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PHASE I ENVIRONMENTAL ASSESSMENT
GLENN DALE HOSPITAL
5201 GLENN DALE ROAD
GLENN DALE, MARYLAND 20769

PREPARED FOR:

THE MARYLAND-NATIONAL CAPITAL
PARK AND PLANNING COMMISSION
6600 KENILWORTH AVENUE
RIVERDALE, MARYLAND 20737

PREPARED BY:

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FEBRUARY 10, 1994
PMT PROJECT: 94-23-02

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1.0 EXECUTIVE SUMMARY

PMT & Associates, Inc. (PMT) performed a Phase I Environmental Assessment of the Glenn Dale Hospital located at 5201 Glenn Dale Road in Glenn Dale, Maryland 20769. The on-site visit was conducted on January 23, 25, and 26, 1994 by John W. Koontz, Joseph P. Pearson and C. Blake Thompson and the historical research was conducted by John W. Koontz and C. Blake Thompson. The following are independent conclusions representing PMT's best professional judgement based on information and data available to us during the course of this assessment. The conclusions presented are based on the conditions that existed on the date of the assessment.

Based on the review of published historical, geological, and physical setting documents, we conclude the following:

1. The review of the Historical data available for the subject site does suggest that the site has been involved in the use of hazardous chemicals and the generation of hazardous waste. The hospitals generated special medical wastes, used radiation (X-ray) equipment, and maintained a paint shop on site. Prior uses of the site have the potential to impact the environmental integrity of the site.

2. The site does contain evidence of non-tidal wetlands. Non-tidal wetlands were observed along the portion of the eastern boundary of the property that abuts Lottsford Branch as well as southwest of the intersection of Electric Avenue and Glenn Dale Road. Non-tidal wetlands are also located on the northwest portion of the property and have been delineated by the Prince George's County Department of Environmental Resources.

3. Elevated levels of radon have been reported for the subject site's zip code area.

    - To accurately assess the radon potential, a radon survey is recommended.

4. The site is not located in the Chesapeake Bay Critical Area for Prince George's County, Maryland.

5. The site contains three (3) wells

   - These wells should be located and properly abandoned.

6. The site is partially located in a known flood-prone area. Approximately 1% of the property (the southeast corner) is located within the 100-year flood-plain. Development in these areas may be limited due to federal and state regulations.

Based on the type and age of construction and from on-site observations, the subject site does contain:

1. Eight (8) regulated underground storage tanks. Two (2) fuel oil tanks of undetermined size (thought to be 10,000-gallon or larger) are located north of the Heating Plant building. One (1) emergency diesel fuel tank of undetermined size is thought to be associated with the generator located within the children's hospital building. One (1) tank of undetermined size is thought to be an emergency diesel fuel tank for the generator located within the adult hospital. One (1) tank of undetermined size was used to service a pad-mounted fuel dispenser is located northeast of the utility building. One (1) tank of undetermined size was used to service what appears to have been a pad-mounted fuel dispenser on the southeast corner of the utility building. The possibility exists of one (1) emergency diesel tank associated with the heating plant. The site also contains one (1), open topped, sediment control tank associated with the on-site water treatment system.

   - The abandoned tanks should be cleaned and removed from the site for proper disposal.

2. Four (4) aboveground storage tank installations. Two (2) above ground storage tanks are located outside of the incinerator and were used to fuel the incinerator. One (1) tank was abandoned behind the adult hospital. One (1) dip tank of approximately 700-gallons located on the north side of the paint shop was possibly used for stripping or treating of painted materials.

   - These tanks should be cleaned and removed from the site for proper disposal.

   - Soil Borings should be conducted in the areas around the dip tank.

3. Transformers which utilize dielectric fluid potentially containing levels of Polychlorinated Biphenyls (PCB's) in excess of 50 part per million (ppm). It appears that the transformers were owned and operated by the hospital.

   - These transformers should be tested for PCB content and then properly removed from the site.

   - Soil borings should be conducted in the areas around the on-ground transformers.

4. Asbestos-containing materials in the following forms:

   Non-Friable
   - Roofing material (i.e., felts, tars, shingles, etc.)
   - Resilient Floor coverings (i.e., tiles and linoleum)
   - Gasket materials

   Category II Non-Friable
   - Cement board
   - Flexible cloth connections
   - Cement-board siding
   - Corrugated siding and roofing

   Friable
   - Joint compound
   - Wall board
   - Ceiling tiles
   - Pipe insulation material
   - Tank insulation.
   - Exhaust breaching insulation

   - Friable asbestos-containing material should be removed prior to renovation.

   - Costs for this operation have been quoted at 1.8 - 2.4 million dollars by HTS Risk Management Services, Inc.

5. Lead-based paints.

   - To accurately address the hazards of lead paint, a lead paint survey is recommended.

   - Lead abatement measures for worker safety and reoccupancy should be implemented prior to and during renovations.

Based on site observations, the site is not currently involved in the following regulated activities:

1. The generation, treatment, storage or disposal of hazardous waste, as defined in the Code of Federal Regulations 40 CFR 261.

Based on the review of the Regulatory databases available for the subject site and surrounding area of the subject site we conclude the following:

1. The project is not listed on any of the databases.

2. The USDA Plant Introduction Center is located adjacent to the northeastern boundary of the site and is listed on the CERCLIS, FINDS, and RCRIS databases. The possibility of an adverse impact is reduced due to the location of Lottsford Branch between the two sites.

3. The review does not suggest that the subject site is currently involved in the generation, treatment, storage, or disposal of hazardous waste.

2.0 INTRODUCTION

2.1 PURPOSE

The purpose of this Phase I Environmental Assessment is limited to providing The Maryland-National Park and Planning Commission an assessment of current environmental conditions at the subject site, to the extent feasible. The scope of this assessment is limited to those issues identified below:

- The identification of recognized environmental conditions. A recognized environmental condition is the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into the structures on the property or into the ground, groundwater, or surface water of the property.

- An evaluation of the physical characteristics of the site including topography, geology, soil type, wetlands, radon, and flood plain information.

- Current site conditions as they pertain to the presence or absence of:

  - Drums and other types of containers.

  - Facility storage tank installations (above and below ground).

  - Asbestos-containing materials.

  - Lead-based paints.

2.2 METHODOLOGY USED

The assessment was conducted utilizing generally accepted Phase I industrial standards. PMT & Associates, Inc. (PMT) utilized the following methods to evaluate the environmental conditions at the subject site:

- A review of the subject site's regulatory posture as it pertains to regulated activities involving the use of hazardous chemicals; the generation of hazardous waste; the treatment, storage, or disposal of hazardous waste; or the release of regulated substances. PMT utilizes the following databases, available from Chemical Information Systems, Inc. (CIS), to conduct appropriate radius searches of the subject site of this report:

  - National Priorities List (NPL).
  - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS).
  - Resource Conservation and Recovery Information System (RCRIS).
  - Environmental Response Notification System (ERNS).
  - EPA Civil Enforcement Docket (DOCKET).
  - Facility Index System (FINDS).

  In addition, available state lists of underground storage tanks, landfill/solid waste disposal sites, and lists of hazardous waste sites will be reviewed when readily available. Freedom of Information Act (FOIA) requests will be made to appropriate state and local government agencies. Information obtained as a result of these requests will be included, if the information is obtained in a timely manner.

- Historical research of the subject site, back to 1878, was conducted. A history of site development and usage will be developed utilizing one or more of the following historical sources:

  - Prince George's County land records, deed books, building permit records, tax files, and zoning records.
  - Aerial photographs available from The Maryland-National Capital Parks and Planning Commission Mapping Office as well as the Maryland Geologic Survey.
  - Maryland Room, Prince George's County Library, Hyattsville branch.

- PMT visually and physically observed the exterior and interior of the structural improvements along with the surface areas of the subject site. In addition, observations of the adjacent properties to identify high risk neighbors and contamination migration concerns were made.

2.3 LIMITATIONS AND EXCEPTIONS

The following limitations and exceptions are noted:

- PMT & Associates, Inc. relies solely on the Chemical Information Systems, Inc. for regulatory review information (i.e., NPL, CERCLIS, RCRIS, etc.). PMT does not guarantee the accuracy or completeness of this information.

- PMT is not a professional title insurance company and does not guarantee the deed information summary in this report is a complete delineation of past site ownership or tenancy.

- The scope of this assessment does not include the evaluation of any subsurface conditions.

- Visual and physical observations were limited to accessible areas of the subject site. Inaccessible areas include areas below floors, above ceiling systems, behind enclosed walls and locked areas. The following specific areas to which access was limited, or denied, by site conditions include the following:

  - The Paint Shop.

  - Two (2) unattached garages and one (1) attached garage associated with the doctors' residences.

  - McCarren Hall-one (1) of the nurse's building.

  - The laundry building.

  - Portions of the basement of the children's hospital.

  - The water treatment building.

  - The closest duplex residence to Glenn Dale Road.

  - The basement of one (1) of the employees apartment buildings.

- Any additional limitations to the methodology of this assessment will be specifically addressed in the affected sections of this report.

3.0 SITE DESCRIPTION

3.1 SITE LOCATION

The Glenn Dale Hospital site is located at 5201 Glenn Dale Road in Glenn Dale, Maryland 20769 (Figure 1). The site is further identified as Parcel 124, on Prince George's County Tax Map Number 45 (Figure 2). Site diagrams are provided as Figures 3 and 4.

The site is bound to the north by residential houses; to the east by The United States Department of Agriculture (USDA) Plant Introduction Center and residential houses; to the south by Annapolis Road, residential houses, and construction; and to the west by Glenn Dale Road, residential houses, and open fields. The site is located in a suburban residential area of Prince George's County, Maryland. The irregularly-shaped parcel consists of 216 acres, more or less.

3.2 DESCRIPTION OF IMPROVEMENTS

The property is improved with twenty-one (21) brick-faced buildings, one (1) wooden building, and one (1) metal and cement board incinerator building, all of which are interconnected by paved drive and parking areas. The site was utilized for the operation of the Glenn Dale Sanitarium, a tuberculosis treatment and quarantine hospital. The buildings are outlined as follows:

1. The children's nurses home, also known as Capper Hall, was constructed in 1933 and consists of two (2) floors and a basement totalling 22,888 square feet.

2. The children's hospital building was constructed in 1933 and consists of three (3) floors, a ground floor, and basement totalling 125,000 square feet.

3. Peabody Hall, a dormitory associated with the children's hospital, was constructed in 1933 and consists of one (1) floor totaling 2,906 square feet.

4. McCarren Hall, a nurses dormitory, was constructed in 1935 and consists of three (3) floors and a basement totaling 18,862 square feet.

5. A duplex house was constructed in 1935 and consists of two (2) floors, a basement and a garage totaling 5,673 square feet.

6. The Superintendent's residence was constructed in 1936 and consists of two (2) floors and a basement totaling 4,610 square feet.

7. A duplex house was constructed in 1936 and consists of two (2) floors, a basement, and garage totaling 5,673 square feet.

8. A doctor's house was constructed in 1936 and consists of two (2) floors and a basement totaling 4,610 square feet.

9. The adult hospital was constructed in 1936 and consists of five (5) floors, a ground floor, and basement totaling 178,500 square feet.

10. The warehouse and garage building was constructed in 1936 and consists of one (1) floor totaling 11,500 square feet.

11. The heating plant was constructed in 1936 and consists of two (2) floors totaling 6,824 square feet.

12. The sludge bed enclosure was constructed in 1936 and consists of an open floor totaling 886 square feet.

13. The sedimentation and control building was constructed in 1936 and consists of two (2) floors totaling 1,905 square feet.

14. The water treatment building was constructed in 1937 and consists of one (1) floor totaling 668 square feet.

15. The pump house was constructed in 1937 and consists of one (1) floor totaling 1,226 square feet.

16. Finucane Hall, an employees dormitory, was constructed in 1938 and consists of three (3) floors and a basement totaling 24,092 square feet.

