



**DNREC-Site Investigation  
and Restoration Branch (DNREC-SIRB)**

**LEGAL NOTICE**

**FINAL PLAN OF REMEDIAL ACTION FOR THE  
300 GREENHILL AVENUE SITE (DE-1433)**

The Department has adopted a plan to clean up the **300 GREENHILL AVENUE SITE** at 300 Greenhill Avenue, Wilmington. The 0.58 acre Site is a carwash that is going through remodeling to include a detailing center and self-wash bays. The site soil and groundwater are contaminated with arsenic, which is related to its previous use as a tannery. An interim action was performed to remove 400 tons of arsenic contaminated soil.

The Final Plan requires capping of the site to prevent contact with surface soil, placement of an environmental covenant to restrict site usage to commercial, performance of groundwater monitoring and implementation of an operations and maintenance plan to ensure continued protection.

Details of the Final Plan are available at the Wilmington Public Library, at the office of DNREC-SIRB (391 Lukens Drive, New Castle, DE, 19720), or online at <http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb> under "Announcements." The public may appeal this final plan within twenty (20) days following the date of this notice. For additional information, please contact Wilmer Reyes or Kathryn Durant, Project Managers, or Robert Newsome, Public Information Officer, at (302)395-2600.

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## PROPOSED PLAN OF REMEDIAL ACTION

300 Greenhill Avenue  
Wilmington, Delaware  
DNREC Project No. DE-1433



January 2009

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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- Proposed Plan: Questions and Answers
- Figures 1 and 2
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- Attachment: *What is a Proposed Plan?*

# FINAL PLAN OF REMEDIAL ACTION



## 300 Greenhill Avenue Site

*300 Greenhill Avenue  
Wilmington, Delaware*

*February 12, 2009  
DNREC Project No. DE 1433*

This Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) requirements to address environmental contamination at the 300 Greenhill Avenue site (Site).

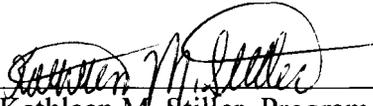
DNREC issued public notice of the Proposed Plan of Remedial Action (Proposed Plan) for the Site on January 18, 2009 and opened a 20-day public comment period. The Proposed Plan is attached. There were no comments or questions from the public. Therefore, the Proposed Plan is adopted as the Final Plan.

Final Plan will consist of the following requirements:

- Cap the site with asphalt, concrete or placement of a marker fabric and a 2 foot soil cover cap of DNREC-approved soil (or the cap equivalent).
- Implement an environmental oversight program, including an approved Contaminated Materials Management Plan, during redevelopment to protect workers and properly dispose of excavated soil and recovered groundwater, if necessary.
- Place an Environmental Covenant (EC), consistent with the Uniform Environmental Covenants Act (UECA) that will restrict site usage to commercial (restricted) purposes and restrict the use of groundwater through the existing City of Wilmington Groundwater Management Zone (GMZ).
- Develop a DNREC-approved Operations and Maintenance (O&M) Plan (to be delivered within 90 days of the final redevelopment) to maintain the cap to prevent exposure to site soil contamination and monitoring of on-site wells to evaluate the groundwater contamination. Additional remedial actions may be required based on the results of the on-site monitoring program and the area-wide groundwater investigation.

### **Approval:**

**This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.**

  
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Kathleen M. Stiller, Program Manager II  
Site Investigation and Restoration Branch

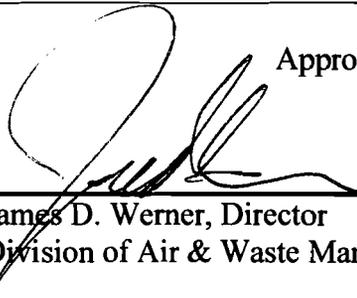
# PROPOSED PLAN OF REMEDIAL ACTION

300 Greenhill Avenue  
Wilmington, Delaware  
DNREC Project No. DE-1433



**Approval:**

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

	Approved by:
James D. Werner, Director Division of Air & Waste Management	
13 JAN 2009	
Date	



**What is the 300 Greenhill Ave. Carwash Property?**

The 300 Greenhill Ave. Carwash (Site) is a Brownfield site and is located at 300 Greenhill Avenue in Wilmington, Delaware (Figure 1). The owners of the property (Delaware Offices, LLC and GHCW, LLC) have initiated renovation of the existing carwash into a modernized carwash facility with a detailing center and self-wash bays. The proposed redevelopment of the property is shown on Figure 2.

