PROPOSED REMEDIAL ACTION PLAN

Chez Valet Dry Cleaners
State Superfund Project
Port Washington, Nassau County
Site No. 130169
February 2011

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

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SECTION 1: SUMMARY AND PURPOSE OF THE PROPOSED PLAN

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), is proposing a remedy for the above referenced site. The disposal of hazardous wastes at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRMs undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the RI indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the remedy proposed by this Proposed Remedial Action Plan (PRAP). A No Further Action remedy may include site management, which will include continued operation of any remedial system installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the proposed remedy for the site.

The IRM(s) conducted at the site attained the remediation objectives identified for this site, which are presented in the attached exhibits, for the protection of public health and the environment. This PRAP identifies the IRM(s) conducted and discusses the basis for No Further Action.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375. This document is a summary of the information that can be found in the site-related reports and documents in the document repository identified below.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all PRAPs. This is an opportunity for public participation in the remedy selection process. The public is encouraged to review the reports and documents, which are available at the following repository:

Port Washington Public Library
Attn: Ms. Jane West
One Library Drive
Port Washington, NY 11050
Phone: 516-883-4400

A public comment period has been set from:

3/1/2011 to 3/30/2011

A public meeting is scheduled for the following date:

3/15/2011 at 7:00 PM

Public meeting location:

Port Washington Public Library, One Library Drive, Port Washington, NY

At the meeting, the findings of the remedial investigation (RI) will be presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period will be held, during which verbal or written comments may be submitted on the PRAP.

Written comments may also be sent through 3/30/2011 to:

Brian Jankauskas
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233
bfjankau@gw.dec.state.ny.us

The Department may modify the proposed remedy presented in this PRAP based on new information or public comments. Therefore, the public is encouraged to review and comment on the proposed remedy identified herein. Comments will be summarized and addressed in the responsiveness summary section of the Record of Decision (ROD). The ROD is the Department's final selection of the remedy for this site.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going

paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The Chez Valet Dry Cleaners site is located in a suburban area of Nassau County at 1-3 Manorhaven Boulevard in Port Washington, NY.

Site Features: The site consists of a one-story structure built in 1926, which covers approximately 6,500 square feet. The current vacant space was occupied by Chez Valet Dry Cleaners and the other space is currently utilized by a hair salon. A parking lot covers the remaining portions of the property. A residential property abuts the site to the north.

Current Zoning/Use(s): The site is zoned for commercial use and can be occupied by two tenants.

Historical Use(s): It has been reported that the dry cleaner operated at the complex from the 1970's to 2006. Investigation reports from 2004, 2005 and 2006 indicate that PCE was detected in the soil vapor and groundwater at or near the site.

Site Geology and Hydrogeology: The geology at the site consists of medium to fine sand to a depth of 11 feet below ground surface. Groundwater is approximately 7 feet below ground surface and flows to the south towards Manhasset Bay.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, an alternative which allows for unrestricted use of the site was evaluated.

A comparison of the results of the investigation against unrestricted use standards, criteria and guidance values (SCGs) for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

Chez Valet Dry Cleaners

Southampton Masonry Tools, LLC

The Department and Southampton Masonry Tools, LLC entered into a Consent Order (W1-0500-07-03) on August 15, 2008. The Order obligates the responsible party to implement a full remedial program.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Information

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- indoor air

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

tetrachloroethylene (pce)

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM(s) described in Section 6.2. More complete information can be found in the RI Report and the IRM Construction Completion Report.

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

IRM Soil Vapor Extraction/Sub-Slab Depressurization System

Soil vapor extraction (SVE) is an in-situ technology used to treat volatile organic compounds (VOCs) in soil. The process physically removes contaminants from the soil by applying a vacuum to an SVE well that has been installed into the vadose zone (the area below the ground but above the water table). The vacuum draws air through the soil matrix which carries the VOCs from the soil to the SVE well. The air extracted from the SVE wells is then run through an activated carbon treatment canister to remove the VOCs before the air is discharged to the atmosphere.

Eight horizontal SVE wells were installed in the vadose zone and screened at 1 foot below the interior floor surface. As part of the system four sub-slab depressurization points were also installed within the adjacent space to the south. The air containing VOCs extracted from the systems is treated using activated carbon. A vapor barrier was placed over the soil within the former dry cleaner space prior to installation of the concrete floor.