17. The laundry building was constructed in 1939 and consists of one (1) floor totaling 6,272 square feet.

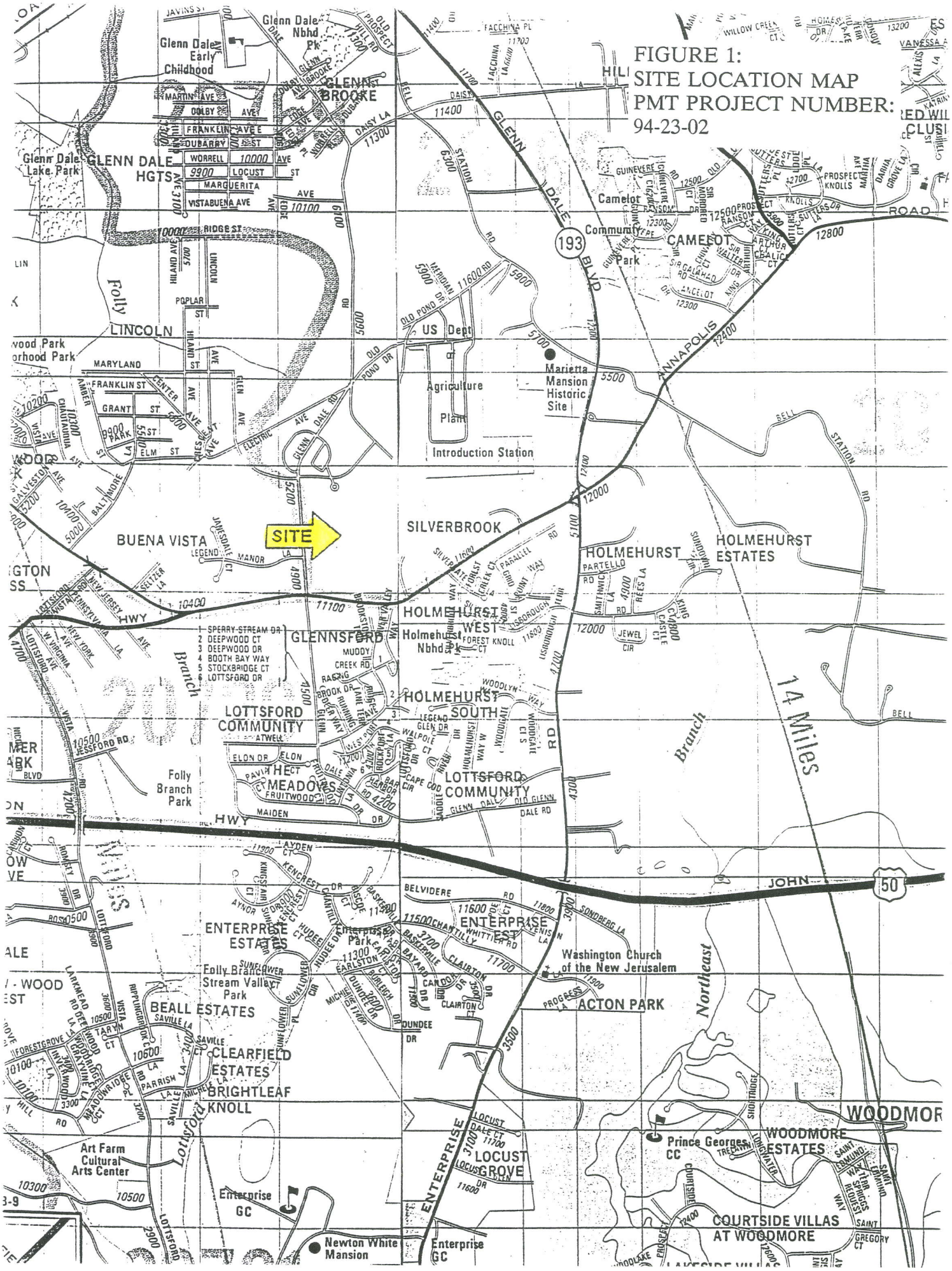

FIGURE 1:
SITE LOCATION MAP
PMT PROJECT NUMBER:
94-23-02

FIGURE 2:
TAX MAP
PMT PROJECT NUMBER:
94-23-02

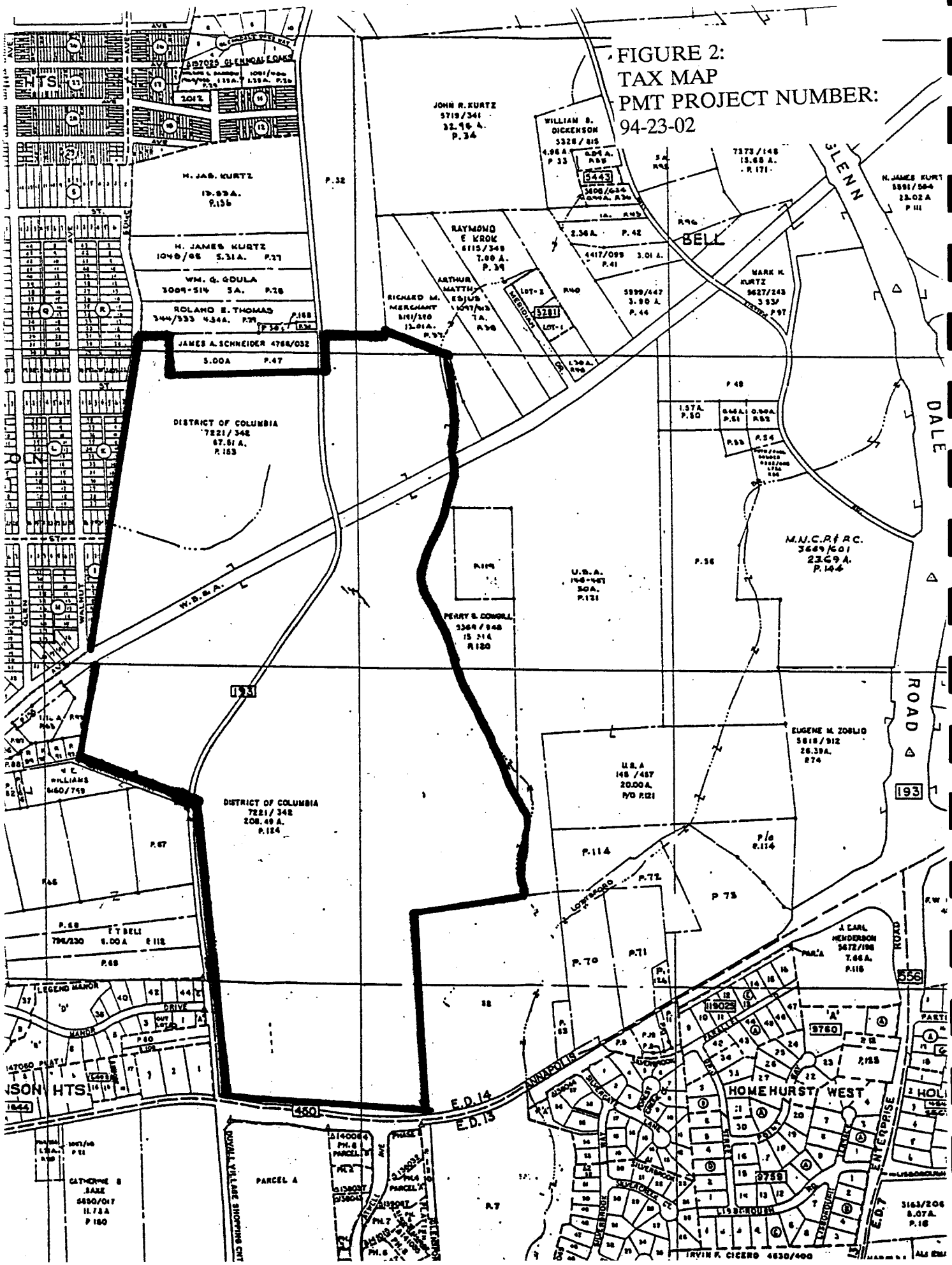

FIGURE 4:
SITE DIAGRAM
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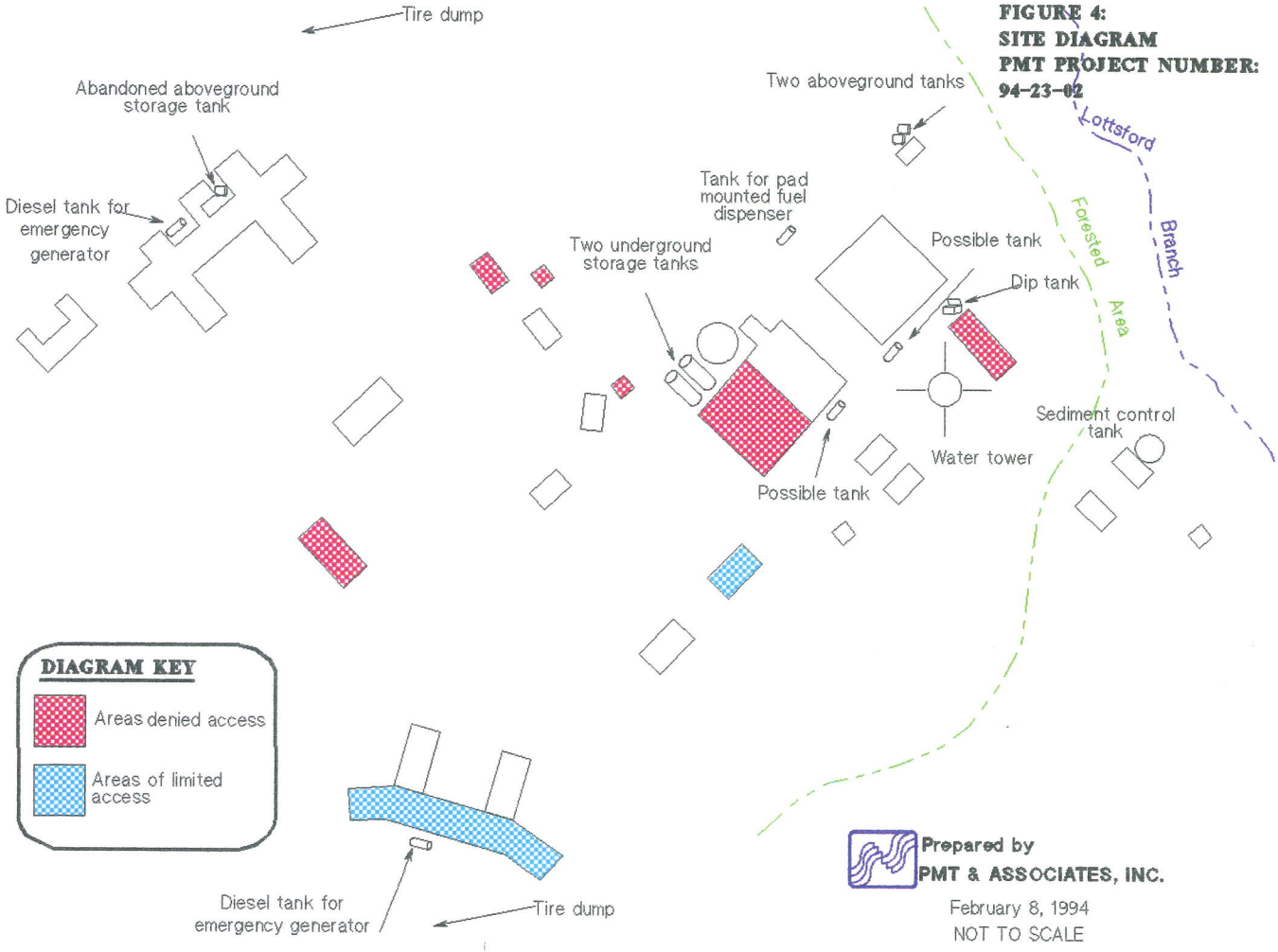

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PMT & ASSOCIATES, INC.
February 8, 1994
NOT TO SCALE

18. Gibson Hall dormitory was constructed in 1947 and consists of one (1) floor totaling 2,849 square feet.

19. The hot house was constructed in 1948 and consists of one (1) floor totaling 823 square feet.

20. The northern apartment building was constructed in 1949 and consists of two (2) floors and a basement totaling 5,892 square feet.

21. The southern apartment building was constructed in 1950 and consists of two (2) floors and a basement totaling 6,892 square feet.

22. The paint shop was constructed in 1953 and consists of one (1) floor totaling 1,157 square feet.

23. The incinerator was constructed in 1960 and consists of two (2) floors totaling 346 square feet.

The structural improvements were constructed between 1933 and 1960 and consist of poured concrete foundations. The two hospitals, warehouse and garage, heating plant, sedimentation and control building, water softener house, pump house, Finucane Hall, and the laundry (Buildings 2, 9, 10, 11, 13, 14, 15, 16, and 17) consist of concrete and steel interior frames and brick perimeter walls. The paint shop (Building 22) consists of a wooden interior frame and wooden perimeter walls. The incinerator (Building 23) consists of a steel interior frame with cement board perimeter walls. The remaining residential buildings consist of wooden interior frames and brick exterior walls.

The subject site is supplied potable water by WSSC. However, during the site visit the water supply system was not working in any of the buildings. Historically the site was supplied with potable water from three wells drilled on site. At some point the facilities water supply was connected to the WSSC system. The private sewage disposal system was connected to WSSC. From this, WSSC does not maintain water lines on site.

The Glenn Dale facility was constructed with its own sewage treatment plant with

a sediment control tank and a sludge bed. At some point the on-site sanitary disposal system was connected to the WSSC system.

