

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
West
1/2 - 1 Mile
Lower

FED USGS USGS2180303

Agency cd:	USGS	Site no:	385406076573401
Site name:	WE Ca 30		
Latitude:	385405.8		
Longitude:	0765734.2	Dec lat:	38.90161111
Dec lon:	-76.9595	Coor meth:	G
Coor accr:	S	Latlong datum:	NAD83
Dec latlong datum:	NAD83	District:	24
State:	11	County:	001
Country:	US	Land net:	Not Reported
Location map:	WASHINGTON EAST DC	Map scale:	24000
Altitude:	3		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Middle PotomacAnacostiaOccoquan. District of Columbia, Maryland, Virginia. Area = 1280 sq.mi.		
Topographic:	Stream channel		
Site type:	Ground-water other than Spring	Date construction:	20020702
Date inventoried:	20030205	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Test hole, not completed as a well		
Aquifer Type:	Not Reported		
Aquifer:	ALLUVIUM (QUATERNARY)		
Well depth:	Not Reported	Hole depth:	30.5
Source of depth data:	driller		
Project number:	442460600		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	2002-07-02
Water quality data end date:	2002-07-02	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

A2
NNE
1/2 - 1 Mile
Lower

FED USGS USGS2180183

Agency cd:	USGS	Site no:	385443076562801
Site name:	WE Cb 5		
Latitude:	385443.5		
Longitude:	0765628.4	Dec lat:	38.91208333
Dec lon:	-76.94122222	Coor meth:	G
Coor accr:	S	Latlong datum:	NAD83
Dec latlong datum:	NAD83	District:	24
State:	11	County:	001
Country:	US	Land net:	Not Reported
Location map:	WASHINGTON EAST DC	Map scale:	24000

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Altitude: 18.53
 Altitude method: Level or other surveying method
 Altitude accuracy: .01
 Altitude datum: North American Vertical Datum of 1988
 Hydrologic: Middle PotomacAnacostiaOccoquan. District of Columbia, Maryland, Virginia. Area = 1280 sq.mi.
 Topographic: Hilltop
 Site type: Ground-water other than Spring Date construction: 20020724
 Date inventoried: 20020916 Mean greenwich time offset: EST
 Local standard time flag: N
 Type of ground water site: Single well, other than collector or Ranney type
 Aquifer Type: Unconfined single aquifer
 Aquifer: TERRACE DEPOSITS
 Well depth: 22.6 Hole depth: 31.3
 Source of depth data: geologist
 Project number: 442420600
 Real time data flag: 0 Daily flow data begin date: 0000-00-00
 Daily flow data end date: 0000-00-00 Daily flow data count: 0
 Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00
 Peak flow data count: 0 Water quality data begin date: 2002-08-22
 Water quality data end date: 2002-08-22 Water quality data count: 1
 Ground water data begin date: 2002-09-19 Ground water data end date: 2005-03-14
 Ground water data count: 34

Ground-water levels, Number of Measurements: 34

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2005-03-14	11.08		2005-02-11	11.12	
2005-01-11	11.68		2004-12-02	11.75	
2004-11-10	12.08		2004-11-05	12.05	
2004-09-30	11.88		2004-09-30	11.80	
2004-08-19	11.52		2004-07-27	12.24	
2004-06-24	12.32		2004-05-27	11.94	
2004-04-22	11.41		2004-03-26	11.65	
2004-02-19	11.12				
Note: Other conditions existed that would affect the measured water level.					
2004-01-22	11.31				
Note: Other conditions existed that would affect the measured water level.					
2003-12-24	10.53				
Note: Other conditions existed that would affect the measured water level.					
2003-12-23	10.54				
Note: Other conditions existed that would affect the measured water level.					
2003-11-24	10.92		2003-10-24	11.83	
2003-09-29	11.16		2003-08-26	11.98	
2003-07-30	11.23		2003-07-28	11.18	
2003-07-18	10.76		2003-07-11	10.53	
2003-06-20	10.11		2003-05-22	11.24	
2003-04-25	10.96		2003-03-26	10.44	
2003-03-06	10.16		2002-12-13	11.40	
2002-10-01	13.11		2002-09-19	12.90	

A3
 NNE
 1/2 - 1 Mile
 Lower

FED USGS USGS2180184

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd: USGS Site no: 385443076562802
 Site name: WE Cb 6
 Latitude: 385443.5
 Longitude: 0765628.4 Dec lat: 38.91208333
 Dec lon: -76.94122222 Coor meth: G
 Coor accr: S Latlong datum: NAD83
 Dec latlong datum: NAD83 District: 24
 State: 11 County: 001
 Country: US Land net: Not Reported
 Location map: WASHINGTON EAST DC Map scale: 24000
 Altitude: 18.79
 Altitude method: Level or other surveying method
 Altitude accuracy: .01
 Altitude datum: North American Vertical Datum of 1988
 Hydrologic: Middle PotomacAnacostiaOccoquan. District of Columbia, Maryland, Virginia. Area = 1280 sq.mi.
 Topographic: Hilltop
 Site type: Ground-water other than Spring Date construction: 20020725
 Date inventoried: 20020923 Mean greenwich time offset: EST
 Local standard time flag: N
 Type of ground water site: Single well, other than collector or Ranney type
 Aquifer Type: Unconfined single aquifer
 Aquifer: TERRACE DEPOSITS
 Well depth: 46.3 Hole depth: 57.0
 Source of depth data: geologist
 Project number: 442420600
 Real time data flag: 0
 Daily flow data end date: 0000-00-00
 Peak flow data begin date: 0000-00-00
 Peak flow data count: 0
 Water quality data end date: 2002-08-22
 Water quality data begin date: 2002-07-25
 Water quality data count: 3
 Ground water data begin date: 2002-09-19
 Ground water data end date: 2005-03-14
 Ground water data count: 33

Ground-water levels, Number of Measurements: 33

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2005-03-14	11.98		2005-02-11	12.04	
2005-01-11	12.32		2004-12-02	12.88	
2004-11-10	13.06		2004-11-05	12.97	
2004-09-30	12.74		2004-08-19	12.68	
2004-07-27	13.15		2004-06-24	13.13	
2004-06-04	13.10		2004-05-27	12.96	
2004-04-22	12.50		2004-03-26	12.63	
2004-02-19	12.28				
Note: Other conditions existed that would affect the measured water level.					
2004-01-22	12.39				
Note: Other conditions existed that would affect the measured water level.					
2003-12-24	11.93				
Note: Other conditions existed that would affect the measured water level.					
2003-12-23	11.93				
Note: Other conditions existed that would affect the measured water level.					
2003-11-24	12.16		2003-10-24	12.82	
2003-09-29	12.25		2003-08-26	12.92	
2003-07-30	12.36		2003-07-28	12.35	
2003-07-18	12.02		2003-07-11	11.70	
2003-06-20	11.65		2003-05-22	12.21	
2003-04-25	12.20		2003-03-26	12.10	
2002-12-13	12.55		2002-10-01	13.75	

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Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel
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2002-09-19	13.75	
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Date	Feet below Surface	Feet to Sealevel
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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

EPA Region 3 Statistical Summary Readings for Zip Code: 20019

Number of sites tested: 220.

Maximum Radon Level: 9.8 pCi/L.

Minimum Radon Level: 0.4 pCi/L.

pCi/L <4	pCi/L 4-10	pCi/L 10-20	pCi/L 20-50	pCi/L 50-100	pCi/L >100
212 (96.36%)	8 (3.64%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

RADON

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey.

The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

EPA Region 3 Statistical Summary Readings

Source: Region 3 EPA

Telephone: 215-814-2082

Radon readings for Delaware, D.C., Maryland, Pennsylvania, Virginia and West Virginia.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

STREET AND ADDRESS INFORMATION

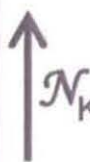
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APPENDIX F
AERIAL PHOTOGRAPHS



**ADVANTAGE
ENVIRONMENTAL
CONSULTANTS, LLC**

8610 Washington Boulevard, Suite 217
Jessup, MD 20794
Phone: 301-776-0500 Fax: 301-776-1123



1957 Aerial Photograph
DCPCA Parkside
Kenilworth Terrace, NE and Hayes Street, NE
Washington, DC 20019

Work Order No.:
09-070

Report Date:
June 2009

Drawn By:
TER



**ADVANTAGE
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1963 Aerial Photograph
 DCPCA Parkside
 Kenilworth Terrace, NE and Hayes Street, NE
 Washington, DC 20019

Work Order No.:
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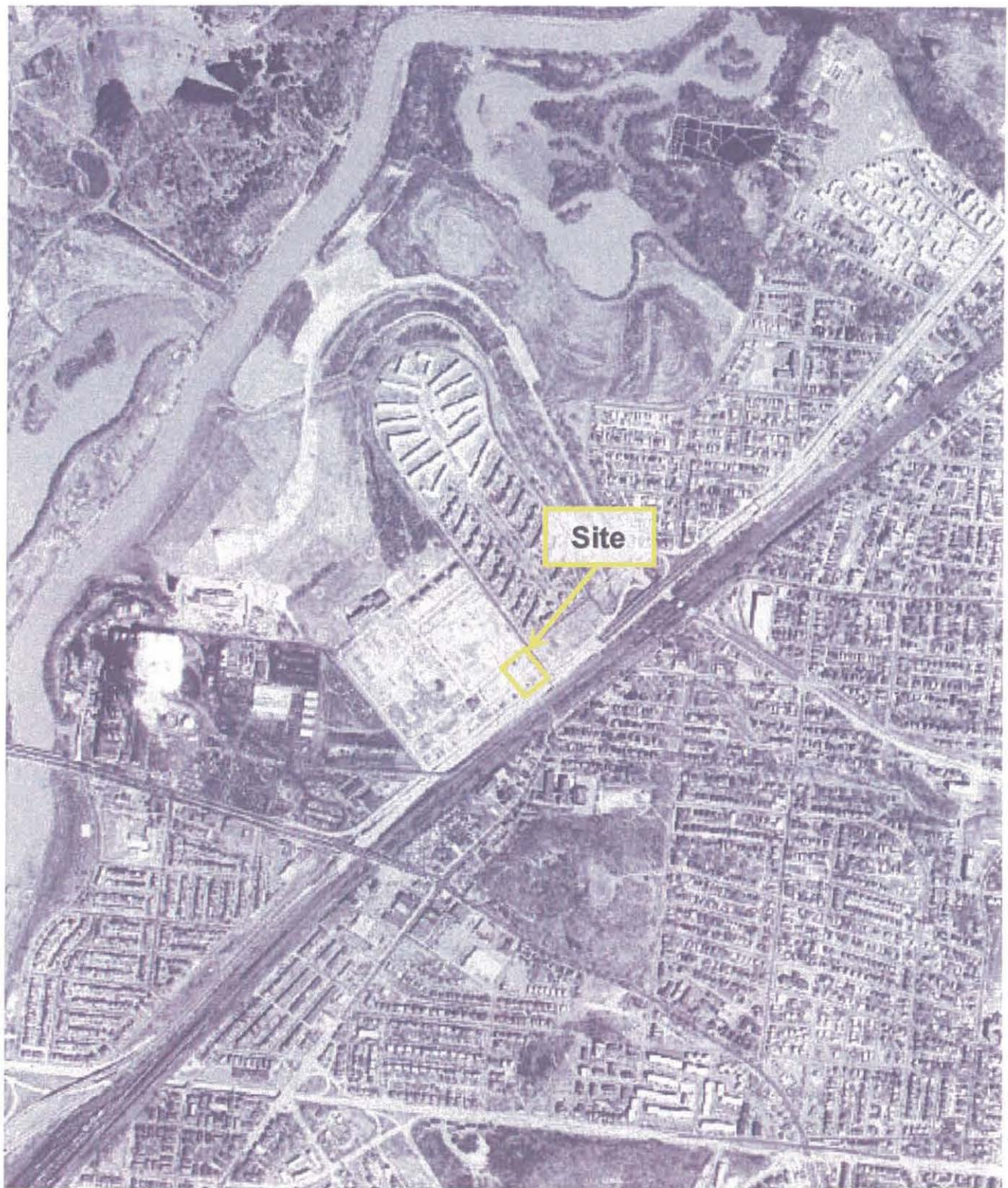
1970 Aerial Photograph
DCPCA Parkside

Kenilworth Terrace, NE and Hayes Street, NE
Washington, DC 20019

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1971 Aerial Photograph
DCPCA Parkside

Kenilworth Terrace, NE and Hayes Street, NE
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1980 Aerial Photograph
DCPCA Parkside
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Washington, DC 20019

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1988 Aerial Photograph
 DCPA Parkside
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1998 Aerial Photograph
DCPCA Parkside
Kenilworth Terrace, NE and Hayes Street, NE
Washington, DC 20019

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2005 Aerial Photograph
DCPCA Parkside

