

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E

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January 3, 2018

Mr. Gary Crewson
Highland Plaza, LLC
1800 Broadway Building 1D
Buffalo, New York 14212

RE: Alternatives Analysis Report & Decision Document
Highland Plaza BCP Site, Site No. C915293
Tonawanda, Erie County

Dear Mr. Crewson:

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (NYSDOH) have reviewed the Alternatives Analysis Report (AAR) for the Highland Plaza BCP Site, dated December 2017 and prepared by Environmental & Geologic Management Services, LLC on behalf of Highland Plaza, LLC. The AAR is hereby approved. Please ensure that a copy of the approved AAR is placed in the document repository. The draft plan should be removed.

Enclosed is a copy of the Department's Decision Document for the site. The remedy is to be implemented in accordance with this Decision Document. Please ensure that a copy of the Decision Document is placed in the document repository.

Please contact the Department's Project Manager, Glenn M. May, (716) 851-7220, at your earliest convenience to discuss next steps.

Sincerely,



Michael J. Cruden, P.E.
Director
Remedial Bureau E
Division of Environmental Remediation

Enclosure

ec: M Ryan, NYSDEC
G. May/M. McIntosh - NYSDEC, Region 9
B. Putzig - NYSDEC
J. Dougherty - OGC, Region 9
K. Anders/C. Bethony/S. Bogardus, NYSDOH
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Department of
Environmental
Conservation

DECISION DOCUMENT

Highland Plaza
Brownfield Cleanup Program
Tonawanda (T), Erie County
Site No. C915293
December 2017



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

DECLARATION STATEMENT - DECISION DOCUMENT

Highland Plaza
Brownfield Cleanup Program
Tonawanda (T), Erie County
Site No. C915293
December 2017

Statement of Purpose and Basis

This document presents the remedy for the Highland Plaza site, a brownfield cleanup site. The remedial program was chosen in accordance with the 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 decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Highland Plaza site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Cover System: A site cover currently exists and will be maintained to allow for commercial/industrial use of the site. Any site redevelopment will maintain the existing site cover, which consists of structures such as buildings, concrete sidewalks, an asphalt parking lot, and soil over a 2.5-foot strip behind the plaza building, adjacent to the alleyway. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).
2. Vapor Mitigation: Continued operation and optimization of the sub-slab depressurization systems to prevent the migration of sub-slab soil vapor into Buildings 1 and 2.
3. Institutional Controls: 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) Allows the use and development of the controlled property for commercial/industrial use as defined by Part 375-1.8(g), although 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; and

(d) Requires compliance with the Department approved Site Management Plan.

4. Site Management Plan: 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 ensure the following institutional and engineering controls remain in place and effective:

- Institutional Controls: The Environmental Easement discussed in Paragraph 3 above; and
- Engineering Controls: The site cover system discussed in Paragraph 1 and the sub-slab depressurization systems discussed in paragraph 2 above.

This plan includes, but may not be limited to:

- An Excavation Plan that details the provisions for management of future excavations in areas of remaining contamination;
- Descriptions of the provisions of the Environmental Easement including any land use and groundwater use restrictions;
- A provision for the 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;
- Provisions for the management and inspection of the identified engineering controls;
- Maintaining site access controls and Department notification; and
- The steps necessary for periodic reviews and certification of the institutional and engineering controls.

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

- Monitoring of soil vapor and indoor air to assess the performance and effectiveness of the sub-slab depressurization systems. Enhancements to the sub-slab depressurization systems will be completed as necessary;
- A schedule of monitoring and frequency of submittals to the Department;
- Monitoring for vapor intrusion for any buildings, as may be required by the Institutional and Engineering Control Plan discussed above.