4.0 REGULATORY REVIEW

4.1 NATIONAL PRIORITIES LIST (NPL)

The National Priorities List (NPL) is the Environmental Protection Agency's (EPA) listing of uncontrolled or abandoned hazardous waste sites which are awaiting remedial action under the Superfund Program. Review of that list has determined that the Glenn Dale Hospital site located at 6600 Glenn Dale Road is not an NPL Site. The one (1) mile radius check of the subject site did not identify any sites listed on the NPL.

4.2 CERCLIS

The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) lists all sites that the EPA has investigated or is currently investigating under provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). By cross referencing name, address, county, and zip code, we conclude that the subject site is not listed on the CERCLIS. A one (1) mile radius check of the project identified the following site listed on the CERCLIS:

1. USDA Glenn Dale Plant Germplasm Quarantine Facility ← Not Hospital site
   11601 Old Pond Drive
   Glenn Dale, Maryland 20769

   - The USDA Germplasm site is the adjacent property to the northeast. The site was originally discovered on December 4, 1991. The site is currently in an active status.

4.3 RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM

The Resource Conservation and Recovery Information System (RCRIS) contains notification, permitting, compliance, and corrective action data on all facilities that are regulated under the Resource Conservation and Recovery Act (RCRA). By cross referencing name, address, county, and zip code, we conclude that the subject site is not currently listed on the RCRIS. Eight (8) sites are listed on the RCRIS listing for the subject site's zip code area. The USDA site outlined in the above section is in close proximity to the subject site and is also listed on the RCRIS listing as a Large Quantity Generator.

A one (1) mile radius check of the subject site did not identify any sites listed as Treatment, Storage, or Disposal Facilities (TSDF).

4.4 ENVIRONMENTAL RESPONSE NOTIFICATION SYSTEM (ERNS)

The Emergency Response Notification System (ERNS) database represents the most comprehensive data compiled on release notifications of oil and hazardous substances in the United States. By cross referencing name, address, county, and zip code, we conclude that the subject site is not listed on the ERNS. None of the listed sites are located adjacent to the subject site.

4.5 CIVIL ENFORCEMENT DOCKET (DOCKET)

The EPA Civil Enforcement Docket (DOCKET) database contains information on all civil judicial cases filed by the Department of Justice on behalf of EPA, from 1971 to the present. By cross referencing name, address, county, and zip code, we conclude

that the subject site is not currently listed on the DOCKET. None of the listed sites are located adjacent to the subject site.

4.6 FACILITY INDEX SYSTEM (FINDS)

The Facility Index System (FINDS) listing was reviewed. The FINDS listing incorporates seventeen (17) governmental and regulatory agencies databases. By cross referencing name, address, county, and zip code, we conclude that the subject site is not currently listed on the FINDS. Six (6) sites are listed on the FINDS listing for the subject site's zip code area. Sites are typically listed on the FINDS as a matter of compliance and are not anticipated to affect neighboring properties.

4.7 STATE LIST OF HAZARDOUS WASTE SITES

The State of Maryland maintains a list of Hazardous Waste/Contaminated sites that are being considered for/or are already included in the EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). By cross referencing name, address, county, and zip code, we conclude that the subject site is not included on this list. A one (1) mile radius check of the subject site identified the following site outlined below:

1. USDA Germplasm Facility
   11601 Old Pond Drive
   Glenn Dale, Maryland 20769

4.8 REGISTERED UNDERGROUND STORAGE TANKS

The State of Maryland maintains a list of facilities that have registered underground storage tanks. By cross referencing name, address, county, and zip code, we conclude that the subject site is not included on this list. The following is a list of adjacent sites and/or sites in close proximity to the subject site that were identified during the review of this list:

1. USDA Germplasm Facility
   11601 Old Pond Drive
   Glenn Dale, Maryland 20769

   - The USDA has removed a 27 year old, 12,000-gallon, heating oil tank from their property.

2. Glenn Dale Early Childhood Facility
   6700 Glenn Dale Road
   Glenn Dale, Maryland 20769

   - The Glenn Dale Early Childhood Facility currently utilizes a 5,000-gallon, 41 year old heating oil tank.

4.9 FREEDOM OF INFORMATION ACT (FOIA) REQUEST

Freedom of Information Act (FOIA) requests were sent to the State of Maryland Department of the Environment; the Prince George's County Department of Environmental Health; and the SARA Title III Local Planning Committee for Prince George's County. A response from the Prince George's County Fire Department, Bureau of Fire Prevention has been received. Their records indicated no past or present incidents concerning spills, abandoned tanks, or any other types of hazardous spills. Responses for the remaining requests have not yet been received. Any pertinent

information will be forwarded upon receipt and review. Copies of these written requests and responses can be found in Appendix 3.

5.0 PHYSICAL SETTING

5.1 TOPOGRAPHY

The United States Geological Survey (USGS) 7.5 Minute Topographic Map for the Lanham, Maryland Quadrangle, dated 1965, and revised in 1979 (Figure 5) was reviewed. The subject site lies between 160-180 feet above mean sea level. The eastern and southern-most portions of the site drain towards Lottsford Branch which lies along the eastern border of the property. The remaining northwestern portion of the property drains towards Folly Branch to the west. The site contains portions of Glenn Dale and Old Mill Roads as well as part of an abandoned, single track, rail line. The topographic map also shows two (2) water towers and a sewage disposal facility on site.

5.2 GEOLOGY

The site is located on the 1951 geology map for Prince George's County published by the United States Geologic Survey. The site is underlain with the Monmouth Formation (Km) of the Cretaceous Period. This formation consists of fine, black, micaneous and glauconitic sands.

The geology of the site presents no environmental concerns.

FIGURE 5:
TOPOGRAPHIC MAP
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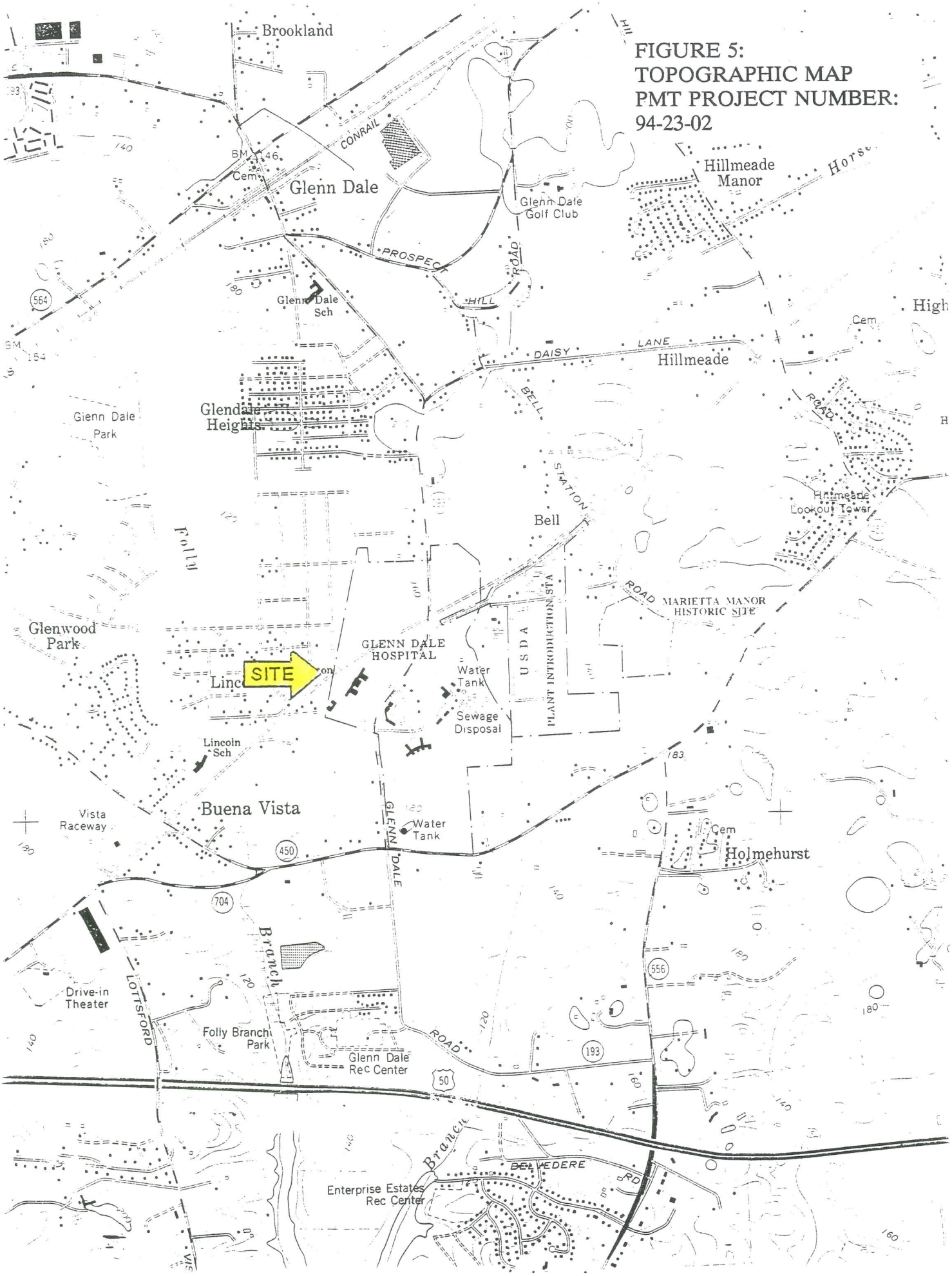
94-23-02



5.3 SURFACE WATER/GROUNDWATER HYDROLOGY

Review of the Department of Natural Resources, "Water Resources Basic Data Report No. 13, the Prince George's County Ground-Water Information indicated that there are three (3) wells drilled on site. These wells are designated as Ce 13, Ce 14, and Ce 16. Well Ce 13 is located to the southwest of Finucane Hall and is drilled to a depth of 798 feet below ground surface into the Patapsco formation aquifer. Well Ce 14 is located on the eastern side of the property near the sewage treatment building. The well is drilled to a depth of 316 feet below ground surface in the Patapsco formation aquifer. Well Ce 16 is located near the water tower. The well is drilled to a depth of 946 feet below ground surface into the Patapsco and the Patuxent formations aquifers.

These wells, as they exist now, are a possible pathway for future ground water contamination (Figure 6). They should be located and properly abandoned.

5.4 FLOOD PLAIN INFORMATION

The Federal Emergency Management Agency (FEMA), through its National Flood Insurance Program, publishes Flood Insurance Rate Maps which delineate flood zones. Flood events of a magnitude which are expected to be equaled or exceeded once on the average during any 100-, or 500-year period have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 100- and 500-year floods, have a 1 and 0.2 percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. FEMA has made