**Tax Parcel Number:** 26-026.10-011  
**Address:** 300 Greenhill Avenue, Wilmington  
**Nearest major intersection:** 4th Street and Greenhill Avenue  
**Area:** 0.58 acres  
**Surrounding Property:** Surrounding land use is commercial and residential  
**Zoning:** 26C-2 – Secondary business commercial center  
**Site Utilities:** Water and sewer service provided by the City of Wilmington. Electric and gas service provided by Delmarva Power.  
**Surface water:** The closest surface water body to the property is the Brandywine Creek, which is located approximately one mile northeast of the site; the Christina River is approximately 1.5 miles southeast of the site.  
**Topography:** The property slopes down from 4<sup>th</sup> Street to 3<sup>rd</sup> Street following the topography of the area. The area has been historically filled and the fill layer is primarily composed of sand and silt with some clay and gravel. The fill ranges from 9 to 17 feet thick. Except for small landscaped areas, the carwash was completely covered with asphalt and concrete  
**Groundwater:** Groundwater was encountered at approximately 4 to 12 feet below ground surface (bgs) in the borings completed across the site. Calculations of the horizontal gradient for the 300 Greenhill Avenue property based on groundwater level measurements collected from each of the six monitoring wells on June 20, 2008 indicate that groundwater flows towards the southeast, in the direction of the Christina River.

**What happened at the 300 Greenhill Ave. Carwash Property?**

This property was part of an identified former leather tannery that operated from 1901 into the 1930s. It also operated as a former gas station and had a history of leaking underground storage tanks and tank removal activities overseen by the DNREC Tank Management Branch. DNREC has overseen the removal and proper closure of the gasoline tanks on the property.

The subsurface soil showed impacts as well, and one sample collected at the exit of the carwash tunnel (on the 3<sup>rd</sup> Street side of the site) contained a white-pasty material consistent with former tannery operations. The level of arsenic in this sample was above what was found throughout the rest of the site. Additional soil borings were installed and the extent of the area of white pasty material was determined. An interim action was conducted to remove all of the white pasty material from this portion of the property. During the installation of a storm drain along the 3<sup>rd</sup> Street side of the property, white arsenic material was found within 1.5 to 2 feet below the surface. As the storm drain was installed, the material was excavated to the extent of its depth, stockpiled on the site and properly disposed at a licensed facility. It was noted that this material extended under the concrete portion of the driveway exit from the property. An additional removal action was conducted to remove the white arsenic material from an area approximately 70 feet by 10 feet, under the driveway to the extent of its depth in this location, approximately seven feet.

As part of the SSA, a total of nine groundwater monitoring wells were installed. Three of the monitoring wells were installed at locations outside the site boundaries. Groundwater results showed arsenic impacts in the groundwater, except for the well located up-gradient the site. This indicates that the site is one of the sources of arsenic contamination in groundwater.

A human health risk assessment showed that exposure to surface and subsurface site soil may pose an unacceptable carcinogenic and non-carcinogenic risk under a restricted use (commercial) scenario if the soil was not remediated. Surface and subsurface soil analytical data were used to evaluate the risk to future construction workers performing intrusive activities at the 300 Greenhill Avenue Carwash property under current site conditions (prior to remediation). Both the cumulative carcinogenic and cumulative non-carcinogenic risk for the site exceeded DNREC guidelines, primarily due to risk associated with arsenic in soil.

Routinely ingesting shallow groundwater at the property may pose both unacceptable carcinogenic and non-carcinogenic risks. However, groundwater at and near the property is restricted to be used for drinking water.