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

- Compliance monitoring of the existing sub-slab depressurization systems to ensure proper operation as well as providing the data for any necessary permit or permit equivalent reporting;
- Maintaining site access controls and Department notification; and
- Providing the Department access to the site and O&M records.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

Michael J Cruden

Digitally signed by Michael J Cruden
DN: cn=Michael J Cruden, o=DER, ou=RBE,
email=mjcruden@gw.dec.state.ny.us, c=US
Date: 2017.12.29 13:00:41 -05'00'

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

Highland Plaza
Tonawanda (T), Erie County
Site No. C915293
December 2017

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

Kenmore Public Library
160 Delaware Avenue
Kenmore, NY 14217
Phone: 716-873-2842

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 Highland Plaza BCP Site (Site C915293) consists of approximately 0.69 acres at 215 Highland Parkway in an urban area of the Town of Tonawanda, Erie County, New York. The site is bounded by Highland Parkway to the north, commercial property to the east, a service alleyway and residential properties to the south, and a CITGO gas station and Colvin Boulevard to the west. The service alleyway has been designated as part of the off-site investigation area (Site C915293A) and is being investigated by the NYSDEC.

Site Features:

The site is approximately 250 feet long by 100 feet wide. The topography of the site is generally flat. Approximately 50% of the site is occupied by a one story strip plaza consisting of three attached buildings divided into eight tenant spaces. These buildings (with addresses) include: Building 1 (235 and 237 Highland Parkway), Building 2 (221, 225, 227 and 231 Highland Parkway), and Building 3 (215 and 217 Highland Parkway). The remaining space is covered by concrete sidewalks, an asphalt parking lot, and soil over a 2.5-foot strip behind the plaza building, adjacent to the alleyway.

Current Zoning/Land Use:

The site is occupied by a strip plaza, and is zoned for commercial use. The proposed future use of the site is commercial. The site is located in a mixed residential and commercial area of the Town of Tonawanda. The nearest residential properties are located about 65 feet south of the site, and are adjacent to the C915293A site.

Past Use of the Site:

In 1928 the site was undeveloped, although the property was subdivided into 17 parcels for future residential development. By 1950 the site was fully developed into a strip plaza. One of the former tenants was High Park Dry Cleaners, which closed in March 2010. Poor housekeeping practices at this facility is the likely cause of the on-site and off-site contamination.

Investigational History:

In 2014, a Limited Phase II Site Investigation and Vapor Intrusion Study (ESI-VIS) was completed to evaluate the strip plaza prior to its purchase by the current owner. During the ESI-VIS twelve soil borings were completed throughout the property. In addition, a soil vapor intrusion study (SVI) was completed in the former dry cleaner tenant space that included the collection of 3 sub-slab soil vapor samples, 1 indoor air sample within the breathing zone of the tenant space, and 1 outdoor air sample to provide background air quality information. Soil samples collected from the site contained trichloroethene and tetrachloroethene, while soil vapor

contained cis-1,2-dichloroethene, tetrachloroethene, and trichloroethene (see Section 6.3 for more detail).

Geology and Hydrogeology:

The entire site is covered by either 1 foot of asphalt and crushed stone (the parking lot area), 0.5 feet of concrete (the building area), or soil (the 2.5-foot strip behind the plaza building). Native soils at the site and surrounding area consist of reddish brown silty clay that is very dense. This clay layer has very low permeability (meaning that groundwater cannot easily move through it). The thickness of this unit is unknown, but the remedial investigation indicates that it is greater than 23 feet.

Depth to groundwater at the site ranges from 2.8 feet to 5.4 feet below ground surface. Groundwater appears to be mounded around an off-site well with flow to the northwest, north, and northeast. The site and surrounding area are serviced by a public water system not affected by site contamination; contaminated groundwater at the site and surrounding area is not used for drinking or other purposes.

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, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Volunteer(s) does/do not have an obligation to address off-site contamination. The Department has determined that this site poses a significant threat to human health and the environment and there are off-site impacts that require remedial activities; accordingly, enforcement actions are necessary.

Since a viable responsible party was not identified, the NYSDEC began a Remedial Investigation of the off-site area (C915293A) in March 2017 to determine the full nature and extent of soil, groundwater and soil vapor contamination. Soil vapor and soil were evaluated in 2017 with groundwater to be evaluated in 2018.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- indoor air
- sub-slab vapor

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. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant 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 below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

tetrachloroethene (PCE)
trichloroethene (TCE)

cis-1,2-dichloroethene

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor intrusion
- indoor air

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 Decision Document.