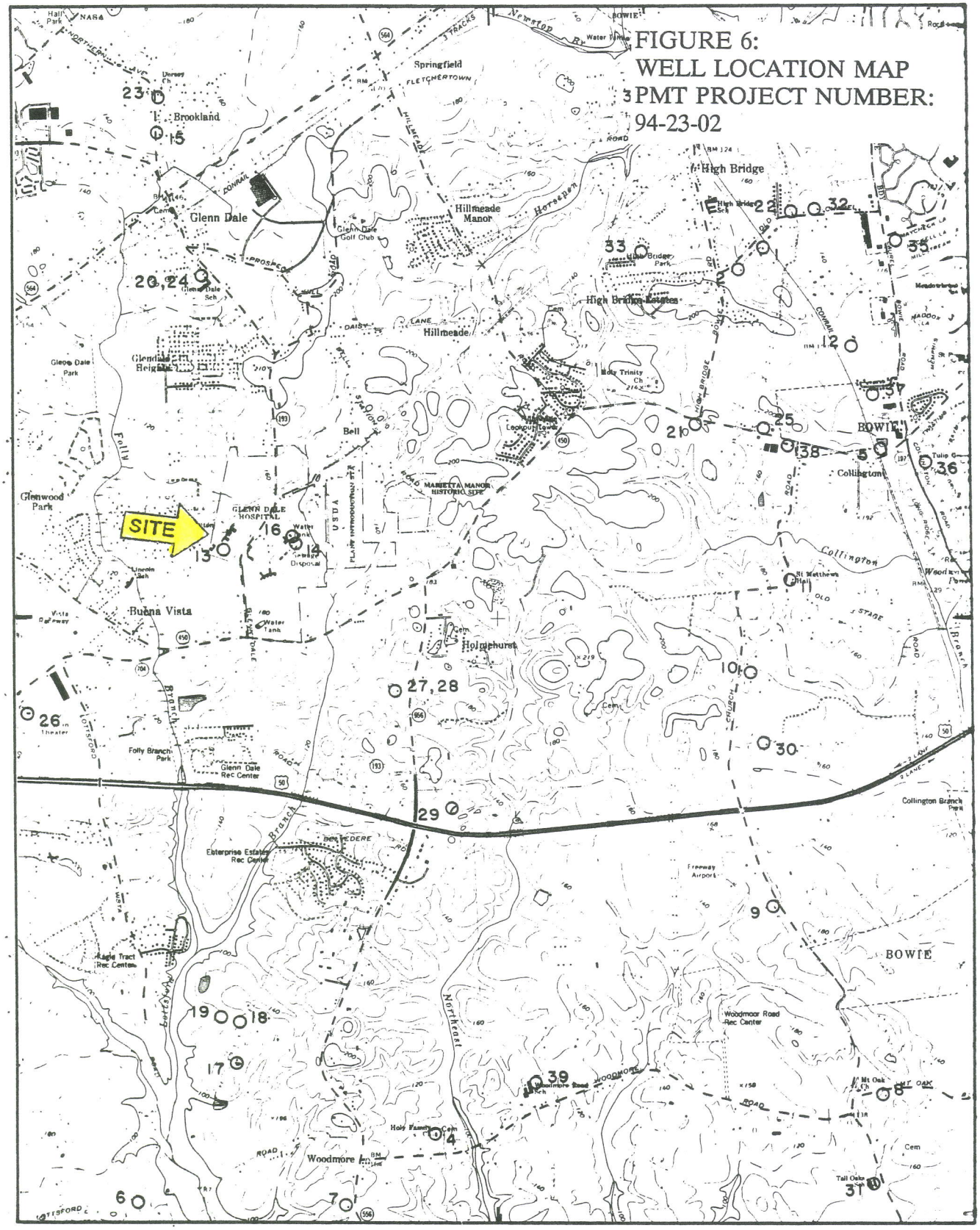


FIGURE 6:
WELL LOCATION MAP
PMT PROJECT NUMBER:
94-23-02

delineations based on whether a particular area experiences minimal flooding, is within the boundary of the 100-year flood, or is within the boundary of the 500-year flood. The site is noted on FEMA Map Number 245208 0030 C (Figure 7) and the majority of the site is located in Zone C, which is an area of minimal expected flooding. The eastern boundary of the property may be located in Zone A6, which is an area within the 100 year flood-plain. No more than 1% of the subject site is within this flood-prone area. Development in this area will be limited due to federal and State regulations concerning flood-plain areas.

5.5 CHESAPEAKE BAY CRITICAL AREA

The Chesapeake Bay Critical Area Protection Program was enacted because of concern about the decline of certain natural resources of the Chesapeake Bay. The Chesapeake Bay Critical Area is a geographical area around the tidal waters of the Chesapeake Bay and its tributaries. New development in these areas is restricted to minimize impacts on the Bay's water quality and plant, fish, and wildlife habitat. The site is not located within the boundaries of the Chesapeake Bay Critical Area for Prince George's County.

5.6 NON-TIDAL WETLANDS

Non-tidal wetlands are the subset of the wetland resources that lie upstream of tidally influenced waters. They represent the majority of the Mid-Atlantic region's wetlands and include freshwater marshes, wet meadows, bogs, shrub swamps, wooded swamps, bottomland hardwood forests, shallow ponds, seepage areas, and springs. They

FIGURE 7:
FEMA MAP
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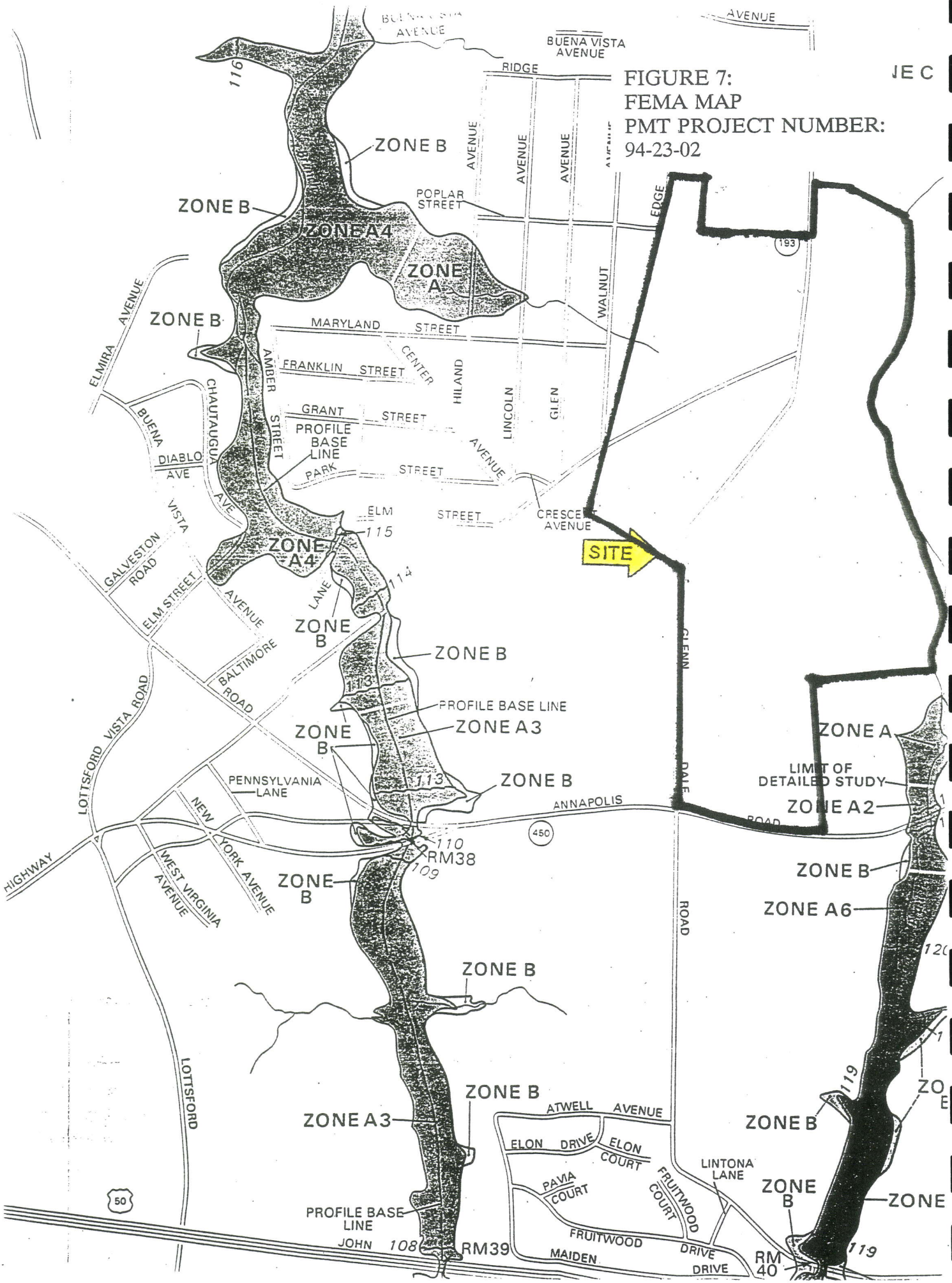

range in size from small isolated depressions surrounded by uplands to large complexes thousands of acres in size on the floodplains of major rivers. Non-tidal wetlands were observed along the eastern edge of the property, near the intersection of Electric Way and Glenn Dale Roads, in the BG & E easement that transects the property, and were delineated by the Prince George's County Department of Environmental Resources in the northwestern portion of the property.

Prior to any development on site a wetland delineation is recommended. Development in these areas may be limited due to State and Federal wetlands statues.

5.7 SOILS

Soils information was obtained from the Prince George's County Soil Survey, published by the United States Department of Agriculture (USDA). The subject site is composed of 11 different soil types (Figure 8). Two of the soils at the site may present environmental concern. Bibb silt loam and Elkton silt loam are both hydric soils. A hydric soil is defined by the field guide to national wetlands identification as "soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part." The areas of the subject site which contain these soils may limit development, as hydric soils often indicate non-tidal wetlands.

5.8 RADON GAS

Radon is a radioactive gas which occurs in nature from the natural breakdown of uranium. Radon enters a building primarily with other soil gases. The most common entry points for soil gases include cracks in slab or foundation floors, slab joints, floor

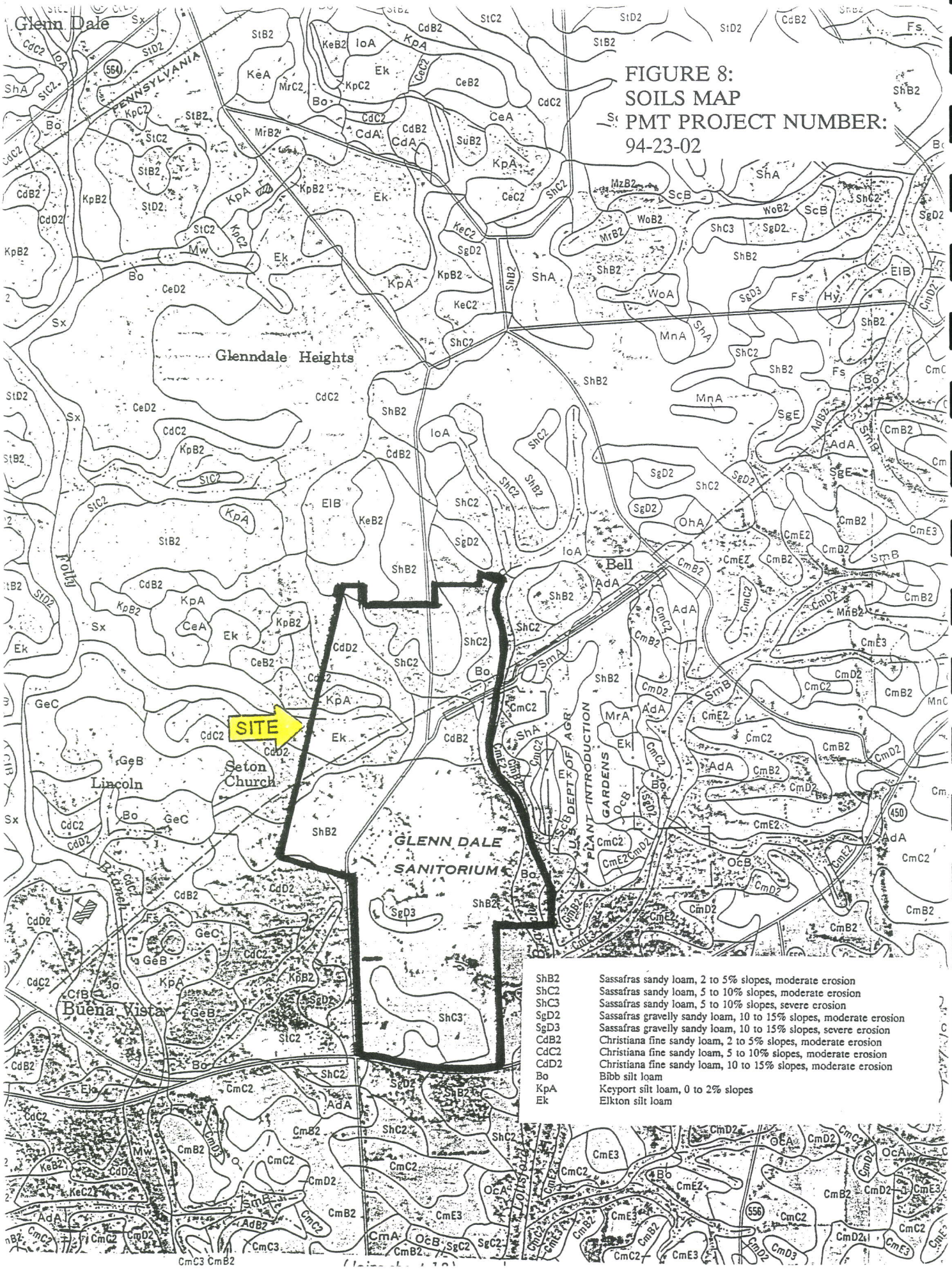

FIGURE 8:
SOILS MAP
PMT PROJECT NUMBER:
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drains, sump pumps, and cinder block walls. Radon gas is drawn into a structure through these openings via a natural pressure differential called the stack effect. Radon gas is heavier than air and can collect in the lower points of an improvement. Data on radon emission was obtained from the United States Environmental Protection Agency (EPA). The EPA maintains a tabulation of test counts performed on residential homes grouped by zip code. The levels of emissions are recorded in pico Curies per liter (pCi/l). The U.S. EPA uses a continuous exposure level of 4.0 pCi/l as a guidance level at which remedial action is recommended. The property is located within Zip Code 20769. The radon data for that zip code is listed below.

TEST RESULTS OF RADON LEVELS GROUPED FOR ZIP CODE 20769.