### **What does the owner want to do at the 300 Greenhill Ave. Carwash Property?**

The owner of the property has started to remodel the former carwash into a modern carwash facility. The remodeled carwash will include a detailing center and self-wash bays. The entire carwash works inside of the carwash tunnel will be replaced with modern carwash machinery. It is anticipated that approximately ten jobs will be created by the redevelopment.

DNREC plans to issue a Certificate of Completion of Remedy for the site after the implementation of the proposed remedial actions at the site.

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

The complete file on the site, including the Brownfield Remedial Investigation, is 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 January 18, 2009 and ends at close of business (4:30 pm) on February 9, 2009. Please send written comments to the DNREC office or call Wilmer Reyes or Kate Durant, Project Managers, at: 302-395-2600.

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## **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:

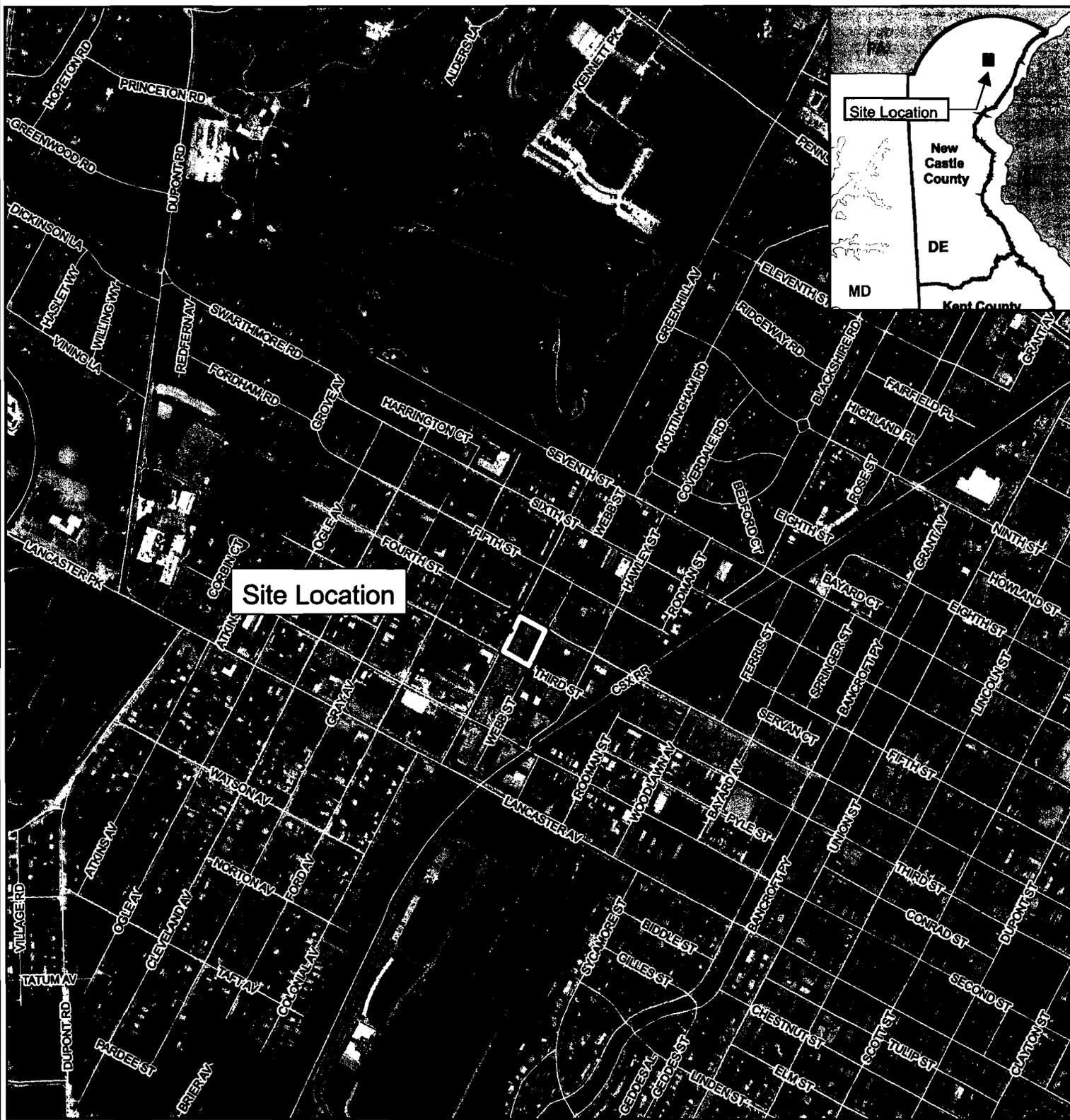
<http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/sitefiles.asp>