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

Sub-Slab Depressurization Systems

In February 2016 the BCP applicant installed a sub-slab depressurization system in the former dry cleaner tenant space (235 and 237 Highland Parkway) at the eastern end of the strip plaza. The system became operational in April 2016 and has operated continuously since that time. Pressure field extension testing completed in April 2017 demonstrated that this SSDS is maintaining negative pressure under the concrete slab of Building 1.

In October 2017 the BCP applicant installed a sub-slab depressurization system in the tenant space (231 Highland Parkway) adjacent to the former dry cleaner tenant space. This system became operational in October 2017 and has operated continuously since that time. Pressure field extension testing completed in November and December 2017 demonstrated that this SSDS is maintaining negative pressure under the concrete slab of 231 Highland Parkway.

The installed sub-slab depressurization systems use fan-powered vents and piping to depressurize the concrete slabs at 231 through 237 Highland Parkway to prevent sub-slab soil vapor from migrating into these tenant spaces. Pressure field extension testing demonstrated the effectiveness of the systems.

6.3: 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.

The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

During the Limited Phase II Site Investigation and Vapor Intrusion Study completed in 2014 and the Remedial Investigation completed in 2017, samples for analysis were collected from shallow soil, subsurface soil, sub-slab soil vapor, indoor air, outdoor air, and groundwater. Shallow soil (0.5-2.0 feet depth) and subsurface soil (4.0-24.0 feet depth) were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and metals. Groundwater was only analyzed for VOCs due to insufficient water volume and slow groundwater recharge. Sub-slab soil vapor, indoor air and outdoor air were analyzed for VOCs. These investigations determined that chlorinated VOCs (tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (DCE) and vinyl chloride (VC)) were the primary contaminants of concern at the site.

Remedial Investigation Results:

Soil:

Eight shallow soil samples and eleven subsurface soil samples were collected from on-site and analyzed for VOCs, SVOCs, pesticides, PCBs, and metals. No VOCs were detected above the NYSDEC Part 375 Commercial Soil Cleanup Objectives (SCOs). Several VOCs, however, exceeded the NYSDEC Part 375 Protection of Groundwater SCOs. These VOCs include (with number of exceedances and highest concentrations) trichloroethene (2 samples; 0.625 parts per million (ppm)), tetrachloroethene (3 samples; 9.6 ppm), and benzene (1 sample; 0.24 ppm). The Protection of Groundwater SCOs for trichloroethene, tetrachloroethene, and benzene are 0.47 ppm, 1.3 ppm, and 0.06 ppm, respectively. No SVOCs, pesticides, PCBs or metals were detected in on-site soils above the NYSDEC Part 375 Unrestricted SCOs. Additionally, soil from under Building 1 was removed to aid in the construction of the Sub-Slab Depressurization System. Sampling showed that the excavated soil met the NYSDEC Part 375 Commercial SCOs and was approved by NYSDEC for reuse as cover material behind the plaza building. Additional sampling in 2017, during the off-site investigation, confirmed these results.

Groundwater:

Four shallow overburden groundwater samples were collected from on-site wells and analyzed for VOCs. Only three VOCs were detected in these samples, with the concentration of cis-1,2-dichloroethene (24.0 micrograms per liter (ug/L)) exceeding the NYSDEC groundwater standard of 5.0 ug/L.

Sub-Slab Soil Vapor, Indoor Air, and Outdoor Air:

Seven sub-slab soil vapor samples below buildings within the BCP site were collected and analyzed for VOCs. The principal VOCs detected were again chlorinated solvents. These compounds (with highest concentrations) are summarized by building and include the following:

Building 1 (3 samples): PCE (1,600 micrograms per cubic meter (ug/m³)), TCE (1,200 ug/m³), cis-1,2-DCE (780 ug/m³), and VC (12.0 ug/m³).

Building 2 (3 samples): PCE (150 ug/m³), TCE (110 ug/m³), cis-1,2-DCE (191 ug/m³), and VC (2.4 ug/m³).

Building 3 (1 sample): PCE (13.0 ug/m³), TCE (1.1 ug/m³), cis-1,2-DCE was not detected (ND <0.59 ug/m³), and VC (ND <0.38 ug/m³).