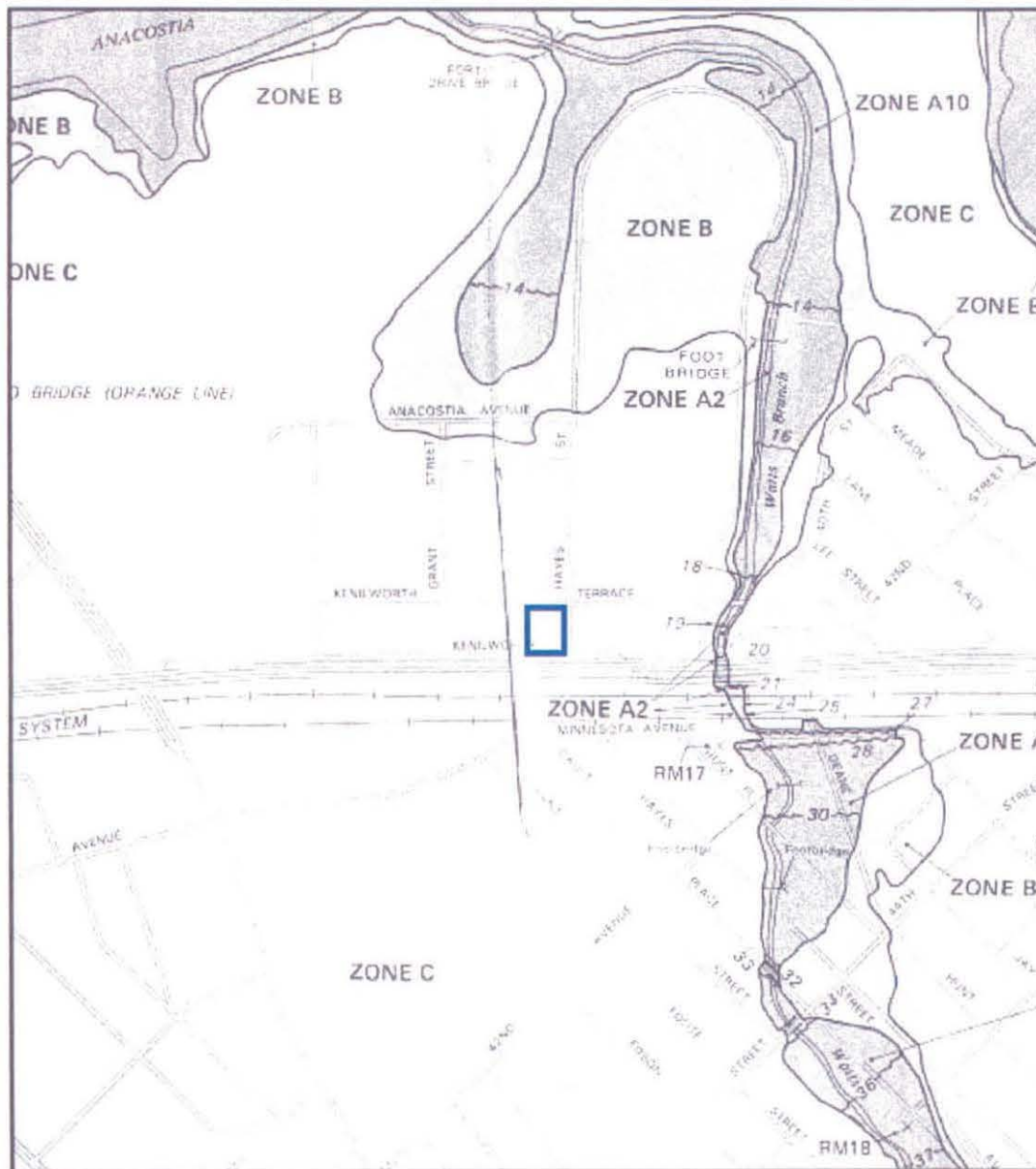
Kenilworth Terrace, NE and Hayes Street, NE
Washington, DC 20019

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Report Date:
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APPENDIX G
HISTORICAL RESEARCH DOCUMENTATION AND MAPS



NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

DISTRICT OF
COLUMBIA
WASHINGTON, D.C.

PANEL 30 OF 30

COMMUNITY-PANEL NUMBER
110001 0030 B

EFFECTIVE DATE:
NOVEMBER 15, 1985



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRM On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on this title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

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Legend

 = Site Location

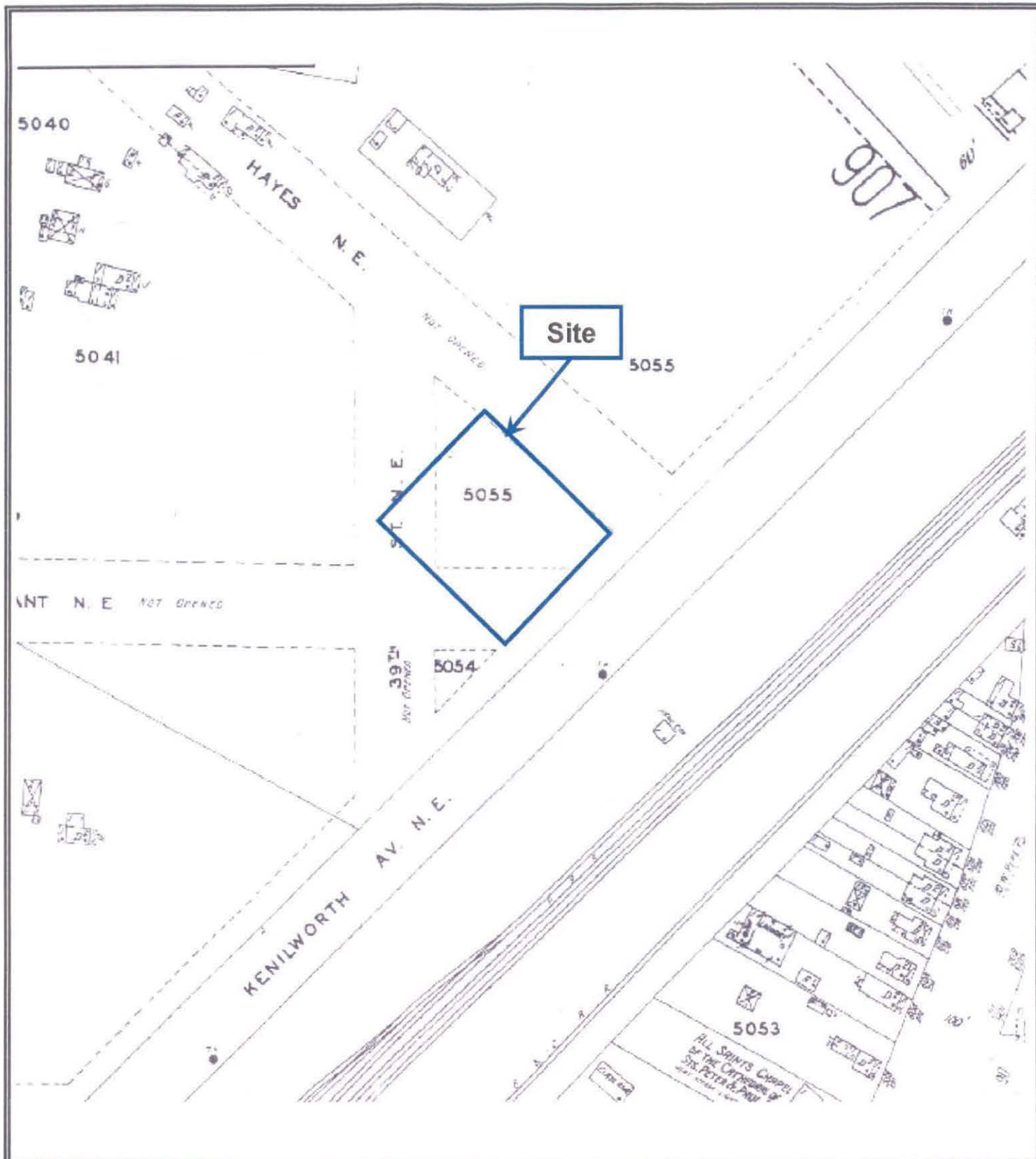


FEMA FIRM (110001 0030 B)
DCPCA Parkside
Kenilworth Avenue, NE and Hayes Street, NE
Washington, DC 20019

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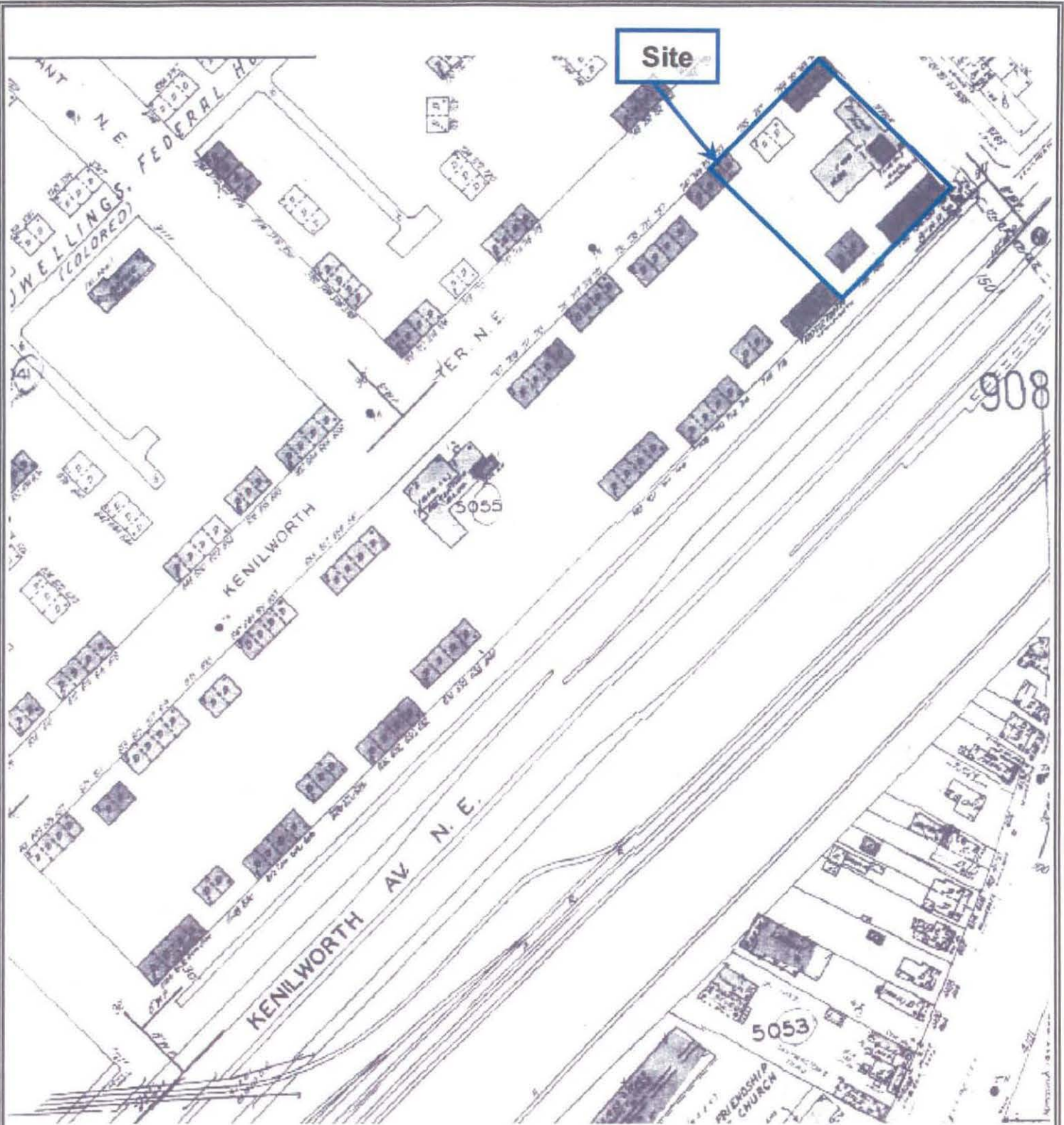


1927 Historic Topographic Map
 DCPA Parkside
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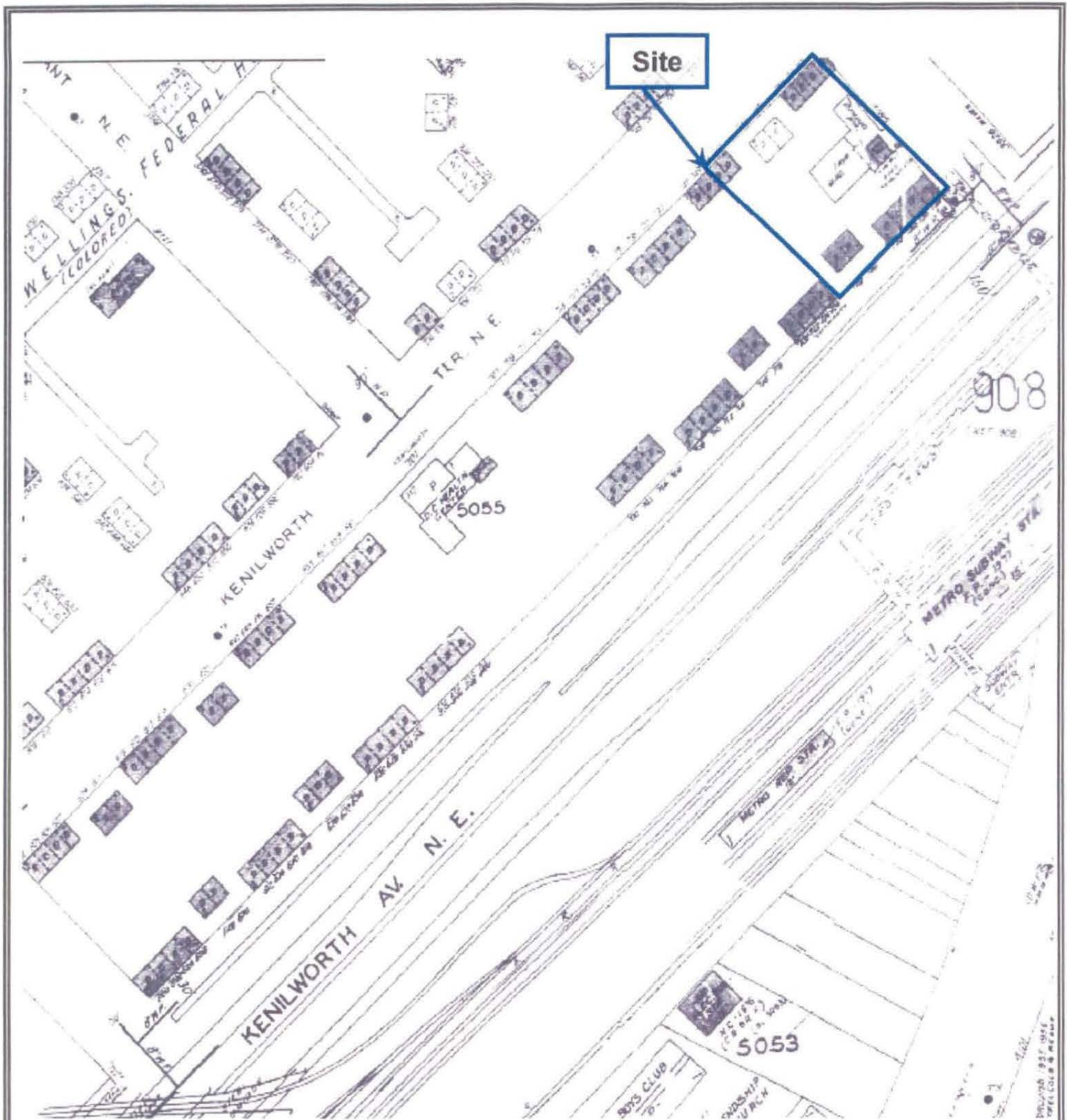
1960 Historic Topographic Map
DCPCA Parkside