6.3: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Contact with contaminated groundwater is not likely unless a person digs deeper than seven feet below the ground surface within the area of the contaminated groundwater plume. Volatile organic compounds in the groundwater and/or soil may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system and soil vapor extraction system (systems that ventilate/remove air from beneath a building) were installed on the site building to prevent vapors from beneath the foundation from entering the on-site building. Sampling indicates soil vapor intrusion is not a concern for off-site buildings.

6.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU(s) 01.

Based upon the investigations conducted to date, the primary contaminant of concern at the site is tetrachloroethylene (PCE). Site reports indicate that PCE was present at the site during dry cleaning operations. Investigations detected PCE in off-site groundwater (up to 75 ug/l at GW-2), which is above applicable NYSDEC groundwater standard (5 ug/l). PCE was also detected above groundwater standards approximately 180 feet southwest of the site, which is the direction of groundwater flow. PCE was detected in on-site sub-slab soil vapor. Soil samples were analyzed and found to be below soil cleanup objectives.

SECTION 7: SUMMARY OF PROPOSED REMEDY

Based on the results of the investigations at the site, the IRM that has been performed, and the evaluation presented here, the Department is proposing No Further Action with continued operation of the Soil Vapor Extraction/sub-slab depressurization system and continued monitoring of groundwater contaminant trends, as well as the implementation of Institutional and Engineering Controls (ICs/ECs) as the proposed remedy for the site. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Exhibit B.

The elements of the IRM already completed and the ICs/ECs are listed below:

1. The operation of the soil vapor extraction/sub-slab depressurization system will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

2. Install a replacement monitoring well near the intersection of Manorhaven Boulevard and Ashwood Road and conduct annual groundwater sampling for site contaminants from the monitoring well network.

3. Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows;

(i) Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
(ii) Reducing direct and indirect greenhouse gas and other emissions;
(iii) Increasing energy efficiency and minimizing use of non-renewable energy;
(iv) Conserving and efficiently managing resources and materials;
(v) Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
(vi) Based on operation and maintenance sampling and with Department approval, the system will be modified to reduce energy consumption by transitioning from a soil vapor extraction system to a sub-slab depressurization system prior to shutdown.

4. Imposition of an institutional control in the form of an environmental easement for the controlled property that:

(a) requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3).

(b) land use is subject to local zoning laws, the remedy allows the use and development of the controlled property for residential, restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), though land use is subject to local zoning laws;

(c) restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;

(d) requires compliance with the Department approved Site Management Plan;

5. A Site Management Plan is required, which includes the following:

(a) an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to assure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: the Environmental Easement discussed in Paragraph 4 above.

Engineering Controls: the soil vapor extraction/sub-slab depressurization system discussed in Paragraph 1 above.

This plan includes, but may not be limited to:

(i) descriptions of the provisions of the environmental easement including groundwater use restrictions;
(ii) provisions for the management and inspection of the identified engineering controls;
(iii) a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion.
(iv) maintaining site access controls and Department notification; and
(v) the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls;

(b) a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but not be limited to:

(i) monitoring of groundwater and SVE/SSD system vacuum measurements and exhaust to assess the performance and effectiveness of the remedy;
(ii) annual assessment of contamination on-site and off-site to enhance operations of the on-site SVE/SSD and conduct additional sampling where warranted; and
(iii) a schedule of monitoring and frequency of submittals to the Department.

(c) an Operation and Maintenance Plan to assure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

(i) compliance monitoring of treatment systems to assure proper operation and maintenance as well as providing the data for any necessary permit or permit equivalent reporting;
(ii) maintaining site access controls and Department notification; and
(iii) providing the Department access to the site and operation and maintenance records.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1.2, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into one category volatile organic compounds (VOCs). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use.

Groundwater

Groundwater samples were collected from five overburden monitoring wells and three temporary sample points and analyzed for volatile organic compounds at all locations and for semi-volatiles, metals, pesticides and PCBs at one location. The samples were collected to assess groundwater conditions on and off-site. The results indicate that contamination in shallow groundwater exceeds the SCGs for only volatile organic compounds. Contaminant levels in the deeper groundwater did not exceed the guidance values for volatile organic compounds. Table 1 and Figure 3 present a summary of RI analytical data for groundwater.

Table 1 - Groundwater

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
tetrachloroethene (PCE)	Not Detected to 68	5	5 of 8

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

The primary groundwater contaminant is tetrachloroethene (PCE) associated with operation of the former dry cleaner. PCE was detected above SCGs in the shallow groundwater at the site (concentration up to 68 ppb) and extends approximately 180 feet down-gradient of the site (concentration of 35 ppb). A petroleum compound, identified as benzene, was also found in the shallow groundwater in a side gradient monitoring well at a concentration of 1 ppb, which is above the groundwater standard of 0.7 ppb, and appears to originate from the gas station located to the southeast of the site. Therefore, the petroleum compounds found in groundwater are not considered site specific contaminants of concern.