Seven indoor air samples from on-site buildings were collected and analyzed for VOCs. The chlorinated VOCs detected (with highest concentrations) by building include:

Building 1 (1 sample): PCE (180 ug/m³), TCE (1.8 ug/m³), cis-1,2-DCE (0.95 ug/m³), and VC (ND <0.38 ug/m³).

Building 2 (4 samples): PCE (7.3 ug/m³), TCE (0.48 ug/m³), cis-1,2-DCE (0.4 ug/m³), and VC (ND <0.38 ug/m³).

Building 3 (2 samples): PCE (ND <1.0 ug/m³), TCE (ND <0.21 ug/m³), cis-1,2-DCE (ND <0.59 ug/m³), and VC (ND <0.10 ug/m³).

The concentration of PCE in the indoor air sample from Building 1 exceeded the NYSDOH air guideline value of 30 ug/m³.

Three outdoor air samples, one during each soil vapor intrusion investigation, were collected and analyzed for VOCs. The chlorinated VOCs detected are summarized by sample as follows:

Sample 1 (2014): PCE (7.0 ug/m³), TCE (1.2 ug/m³), cis-1,2-DCE (1.3 ug/m³), and VC (ND <0.10 ug/m³).

Sample 2 (2016): PCE (5.4 ug/m³), TCE (0.27 ug/m³), cis-1,2-DCE (ND <0.15 ug/m³), and VC (ND <0.38 ug/m³).

Sample 3 (2017): PCE (ND <1.0 ug/m³), TCE (ND <0.21 ug/m³), cis-1,2-DCE (ND <0.59 ug/m³), and VC (ND <0.10 ug/m³).

Post IRM Results:

Sub-slab depressurization systems were installed and are operating within Building 1 (235 and 237 Highland Parkway) and the easternmost tenant space of Building 2 (231 Highland Parkway) to prevent vapors from migrating into these buildings. One indoor air sample was collected from Building 1 with the sub-slab depressurization system running and analyzed for VOCs. None of the principal chlorinated VOCs were detected.

6.4: 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*.

Since some contaminated soils remain at the site below the on-site building, parking lot or clean backfill, people will not come in contact with contaminated soils unless they dig below the surface materials. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in soil vapor (air spaces within the soil), 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. Sub-slab depressurization systems (systems that ventilate/remove the air beneath the building) have been installed in portions of the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the building.

6.5: 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 action 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 ground or surface water 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 or surface water 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 at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The selected remedy is referred to as the No Further Action remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. Cover System: A site cover currently exists and will be maintained to allow for commercial/industrial use of the site. Any site redevelopment will maintain the existing site cover, which consists of structures such as buildings, concrete sidewalks, an asphalt parking lot, and soil over a 2.5-foot strip behind the plaza building, adjacent to the alleyway. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

2. Vapor Mitigation: Continued operation and optimization of the sub-slab depressurization systems to prevent the migration of sub-slab soil vapor into Buildings 1 and 2.

3. Institutional Controls: 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) Allows the use and development of the controlled property for commercial/industrial use as defined by Part 375-1.8(g), although 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; and

(d) Requires compliance with the Department approved Site Management Plan.

4. Site Management Plan: 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 ensure the following institutional and engineering controls remain in place and effective:

- Institutional Controls: The Environmental Easement discussed in Paragraph 3 above; and
- Engineering Controls: The site cover system discussed in Paragraph 1 and the sub-slab depressurization systems discussed in paragraph 2 above.

This plan includes, but may not be limited to:

- An Excavation Plan that details the provisions for management of future excavations in areas of remaining contamination;
- Descriptions of the provisions of the Environmental Easement including any land use and groundwater use restrictions;

- A provision for the 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;
- Provisions for the management and inspection of the identified engineering controls;
- Maintaining site access controls and Department notification; and
- The steps necessary for periodic reviews and certification of the institutional and engineering controls.

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

- Monitoring of soil vapor and indoor air to assess the performance and effectiveness of the sub-slab depressurization systems. Enhancements to the sub-slab depressurization systems will be completed as necessary;
- A schedule of monitoring and frequency of submittals to the Department;
- Monitoring for vapor intrusion for any buildings, as may be required by the Institutional and Engineering Control Plan discussed above.