HOMES TESTED	pCi/L	PERCENTAGE
68	0-4	80
13	4-10	15.3
4	10-20	4.7
0	20-50	0.0
0	50-100	0.0
0	100+	0.0

Total 85 Range 0.3 pCi/l - 16.3 pCi/l

The data indicates that of the homes tested, 80% were within the recommended range of 0-4 pCi/L, and 20% were above the recommended range. Because of differences in characteristics of a building, weather conditions, and habitation characteristics, it is possible for a building built on soil with high radon concentrations to

have low indoor radon levels and for a building built on soil with low radon potential to have high radon levels, thus indicating that the above referenced data is insignificant. To adequately assess the health effects of radon at the site, seasonal testing is recommended.

6.0 HISTORICAL REVIEW

6.1 CURRENT OWNER

The subject site is currently owned by The District of Columbia, a municipal Corporation, which acquired the property in 1989 from The United States of America after they had proven in court that they held the title to the property. The United States of America obtained both parcels in 1930 in order to develop the Glenn Dale Sanitarium.

6.2 DEED INFORMATION

The review of deed information included numerous transactions and ownerships of the land making up the project. Deeds and titles reviewed include the following:

Liber/Folio	Grantor/Grantee	Year
7221/342	The United States of America / The District of Columbia, A Municipal Corporation	1989
Parcel 153 359/16	Margaret R. Sherman, Widow formally Margaret R. Biddle / The United States of America	1930
Parcel 124 359/18	Daniel B. and Anna Belle Lloyd / The United States of America	1930

Review of the available deed records did not identify any prior ownerships that would suggest that the site was adversely affected from historical use.

6.3 AERIAL PHOTOGRAPHS

Historical aerial photographs were examined for the year(s) 1938, 1963, 1970, 1989, and 1990. These photographs are individually described below:

- Photo AHV 2 52 dated May 1, 1938, showed the completed first stages of the development of the hospital. There appears to be few paved roads on-site. The photo also clearly showed the USDA plant to the east. The surrounding areas are wooded.
- Photo AHV 3DD 116 dated October 14, 1963, shows the site as it exists today. Additions had clearly been made to the adult hospital. Roads connecting all areas of the site are clearly visible. All of the buildings are as they appear today.
- Photo AHV ILL 186 dated June 14, 1970, shows the property as it is today.
- Photo VW 898-96 dated 1989, shows the property as it is today.
- Photo map 45 dated March 28, 1990, shows the property as it is today.

6.4 HISTORICAL MAPS AND CITY DIRECTORIES

City directories are not available for the subject site's area.

The 1878 G.M. Hopkins outline map of Prince George's County showed the site was developed with the houses of George W. Duvall and Mrs. Meriken on site.

The 1914 and the 1957 topographic maps were reviewed. The 1914 topo map showed four (4) houses on site. The 1957 topo map shows the property similar to how it exists today. The only difference being the lack of the incinerator on site.

6.5 ZONING AND LAND USE RECORDS

Review of the available zoning records indicate that the project is currently zoned O-S, which indicates a Open-Spaces zone. The project has been zoned O-S since 1980. Prior zoning included R-R, Rural-Residential.

6.6 HISTORY OF PROPERTY USE

The parcels that were combined to make the 216 acres were originally used as rural residences and farming land prior to the development of the Sanitarium.

Originally, the site was purchased in order to develop a tuberculosis quarantine and treatment hospital. The original buildings were constructed between 1933 and 1937 with additions being made as late as 1960.

As medical knowledge of tuberculosis increased, the need for the Sanitarium diminished. In the later years of operation, the Sanitarium accepted terminally ill patients that could not care for themselves. The entire hospital complex was abandoned in the fall of 1980. Since the abandonment, scavengers and vandals have serious defaced the property.

7.0 SITE RECONNAISSANCE

7.1 HAZARDOUS SUBSTANCES AND HAZARDOUS/REGULATED WASTES

Observations for hazardous chemicals and hazardous waste were performed. The following abandoned materials were observed.

- One (1) 35-gallon drum of an unknown cleaning solution located in the kitchen area of the adult hospital.

The facility stores the following regulated waste:

- One (1) quart of used motor oil was improperly stored in the garage building.

This drum should be sampled for content analysis. Both the drum and the oil should be overpacked and properly removed from site.

The facility does not actively generate, treat, store, or dispose of hazardous waste on site.

7.2 FACILITY STORAGE TANKS

Observations for manways, vent pipes, and fill connections identified surface connections which would indicate the presence of eight (8) underground storage tank installations. Seven (7) of these tanks were used to store petroleum products. One (1) tank is used in association with the water treatment system.

Two (2) fuel oil tanks of undetermined size (thought to be 10,000-gallon or larger) are located outside the generator building southwest of the large stack (Photo 1). One (1) tank of undetermined size is located on the southern side of the children's hospital and is thought to be an emergency diesel fuel tank for the generator located within the hospital building (Photo 2). One (1) tank of undetermined size is located on the northeastern side of the adult hospital and is thought to be an emergency diesel fuel tank for the generator located within the hospital building (Photo 3). One (1) tank of undetermined size is located on the northwest side of the garage and utility shop building and is used to service a pad-mounted fuel dispenser (Photo 4). The possibility of one (1) tank of undetermined size located on the southeast side of the garage and utility building

used to service what appears to have been a pad-mounted fuel dispenser on the same corner of the building (Photo 5). The possibility of one (1) tank located on the southeastern side of the heating plant thought to be an emergency diesel tank associated with the operations of the heating building (Photo 6).

One (1) tank is an open topped, sedimentation control tank (thought to be 25,000-gallon or larger) located at the sedimentation control building on the eastern side of the property (Photo 7). This tank was used in connection with the sewage disposal system. It is currently filled with water. The remaining manways and caps observed were for site services (i.e., domestic water, storm water, electric, and sanitary sewer, and steam system).

PMT recommends the underground storage tanks and their associated piping be properly removed from the site. This would include observations for, and removal of, any visibly contaminated soils, soil sampling for laboratory confirmation, and the appropriate backfilling of the excavations. Maryland regulations require tanks that have been out of service greater then 180 days to be removed and properly disposed.

In addition, four (4) aboveground storage tanks were observed. Two (2) of the tanks were utilized as a fuel source for the incinerator operation (Photo 8). One (1) tank was abandoned on the western side of the adult hospital (Photo 9). One (1) dip tank, observed to be empty, is located on the northwestern side of the paint shop (Photo 10).

PMT recommends that these aboveground tanks also be removed from the site. There was no visible signs of contamination around these tanks. Soil borings should be performed in the areas around and under these tanks to determine the presence or

absence on any existing contamination. These tanks should be removed from the site.

Eighteen (18) tanks associated with the site's steam heating system were also observed. These tanks are of little environmental concern because of their association with the steam system. However, concerns about asbestos insulation on these tanks are addressed Section 7.7 Asbestos-Containing Materials.

7.3 POLYCHLORINATED BIPHENYLS

Observation for electrical equipment or electrical components which contain dielectric fluid with the potential to contain PCB's in excess of 50 ppm was conducted and identified the following:

- The facility is not presently supplied electricity. However, the site was once supplied with underground and overhead secondary electrical service from at least four (4), pole-mounted, exterior transformers (Photo 11), one (1) pad-mounted transformer (Photo 12), and one (1) interior transformer in the basement of the children's hospital (Photo 13). Contact with representatives of BG + E determined that these transformers are not BG & E property. The pole-mounted transformers were identified as Westinghouse transformers and are not labeled as to PCB content. In addition, two (2) of the transformers have been removed from their poles and were located on the ground near the water tower (Photo 14). No weepage or leakage of the transformers was observed at the time of the assessment. The transformers appear to be owned by the hospital and should be tested for PCB content and disposed of properly.

- The ballasts associated with the fluorescent lighting fixtures are dielectric fluid containing. Fluorescent light ballasts manufactured between July 1, 1978 and July 1, 1998 that do not contain PCB's shall be marked by the manufacturer with the statement "No PCB". In-service ballasts were observed to be unlabeled. A leaking PCB capacitor must be disposed in accordance with EPA regulations (40 CFR 761). As long as the capacitor remains intact it is not regulated and can be disposed in normal trash removal. No leakage was observed with the installed ballasts. Due to the number of ballasts they may need to be removed and properly disposed of prior to renovation.

All of the possible PCB-containing elements on site should be sampled and properly removed from the site. Soil borings should be conducted around the on-ground transformers.

7.4 SOLID WASTE DISPOSAL

The subject site does not presently utilize the services of a contracted waste collector.

No evidence of buried drums, debris, rubble, or fill dirt was observed during the on site visit. However, PMT discovered areas throughout the site in which individuals have dumped household refuse, appliances, and used tires (Photos 15, 16, and 17). These areas should be cleaned. After the cleanup of these areas, security measures should be implemented on-site in order to discourage further dumping activities.

7.5 STORM WATER AND WASTE WATER SYSTEMS

Storm water from the roof is directed below grade via downspouts. However, the downspouts have been removed by metal scavengers. Storm water from drive and parking surfaces is directed toward vegetated area where it infiltrates into the ground. Storm water from vegetated and other surface areas is allow to infiltrate into the ground. Observations of the water system did not identify any abnormal accumulation of petroleum run-off or foreign material. No unusual blockages of the storm water control system were observed.

Floor drains were observed in the generator room of the children's hospital. These drains were most likely connected to the sanitary sewer system. It was difficult to

determine whether or not there was significant stainage in the areas around floor drains due to 4 inches of ice in the generator room.

There is one ponded area located between the adult hospital and Electric Avenue. This pond is standing water that may have accumulated during recent rain and snow falls.

7.6 SURFACE AREAS

Parking areas consist of asphalt surfaces. General surface features consist of a rolling parcel graded to provide some slope and swale to direct movement of storm waters away from the structural improvements. Observations of the property and adjacent properties did not identify any evidence of surface migration of petroleum releases or hazardous materials (i.e., stressed/distressed vegetation or surface stainage) onto or off the subject site.

7.7 ASBESTOS-CONTAINING MATERIALS

Suspect asbestos-containing materials were observed in the following forms:

- Category I Non-Friable
  - Roofing material (i.e., felts, tars, shingles, etc.)
  - Resilient Floor coverings (i.e., tiles and linoleum)
  - Gasket materials
- Category II Non-Friable
  - Cement board
  - Flexible cloth connections
  - Cement Board siding
  - Corrugated siding and roofing
- Friable
  - Joint compound
  - Wall board
  - Ceiling tiles

- Pipe insulation material
- Tank insulation.
- Exhaust breaching insulation

The suspect asbestos-containing materials were observed in various states of disrepair. In the buildings that had been vandalized there tended to be large quantities of pipe insulation scattered about the floors. Areas which were scavenged for scrap metals showed similar conditions. Conversely, in those areas that have not been scavenged, the suspect asbestos-containing materials are in relatively good condition. Four (4) samples of these observed materials were taken for laboratory analysis. The results of the analysis can be found in Appendix 4 and are summarized in the following Table:

Sample Number	Location	ACM
4	Heating plant boiler insulation	Yes
5	Heating plant breaching insulation	Yes
9	Basement piping insulation doctor's residence	No
10	Boiler insulation in Basement of doctor's residence	Yes

PMT received the results of an asbestos survey conducted by HTS Risk Management Services, Inc. HTS concluded that there is a large quantity of asbestos-containing material on site and that the pipe insulation in the steam tunnels should be capped off and not removed from site. They believe that this operation would cost

between 1.8 and 2.4 million dollars to complete. PMT believes that consideration should also be paid to the abatement of asbestos pipe wrapping in the steam tunnels. If an asbestos removal operation is undertaken, the steam tunnels should also be considered in the scope of the removal.

7.8 LEAD-BASED PAINTS

The United States Department of Housing and Urban Development (HUD) has defined a lead-containing surface as one (1) of the following:

- A surface coating material containing more than one milligram per centimeter squared of lead as determined by utilizing the X-ray fluorescence analysis method.
- A surface coating material containing greater than 0.5% lead concentration by weight utilizing the flame atomic absorption spectrophotometry analysis method.

Due to the age of the facility, the site has the potential to contain lead-based paints. Six (6) paint samples were taken for laboratory analysis. The results of laboratory analysis (Appendix 5) are summarized below:

Sample Number	Location	% Lead concentration
1	Interior plaster wall, second floor, adult hospital	0.568
2	Interior wooden window, frame, adult hospital	33.257
3	Interior plaster hallway wall, third floor, children's hospital	0.195
6	Southern apartment, building entrance hall	0.064
7	Entrance and living room of accessed duplex house	0.506
8	Doctor's Residence, entrance hallway	0.150

The results conclude that the facility contains lead-based paint. PMT recommends that a lead paint survey be conducted and that lead abatement efforts be considered for worker safety and reoccupancy purposes.