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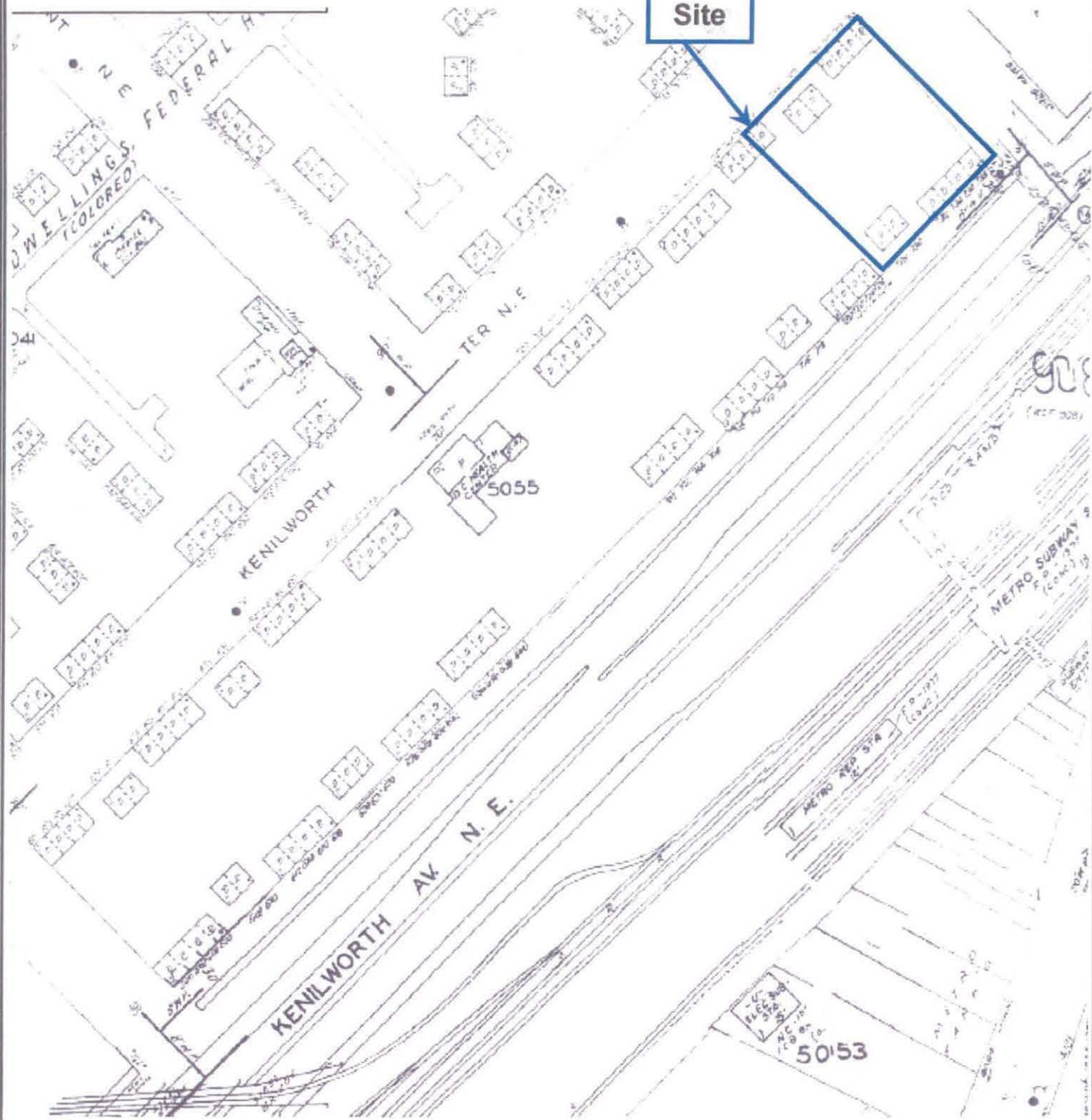


1977 Historic Topographic Map
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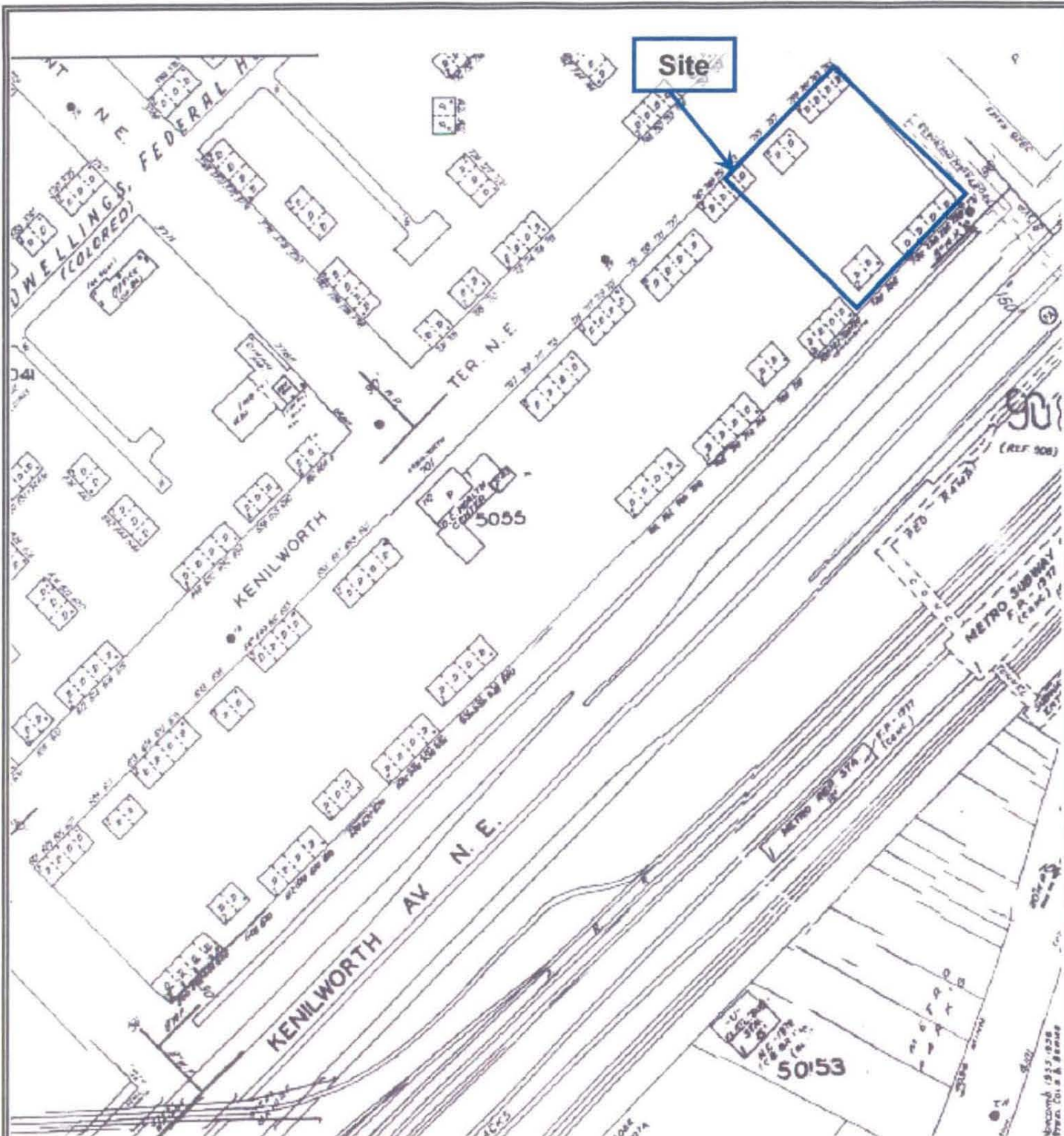
1985 Historic Topographic Map
DCPCA Parkside

Kenilworth Terrace, NE and Hayes Street, NE
Washington, DC 20019

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1989 Historic Topographic Map
DCPCA Parkside

Kenilworth Terrace, NE and Hayes Street, NE
Washington, DC 20019

Work Order No.:

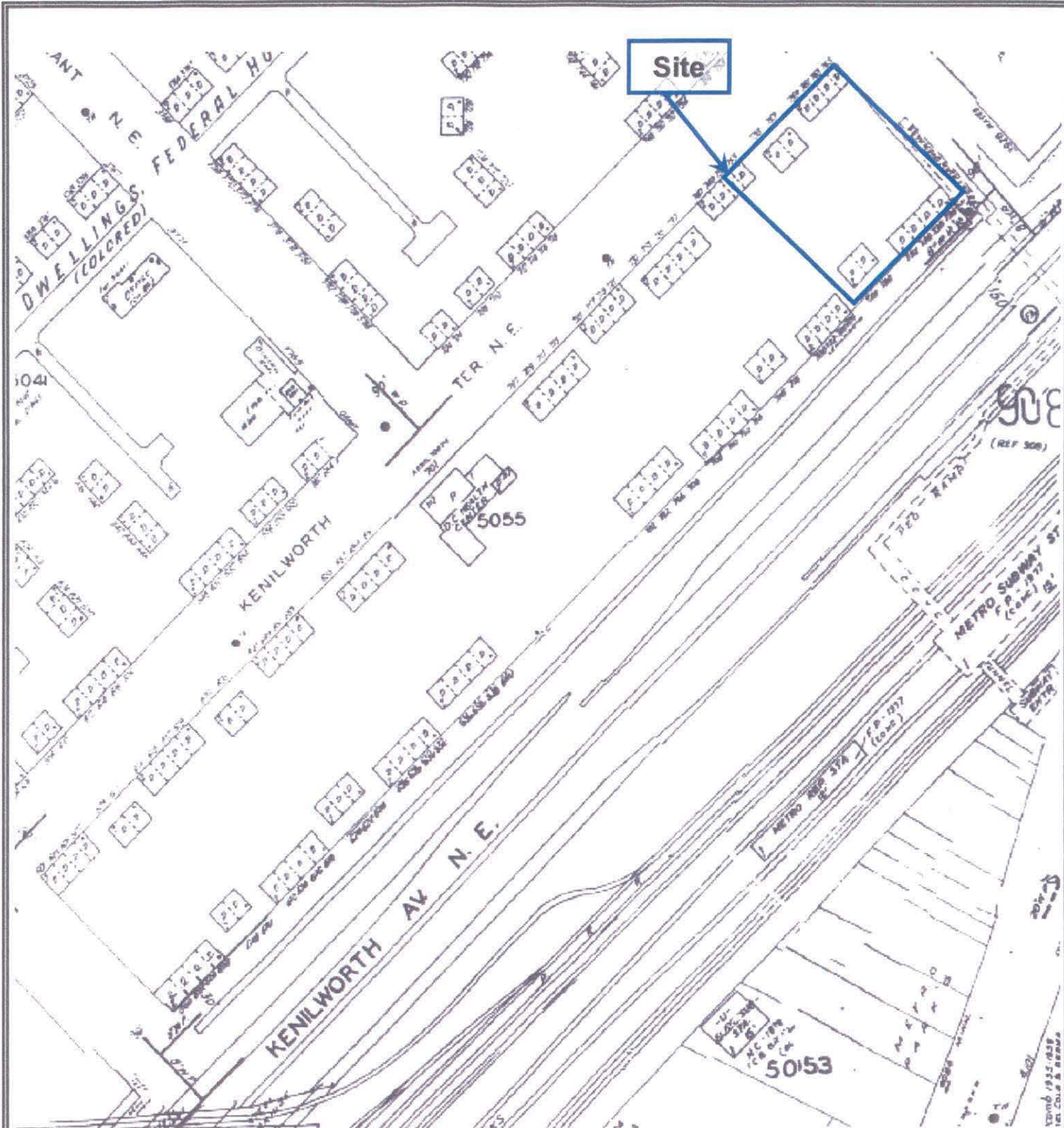
09-070

Report Date:

June 2009

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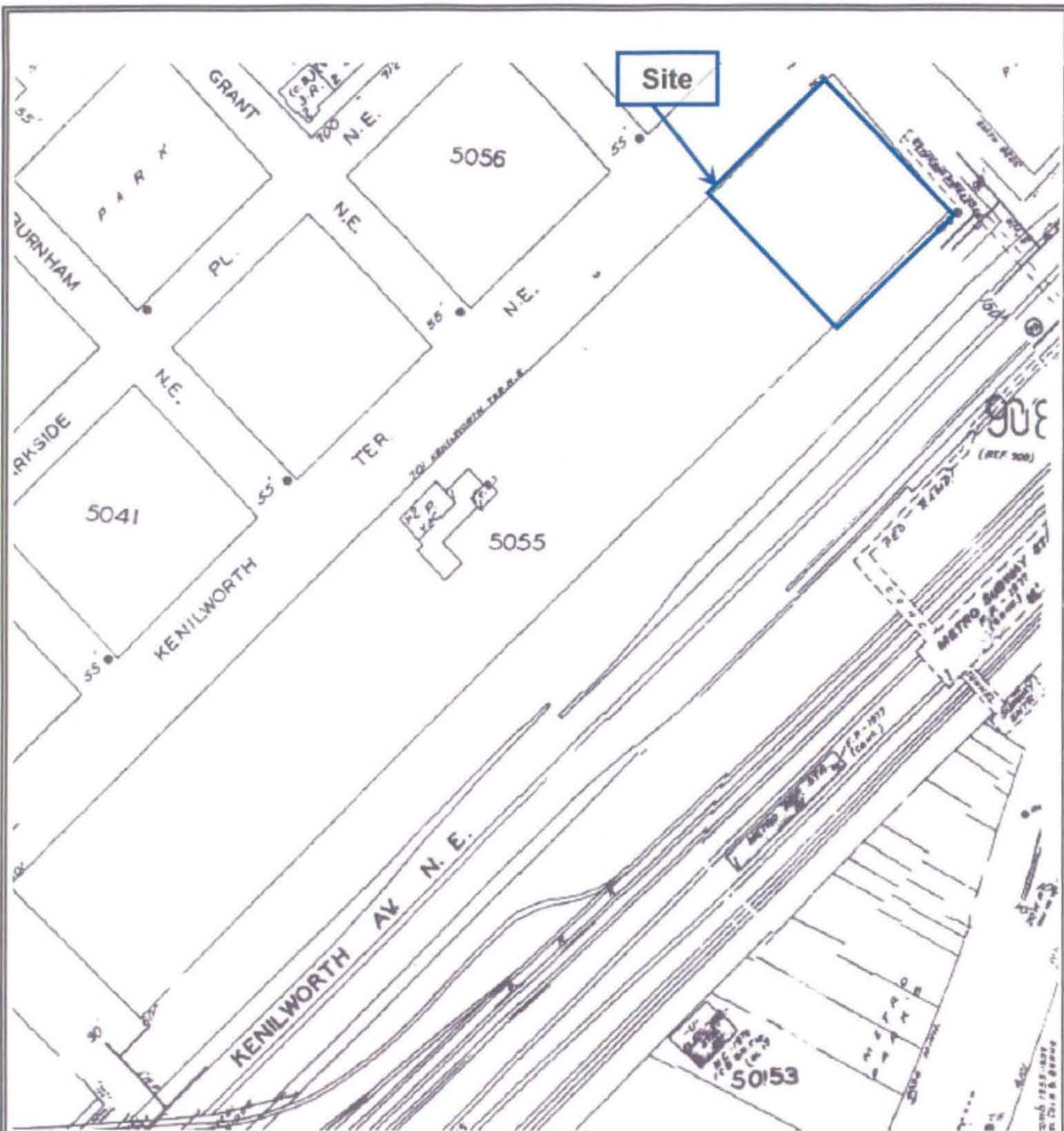
1990 Historic Topographic Map
DCPCA Parkside

Kenilworth Terrace, NE and Hayes Street, NE
Washington, DC 20019

Work Order No.:
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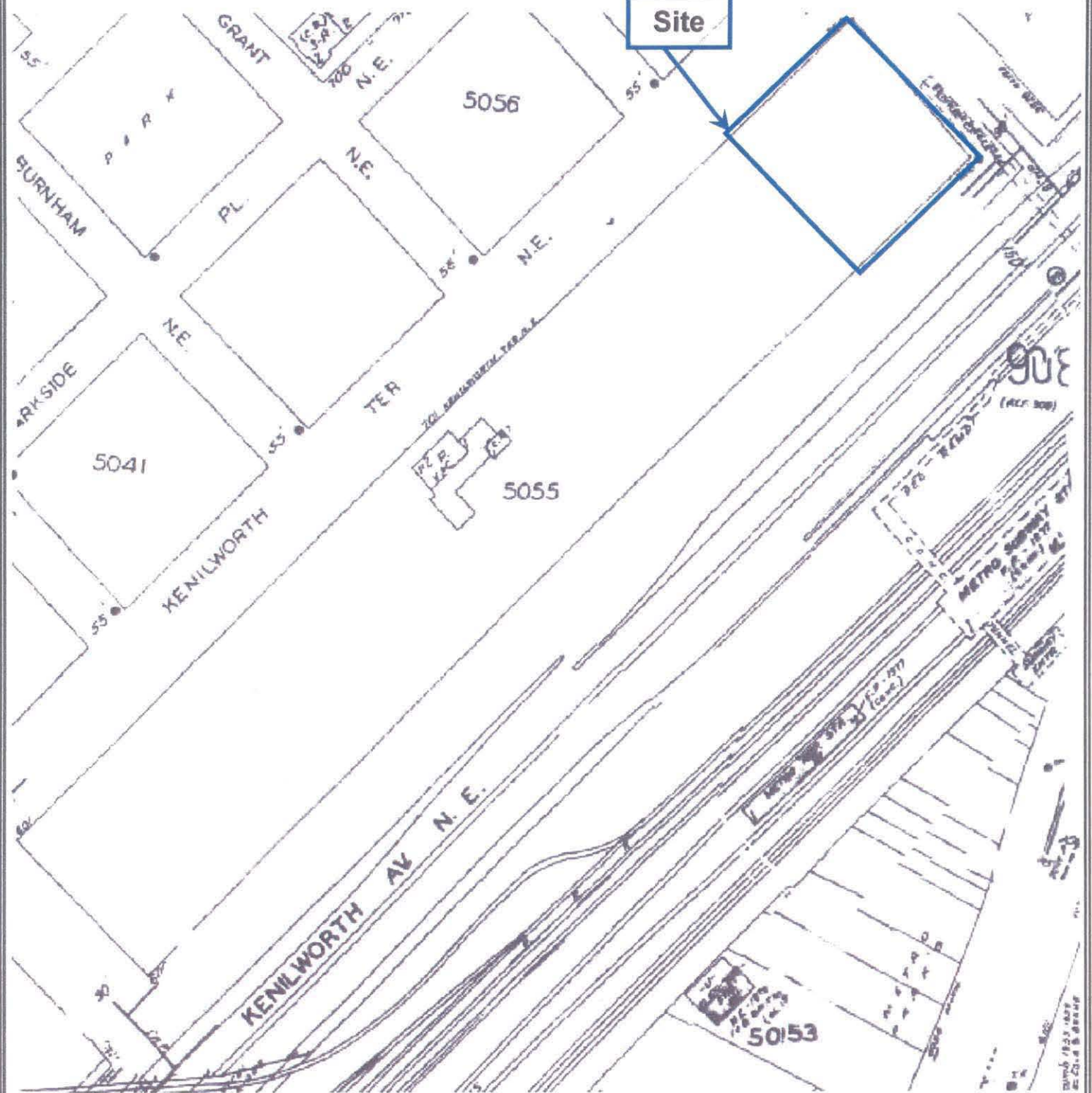


1992 Historic Topographic Map
DCPCA Parkside
Kenilworth Terrace, NE and Hayes Street, NE
Washington, DC 20019

Work Order No.:
09-070

Report Date:
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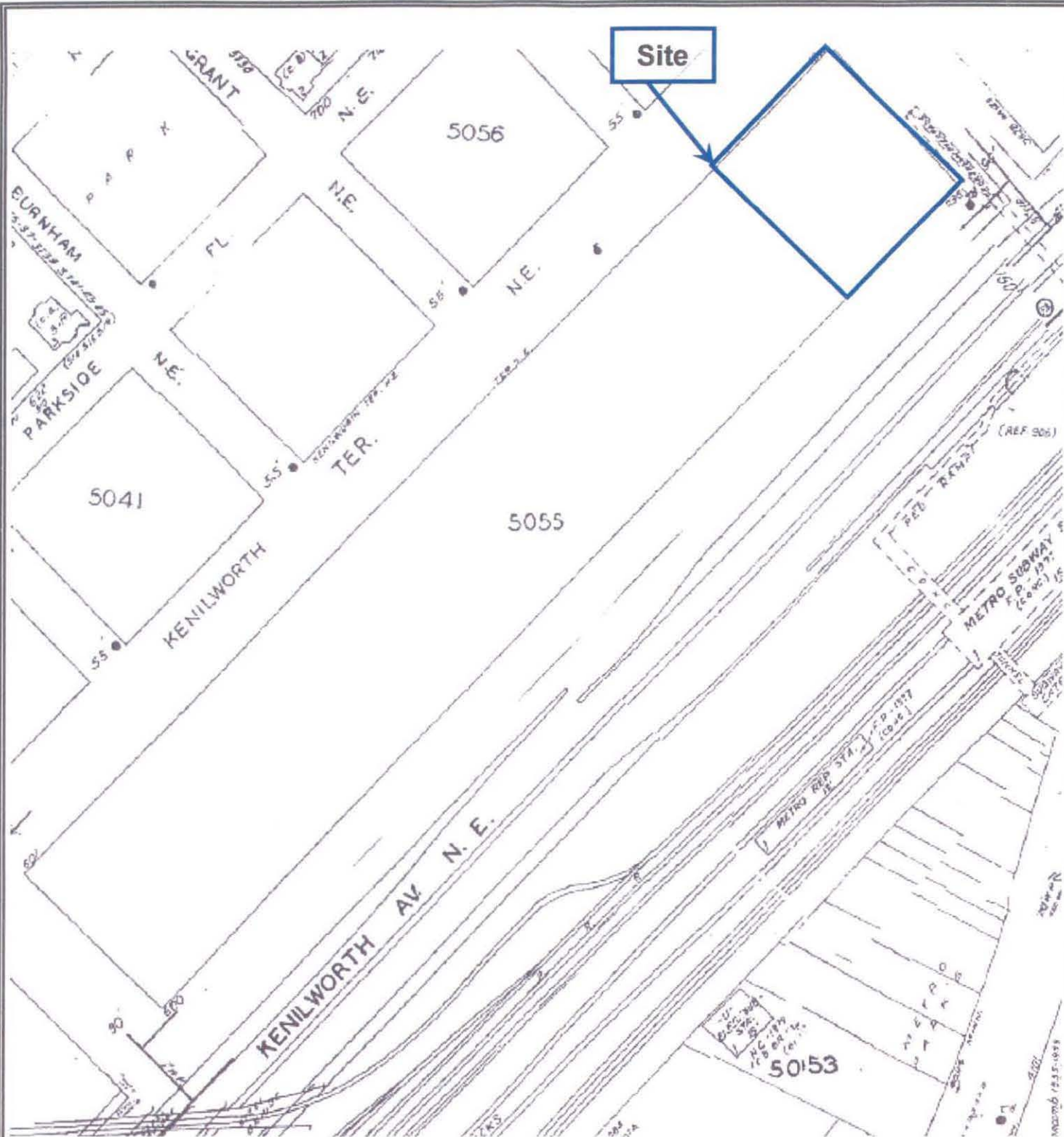


1995 Historic Topographic Map
DCPCA Parkside
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Washington, DC 20019

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1998 Historic Topographic Map
 DCPA Parkside
 Kenilworth Terrace, NE and Hayes Street, NE
 Washington, DC 20019

Work Order No.:
 09-070

Report Date:
 June 2009

Drawn By:
 TER

APPENDIX H
PRIOR ENVIRONMENTAL REPORTS

September 17, 2004

Mr. Dahn Warner
Lano International
c/o Telesis Corporation
1101 30th Street, N.W.
4th Floor
Washington, D.C. 20007

Subject: **Limited Phase II Environmental Site
Assessment, Parkside Lot No. 12, Kenilworth
Terrace, N.E., Washington, D.C. (Schnabel
Reference No. 04121160)**

Dear Mr. Warner:

Schnabel Engineering North, LLC (Schnabel) is pleased to submit this letter report summarizing environmental sampling and test results for the above referenced project. This study has been conducted in accordance with our proposal/agreement dated August 20, 2004.

1.0 Background

Schnabel performed a Phase I Environmental Site Assessment (ESA) in January of 1990 on a 26-acre site that consists of 12 individual lots, located between Hayes Street, N.E. and Foote Street, N.E. in Washington, D.C. Lot 12, the subject property of this study, is located on the southern portion of the 26-acre site, south of Kenilworth Terrace, N.E. In addition, Kidde Consultants, Inc. completed a Preliminary Geotechnical Exploration Report dated January 18, 1988 (*Kidde Reference No. 03-87-277*) on the 26-acre site. According to Kidde Consultants, Inc., petroleum odors were noted in two borings (B-22 and B-25) located on the western and eastern portions of Lot 12, respectively. The soils obtained during the 1988 geotechnical investigation were not screened with a Photoionization Detector (PID) for volatile organic compounds (VOCs) or analyzed in a laboratory for petroleum contamination. Schnabel's 1990 Phase I ESA recommended that two additional soil borings be drilled and environmental testing

be performed on Lot 12 to determine the level of petroleum contamination on site, if any. In order to better evaluate environmental conditions on the Lot 12 site, we proposed to perform a limited Phase II ESA. The limited Phase II ESA was an attempt to determine if petroleum-contaminated soils exist on the Lot 12 site, as suspected during the previous findings from the Kidde Consultants, Inc.'s geotechnical investigation. The limited Phase II Environmental Site Assessment consisted of two soil test borings and a chemical testing program.

2.0 Scope of Services

In order to evaluate environmental subsurface conditions, the following scope of services was provided:

1. Performed a site visit to layout boring locations.
2. Advanced two (2) soil test borings to a maximum depth of 30 feet each, or prior refusal.
3. Provided an OSHA-trained environmental specialist to screen the soils obtained from the soil test borings with a Photoionization Detector (PID) for the presence of volatile organic compounds (VOCs).
4. Analytical testing of two soil samples from each boring location was completed. The soil samples were analyzed for total petroleum hydrocarbons including the diesel range organics and gasoline range organics (TPH-DRO/GRO) method; and TPH-1664, which detects and measures heavier and older fuel patterns not detected within the DRO range.
5. One ground water sample was collected and analyzed for TPH-DRO/GRO and TPH-1664.
6. Preparation of a report to document the field activities and present the results of the PID and laboratory testing.