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

- Compliance monitoring of the existing sub-slab depressurization systems to ensure proper operation as well as providing the data for any necessary permit or permit equivalent reporting;
- Maintaining site access controls and Department notification; and
- Providing the Department access to the site and O&M records.

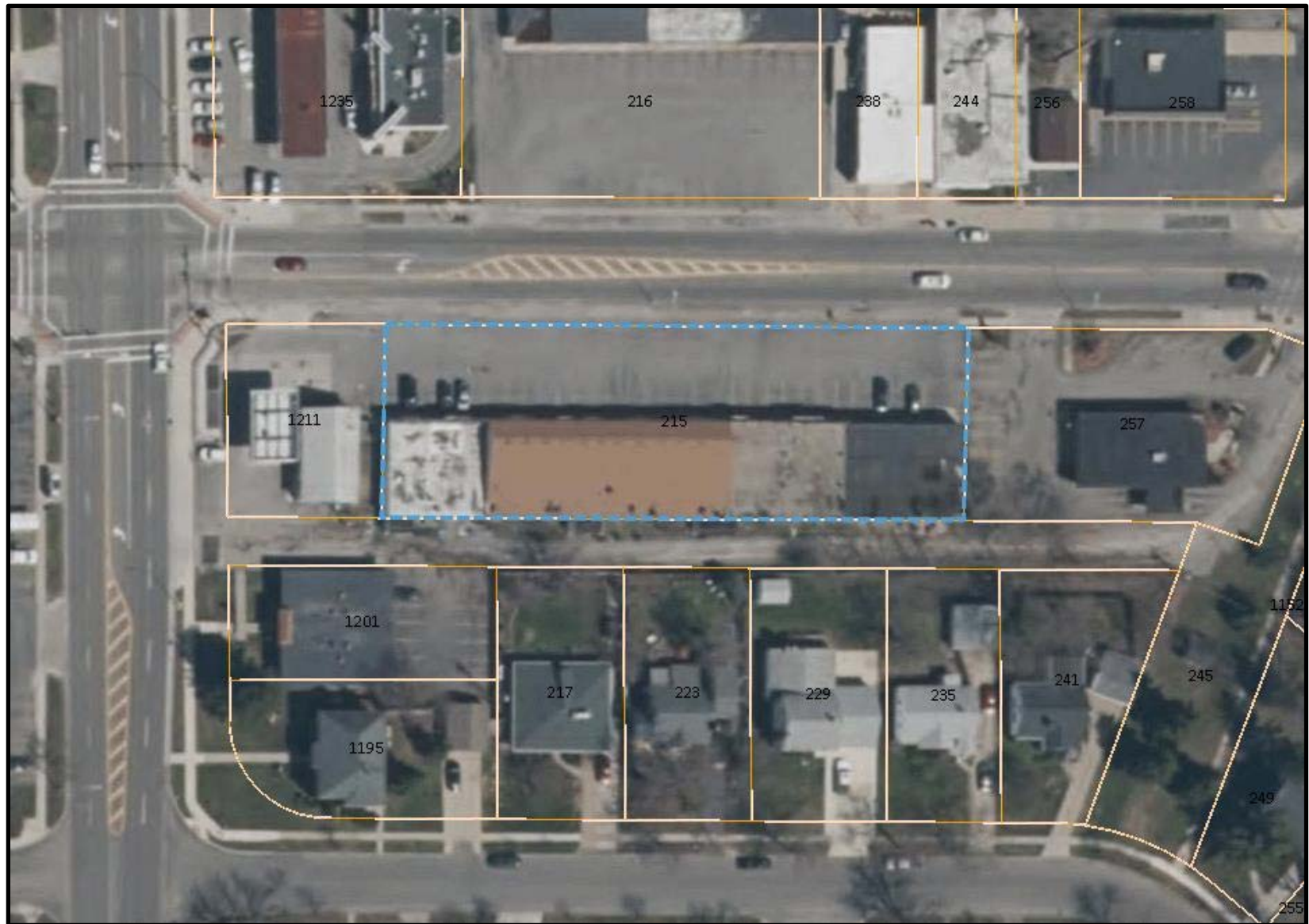


Figure 1. Location of the Highland Plaza BCP Site (Site No. C915293) in Tonawanda, Erie County, New York.