Based on the findings of the RI, the past disposal of hazardous waste has resulted in minimal contamination of groundwater. The SVE/SSD system will remove any PCE soil contamination that may be contributing to the groundwater contamination. Therefore, no active groundwater remedy is required.

Soil

Nine subsurface soil samples were collected at the site during the RI and analyzed for volatile organic compounds at all locations and for semi-volatiles, metals, pesticides and PCBs at one location. No surface soils are present at the site. Subsurface soil samples were collected from a depth of 0.5 - 9 feet. Soil samples were collected near potential areas of concern and a source of the PCE contamination detected in the shallow groundwater was not located as soil concentrations were below SCGs for volatile organic compounds. However some localized PCE migration appears to occur beneath the slab. Table 2 and Figure 4 present a summary of RI analytical data for soils.

Table 2 - Soil

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)[a]	Frequency Exceeding Unrestricted SCG
VOCs			
Tetrachloroethene (PCE)	Not Detected to 0.190	1.4	0 of 9

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.

No site-related soil contamination of concern was identified during the RI. However, based on the elevated soil vapor/sub-slab soil vapor concentrations of PCE and PCE impacts to groundwater, a source of PCE in soil is suspected beneath the building. The PCE soil contamination will be address by the SVE/SSD system.

Soil Vapor

The evaluation of the potential for soil vapor intrusion resulting from the presence of site related soil or groundwater contamination was evaluated by the sampling of sub-slab soil vapor under structures and indoor air inside structures. At this site due to the presence of buildings in the impacted area a full suite of samples were collected to evaluate whether actions are needed to address exposures related to soil vapor intrusion.

Five sub-slab soil vapor, two indoor air and one outdoor air samples were collected from on-site. An adjacent residence was evaluated by collecting crawl space air and indoor air samples at the same time. The results indicate tetrachloroethene (PCE) and trichloroethylene (TCE) were detected on-site and off-site. However, no actions to address exposures related to soil vapor intrusion were needed for the off-site residence. On-site sample results indicated the need for actions to address exposures. PCE and TCE were not detected in the outdoor air sample. Prior to the Remedial Investigation the New York State Department of Health sampled the indoor air and the crawl spaces within the public school and one additional off-site structure and did not detect site contamination. TCE is a known breakdown product of PCE. Table 3 and Figure 5 present a summary of RI analytical data for indoor air and sub-slab soil vapor.

Table 3 – Soil Vapor Intrusion Sampling

Detected Constituents	Indoor Air Concentration Range Detected (ug/m^3)[a]	Sub-Slab Soil Vapor Concentration Range Detected (ug/m^3)[a]	Crawl Space Air Concentration Detected (ug/m^3)[a]	Outdoor Air Concentration Range Detected (ug/m^3)[a]
VOCs				
Tetrachloroethene (PCE)	1.63 to 4.95	46.1 to 13,700	Not Detected	Not Detected
Trichloroethene (TCE)	Not Detected to 1.45	Not Detected to 12.5	1.34	Not Detected

a – ug/m^3, which is equivalent to micrograms per cubic meter.

Soil vapor contamination identified during the RI was addressed during the IRM described in Section 6.2.

Exhibit B

SUMMARY OF THE REMEDIATION OBJECTIVES

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial objectives for this site are:

Groundwater
RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of groundwater contamination.

Soil
RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater contamination.