Services with respect to wetlands delineation, development of a corrective action plan, treatability studies, remedial activities, feasibility studies, additional activities or testing required by the District of Columbia, removal and disposal or treatment of contaminated soil and/or ground water, analytical testing not specifically discussed above, consultation with regulatory agencies, preparation of plans and specifications, attendance at meetings, environmental construction observation and testing, and other activities not specifically detailed above were not included in the scope of our services for this portion of the contract.

3.0 Subsurface Investigation, PID Measurements, and Analytical Test Results

A total of two soil test borings (B-1 and B-2) were drilled on the subject site on August 27, 2004. According to the boring logs, silty sand and gravel fill with trace concrete debris was encountered from one to eight feet below existing grades. The fill material was underlain by poorly graded sand, as well as sandy clay to depths of 30 feet, the maximum depths of the borings. A copy of the boring logs is presented in Attachment A. Figure 1 presents a Boring Location Plan.

Soil samples obtained from the soil test borings were screened with a Photoionization Detector (PID) to detect the potential presence of volatile organic compounds, if any. Based on the results of the PID screening measurements and the depth of the soil sample, selected soil samples were submitted to Phase Separation Science, Inc., an EPA-approved laboratory, for analytical laboratory analysis. In addition, one ground water sample from boring B-1 was also submitted for chemical laboratory analysis. A copy of the chemical test results and chain of custody form is included in Attachment B.

3.1 PID Measurements

Mr. Matthew Ker, Staff Scientist from our office, screened soil samples obtained from the soil test borings with a PID. The PID is an instrument used to detect volatile organic compounds (VOCs). The screening was performed as a headspace analysis of soil samples retained in glass jars. The results of the environmental screening are presented on the boring logs in Appendix B. PID measurements of 0 parts per million (ppm) were obtained for all of the soil samples obtained during drilling. Note that the PID readings are a measure of the VOCs present in the soil sample and are not a direct measure of the quantity of total petroleum hydrocarbons (TPH) present in the soil sample.

3.2 Analytical Soil Test Results

All soil samples obtained during drilling had PID readings of 0 ppm. A septic odor was detected in the soil sample obtained from depths of 18.5 to 20 feet below ground surface in boring B-1. Therefore, this sample was sent in to the laboratory for chemical analysis. The sample closest to the water table in boring B-2 was submitted to the laboratory for chemical

analysis. A total of two soil samples and one ground water sample were selected for laboratory testing of total petroleum hydrocarbon – diesel and gasoline range organics (TPH-DRO/GRO), and TPH-1664, which measures fuels heavier and older than those detected within the diesel range.

Table 3 presents a summary of the soil laboratory test results.

Table 3 - Soil Laboratory TPH Test Results

Boring (depth)	TPH-DRO (ppm)	TPH-GRO (ppm)	TPH-1664 (ppm)
B-1 (18.5-20')	ND	ND	ND
B-2 (28.5-30')	ND	ND	ND
B-1 (Ground Water)	ND	ND	ND

HF = Heavier fuel/oil pattern observed.

ND = Not Detected at or greater than established laboratory detection limits.

Based on the laboratory test results, all water and soil samples had TPH concentrations less than the practical quantitation limit (PQL), or laboratory test method detection limit. The District of Columbia has a regulatory limit of 100 ppm (parts per million) for TPH in soil, and a regulatory limit of 1 ppm for TPH in ground water. Based upon the laboratory test results, none of the sample test results were above either of the District's TPH regulatory limits.

4.0 Limitations

Chemical analyses have been performed on selected soil and ground water samples recovered at the site during the course of this study. It should be understood that additional environmental constituents not measured during the study might be present in soil and/or ground water at the site. Also, it is possible that petroleum-contaminated soils between test boring locations may be encountered during construction.

The report's findings are based on conditions that existed on the dates the samples were obtained at the locations investigated and should not be relied upon to precisely represent conditions at any other time or location. Surface and subsurface conditions at the site could change with the passage of time.

This report is an instrument of service of Schnabel Engineering North, LLC, and has been prepared for, and is intended for, the exclusive use of Lano International c/o Telesis Corporation, and its project development team, and is expected to be used in connection with the specific site for the purposes identified to us for this study. The content of this report should not be relied upon by any other party without our express consent and payment of additional fees. The Client agrees not to copy, distribute, publish, or otherwise disseminate this report without first obtaining Schnabel's written consent thereto. The ownership of this report may be transferred to acceptable third parties upon written affirmation to the terms of the contract and payment of additional fees.

Schnabel Engineering North, LLC, by virtue of providing the services described in this agreement, does not assume the responsibility for reporting to Federal or local public agencies conditions at the site that may present a potential danger to public health, safety, or the environment. Additional copies requested of our report, preparation of third party reliance letters, and revisions to the report requested by the Client upon submittal of our final report will require additional fees.

We appreciate the opportunity to be of continued service to you on this project. Please do not hesitate to contact either of the undersigned who are familiar with this study if you have any questions regarding this report.

Very truly yours,

SCHNABEL ENGINEERING NORTH, LLC

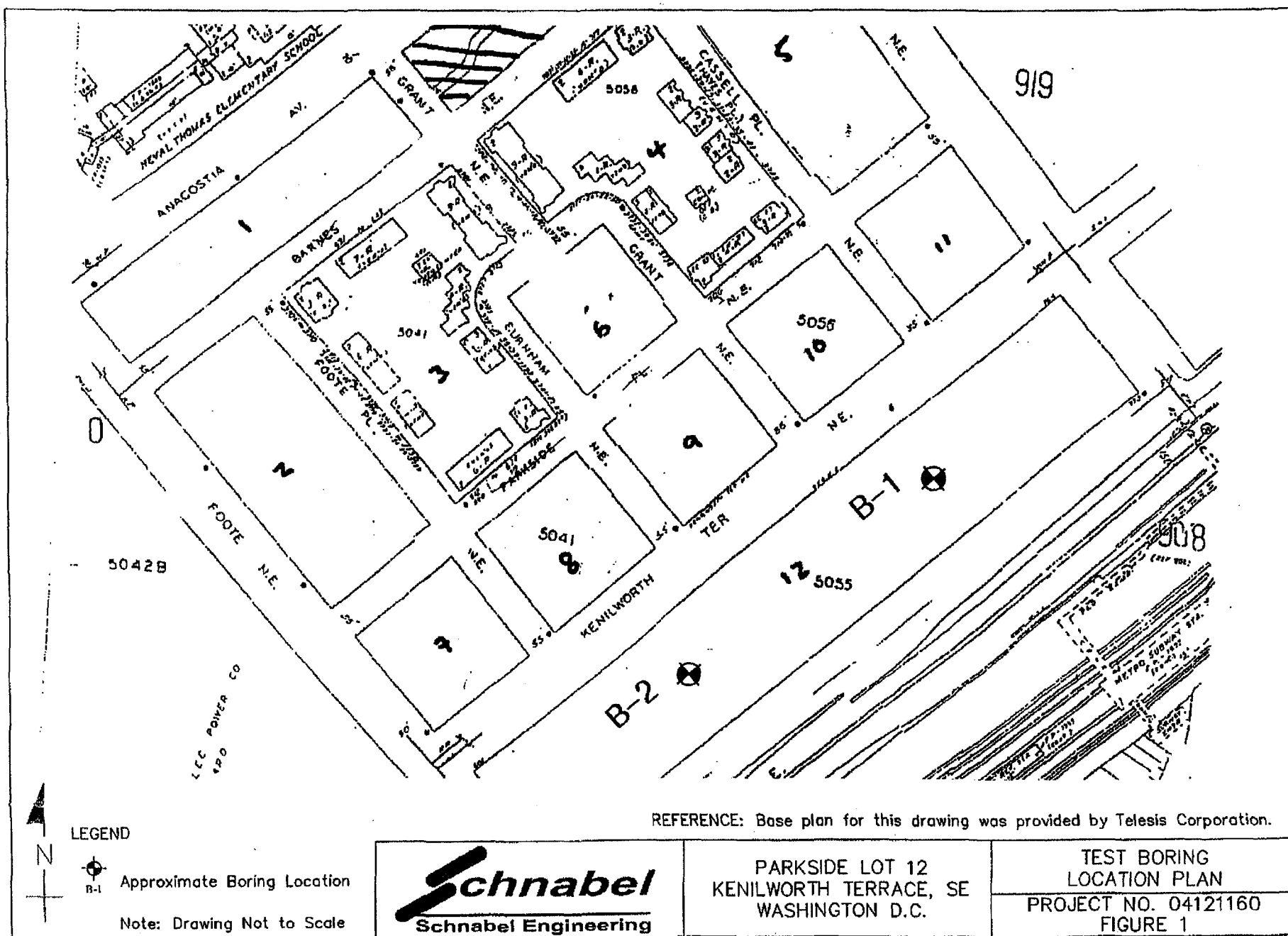
Kathryn M. Sheridan
Project Scientist

Raymond L. Knox, P.G.
Senior Associate

KMS/RLK/kms
G:\04121160\WP\DRAFT\Limited Phase II ESA Results letterRLK091704.doc

Figure 1: Boring Location Plan

Attachments: (A) Soil Boring Logs
(B) Laboratory Test Results and Chain of Custody Form



Attachment A
Soil Boring Logs



TEST BORING LOG

Project: Parkside Lot 12

Boring Number: **B-01**

Contract Number: 04121160

Sheet: 1 of 2

Boring Contractor: Connelly and Associates, Inc.

Boring Foreman: O. Gomez

Drilling Method: 2-1/4 I.D. Hollow Stem Auger

Drilling Equipment: CME 55 LC

SEA Representative: Joan Bentel/Matthew Ker

Dates Started: 8/27/04 Finished: 8/27/04

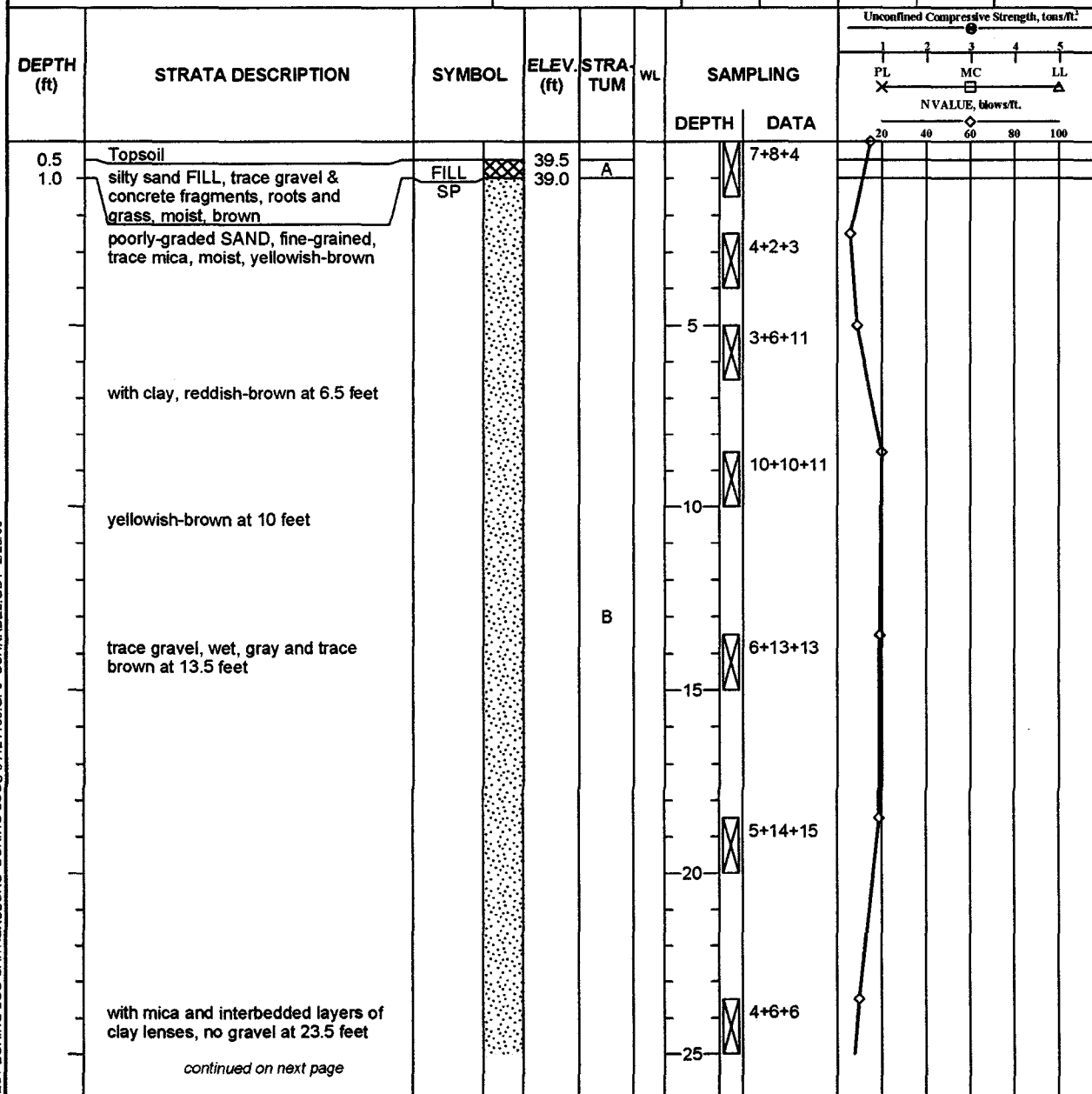
Location: See Boring Location Plan

Hammer Type: Automatic

Ground Surface Elevation: 40.0± (feet)

Groundwater Observations

	Date	Time	Depth	Casing	Caved
Encountered	8/27	---	14.0'	---	---
Completion	8/27	---	24.0'	---	8.5'
Casing Pulled	8/27	---	Dry	---	---
24 hours	8/29	---	Dry	---	8.0'



Comments:

Photoionization Detector (PID) readings were 0 parts per million (ppm) for all soil samples.