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COMMERCIAL PROPERTIES

HIGHLAND PARKWAY

HIGHLAND PLAZA (SITE NO. C915293)

Parking Lot
~ 300' X 45'

KD
Petroleum

Building #3
215 217

Building #2
221 225 227 231

Building #1
235 - 237

Credit
Union
Parking

Credit
Union

ALLEY WAY (SITE NO. C915293A)

Fence

Fence

B
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RESIDENTIAL PROPERTIES

215, 217.....231 Tenant Space Address








-  Highland Parkway, Colvin Boulevard and the Alley Way
-  Asphalt Parking Lot (~ 4 Inches Thick; ~ 300 Feet x ~ 45 Feet)
-  Sidewalk (Variable Thickness from 4 to 18 Inches; ~300 Feet x ~ 5 Feet)
-  Building Foundation (Variable Thickness - 4 to 6 Feet; ~ 1.5 Feet x ~ 47.5 Feet x 297')
-  Building Old Concrete Floor (~ 4 inches thick; ~ 45.5 feet x 201 Feet)
-  Building New Concrete Floor (~ 4 inches thick; ~ 45.5 feet x 96 Feet)
-  Soil Cover (Variable thickness from 12 to 24 inches; ~ 300 Feet x 2.5 Feet)

Figure 2A. Cover System Plan View
 Highland Plaza BCP Site
 Site No. C915293
 Tonawanda, New York
 Not to Scale

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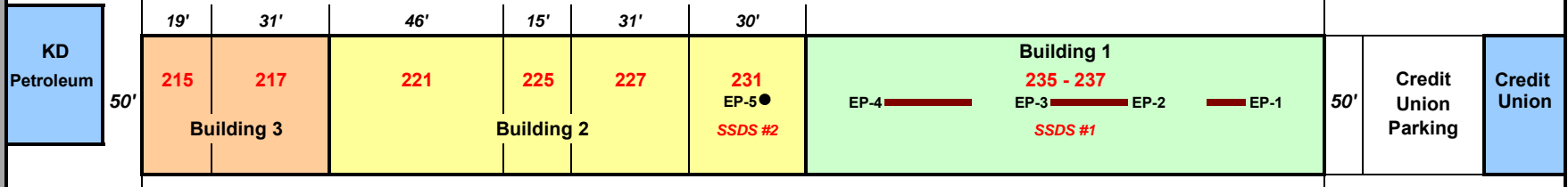


PARKING LOT

HIGHLAND PARKWAY

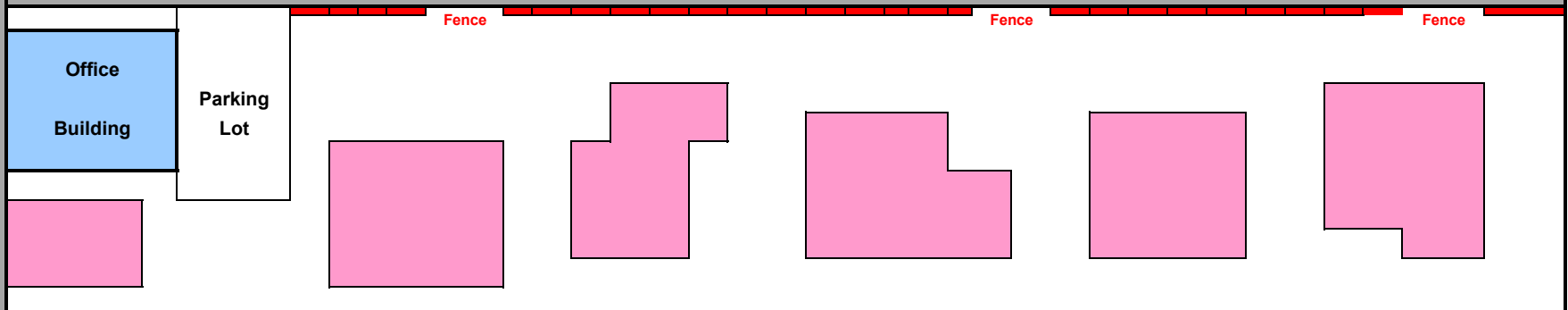
HIGHLAND PLAZA (SITE NO. C915293)
Parking Lot

