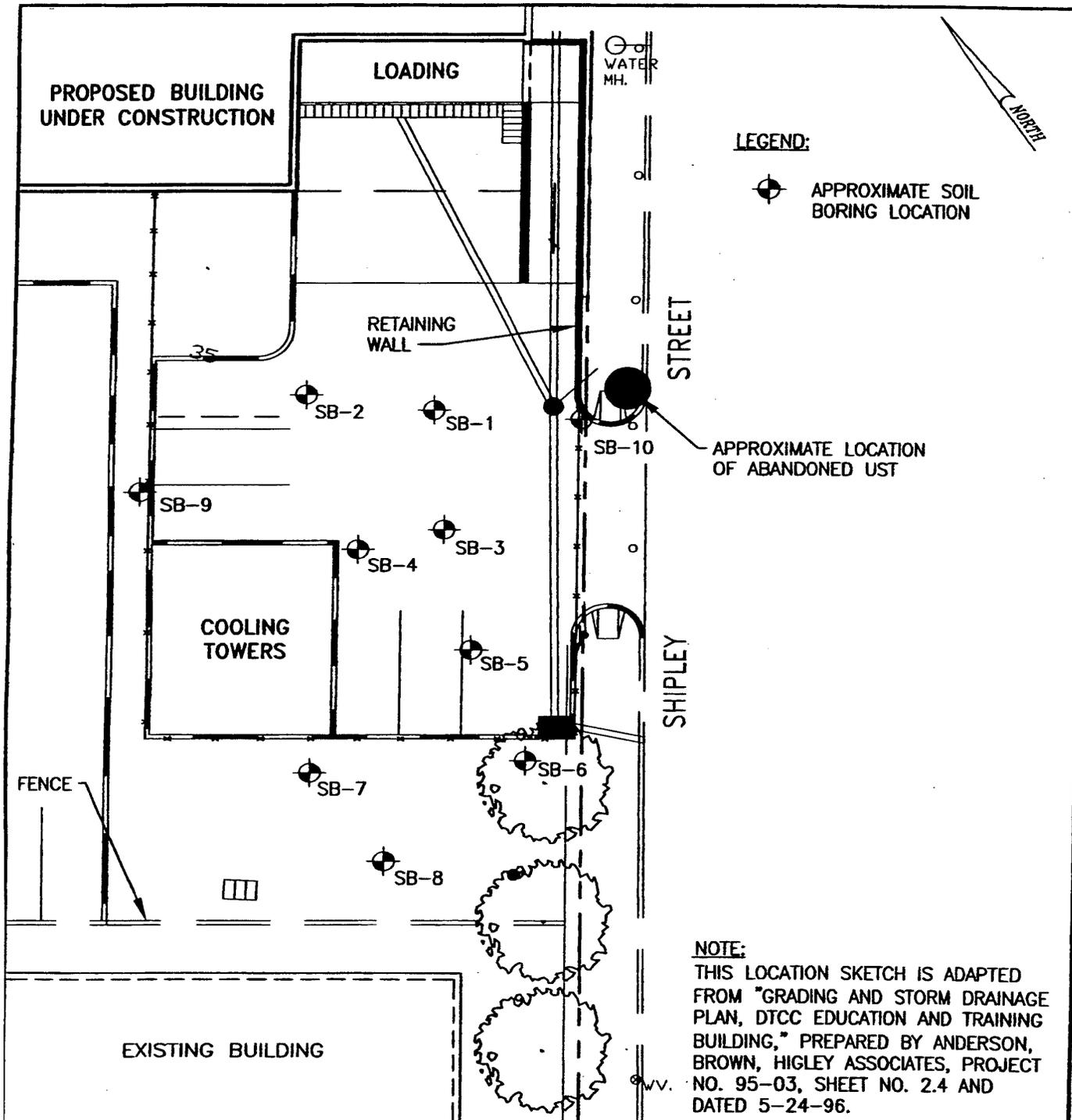
**DUFFIELD ASSOCIATES, INC.**  
 CONSULTANTS IN THE GEOSCIENCES  
 WILMINGTON, DELAWARE PORT DEPOSIT, MARYLAND

Drawn: DSH	Chk'd:	Date: 19 MARCH 1997
Scale: 1" = 2000'		W.O.: 3222EH
Drawing No: A-3222EH-1		<b>FIGURE 1</b>

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**Figure 2 UST Location**

Prepared by Duffield Associates  
October 1998



**LEGEND:**

⊙ APPROXIMATE SOIL BORING LOCATION

**NOTE:**  
 THIS LOCATION SKETCH IS ADAPTED FROM "GRADING AND STORM DRAINAGE PLAN, DTCC EDUCATION AND TRAINING BUILDING," PREPARED BY ANDERSON, BROWN, HIGLEY ASSOCIATES, PROJECT NO. 95-03, SHEET NO. 2.4 AND DATED 5-24-96.

**GEOPROBE LOCATION SKETCH**  
**EDUCATION AND TRAINING BUILDING**  
**DELAWARE TECHNICAL & COMMUNITY COLLEGE**  
 WILMINGTON  
 NEW CASTLE COUNTY ~ DELAWARE

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Drawn: DSH	Chk'd: <i>EBJ</i>	Date: 22 JULY 1998
Scale: 1" = 20'		W.O.: 3222.EH
Drawing No: A-3222EH-3		FIGURE 6

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