**TEST
BORING
LOG**

Project: Parkside Lot 12

Boring Number: **B-01**
Contract Number: 04121160
Sheet: 2 of 2

DEPTH (ft)	STRATA DESCRIPTION	SYMBOL	ELEV. (ft)	STRATUM	WL	SAMPLING		Unconfined Compressive Strength, tons/ft ²					
						DEPTH	DATA	PL	MC	LL	N VALUE, blows/ft.		
								20	40	60	80	100	
	poorly-graded SAND, fine-grained, trace mica, moist, yellowish-brown (continued)	SP		B									
28.5	sandy LEAN CLAY, trace mica, wet, and gray	CL	11.5	C			2+1+2						
30.0	BOTTOM OF BORING @ 30.0 FT.		10.0			30							

TEST BORING LOG GAITHERSBURG BORING LOGS 04121160.GPJ SCHNABEL.GDT 2/23/06

Comments:

Photoionization Detector (PID) readings were 0 parts per million (ppm) for all soil samples.



TEST BORING LOG

Project: Parkside Lot 12

Boring Number: **B-02**

Contract Number: 04121160

Sheet: 1 of 2

Boring Contractor: Connelly and Associates, Inc.

Boring Foreman: O. Gomez

Drilling Method: 2-1/4 I.D. Hollow Stem Auger

Drilling Equipment: CME 55 LC

SEA Representative: Joan Bentel/Matthew Ker

Dates Started: 8/27/04 Finished: 8/27/04

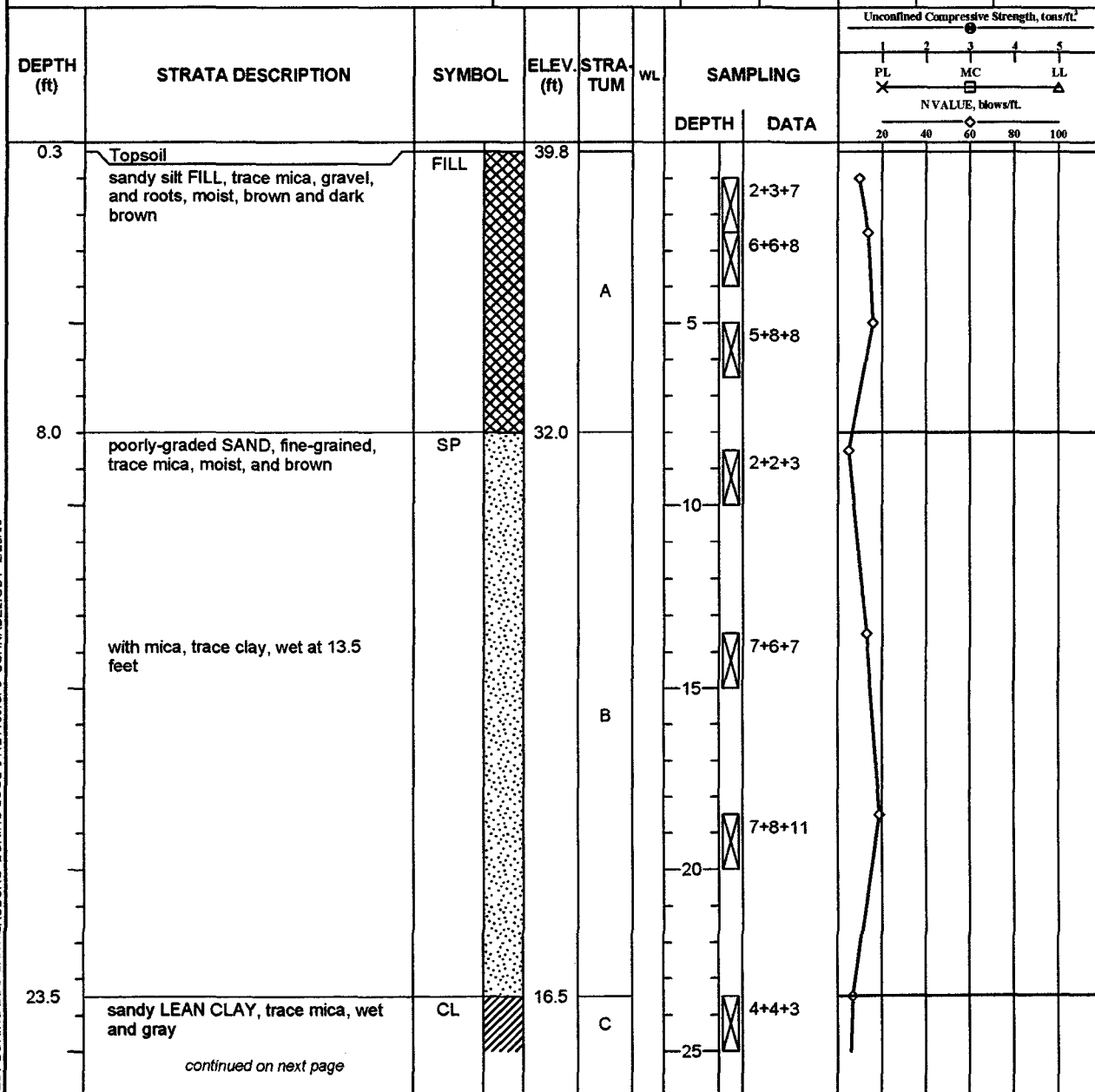
Location: See Boring Location Plan

Hammer Type: Automatic

Ground Surface Elevation: 40.0± (feet)

Groundwater Observations

	Date	Time	Depth	Casing	Caved
Encountered	8/27	---	14.0'	---	---
Completion	8/27	---	28.0'	---	9.0'
Casing Pulled	8/27	---	Dry	---	---
24 hours	8/29	---	Dry	---	7.4'



TEST BORING LOG GAITHERSBURG BORING LOGS 04121160.GPJ SCHNABEL.GDT 2/23/06

Comments:

Photoionization Detector (PID) readings were 0 parts per million (ppm) for all soil samples.

 TEST BORING LOG		Project: Parkside Lot 12			Boring Number: B-02 Contract Number: 04121160 Sheet: 2 of 2												
DEPTH (ft)	STRATA DESCRIPTION	SYMBOL	ELEV. (ft)	STRATUM	WL	SAMPLING		Unconfined Compressive Strength, tons/ft. ² 1 2 3 4 5 PL MC LL N-VALUE, blows/ft. 20 40 60 80 100									
						DEPTH	DATA										
	sandy LEAN CLAY, trace mica, wet and gray (continued)	CL															
30.0	BOTTOM OF BORING @ 30.0 FT.		10.0														

TEST BORING LOG GAITHERSBURG BORING LOGS 04121160.GPJ SCHNABEL.GDT 2/23/06

Comments:
Photoionization Detector (PID) readings were 0 parts per million (ppm) for all soil samples.

Attachment B
Laboratory Test Results
Chain of Custody Form

PHASE SEPARATION SCIENCE, INC.

Analytical Chemistry Environmental Science

LABORATORY RESULTS

DATE RECEIVED: August 30, 2004

PROJECT: Parkside Lot 12

Project #: 04121160

CERTIFICATE OF ANALYSIS #: 04083027

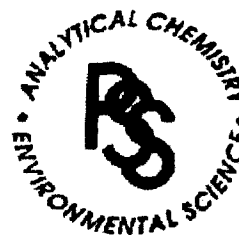
PREPARED FOR:

Schnabel Engineering North
656 Quince Orchard Rd, Ste 700
Gaithersburg MD 20878

September 2, 2004

OFFICES:
6630 BALTIMORE NAT'L PIKE
ROUTE 40 WEST
BALTIMORE, MD 21228
410-747-8770
800-932-9047
FAX 410-788-8723

PHASE SEPARATION SCIENCE, INC.



CERTIFICATE OF ANALYSIS

No. 04083027 Page 1 of 1

Schnabel Environmental Services

September 2, 2004

Project: Parkside Lot 12
Site Location: Kenilworth Terrace, NE
Project Number: 04121160

Date Sampled: 8/27/2004

Date Received: 8/30/2004

	Result	Unit	Method	PQL	Prepared	Analyzed
Sample ID EB-1 (18.5-20') / 04083027-01 / Soil						
Percent Solids						
Percent Solids	83	%	Gravimetry			8/31/2004
Total Petroleum Hydrocarbons						
TPH	ND	mg/kg	EPA 1664M	30	8/31/2004	8/31/2004
Total Petroleum Hydrocarbons - DRO						
Diesel Range Organics	ND	mg/kg	EPA 8015B	12	8/31/2004	8/31/2004
Total Petroleum Hydrocarbons - GRO						
Gasoline Range Organics	ND	ug/kg	EPA 8015B	120		9/1/2004
Sample ID EB-2 (28.5-30') / 04083027-02 / Soil						
Percent Solids						
Percent Solids	81	%	Gravimetry			8/31/2004
Total Petroleum Hydrocarbons						
TPH	ND	mg/kg	EPA 1664M	31	8/31/2004	8/31/2004
Total Petroleum Hydrocarbons - DRO						
Diesel Range Organics	ND	mg/kg	EPA 8015B	12	8/31/2004	8/31/2004
Total Petroleum Hydrocarbons - GRO						
Gasoline Range Organics	ND	ug/kg	EPA 8015B	120		9/1/2004
Sample ID EB-1 (groundwater) / 04083027-03 / Water						
Total Petroleum Hydrocarbons						
TPH	ND	mg/L	1664-SGTHEM	10	9/2/2004	9/2/2004
Total Petroleum Hydrocarbons - DRO						
Diesel Range Organics	ND	mg/L	EPA 8015B	1.7	9/1/2004	9/1/2004
Total Petroleum Hydrocarbons - GRO						
Gasoline Range Organics	ND	ug/L	EPA 8015B	100		9/2/2004

Reviewed By:

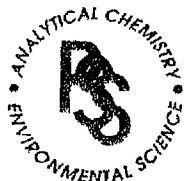
Quality Assurance Chemist

Notes/Comments:

PQL - Practical Quantitation Limit

ND - Not Detected at a concentration greater than or equal to the PQL.

Results reported on a dry weight basis where applicable.



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

1 CLIENT: <u>Schnabel Eng</u> PHONE NO.: <u>(301) 417-2400</u> PROJECT MGR: <u>K. Sheridan</u> FAX NO.: <u>(301) 417-2730</u> EMAIL: <u>ksheridan@schnabel-eng.com</u> PROJECT NAME: <u>Parkside Lot 12</u> SITE LOCATION: <u>Kenilworth Terrace, N.E.</u> PROJECT NO.: <u>04121160</u> R.O. NO.: _____					PSS Project #: <u>04083007</u> PAGE <u>1</u> OF <u>1</u>														
					No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used Analysis Required										REMARKS		
							③ TPH-DRO TPH-GRD TPH-1664												
2	LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX														
		EB-1 (18.5-20')	8/27/04		Soil	1	G	✓	✓	✓									
		EB-2 (28.5-30')	8/27/04		Soil	1	G	✓	✓	✓									
		EB-1 (groundwater)	8/27/04		Water	4	G	✓	✓	✓									
5		Collected / Relinquished By: (1)		Date	Time	Received By:		4				Requested Turnaround Time				Sample Condition Upon Receipt:			
		<u>[Signature]</u>		<u>8/27/04</u>	<u>3:06</u>	<u>[Signature]</u>		☒ 5-Day (Std.) ☐ 3-Day ☐ 2-Day ☐ Next Day ☐ Emergency ☐ Other				Custody Seal: <u>Seal on jar</u> Shipping Carrier: <u>DAT</u> Shipping Ticket No.: _____							
		Relinquished By: (2)		Date	Time	Received By:													
		<u>[Signature]</u>		<u>8/30/04</u>	<u>4:10</u>	<u>[Signature]</u>		Data Deliverables Required: _____ Special Instructions: _____											
		Relinquished By: (3)		Date	Time	Received By:													
		Collected / Relinquished By: (4)		Date	Time	Received By:													

APPENDIX I
QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Advantage Environmental Consultants, LLC

ENVIRONMENTAL DUE DILIGENCE SPECIALISTS

Thomas E. Ruszin III Staff Scientist

EDUCATION

B.S. Biology, Salisbury University, 2005

B.S. Environmental Marine Science, University of Maryland, Eastern Shore, 2005

PROFESSIONAL REGISTRATIONS, LICENSES, AND CERTIFICATIONS

- EPA-Accredited Asbestos Building Inspector
- Virginia-Certified Asbestos Building Inspector
- EPA-Accredited Asbestos Project Designer
- 40-Hour OSHA HAZWOPER
- 40-Hour Collecting & Analyzing Asbestos Air Samples (NIOSH 582 Equivalent)
- 2-Day Mold Inspection & Assessment
- Maryland-Certified Drinking Water Sampler

PROFESSIONAL SUMMARY

Mr. Ruszin has been with Advantage Environmental Consultants, LLC (AEC) since July 2008. He is a Staff Scientist with over two years of experience performing Phase I and II Environmental Site Assessments (ESAs) for residential, industrial, commercial, government, and unimproved properties in Maryland, Tennessee, and the District of Columbia. Other related investigations include, Underground Storage Tank (UST) removal/abandonment, mold inspections, and hazardous materials surveys, as well as remediation and groundwater monitoring studies. Prior to AEC, Mr. Ruszin was employed for one-and-a-half years with a large national environmental, geotechnical, and materials testing consulting firm.