Soil Vapor
RAOs for Public Health Protection

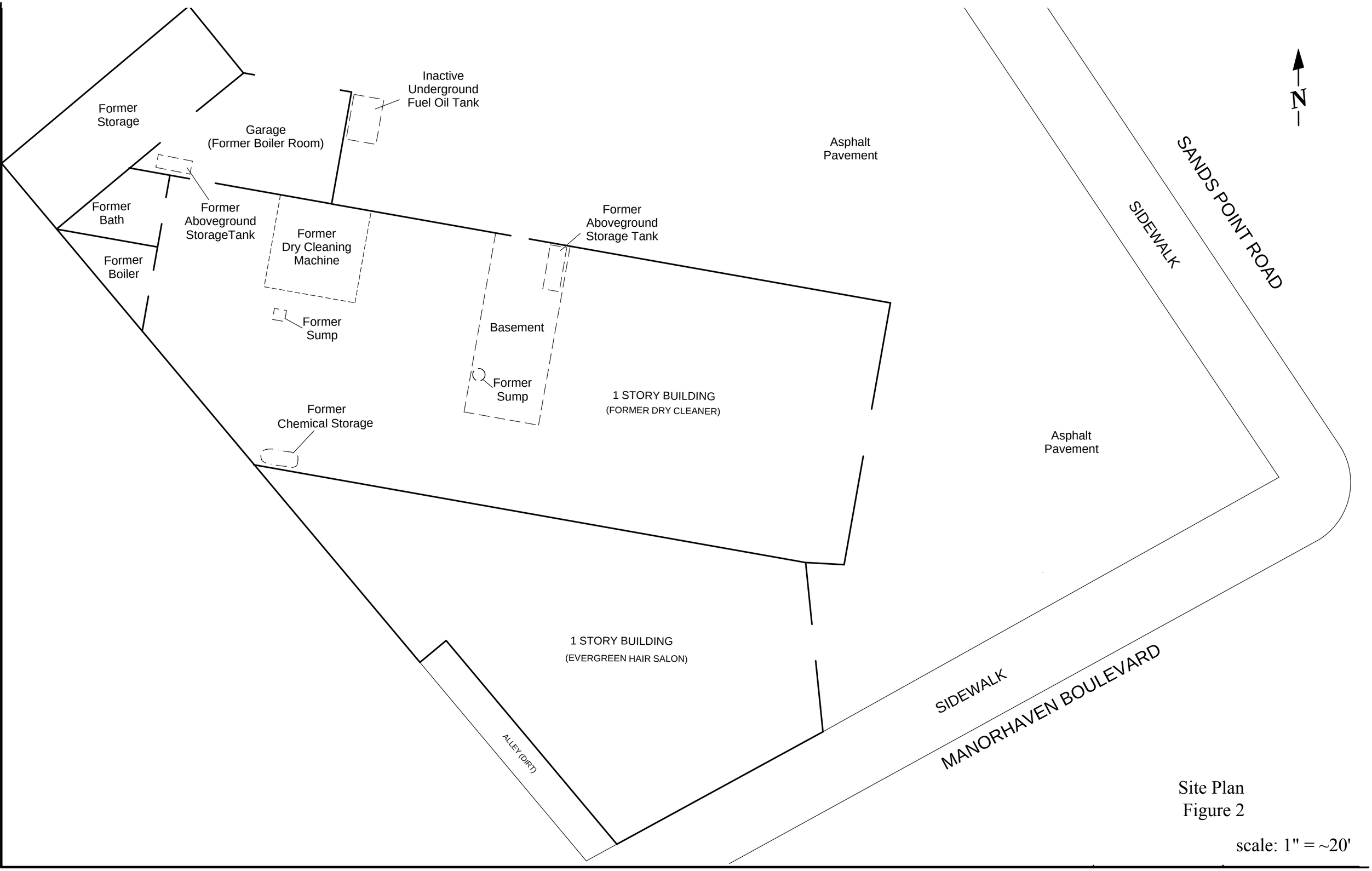
- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings.

From: Historicaerials.com (2000)

N

Site Location Plan
Figure 1

scale: 1"=200'



Site Plan
Figure 2

scale: 1" = ~20'

Approximate Property Boundary

MW-03 [<1] (88.48)

TW-16 [68]

MW-01 [30] (Destroyed)

TW-15 [34]

TW-14 [<10]

88.50

88.25

88.00

87.75

Groundwater Flow Direction

MW-02 [25] (Destroyed)

MW-05 [<1] (88.165)

MW-04 [35] (87.87)

SANDS POINT ROAD

SIDEWALK

ASHWOOD ROAD

MANORHAVEN BOULEVARD

N

LEGEND

MW-03 — Monitoring Well

[<1] — Tetrachloroethene, ug/L (3/11/09)

(89.23) — Water Table Elevation (ft. rel., 3/11/09)