7.9 AREA RECONNAISSANCE

During the site visit, observations were made of the adjacent properties. These observations were made to identify recognized environmental conditions that have the potential for impacting the subject site. The following is a list of adjacent properties and a summary of the observations made:

- **North** - Residential houses and forested area exist north of the subject site
- **Northeast** - The United States Department of Agriculture's (USDA) Introduction Center is located northeast of the subject site. Mr. Steve Burberic of the USDA informed PMT that this site is utilized by the USDA as a plant quarantine center. The facility receives plants from

foreign countries and quarantines them for two years before they are introduced into population. The purpose of this quarantine is to avoid possible contamination of our domestic food crops.

This site is of environmental concern due to its being located topographically up gradient of the subject site. However, due to the presence of Lottsford Branch between the two sites the possibility of contamination is reduced.

- **Southeast** - Residential houses are located to the southeast of the subject site.

- **South** - Annapolis Road (MD 450) is located directly south of the subject site across which a new Giant Supermarket is being constructed.

- **West** - Residential houses and forested areas exist east of the subject site. An abandoned, compressed gas cylinder was observed in the woods just outside of the property. Further to the east is the Buena Vista Sub Station owned by the Baltimore Gas and Electric Company.

8.0 INTERVIEWS

8.1 OWNERS, OCCUPANTS, AND NEIGHBORS

The following is a list of people interviewed and a summary of the results of those interviews:

- **Key Site Manager** - Mr. Charles J. Montrie, Planner from The Maryland-National Capital Park and Planning Commission met PMT personnel on site at the onset of the investigation. Mr. Montrie provided PMT a brief recent history of, and a key to, the buildings on site. Mr. Montrie described present environmental issues including the present condition of the asbestos on site.

8.2 LOCAL GOVERNMENT OFFICIALS

The following is a list of people interviewed and a summary of the results of those interviews:

- **Local Fire Department** - Responses to Freedom Of Information Act (FOIA) requests and telephone contact with the Prince George's County

Fire Department's engineering section concluded that they do not maintain records concerning the subject site.

- **Local Electric Company** - Ms. Taylor of The Baltimore Gas and Electric Company indicated that the transformers located on-site are not the property of BG & E.

- **Maryland Department of the Environment X-Ray Section** - Ms. Linda Kehoe of the X-Ray section of the Maryland Department of the Environment indicated that the X-Ray facilities at area hospitals must be tested every two years. She also said that if the X-Ray facilities are not updated every two years an investigation is begun as to the cause of the delinquency. Ms. Kehoe also indicated that the MDE does not keep records longer then six (6) years. Ms. Kehoe concluded that since there is no active investigation, the site's permits have been properly closed.

9.0 FINDINGS AND CONCLUSIONS

We have performed a Phase I Environmental Site Assessment of the Glenn Dale Hospital located at 5201 Glenn Dale Road in Glenn Dale, Maryland in conformance with the scope and limitations of ASTM Practice E 1527. Any exceptions to, or deletions from, this practice are described in Section 2.3 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

- Undetermined quantities of asbestos-containing materials in poor conditions.
- Undetermined amounts of lead-based paints.
- A possibility of at least eight (8) underground storage tanks.
- Four (4) aboveground storage tanks
- Six (6) facility owned transformers that are suspected to contain PCB concentrations greater than 50 ppm.
- PCB fluorescent light ballasts
- An active CERCLIS site next door
- 100-year flood-plain
- Three (3) wells
- Non-tidal wetlands
- Trash and Debris

10.0 SIGNATURE PAGE

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C. Blake Thompson

Site Inspector

Signature

Joseph P. Pearson

Supervisor/Project Manager

Signature

John W. Koontz, R.E.S.

Reviewed By

Signature

JOHN W. KOONTZ
MARYLAND
Registered Environment Sanitarian

7/14/94

Date

APPENDIX 1:
GLOSSARY

Glossary

Definitions

Actual Knowledge - The knowledge actually possessed by an individual who is a real person, rather than an entity. Actual knowledge is to be distinguished from constructive knowledge which is knowledge imputed to an individual or entity.

Air Emissions - Any physical, chemical, biological, or radioactive substance or material that is emitted into or otherwise enters the ambient air surrounding a property and which contains air pollutants as defined in Section 302 of the Clean Air Act, as amended, 42 U.S.C. 7602.

Aerial Photograph Review - A study or review of aerial photographs of a site obtained for the historical period of interest. The photographs are reviewed to ascertain site conditions and features that may no longer exist, and to serve as a source of historical site information.

Applicable Surface - All intact and non-intact interior and exterior painted surfaces of a residential structure, per HUD Regulations, 24 CFR 200.820 as delineated in the Architechs' Analysis and Inspection for Project Mortgage Insurance Handbook No. 4860. 1 Rev 1.

Appropriate Inquiry - That inquiry into the previous ownership and uses of a property, as defined in 42 U.S.C. 9601 (35)(B), that will give a party to a real estate transaction the defense to CERCLA liability provided by 42 U.S.C. 9601 (35)(A) and (B) and 9607(b), assuming compliance with other elements of the defense.

Asbestos - Six naturally occurring fibrous minerals found in certain types of rock formations. Of the six, the minerals chrysotile, amosite, and crocidolite have been most commonly used in building products. When mined and processed, asbestos is typically separated into very thin fibers. Because asbestos is strong, incombustible, and corrosion-resistant, asbestos was used in many commercial products beginning early in this century and peaking in the period from World War II into the 1970's.

Asbestos-Containing material (ACM) - Any material or product which contains more than one percent asbestos.

As-Built Plan - A drawing which covers property boundaries, streets bordering the site, and building layouts, and provides accurate scale and a north arrow.

Chewable Surface - All protruding painted surfaces up to 5 feet from the floor or ground, which are readily accessible to children under 7 years of age, (e.g., corners, window sills and frames, doors and frames, and other protruding woodwork), per HUD Regulations, 24 CFR 200.820 as delineated in the Architechs' Analysis and Inspection for Project Mortgage Insurance Handbook No. 4860.1 Rev 1.

Client - Purchaser of project services.

Comprehensive Environmental Response and Liability Information System (CERCLIS) - The list of sites compiled by EPA that EPA has investigated or is currently investigating for potential hazardous substance contamination for possible inclusion on the National Priorities List.

Commercial Real Estate - Any real property except a dwelling or property with one to four dwelling units for residential use. The term "commercial real estate" includes but is not limited to properties used for industrial, commercial, medical, or educational purposes, and properties used for residential purposes which have more than four residential dwelling units.

Commercial Real Estate Transaction - A transfer of title to or possession of real property or receipt of a security interest in real property, except that it does not include transfer of title to or possession of real property or the receipt of a security interest in real property with respect to an individual dwelling or a building containing less than five dwelling units, nor does it include the purchase of a lot or lots to construction a dwelling for occupancy by a purchaser, but a commercial real estate transaction does include real property purchased or leased by persons or entities in the business of building or developing dwelling units.

Construction Debris - Concrete, block, asphalt, and other such material discarded in the construction or demolition of an improvement to property.

Defective Paint Surface - Paint on applicable surface that is cracking, scaling, chipping, peeling or loose, per HUD Regulations, 24 CFR 200.820 as delineated in the Architechs' Analysis and Inspection for Project Mortgage Insurance Handbook No. 4860.1 Rev 1.

Docket - Docket of civil actions filed by the Department of Justice for EPA since 1972.

Drum - A container (typically 55 gallon) which is used to store hazardous substances, hazardous wastes, or other regulated material.

Due Diligence - The process of inquiring into the environmental characteristics of a property.

Dwelling - Structure or portion thereof used for residential habitation.

Emergency Response Notification System (ERNS) - ERNS contains over 25,000 spill records and stores information on reported releases of oil and hazardous substances. The data are collected from spills reported to EPA and the Coast Guard (National Response Center).

Environmental Audit - The investigative process to determine if an existing facility is in compliance with applicable environmental laws and regulations.

Environmental Lien - A lien, which is a charge, security or encumbrance upon a property, imposed on a property to secure the payment of a debt, obligation or duty arising out of an environmental release, contamination, or cleanup or a hazardous substance, including but not limited to liens imposed pursuant to CERCLA 42 U.S.C. 9607(1) and similar state or local statues.

Environmental Professional - A person possessing sufficient training and experience necessary to perform a records review, a site reconnaissance, and other activities, and from this information, having the ability to develop conclusions regarding the environmental status of the property in question. An individual's status as an Environmental Professional may be limited to the type of assessment to be performed or to a specific segment of the assessment for which the Professional is responsible. The person may be an independent contractor or an employee of the User.

Environmental Site Assessment (ESA) - The process by which certain levels of appropriate inquiry or due diligence are conducted for a property. At the option of the User, an environmental site assessment may include more inquiry than that required to constitute Appropriate Inquiry.

Facility Index System - A list compiled by EPA of all facilities identified by EPA for regulation under one or more environmental programs.

Federal Register - Publication of the United States government published daily (except for federal holidays and weekends) containing all proposed and final regulations and some other activities of the federal government. When regulations become final, they are included in the Code of Federal Regulations (CFR), as well as published in the Federal Register.

Fill Dirt - Dirt, soil, sand, or other earth, which is obtained off-site, that is used to fill holes or depressions, create mounds, or otherwise artificially change the grade or elevation of real property. It does not include material that is used in limited quantities for normal aesthetic landscaping activities.

Friable Asbestos Material - Any material that contains more than one percent asbestos by weight, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. This may also include previously non-friable material which becomes broken or damaged by mechanical force.

Hazardous Chemical - Chemical or material used in the workplace that is regulated under the OSHA Hazard Communication Standard or the "right-to-know" regulations in Title 29 CFR 1910.1200.

Hazardous Material - In a broad sense, a hazardous material (HM) is any substance or mixture of substances having properties capable of producing adverse effects on the health and safety or the environment of a human being. Legal definitions are found in individual regulations.

Hazardous Material Incident Report System (HMIRS) - HMIRS contains hazardous material spill incidents reported to the Department of Transportation. These spill incidents are not necessarily listed in ERNS.

Hazardous Substance - Chemicals, mixtures of chemicals, or materials subject to the regulations contained in Title 40 CFR. For transportation purposes, means a material and its mixtures or solution, identified by the letter "E" in Title 49 CFR 172.010 when offered for transportation in one package, or in one transport vehicle if not packaged, and when the quantity of the material therein equals or exceeds the reportable quantity (RQ). For details, refer to Title - 49 CFR 171.8 and Title 49 CFR 172.101.

Hazardous Waste - Any material listed as such in Title 40 CFR 261, Subpart D, or that possesses any of the hazard characteristics of corrosivity, ignitability, reactivity, or toxicity as defined in Title 40 CFR 261, Subpart C, or that is contaminated by or mixed with any of the previously mentioned materials (see Title 40 CFR 261.3).

Hazardous Waste Data Management System (HWDMS) - HWDMS includes selective information on over 324,000 sites which generate, transport, store, treat, or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Records available on HWDMS will eventually be transferred to the RCRIS database.

Hazardous Waste Generation - The act of producing hazardous waste.

Hazardous Waste Management - Systematic control of the collection, source separation storage, transportation, processing, treatment, recovery, and disposal of hazardous wastes.

Hazardous Waste Manifest Uniform (EPA Usage) - The shipping document, originated and signed by the waste generator or his authorized representative, that contains the information required by Title 40 CFR 262, Subpart B.

Hazardous Waste Site - A location where hazardous wastes are stored, treated, incinerated, or otherwise disposed of.

Inaccessible Area - Space enclosed with wall board or other similar material; locked area; space which would require destructive measures (i.e. cutting, hammering, removing, etc.) to gain access; etc.

Infectious Waste - Waste that contains pathogens or consists of tissues, organs, body parts, blood, and body fluids that are removed during surgery or other procedures. See Title 42 CFR Part 72.

Lead-Based Paint Hazard - A lead content of 1.0 milligrams or higher per square centimeter of painted surface, per HUD Regulations, 24 CFR 200.820 as delineated in the Architechs' Analysis and Inspection for Project Mortgage Insurance Handbook No. 4860.1 Rev 1.

Lead-Containing Paint - The U.S. Department of Housing and Urban Development (HUD) has defined a lead-containing painted surface as one (1) of the following (Limits may vary by State):

- A surface coating material containing more than one milligram per centimeter squared (1.0 mg/cm2) of lead as determined by utilizing the X-ray fluorescence analysis method.

- A surface coating material containing greater than 0.5% lead concentration by weight utilizing the flame atomic absorption spectrophotometry analysis method.

Local Government Agencies - Those agencies of city or county government having jurisdiction over the Property. City and county government agencies include but are not limited to parishes, townships and similar terms.

Manifest, Uniform Hazardous Waste - Shipping papers when properly prepared and distributed; provides a tracking system that consists of forms originating with the generator or shipper and following from the generator to disposal in a permitted TSDF.

Material Safety Data Sheet (MSDS) - Written or printed material concerning a hazardous substance which is prepared by chemical manufacturers, importers, and employers for hazardous chemicals pursuant to OSHA's Hazard Communication Standard, 29 CFR 1910.1200(g).