PROFESSIONAL EXPERIENCE

Phase I ESAs

Over two years experience conducting and preparing environmental site inspections and technical reports of Phase I ESAs and Transaction Screens for various commercial lending institutions, insurance companies, REITS property managers, and real estate developers.

Phase II Subsurface Investigations

Over two years experience performing subsurface investigations at privately owned sites using hand auger and geoprobe. Oversaw remedial excavation of contaminated soil and performed verification sampling, and managed remediation system installation.

Asbestos Building Surveys

Certified/Licensed AHERA Asbestos Inspector for the State of Maryland since 2007. Experience conducting and preparing Asbestos Building Surveys and associated reports for facilities located in Maryland and the District of Columbia.

UST Removal

Experience overseeing UST removal projects in Maryland. UST removal activities have included tank excavation, coordination with pertinent local government agencies, confirmation soil sampling, over-excavation, coordinating off-site soil disposal, backfilling and compaction, and submitting UST closure reports to government agencies.

SELECTED PROJECT EXPERIENCE

MDE VCP, Former Manufacturing Facility, Baltimore, Maryland – Mr. Ruszin assisted in developing a Response Action Plan (RAP) for the site in order to obtain a No Further Requirements Determination (NFRD) through the MDE VCP. Mr. Ruszin installed ten potassium permanganate injection wells to remediate trichloroethene (TCE) impacted groundwater, and sampled and gauged the sub-slab soil vapor extraction (SVE) system.

Emergency Response, Gasoline Filling Station, Essex, Maryland – Mr. Ruszin responded to a MDE Emergency Response after a release of an undisclosed amount of petroleum delivered to an inactive underground storage tank (UST) system. Mr. Ruszin designed and implemented a direct-push drilling and sampling program in order to delineate the impact of the petroleum release. Mr. Ruszin also designed and supervised the installation of a SVE system, and permanent monitoring well location plan based on the findings of the delineation. Additional, project duties included the management of soil removal, coordination of sub-contractors, dust monitoring during excavation, post-excavation confirmatory sampling, and daily interactions with public, owner, and regulatory personnel.

Phase I ESA/Ground Penetrating Radar (GPR) Survey/UST Removal, Former Gasoline Filling Station, Fort Meade, Maryland – Mr. Ruszin performed a Phase I ESA on a stand alone office space building, and through review of historical deeds and city directories it was found that the Site formerly operated as a gasoline filling station. Additionally, Mr. Ruszin identified seven UST vent pipes at the time of Site reconnaissance. Since there was no existing documentation of the removal of the on-Site USTs, a GRP Survey was recommended. Through performance of the GPR survey, Mr. Ruszin identified six anomalies indicative of UST presence at the Site. Based on the results of the GPR Survey, Mr. Ruszin supervised the removal of one

1,000-gallon UST, two 550-gallon USTs, and four 4,000-gallon USTs. Project duties included documentation, coordination of sub-contractors, post-excavation confirmatory sampling, and daily interactions with public, owner, and regulatory personnel.

Hazardous Materials Survey, Various Commercial Properties, Baltimore, Maryland – Mr. Ruszin assisted in the completion of a hazardous materials survey for a full city block in Baltimore. Project duties included identifying suspect asbestos containing materials (ACM), sampling suspect ACM, quantification of ACMs, and identification and quantification of polychlorinated biphenyl (PCB) containing light ballasts and mercury containing thermostats.

Advantage Environmental Consultants, LLC

ENVIRONMENTAL DUE DILIGENCE SPECIALISTS

Jeffery Stein, P.G. Principal

EDUCATION

B.S. Geosciences, Virginia Tech, 1987

PROFESSIONAL REGISTRATIONS, LICENSES, AND CERTIFICATIONS

- Professional Geologist, Commonwealth of Virginia and North Carolina
- 40-Hour OSHA Hazardous Waste Site Worker Training

PROFESSIONAL SUMMARY

Mr. Stein has over 19 years experience in the field of facility and remedial investigations. This experience includes: preparing remedial investigation/feasibility studies (RI/FS) for assessment and remediation of contaminated media at CERCLIS, RCRA, LUST and voluntary cleanup sites; preparation, evaluation and performance of treatability studies of remedial technologies; preparation of detailed design plans, equipment specifications, and construction drawings for remedial actions; preparation of Corrective Action Plans for LUST sites including evaluation of soil and groundwater remediation options; obtaining permits for discharge of treated groundwater, discharge of air contaminants, and construction; and installation, operation, optimization and maintenance of treatment systems.

PROFESSIONAL EXPERIENCE

Litigation Support – Provided various support services to law firm and company general council clients including: Ober Kaler; DLA Piper US LLP; Patton Boggs; Lerch Early & Brewer; Gordon, Feinblatt, Rothman, Hoffberger & Hollander, LLC, among others. These services ranged from CERCLIS potentially responsible party investigation support to expert witness testimony for metals, chlorinated solvent and petroleum contamination issues for both plaintiffs and defendants.

CERCLA Feasibility Studies, Wallops Flight Facility, Wallops Island, VA - Developed remedial alternatives for clean-up of PCB impacted soil associated with an electrical transformer storage area, and chlorinated solvent impacted groundwater associated with a former fire training area. Work was performed under the direction of the National Aeronautics and Space Administration (NASA).

CERCLA Remedial Investigation/Feasibility Study, Michaelsville Landfill, Aberdeen Proving Ground, MD - Developed remedial alternatives for clean-up of heavy metal chlorinated hydrocarbon impacted groundwater associated with a closed landfill. Work was performed under the direction of the Hazardous Waste Remedial Action Program (HAZWRAP).

Potentially responsible party support, Proposed National Priorities List Site, 68th Street Dump/Industrial Enterprises, Baltimore, MD – Developed position papers and technical analysis for litigation support for client's possible involvement in CERCLA proceedings.

Baltimore Marine Industries (Former Bethlehem Steel Sparrows Point Shipyard) environmental compliance and hazardous waste management coordinator. Provided compliance direction and auditing services for operating shipyard. Managed special and hazardous waste compliance and reporting operations.

Subsurface Investigation, Remedial Design and Implementation at Bulk Storage Terminal, Fredericksburg, VA - Supervised a hydrogeologic assessment and emergency remedial response under the direction of the EPA for an extensive Liquid Phase Hydrocarbon (LPH) plume. Emergency response activities included design and construction of an underflow dam, extensive stormwater piping network, and realignment and lining of 1000 feet of stream bed. Performed pilot studies including groundwater pumping tests, air sparging and soil vapor extraction studies. Used data to design and build three independent total fluids and vapor extraction systems.

Subsurface Investigation and Existing Remediation System Evaluation at bulk Storage Terminal in Fairfax, VA, Project Manager - Participated in a study of the effectiveness of a large-scale interceptor trench in response to a request from state and federal regulatory authorities following a perceived liquid-phase hydrocarbon underflow of a trench section. Performed analysis and review of trench operating parameters and local hydrogeology to determine that the trench was operating effectively.

Environmental Assessment for Voluntary Cleanup (VCP) Program, Columbia, MD, Project Manager - Served as Project Manager for the assessment and evaluation of environmental liability as part of property transaction of a 10 acre industrial property in Columbia, Maryland. The site was impacted with chlorinated solvents.

Remedial Action Implementation, Griffiss Air Force Base, NY - Designed and implemented a large scale ex-situ soil land farm project for the treatment of approximately 3000 cubic yards of petroleum hydrocarbon contaminated soil. The project used enhanced aeration and biostimulation (nutrient addition) techniques to reach remedial end points. Work was performed under the direction of the Air Force Center for Environmental Excellence (AFCEE).

District of Columbia Voluntary Remediation Action Program (VRAP) Subsurface Investigation, Corrective Action Design and Implementation at multiple Building Development Sites in Washington, DC, Project Manager - Managed subsurface assessments, developed remediation plans and construction specifications for petroleum, solvent and metals contaminated soil and groundwater issues for various developers.

Operation, Maintenance and Monitoring of 75 Petroleum Retail Facilities, Mid-Atlantic Region, Project Director: Supervised project manager, remediation specialist and technicians in all aspects of program for major oil company client.

Subsurface Investigation, Remedial Design and Implementation at Leaking UST Site, Warrenton, VA, Project Manager - Supervised a hydrogeologic investigation, remedial system design and implementation for an extensive LPH plume. Performed Hydrogeologic

testing in fractured saprolite material. Analyzed and modeled hydrogeologic data for the design of a large-scale soil vapor extraction and electric total fluids extraction system. Design included an independent pneumatic system to recover LPH accumulations in the elevator shaft of a building. Managed construction and subsequent operation and maintenance of the recovery system.

Emergency Response for Overfill of Bulk Storage Tank at Bulk Storage Terminal, Newington, VA, Project Manager - Supervised a first response team following a 60,000 gallon fuel spill due to a pipeline overfill of a 300,000 gallon aboveground storage tank. Coordinated with state and county regulatory officials during cleanup activities.

Remedial Design at Bulk Storage Terminal, Oceana Naval Air Station in Virginia Beach, VA, Project Manager - Managed the developed of a corrective action plan for an extensive liquid-phase hydrocarbon plume. Conducted groundwater pumping tests, soil vapor extraction pilot studies, and dual vacuum extraction pilot studies to develop a conceptual design and preliminary specifications for a full-scale remediation system. Work was performed under the direction of the Naval Facilities Engineering Command (NAVFAC).

Remedial Designs for Two Ranger Stations, Cape Cod, MA, Project Manager - Managed the design and preparation of contract specifications for the remediation of heating oil spills at Nauset Ranger Station and the Rockwell House on Cape Cod. The designs included a bioventing system and a hydrogen peroxide injection system. Work was performed under the direction of The National Park Service.

Remedial Design and Implementation for Elementary and Middle Schools, Providence, RI, Project Manager - Managed the design and implementation of a sub-slab soil ventilation system for two new public schools built on a closed landfill. The design integrated the two sub-slab systems into a central treatment compound where the off-gas was treated with granular activated carbon.

Subsurface Investigation and Existing Remediation System Evaluation at Bulk Storage Terminal, Naval Air Station-Sigonella, Sicily, Italy, Project Manager - Supervised the installation and yield testing of groundwater extraction wells. Evaluated performance of existing total fluids extraction and treatment system in conjunction with a local engineering company. Developed a scope of work and negotiated a contract with the local company for operation and maintenance of the system. Work was performed under the direction of the NAVFAC.

Groundwater Treatment System Operation, Navy Yard, Washington, DC, Project Manager - Served as project manager for the treatment of lead and petroleum contaminated groundwater during construction dewatering activities. Work was performed for Turner Construction in association with the U.S. Navy.

Environmental Assessment for Voluntary Clean Up Program, Baltimore, MD, Project Manager - Served as Project Manager for the assessment and evaluation of environmental liability as part of foreclosure proceedings of a 167 acre industrial property in Baltimore, Maryland. The site was impacted with arsenic, lead, petroleum, and chlorinated solvents. Mr. Stein evaluated and recommended application through Maryland's voluntary cleanup program. Due to numerous issues, three separate applications were submitted and successfully negotiated to closure.

Remedial Action Implementation, BOMARC Missile Facility, Mcquire Air Force Base, NJ - Managed remedial construction activities associated with the flushing and decontamination of hydraulically operated missile launcher equipment at 71 launch shelters. Work was performed under the direction of AFCEE.

Underground Storage Tank Removal Project, Griffiss Air Force Base, NY - Managed field effort for remedial construction activities associated with the removal and closure of multiple Underground Storage Tank sites. Work was performed under the direction of AFCEE.

Water Supply Study at Mobile Oil Company Headquarters in Fairfax, VA - Managed hydrogeologic investigation of high-yield water wells used for irrigation system. Study consisted of performing and analyzing step-drawdown and constant rate pumping tests for well efficiency and well interference determinations

Reservoir Siting Project, New Castle County, DE, Chief Geologist: Designed and supervised geotechnical investigation of potential 1.6 billion gallon water supply reservoir. Work included extensive geologic field mapping, seismic refraction surveys, subsurface boring investigations and hydrologic analysis.

***A*dvantage *E*nvironmental *C*onsultants, LLC**

PHASE II ENVIRONMENTAL SITE ASSESSMENT

Parkside Site
Hayes Street, NE
Washington, DC
Washington, DC 20019

AEC Project No. 09-085

July 24, 2009

Prepared for:

DC Primary Care Association
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APPENDICES

APPENDIX A: FIGURES

APPENDIX B: BORING LOGS

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FIGURES

FIGURE 1: SITE VICINITY MAP

FIGURE 2: SITE PLAN

FIGURE 3: BORING LOCATION PLAN

EXECUTIVE SUMMARY

Advantage Environmental Consultants, LLC (AEC) was contracted by DC Primary Care Association to perform a Phase II Environmental Site Assessment (ESA) at the Parkside Site, located along Hayes Street, NE, between of Kenilworth Terrace, NE and Kenilworth Avenue, NE in Washington, DC (hereinafter referred to as the "Site"). Based on the findings of a Phase I ESA of the Site, dated June 30, 2009 (AEC Project No. 09-070), the following recognized environmental condition was identified:

The presence of a historic dry cleaner northeast of the Site across Hayes Street, NE.- Based on the proposed redevelopment of the Site and proximity to the Site, historic dry cleaning operations at this off-Site facility had the potential to adversely affect soil and groundwater at the Site.

The prior Phase I ESA also noted that given the historical structures formerly located at the Site and lack of redevelopment of the Site, small heating oil tanks may have been buried and closed-in-place during the demolition of the former structures. As such, it is possible that buried tanks may be encountered during redevelopment activities associated with the Site.

AEC understands that future development plans for the property involve construction of a 4-story multi-tenant urgent and primary care facility plus one level of below grade parking (25,500 square feet). The future development will require the excavation and off-site transportation of soil for subsurface parking/building foundations. The excavation is anticipated to be in the range of 12 feet below ground surface (bgs).