128'



ALLEY WAY (SITE NO. C915293A)

B
O
U
L
E
V
A
R
D



- Building 1
- Building 2
- Building 3
- 215, 217.....231 Tenant Space Address
- Residence
- Commercial Building

- SSDS with separate blowers
- EP Blower/Fan Location

Figure 2B. Location of the Sub-Slab
Depressurization Systems
Highland Plaza
Tonawanda, New York
Not to Scale

C O L V I N



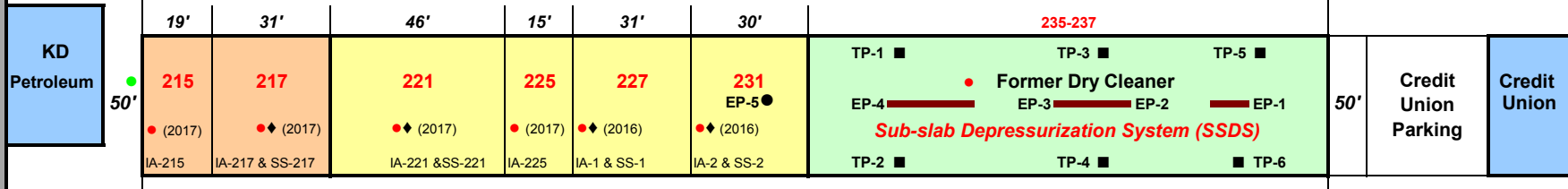
PARKING LOT

HIGHLAND PARKWAY

HIGHLAND PLAZA (SITE NO. C915293)
Parking Lot

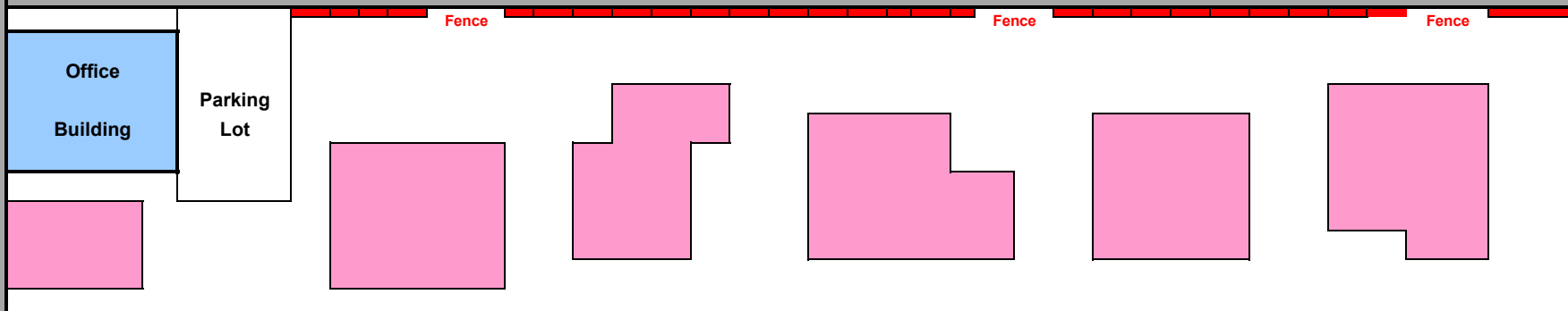
128'

235-237



ALLEY WAY (SITE NO. C915293A)

B O U L E V A R D



- Building 1
- Building 2
- Building 3
- Residence
- Commercial Building
- Outdoor Air Sample Location (Estimated)
- Indoor Air Sampling Locations
- Sub-slab Sampling Locations
- Background Air Sampling Location
- Pressure Test Point
- SSDS with separate blowers
- EP Blower/Fan Location

Figure 3. SVI Sampling Points for the 2016 & 2017 Investigations Highland Plaza Tonawanda, New York
Not to Scale