National Fire Protection Association (NFPA) - An international voluntary membership organization to promote and improve fire protection and prevention and establish safeguards against loss of life and property by fire. Best known on the industrial scene for the maintenance of National Fire Codes, (i.e., 16 volumes of codes, standards, recommended practices, and manuals) and periodically updated by NFPA technical committees.

National Priorities List (NPL) - List complied by EPA pursuant to CERCLA 42 U.S.C. 9605(a)(8)(B) of properties with the highest priority for cleanup pursuant to EPA's hazard Ranking System. Sec 40 CFR Part 300.

NESHAPs - National Emission Standards for Hazardous Air Pollutants. CAA Section 112 also refers to chemicals regulated under this program.

NIOSH - National Institute for Occupational Safety and Health of the Public Health Service, United States Department of Health and Human Services (DHHS). Federal agency which, among other activities, tests and certifies respiratory protective devices and air sampling detector tubes, recommends occupational exposure limits for various substances and assists OSHA and MSHA in occupational safety and health investigations and research.

Non-friable Asbestos Material - Any material that contains more than one percent asbestos by weight, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Non-PCB Transformer - Any transformer that contains less than 50ppm PCB.

Operator - Person or entity occupying or using commercial real estate.

Owner - Holder of legal or equitable title to real property.

PCB Activity Database (PADS) - EPA regulates under TSCA the storage and disposal of PCB's. Those who handle PCB's (generators, transporters, commercial storers and/or brokers and disposers) are required to notify EPA of their PCB waste activities. PADS contains this list of notifiers.

PCB-Contaminated Transformer - Any transformer that contains 50 ppm PCB or greater, but less than 500 ppm PCB.

PCB Transformer - Any transformer that contains 500 ppm PCB or greater.

Phase I Environmental Site Assessment - The process of evaluating a Property which typically includes:

- review of records, both public and private;
- site reconnaissance of the Property;
- interviews with current owners and operators of the Property; and
- evaluation and report preparation

Pits, Ponds or Lagoons - Man-made or natural depressions in a ground surface that are likely to hold liquids or sludge containing hazardous substances or petroleum products. The likelihood of such liquids or sludge being present is determined by evidence of factors associated with the pit, pond or lagoon, including, but not limited to, discolored water, distressed vegetation or the presence of an obvious waste water discharge.

Project - Scope of services to be performed in conjunction with a specific property.

Property - The real property which is the subject of the inquiry. Real property includes buildings and other fixtures and improvements located upon the property and affixed to the land.

Radon - A radioactive gas which occurs from the natural breakdown (radioactive decay) of uranium. Radon cannot be seen, smelled or tasted. Radon can be found in high concentrations in soils and rocks whether from natural sources, industrial wastes or by-products of uranium or phosphate mining. Outdoor air contains such low concentrations of radon that there is generally not a health problem. In an enclosed space, such as a house, radon can become concentrated in higher levels which may cause health concerns.

Readily Available - Information that is obtainable from researching accessible sources commonly known to Environmental Professionals obtainable upon request within a reasonable time and at a reasonable cost in the context of a commercial real estate transaction. The period of time that is reasonable will vary depending upon the circumstances. For business records to be obtained from a current owner or operator, ten business days is a reasonable time within which to obtain such records. For public records, ten business days is a reasonable time within which to obtain such records.

SETS - SETS identifies Superfund sites where a particular company has been identified by EPA as a Potentially Responsible Party (PRP). SETS also identifies all PRPs identified by EPA at any specific Superfund site.

Small Quantity Generators (SQGs) - Defined as facilities producing less than 1,000 kilograms of hazardous waste per calendar month (kilograms per month), which is the equivalent of about 300 gallons or about five 55-gallon drums; note, however, some states define SQGs more narrowly.

Soil and Groundwater Analysis - Tests used to determine the presence of surficial or subsurface contamination and concentration levels; may involve soil borings and installations of test pits and/or observation wells.

Soil Vapor Surveys - Surveys using gas chromatography equipment to map potential soil and groundwater contamination.

Solid Waste Facilities/Landfill Sites (SWF/LS) - SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities. The Federal Open Dump Inventory has been incorporated into SWF/LS.

Solvent - An organic, chemical-based liquid that is capable of dissolving another substance and is itself a hazardous substance; used in a number of manufacturing/industrial processes including the manufacture of paints and coatings for industrial and household purposes, equipment clean-up, and surface degreasing in metal fabricating industries.

State Hazardous Waste Site (SHWS) - State hazardous waste site records are the state equivalent to CERCLIS. These sites may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified, along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Topography - The configuration of the land surface area, including its relative elevations and the position of natural and artificial features.

TSD Facility - A facility that treats, stores and/or disposes of hazardous waste.

Toxic Release Inventory System (TRIS) - TRIS includes all facilities which release toxic chemicals in reportable quantities to the air, water or land as required under SARA (Superfund Amendments and Reauthorization Act of 1986), Title III, Section 313. Reporting covers approximately 20,000 sites and is required (Form R) each July 1st for the previous year.

Toxic Substance Control Act (TSCA) - TSCA promulgated a rule requiring manufacturers and importers of certain chemical substances included on the TSCA Chemical Substance Inventory list to report current data on the production volume of these substances by plant site. After initial reporting in 1986, recurring reporting is required every 4 years.

Underground Storage Tank (UST) - Any tank, including underground piping connected to the tank, which is or has been used to contain a hazardous substance or petroleum, and the volume of which is ten percent or more beneath the surface of the ground.

User - The party seeking to use the Phase I Environmental Site Assessment to perform appropriate inquiry with respect to the Property. A User may include, without limitation, a purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager.

Wastewater - Water that (i) is or has been used in an industrial or manufacturing process; (ii) conveys or has conveyed sewage; or (iii) is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. Wastewater does not include water originating on or passing through or adjacent to a site, such as stormwater flows, that (i) has not been used in industrial or manufacturing processes; (ii) has not been combined with sewage; or (iii) is not directly related to manufacturing, processing, or raw material storage areas at an industrial plant.

List of Acronyms

ACM - Asbestos-Containing Material.

AHERA - Asbestos Hazard Emergency Response Act.

ARAR - Applicable or Relevant and Appropriate Requirements (include federal and more stringent state cleanup standards, standards of control, and other requirements for environmental protection).

AST - Aboveground Storage Tank.

ASTM - American Society For Testing and Materials.

CAA - Clean Air Act.

CERCLA - Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601 et seq. as amended.

CERCLIS - Comprehensive Environmental Response and Liability Information System.

CFR - Code of Federal Regulations.

CHCM - Certified Hazard Control Manager.

CHMM - Certified Hazardous Material Manager.

CWA - Clean Water Act.

DOT - Department of Transportation.

EPA - (United States) Environmental Protection Agency.

EPCRA - Emergency Planning and Community Right-to-Know Act.

ERNS - Emergency Response Notification System.

ESA - Environmental Site Assessment (different than an environmental audit; see Definitions).

FAAS - Flame Atomic Spectrophotometry Analysis (Lead paint bulk).

FINDS - Facility Index System.

FOIA - Freedom Of Information Act.

FR - Federal Register.

HCS - Hazard Communication Standard (OSHA).

HM - Hazardous Material.

HMIRS - Hazardous Materials Incident Report System.

HWDMS - Hazardous Waste Data Management System.

LUST - Leaking Underground Storing Tank.

MSDS - Material Safety Data Sheet.

MSHA - Mine Safety and Health Administration of the U.S. Department of Interior.

NCP - National Contingency Plan.

NESHAPs - National Emission Standard for Hazardous Air Pollutants.

NIOSH - National Institute for Occupational Safety and Health.

NPDES - National Pollution Discharge Elimination System.

NPL - National Priority List.

O&M - Operations and Maintenance.

OSHAct - Occupational Safety and Health Act.

OSHA - Occupational Safety and Health Administration.

PADS - PCB Activity Database.

PCBs - Polychlorinated Biphenyls.

PCM - Phase Contrast Microscopy (Asbestos Air).

PLM - Polarized Light Microscopy (Asbestos Bulk).

POTWs - Publicly-owned Treatment Works.

ppm - parts per million.

PRP - Potentially Responsible Party pursuant to CERCLA 42 U.S.C. 9607(a).

QA - Quality Assurance.

QC - Quality Control

RCRA - Resource Conservation and Recovery Act as amended, 42 U.S.C. 6901 et seq.

RCRIS - Resource Conservation and Recovery Information System.

REA - Registered Environmental Assessor (California).

RQ - Reportable Quantities.

SARA - Superfund Amendments and Reauthorization Act of 1986.

SDWA - Safe Drinking Water Act.

SETS - Superfund Enforcement Tracking System.

SHWS - State Hazardous Waste Sites.

SPCC - Spill Prevention Control and Countermeasure.

SQG - Small Quantity Generator.

SWF/LS - Solid Waste Facilities/Landfill Sites.

SWMU - Solid Waste Management Unit.

TPH - Total Petroleum Hydrocarbons.

TRIS - Toxic Release Inventory System.

TSCA - Toxic Substance Control Act.

TSDF - Treatment, Storage, or Disposal Facility.

UMTRA - Uranium Mill Tailings Radiation Control Act.

USC - United States Code.

USGS - United States Geological Survey.

UST - Underground Storage Tank.

VOC's - Volatile Organic Compounds.

APPENDIX 2:
PHOTO LOG

Photo 1: Two Vent Pipes For The Large USTs (Arrows Indicate Pipes And Manways).

Photo 2: Tank Location In Back Of Children's Hospital Building (Arrows Denote Fill And Vent Pipes).

Photo 3: Tank Location In Back Of Adult Hospital.

Photo 4: Vent Pipe And Pad-Mounted Dispenser Near Utility Building.

Photo 5: Vent Pipe Location On The East Side Of Utility Building.

Photo 6: Vent Pipe Location East Side Of Power Plant.

Photo 7: Open Top Of The Sediment Control Tank.

Photo 8: Two Tanks Associated With The Incinerator.

Photo 9: Abandoned Tank Behind Adult Hospital Building.

Photo 10: Dip Tank On The Northwest Side Of The Paint Shop.

Photo 11: Two Of Four Westinghouse Transformers Located On Site.

Photo 12: Pad-Mounted Transformer Near Laundry Building.

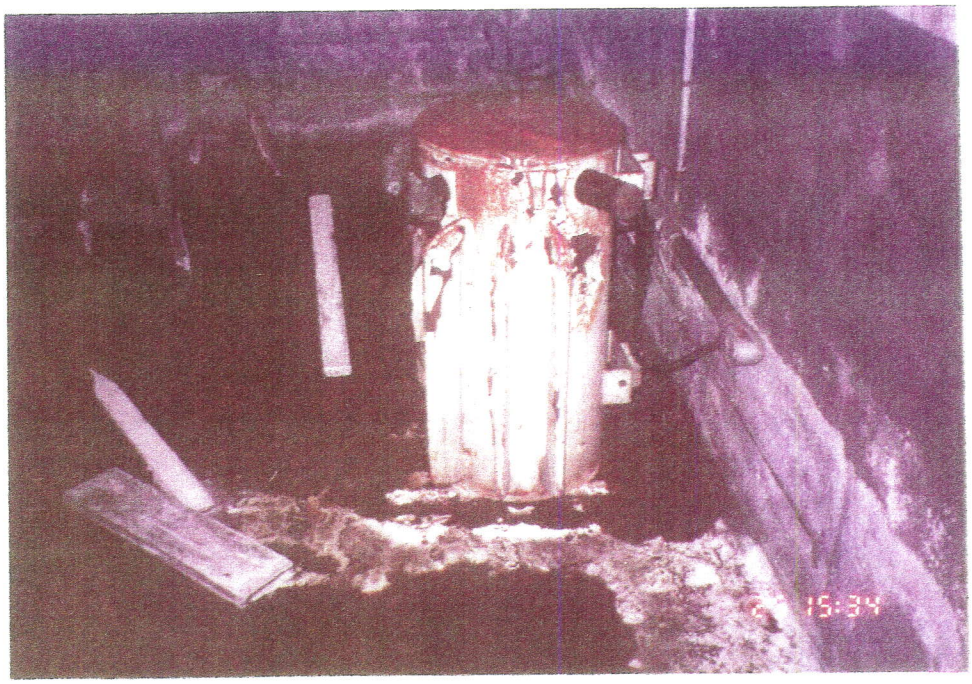

Photo 13: Transformer Located In The Basement Electric Room Area Of The Children's Hospital Building.

Photo 14: Two Of Four Westinghouse Transformers Located On Site.

Photo 15: Trash And Debris Located On The North Side Of Electric Road.

Photo 16: Tires And Debris In Woods North Of Electric Road.

Photo 17: Tire Dump South Of Children's Hospital Building.