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.

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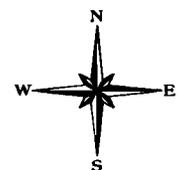
Site Location

Site Location  
 New Castle County  
 DE  
 MD  
 Kent County

FIGURE 1  
 Site Location

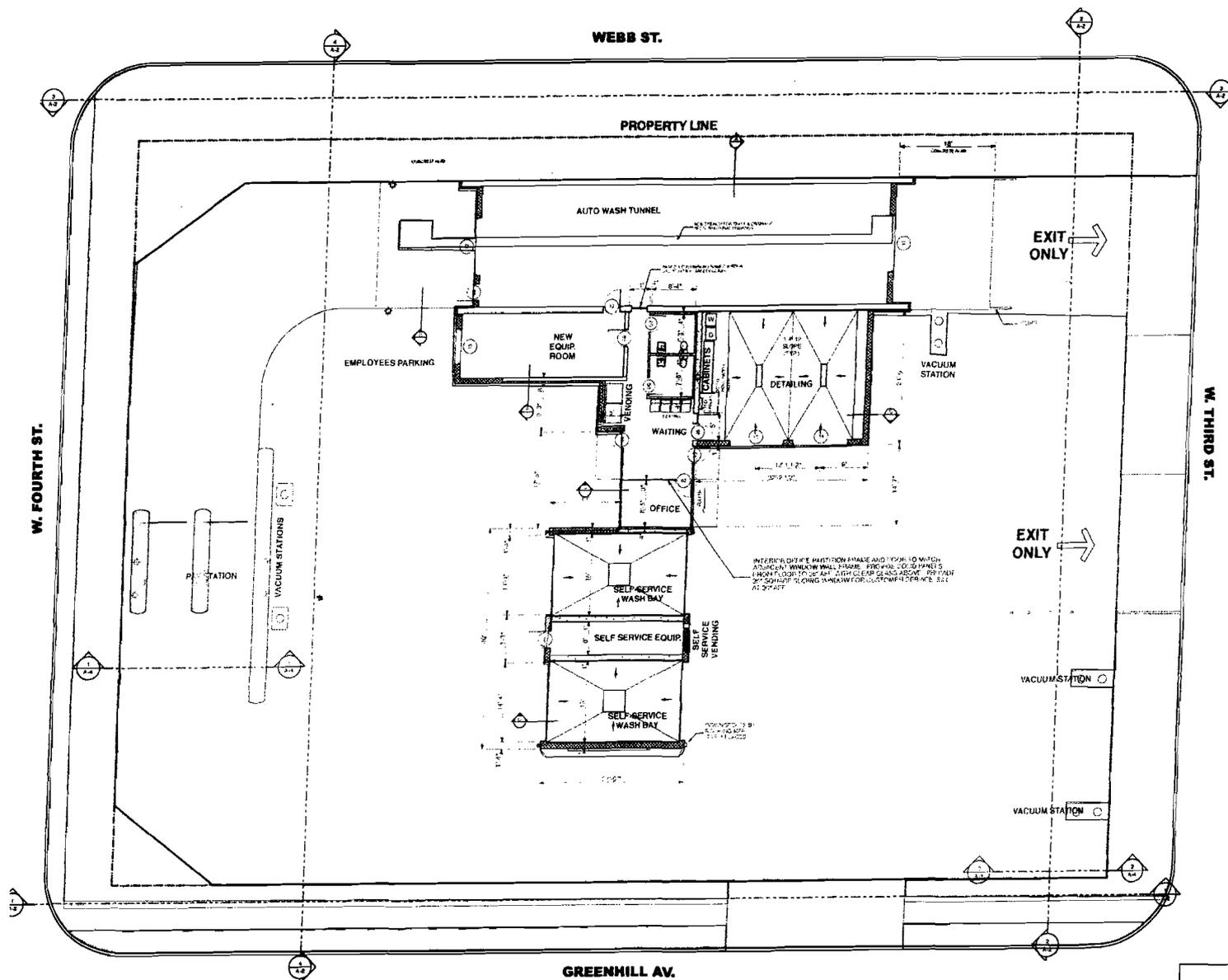
300 Greenhill Avenue

Wilmington, Delaware



800 400 0 800 Feet





**Legend**

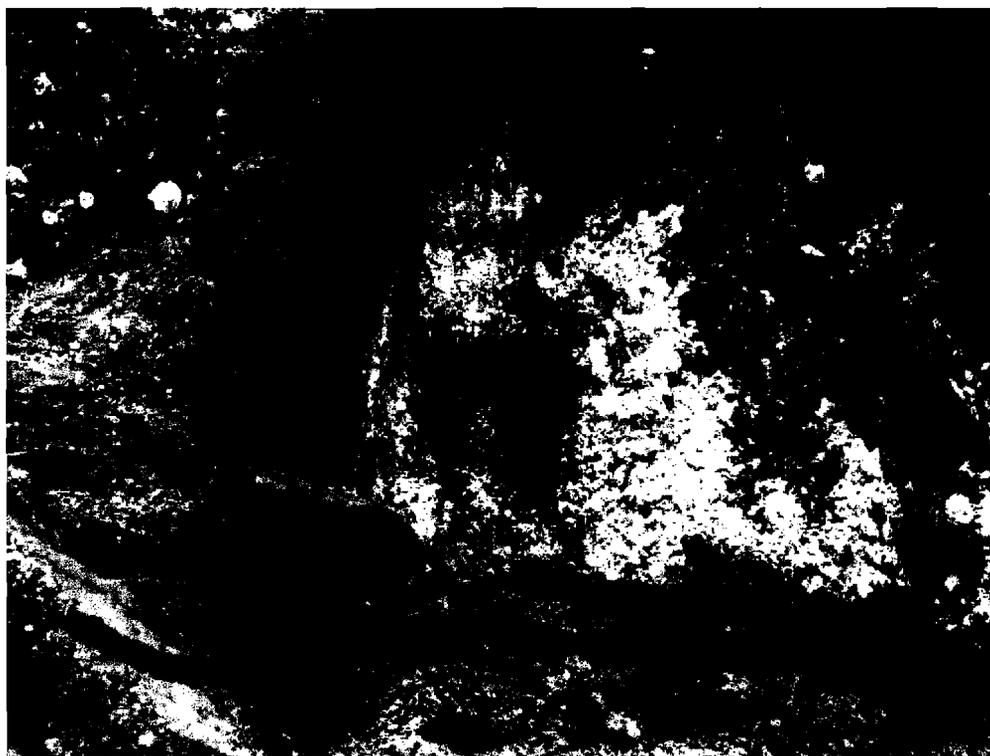
- Concrete
- Clean Fill and Marker Fabric
- Asphalt

**Figure 2**  
**Site Redevelopment Plan**  
**300 Greenhill Avenue**  
**Wilmington, Delaware**

SITE PHOTOGRAPHS  
300 Greenhill Avenue



Carwash tunnel and canopy looking east before redevelopment began



Impacted soil from the southern corner of the site containing white pasty material

Proposed Plan of Remedial Action  
300 Greenhill Avenue, Wilmington, Delaware



White pasty material removed from soil at southern corner of site



Arsenic removal area along 3<sup>rd</sup> Street being back filled with crusher run