AEC conducted the field portion of this Phase II ESA on July 10, 2009. Four borings were advanced to a depth of approximately 16 feet below ground surface (bgs). Temporary well points were installed at two of the boring locations (i.e., B-2 and B-3). Two soil samples recovered from the Site were submitted for laboratory analysis for Total Petroleum Hydrocarbons, Diesel Range Organics (TPH-DRO) and Gasoline Range Organics (TPH-GRO), and Volatile Organic Compounds (VOCs). Two groundwater samples were also analyzed for TPH-DRO, TPH-GRO, and VOCs.

Although no TPH-DRO, TPH-GRO, or VOCs constituents were detected in any of the soil or groundwater samples submitted for laboratory analysis, a VOC odor and/or PID response was observed in two of the borings. Based on the results of the PID scan and field observations there may be VOC impacted soils encountered during construction. It is possible that these impacted soils are associated with unknown historic USTs on the Site and/or the off-site dry cleaner activities. This VOC impact was observed at and below the water table which was encountered at approximately 12 feet bgs.

During construction excavation operations the VOC odor in the soil is as important a driver as the laboratory VOC concentration for determining if the soil can be used as clean fill or must be disposed as VOC impacted. Since all of the soil (both impacted and non-impacted) is to be removed during construction activities, and any level of impact makes soil unsuitable for use as clean fill or construction debris, any excavated soil determined to be VOC impacted will need to be specially handled and disposed of

at a facility that accepts this type of impacted soils. AEC recommends that during the excavation process an environmental technician be present to properly characterize the soil prior to disposal. AEC also recommends that any contractors involved with the future development be advised of the likely presence of encountering VOC impacted soil.

1.0 INTRODUCTION

1.1 Introduction and Purpose

Advantage Environmental Consultants, LLC (AEC) was contracted by DC Primary Care Association to perform a Phase II Environmental Site Assessment (ESA) at the Parkside Site, located along Hayes Street, NE, between of Kenilworth Terrace, NE and Kenilworth Avenue, NE in Washington, DC (hereinafter referred to as the "Site").

The purpose of the investigation was to assess the environmental condition of the Site through the collection and analysis of soil and groundwater samples. AEC conducted the field portion of this Phase II ESA on July 10, 2009. Four borings (i.e. B-1 through B-4) were advanced to a depth of approximately 16 feet below ground surface (bgs). Temporary well points were installed at two of the boring locations (i.e., B-2, and B-3). Representative soil and groundwater samples were collected from boring locations B-2 and B-3. The following sections summarize the results of AEC's evaluation of current Site conditions.

This report was prepared for use solely and exclusively by the DC Primary Care Association, and other parties (as identified by the DC Primary Care Association). This Phase II ESA may be provided by the DC Primary Care Association, in its sole discretion, to third parties in connection with the sale of the land or portions thereof by the DC Primary Care Association to said third parties or acquisition of the land by the DC Primary Care Association from said third party, and may be relied upon by such third party to the same extent that this report may be relied upon by the DC Primary Care Association. No other use or disclosure is intended or authorized by AEC. In the preparation of this ESA, AEC has used the degree of care and skill ordinarily exercised by a reasonably prudent environmental professional in the same community and in the same time frame given the same or similar facts and circumstances. No other warranties are made to any third party, either express or implied.

1.2 Site Location and Description

The Site is situated along Hayes Street, NE, between of Kenilworth Terrace, NE and Kenilworth Avenue, NE in Washington, DC. According to the information obtained from the DC Geographic Information System (GIS) DC Atlas and the DC Office of Tax and Revenue Real Property Assessment Database, the Site is currently owned by Lano Parcel 12, LLC and is identified as Parcels 0023, 0024, 0025, 0801, 0802, and 0803 of Square 5055. The Site consists of six rectangular-shaped parcels of undeveloped, grass-covered land totaling approximately 47,808 square feet (1.1 acre). A Site Vicinity Map is included as Figure 1 in Appendix A. A Site Map is included as Figure 2 in Appendix A.

The Site is situated in a primarily residential and commercial area in the Lilly Ponds neighborhood of northeast Washington, DC. The area generally consists of multi-family residential properties, undeveloped land and commercial development. The Site is bordered to the northwest by Kenilworth Terrace, NE, followed by undeveloped, grass-

covered land; to the northeast by Hayes Street, NE, followed by a Circle 7 Express convenience store; to the southeast by Kenilworth Avenue, NE, followed by DC Route 295; and to the southwest by undeveloped, grass-covered land, followed by Foote Street, NE.

1.3 Previous Reports

Based on the findings of a Phase I ESA of the Site, dated June 30, 2009 (AEC Project No. 09-070), the following recognized environmental condition was identified:

The presence of a historic dry cleaner northeast of the Site across Hayes Street, NE. - Based on the proposed redevelopment of the Site and proximity to the Site, historic dry cleaning operations at this off-Site facility had the potential to adversely affect soil and groundwater at the Site.

It was also noted that given the historical structures formerly located at the Site and lack of redevelopment of the Site, small heating oil tanks may have been buried and closed-in-place during the demolition of the former structures. As such, it is possible that buried tanks may be encountered during redevelopment activities associated with the Site.

1.4 Site Vicinity Topography and Geology

According to the United States Geological Survey (USGS) 7.5-Minute Series Washington East, DC-MD Topographic Quadrangle, dated 1965, photorevised in 1979, the elevation of the Site is situated approximately 35 feet above mean sea level (msl). Regional surface drainage patterns in the vicinity of the Site are toward the northwest in the direction of the Anacostia River, which is located approximately 3,000 feet northwest of the Site at its closest point. No surface water bodies were illustrated on the topographic map as being present on the Site, and none were observed on the Site on the date of the inspection. A copy of the topographic map is included in Appendix A.

According to the Maryland Geological Survey's Geologic Map of Maryland, dated 1968, the Site is located in the Atlantic Coastal Plain physiographic province. The Coastal Plain is characterized by gently rolling hills and valleys. It is underlain by a southeastwardly thickening sequence of sediments that consist of sand and gravel aquifers inter-layered with silt and clay confining units. Specifically, the Site is underlain by Lowland Deposits, which consists of gravel, sand, silt and clay with a thickness 0 to 150 feet.

2.0 INVESTIGATION METHODS

2.1 Introduction

AEC performed a subsurface investigation, including the collection of soil and groundwater samples, in order to determine whether soil and groundwater at the Site have been impacted. Four borings (i.e. B-1 through B-4) were advanced to a depth of approximately 16 feet bgs. Temporary well points were installed at two of the boring locations (i.e., B-2 and B-3). Representative soil and groundwater samples were collected from the boring locations B-2 and B-3.

2.2 Advancement of Direct Push Sampling Device

Drilling activities were conducted on July 10, 2009. Sample cores were collected in four-foot intervals using a truck-mounted Geoprobe drill rig. The Geoprobe system is a hydraulically powered percussion probing machine used to advance sampling tools through unconsolidated soils. The Geoprobe sample collection method involves a hydraulically pushed stainless steel hollow core, measuring four feet long, with a stainless steel cutting shoe on the leading edge. For each sampling interval, a disposable non-reactive plastic liner is placed inside the core and the cutting shoe is threaded on. The core is driven through the sampling interval, thereby filling the core with a section of undisturbed sample. All sampling equipment was decontaminated in the field using non-phosphate liquinox and water prior to use. AEC contracted Vironex, Inc. of Bowie, Maryland to perform the drilling activities.

A total of four Geoprobe borings (B-1 through B-4) were advanced at the Site. Boring B-1 was advanced on the northern portion of the property near the intersection of Kenilworth Terrace, NE and Hayes Street, NE. Borings B-2 and B-3 were advanced on the eastern portion of the Site near Hayes Street, NE. Boring B-4 was advanced on the western portion of the Site near Kenilworth Terrace, NE. Soil boring locations are depicted on a Boring Location Plan included as Figure 3 in Appendix A. The truck-mounted drill rig was used to advance each boring to a depth of approximately 16 feet bgs. Upon completion of the boring activities the boreholes were filled with soil cuttings and/or bentonite to the ground surface. Copies of the boring logs for this investigation are included in Appendix B.

2.3 Soil Sampling Methodology

During drilling operations an AEC Field Geologist logged the geologic conditions and field screened the Geoprobe soil cores for volatile organic compounds (VOCs) using a photo-ionization detector (PID). For the Geoprobe samples the liner was removed from the core and penetrated at approximately 12-inch intervals using a punch tool and screened with a PID by inserting the probe tip into the soil core's void space created by the punch tool insertion.

Following the screening, soil samples were collected based on the following criteria (in order): the highest PID response; visual and/or olfactory evidence of impact; the sample

located directly above the water table; and, from the bottom of the boring in the event of refusal.

Each soil sample was labeled with its boring number and depth (e.g., B-3-16'). All samples were placed in appropriate pre-cleaned, laboratory-supplied, four-ounce glassware. Once collected, the samples were placed on ice in a cooler to await delivery to the laboratory.

Soil samples were collected from B-2 at 12 feet bgs and B-3 at 16 feet bgs. B-2-12' and B-3-16' were collected from the zones exhibiting the highest PID readings from their respective boring locations. The PID readings for sample B-2-12' and B-3-16' were 48.1 parts per million (ppm) and 49.1 ppm, respectively. It should be noted that no elevated PID readings were observed in soils screened at B-1 and B-4. Therefore, no soil samples from B-1 and B-4 were submitted for laboratory analysis.

2.4 Installation of Temporary Piezometers

A one-inch diameter polyvinyl chloride (PVC) temporary piezometer was installed at boring locations B-2 and B-3. The piezometers were installed to a depth of 16 feet bgs. Each piezometer included 10 feet screened interval in order to allow for an adequate volume of water for sampling. The piezometers were gauged for water level on July 10, 2009. Groundwater was encountered at depths of approximately 12.08 feet and 12.03 feet at B-2, and B-3, respectively. The piezometers were removed upon completion of groundwater sampling activities.

2.5 Groundwater Sampling Methodology

Upon completion of the temporary piezometer installation, groundwater samples were collected from the temporary piezometers using a peristaltic pump and dedicated Teflon tubing. The samples were placed in 40 milliliter glass vials with teflon-lined septa caps preserved with hydrochloric acid (Total Petroleum Hydrocarbons (TPH) Gasoline Range Organics (TPH-GRO) and Volatile Organic Compounds (VOCs)) and one-liter amber glass jars with teflon-lined septa caps preserved with nitric acid (TPH Diesel Range Organics (DRO)). The sample bottles were then labeled with the corresponding boring number. Once collected, the sample bottles were placed on ice in a cooler to await delivery to the laboratory. Groundwater samples B-2 and B-3 were submitted for laboratory analysis.

2.6 Decontamination and Sample Handling Procedures

The following describes the equipment and materials decontamination, and sample handling procedures.

2.6.1 Equipment Decontamination Procedures

Prior to arriving at the site and between each soil boring, all hand augers, core barrels, cutting shoes, probe rods, tips, sleeves, pushrods, samplers, tools, and other downhole equipment was decontaminated using a Liquinox detergent and distilled water solution

followed by a distilled water rinse. Fuel, lubricants, and other similar substances were handled in a manner consistent with accepted safety procedures and standard operating practices.

2.6.2 Sample Handling and Analysis Procedures

The analytical laboratory provided pre-preserved sample containers where appropriate. The sample labels were firmly attached to the container side, and the following information was legibly and indelibly written on the labels: Facility name, Sample identification, Sample type (soil), Sampling date and time, Preservatives added, and, Sample collector's initials.

The following packaging procedures were followed: Samples were packaged to prevent leakage or vaporization from the containers, samples were cushioned to avoid breakage, and ice was added to the cooler to keep the samples cool. After the samples were sealed and labeled, they were packaged for transport to Anabell Environmental, Inc. located in Gaithersburg, Maryland.

Soil samples and groundwater samples submitted for laboratory analysis were analyzed for TPH DRO and TPH GRO via EPA Analytical Method 8015, and VOCs via EPA Analytical Method 8260.

3.0 INVESTIGATION ACTIVITY RESULTS AND CONCLUSIONS

AEC understands that future development plans for the property involve construction of a 4-story multi-tenant urgent and primary care facility plus one level of below grade parking (25,500 square feet). The future development will require the excavation and off-site transportation of soil for subsurface parking/building foundations. The excavation is anticipated to be in the range of 12 feet bgs.

AEC conducted the field portion of this Phase II ESA on July 10, 2009. Four borings were advanced to a depth of approximately 16 feet below ground surface (bgs). Temporary well points were installed at two of the boring locations (i.e., B-2 and B-3). Two soil samples recovered from the Site were submitted for laboratory analysis for TPH DRO and TPH GRO, and VOCs. Two groundwater samples were also analyzed for TPH-DRO, TPH-GRO, and VOCs.

Although no TPH-DRO, TPH-GRO, or VOCs constituents were detected in any of the soil or groundwater samples submitted for laboratory analysis, a VOC odor and/or PID response was observed in two of the borings. Based on the results of the PID scan and field observations there may be VOC impacted soils encountered during construction. It is possible that these impacted soils are associated with unknown historic USTs on the Site and/or the off-site dry cleaner activities. This VOC impact was observed at and below the water table which was encountered at approximately 12 feet bgs.

During construction excavation operations the VOC odor in the soil is as important a driver as the laboratory VOC concentration for determining if the soil can be used as clean fill or must be disposed as VOC impacted. Since all of the soil (both impacted and non-impacted) is to be removed during construction activities, and any level of impact makes soil unsuitable for use as clean fill or construction debris, any excavated soil determined to be VOC impacted will need to be specially handled and disposed of at a facility that accepts this type of impacted soils. AEC recommends that during the excavation process an environmental technician be present to properly characterize the soil prior to disposal. AEC also recommends that any contractors involved with the future development be advised of the likely presence of encountering VOC impacted soil.