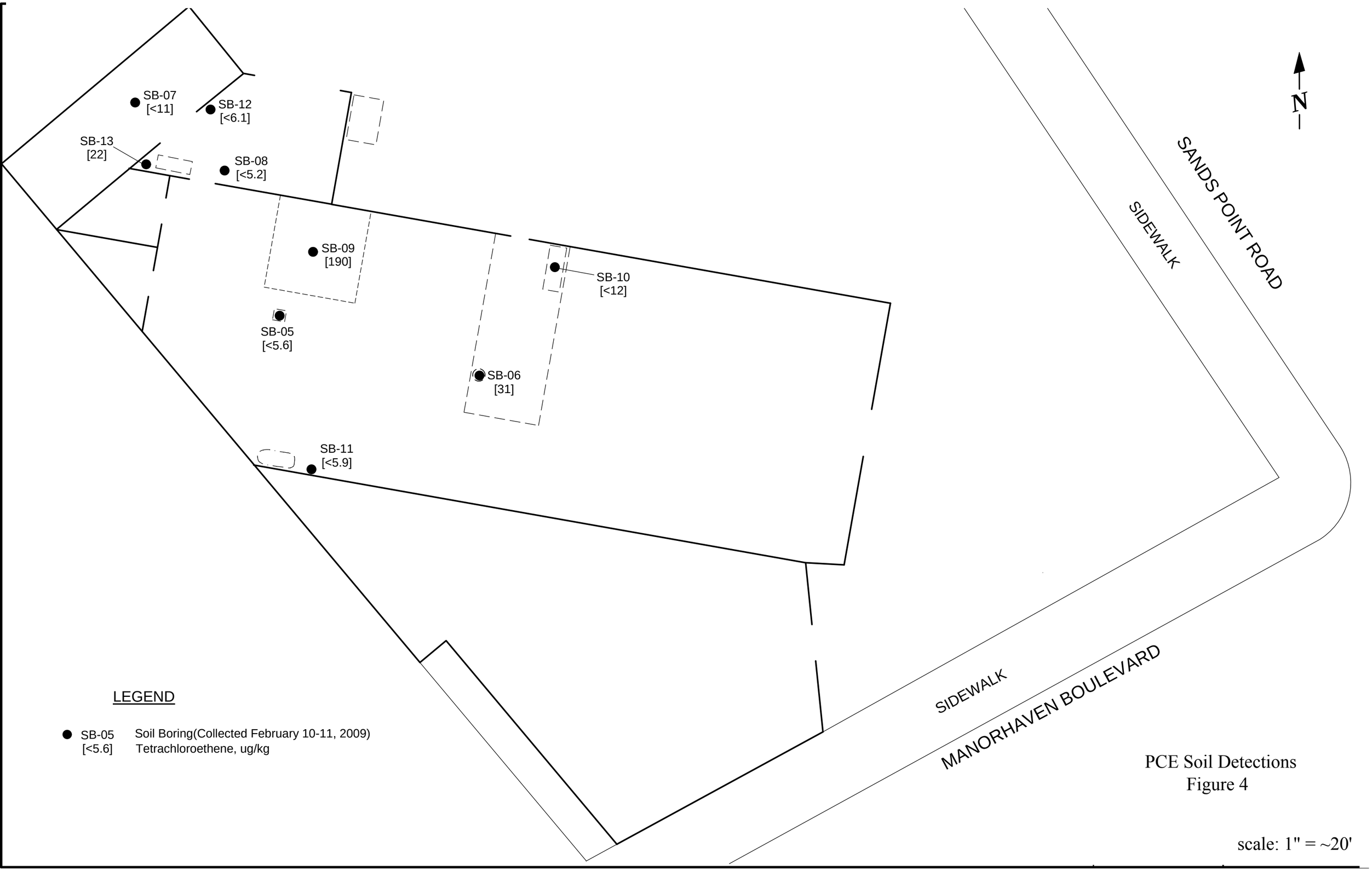
Water Table Contour (ft. rel., 3/11/09)

TW-14 — Temporary Well

PCE Groundwater Detections & Groundwater Flow Contours

Figure 3

scale: 1"=~40'



LEGEND

● SB-05 [<5.6] Soil Boring(Collected February 10-11, 2009) Tetrachloroethene, ug/kg

PCE Soil Detections
Figure 4

scale: 1" = ~20'

AA-01
[ND]

VP-01S
[4,690]

VP-02S
[983]

VP-03S
[13,700]

VP-05S
[46.1]

IA-02
[4.95]

VP-04S
[4,000]

IA-01
[2.51]