PMT
& ASSOCIATES, Inc.
73 W. Timonium Road
Timonium, Maryland
21093 • (410) 561-9660
FAX (410) 561-9815

January 20, 1994

Mr. Donald Nork, Acting Director
Prince George's County Department of Environmental Health
10210 Greenbelt Road
Lanham, Maryland 20706

RE: GLEN DALE HOSPITAL
GLEN DALE, MARYLAND 20769

BRYN MAWR SUBDIVISION
PRINCE GEORGE'S COUNTY, MARYLAND 20782

Dear Mr. Nork:

This is a written request under the provision of the Freedom of Information Act. PMT & Associates, Inc. is requesting to review the documents within your department's files regarding the above referenced facilities. The Glen Dale Hospital site is further identified on Prince George's County Tax Map 45, Grid C-3. The Bryn Mawr Subdivision is further identified as Parcel 92 on Prince George's County Tax Map 41, Grid F-1. All parties involved would like this review to be conducted as expeditiously as possible and your department's assistance would be appreciated. Enclosed is a copy of the Prince George's County, Maryland Request for Access to and Inspection of Public Records form. Please contact this office as soon as the files are available for review. Should you have any questions, please call me at (410) 561-9660.

Sincerely,

Neil D. Anders
Environmental Scientist

PMT
& ASSOCIATES, Inc.
73 W. Timonium Road
Timonium, Maryland
21093 • (410) 561-9660
FAX (410) 561-9815

January 20, 1994

Mr. Craig Black
Hazardous Materials Coordinator
Prince George's County Fire Department
Cranford/Graves Fire Service Building
6820 Webster Street
Landover Hills, Maryland 20784

RE: GLEN DALE HOSPITAL
GLEN DALE, MARYLAND 20769

BRYN MAWR SUBDIVISION
PRINCE GEORGE'S COUNTY, MARYLAND 20782

Dear Mr. Black:

This is a written request under the provision of the Freedom of Information Act. PMT & Associates, Inc. is requesting to review the documents within your department's files regarding the above referenced facilities. The Glen Dale Hospital site is further identified on Prince George's County Tax Map 45, Grid C-3. The Bryn Mawr Subdivision is further identified as Parcel 92 on Prince George's County Tax Map 41, Grid F-1. All parties involved would like this review to be conducted as expeditiously as possible and your department's assistance would be appreciated. Enclosed is a copy of the Prince George's County, Maryland Request for Access to and Inspection of Public Records form. Please contact this office as soon as the files are available for review. Should you have any questions, please call me at (410) 561-9660.

Sincerely,

Neil D. Anders

Neil D. Anders
Environmental Scientist

THE PRINCE GEORGE'S COUNTY GOVERNMENT

Fire Department

Bureau of Fire Prevention

ALL AMERICA COMMUNITY
1986-1987

January 28, 1994

Neil D. Anders
Environmental Scientist
PMT & Associates, Inc.
73 W. Timonium Road
Timonium, Maryland 21093

RE: Glen Dale Hospital
Glen Dale, Maryland

Dear Mr. Anders:

Your letter dated January 20, 1994, regarding the environmental assessment being conducted at the above referenced property, has been received by this office. Please be advised that our records indicate no past or present incidents concerning spills, abandoned tanks or any other type of hazardous substance spills.

Additionally, contact should be made with the Maryland Department of Environment, Hazardous and Solid Waste Administration, Mr. Herb Meade, 1-410-631-3442.

If I can be of further assistance, please contact me.

Sincerely,

Candie Schwartz-Snyder
Fire Inspector
Special Hazards Section

CSS/wjg
envglen/wp5.1

6820 Webster Street
Landover Hills, Maryland 20784
VOICE (301) 772 - 9115 FAX (301) 772 - 9119 TDD (301) 925 - 5167

APPENDIX 4:
ASBESTOS RESULTS

2960-94-18

NVLAP

AIHA Accredited Lab 349
NIST Certified Lab 1150
CIH/Industrial Hygiene
Analytical Services
Asbestos Testing

SCHNEIDER LABORATORIES INCORPORATED

104 Berrington Court • Richmond, Virginia • 23221-2702
804-353-6778 800-282-2842 (FAX) 804-353-6928

DATE: 1-31-94

CLIENT: PMT & ASSOCIATES, INC. PROJECT: GLENN DALE HOSPITAL

LOCATION: PROJECT NUMBER: PURCHASE ORDER NO.:

CLIENT SAMPLE NUMBER	DATE SAMPLED	SAMPLE IDENTIFICATION (E.G. OPERATION BEING PERFORMED, BLDG., ROOM, EMPLOYEE NAME, SS #, ETC.)	TYPE*	TIME** START	TIME** STOP	FLOW RATE*** START	FLOW RATE*** STOP
[illegible]	[illegible]	~~2ND Floor Adlt. Hos. (Lead?)~~					
[illegible]	"	~~2ND Floor Adlt. Hos. (Lead?)~~					
03	"	~~3rd Floor Children's Hos. (Lead?)~~					
04	"	Heating Plant (ACM?)					
05	"	Heating Plant Breching Insul. (ACM?)					
[illegible]	[illegible]	~~Adm. Building (Lead?)~~					
[illegible]	"	~~Duplex House 3. Cnt+Lv (Lead?)~~					
08	[illegible]	~~Doc. Res. Entrance (Lead?)~~					
09	"	Pip. insul Doc. Res (ACM?)					
10	"	P.P. insul. Doc Res. Bai (ACM					

*TYPE (AREA, ENVIRONMENTAL, BLANK, PERSONAL, EXCURSION, BULK)
**TIME = BEGINNING OF SAMPLING PERIOD
***TIME = END OF SAMPLING PERIOD
START = PUMP PRE-CALIBRATION IN LITERS/MINUTE
STOP = PUMP PRE=CALIBRATION IN LITERS/MINUTE

TYPE OF RESPIRATOR USED:
(INFORMATION IS PROVIDED BY CLIENT)

SUBMITTED BY: C. BLAKE THOMPSON DATE SUBMITTED: 1-31-94 SIGNATURE: [signature]
PLEASE PRINT YOUR FULL NAME

RECEIVED BY: Alisa Hopewell DATE RECEIVED: FEB 01 1994 SIGNATURE: Alisa Hopewell
10:20 Airborne

SCHNEIDER LABORATORIES, INC.
104 BERRINGTON CT.
RICHMOND, VA 23221-2702
(804) 353-6778

ASBESTOS IDENTIFICATION REPORT
(BY EPA INTERIM METHOD)
(40 CFR 763, SUBPT F, APP. A)

CLIENT: PMT & ASSOCIATES
73 WEST TIMONIUM RD
TIMONIUM, MD 21093

WORK ORDER NO: 296-94- 18
ACCOUNT NO: 296
P.O.:
PROJECT: GLENN DALE HOSPITAL

THE SAMPLE(S) SUBMITTED FOR ASBESTOS BULK ANALYSIS HAVE BEEN COMPLETED. THEY WERE ANALYZED BY POLARIZED LIGHT MICROSCOPY WITH DISPERSION STAINING. THE RESULTS ARE AS FOLLOWS:

LAB ID NO	FIELD ID NO.	SAMPLE COLOR	HOMOGENEOUS	ASBESTOS PRESENT	TOTAL ASBESTOS
524410-94	4	BGE/GRY/GRN	NO	YES	30%
ASBESTOS TYPES:	CHRYSOTILE 30%				
OTHER MATERIAL:	MINERAL/GLASS WOOL 30% BINDER 5% GYPSUM/CALCITE 35%				
524411-94	5	GRAY	NO	YES	45%
ASBESTOS TYPES:	CHRYSOTILE 45%				
OTHER MATERIAL:	MICA 5% BINDER 5% GYPSUM/CALCITE 45%				
524412-94	9	BROWN	NO	NO	%
ASBESTOS TYPES:					
OTHER MATERIAL:	CELLULOSE FIBER 75% BINDER 6% GYPSUM/CALCITE 4% SYNTHETIC FIBER 5% OTHER 10%				
524413-94	10	WHT/GRY/BLU	NO	YES	35%
ASBESTOS TYPES:	CHRYSOTILE 25% CROCIDOLITE 10%				
OTHER MATERIAL:	CELLULOSE FIBER 10% BINDER 5% SILICA 5% GYPSUM/CALCITE 45%				

REMARKS: (DETECTION LIMIT, LESS THAN 1% ASBESTOS)

ANALYST: DEBORAH M. GRADY

DATE OF ANALYSIS: 02/03/94

NBS SIGNATORY: Deborah M. Grady

R. VANCE, Ph.D., CIH

APPENDIX 5:
LEAD-PAINT RESULTS

SCHNEIDER LABORATORIES
INCORPORATED
104 Berrington Court • Richmond, Virginia • 23221-2702
804-353-6778 • 800-785-LABS (5227) • (FAX) 804-353-6928

AIHA

Excellence in Service and Technology

NVLAP

LABORATORY ANALYSIS REPORT

Lead Analysis by NIOSH 7082-M Method

ACCOUNT: 296-94- 17

PMT & ASSOCIATES
73 WEST TIMONIUM RD
TIMONIUM, MD 21093

DATE COLLECTED: 01/25/94
DATE RECEIVED: 02/01/94
DATE REPORTED: 02/02/94
CUSTOMER PO#:
PROJECT: GLENN DALE HOSPITAL

SLI#	CLIENT SAMPLE #	SAMPLE TYPE	SAMPLE Wt (mg)	DILUTION FACTOR	TOTAL LEAD µg	LEAD CONC.* %
524404	1	PAINT	514.0	10	2922.01	0.568
524405	2	PAINT	733.0	1000	243773.19	33.257
524406	3	PAINT	621.0	2	1213.96	0.195
524407	6	PAINT	618.0	1	397.13	0.064
524408	7	PAINT	578.0	10	2922.01	0.506
524409	8	PAINT	583.0	1	873.33	0.150
	QC	50 ug Spike		1	47.78	95.560%
	QC	200 ug Spike		1	211.49	105.745%
	QC	5.0 ppm Std		1	502.05	100.410%
	QC	10.0 ppm Std		1	994.40	99.440%
	QC	NBS 1648 Std		20	9718.25	97.183%
	QC	NBS 1579 Std		20	11978.21	100.912%

Hud action level is 0.5% lead by weight.
Minimum reporting limit:50.0 µg Total Lead.

ANALYST: JAMES M. VESCIO

DATE ANALYZED: 02/02/94

NOTE: *All standard and spike values are reported for Quality Control purposes.*
**Results for QC samples represent Percent Recovery.*

REVIEWED BY: Jay Armstrong

296-94-1 T.

NVLAP
AIHA Accredited Lab 349
NIST Certified Lab 1150
CIH/Industrial Hygiene
Analytical Services
Asbestos Testing

SCHNEIDER LABORATORIES
INCORPORATED
104 Berrington Court • Richmond, Virginia • 23221-2702
804-353-6778 800-282-2842 (FAX) 804-353-6928

DATE: 1-31-94

NT: PMT & ASSOCIATES, INC. PROJECT: GLENN DALE HOSPITAL

ATION: PROJECT NUMBER: PURCHASE ORDER NO.:

CLIENT SAMPLE NUMBER	DATE SAMPLED	SAMPLE IDENTIFICATION E.G., OPERATION BEING PERFORMED, BLDG., ROOM, EMPLOYEE NAME, SS #, ETC.	TYPE*	TIME** START	TIME** STOP	FLOW RATE*** START	FLOW RATE*** STOP
01	1-25-94	2ND Floor Adlt. Hos. (Lead?)					
02	"	2ND Floor Adlt. Hos. (Lead?)					
03	"	3rd Floor Childrens Hos (Lead?)					
04	"	~~Heating Plant (ACM?)~~					
05	"	~~Heating Plant Breching Insul. (ACM?)~~					
06	1-26-94	Apt. Building S. (Lead?)					
07	"	Duplex house 5. Ent+Liv. (Lead?)					
08	"	Docs. res. Entrence (Lead?)					
09	"	~~P.P. insul. Doc. Res (ACM?)~~					
10	"	~~P.P. insul. Doc. Res. Bas (ACM~~					

(AREA, ENVIRONMENTAL, BLANK, PERSONAL, EXCURSION, BULK)
RT = BEGINNING OF SAMPLING PERIOD
P = END OF SAMPLING PERIOD
RT = PUMP PRE-CALIBRATION IN LITERS/MINUTE
P = PUMP PRE=CALIBRATION IN LITERS/MINUTE

FAXED 2-2-94 4:27

OF RESPIRATOR USED:
MATION IS PROVIDED BY CLIENT)

TED BY: C. BLAKE THOMPSON DATE SUBMITTED: 1-31-94 SIGNATURE: [signature]
PLEASE PRINT YOUR FULL NAME

VED BY: Alisa Hopewell DATE RECEIVED: SIGNATURE: Alisa Hopewell