SANDS POINT ROAD

SIDEWALK

SIDEWALK

MANORHAVEN BOULEVARD

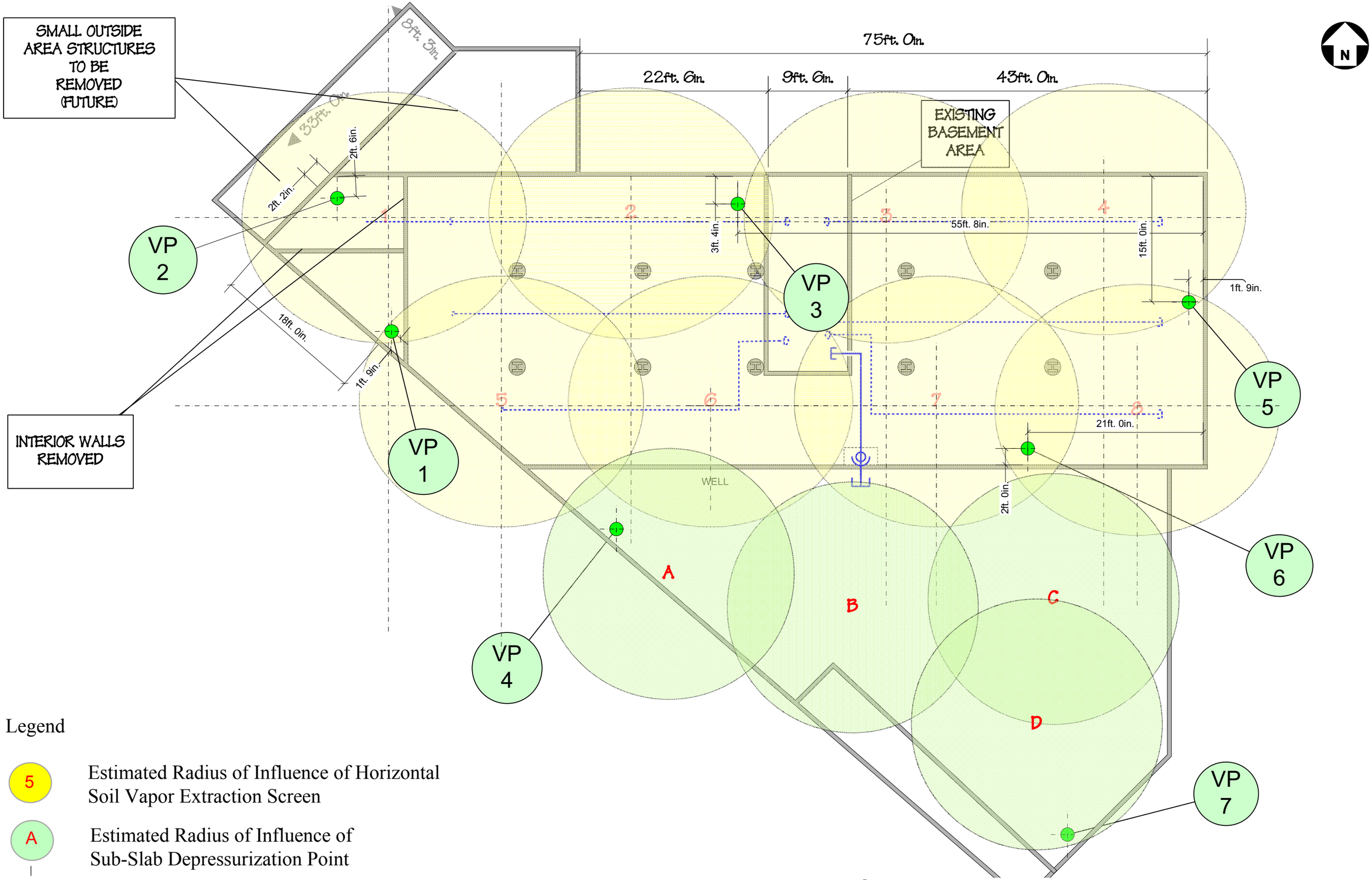
N

LEGEND

○	AA-01	Outdoor Air Sample
●	IA-01	Indoor Air Sample
⊕	VP-01S	Sub-Slab Vapor Probe
	[4,690]	Tetrachloroethene, ug/m^3(2/9/09)
	ND	Not Detected

On-site PCE Indoor Air, Sub-Slab Soil Vapor, Outdoor Air Detections
Figure 5

scale: 1" = ~20'



Legend

5 — Estimated Radius of Influence of Horizontal Soil Vapor Extraction Screen

A — Estimated Radius of Influence of Sub-Slab Depressurization Point

Vacuum Measurement Point

Soil Vapor Extraction (SVE)/Sub-Slab Depressurization System
Figure 6