

**Environmental, Planning, and Engineering Consultants** 

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February 13, 2023

Mr. Michael H. Squire New York State Department of Environmental Conservation Division of Environmental Remediation Remedial Bureau C 625 Broadway, 11<sup>th</sup> Floor Albany, NY 12233-7014

Re: Brownfield Cleanup Program Periodic Review Report

November 23, 2021 to November 23, 2022

300-308 Columbus Avenue, Tuckahoe, NY 10707

NYSDEC Site Number: C360136

### Dear Mr. Squire:

This Periodic Review Report (PRR) was prepared for the site located at 300 and 308 Columbus Avenue in Tuckahoe, NY 10707 (hereinafter referred to as the "Site") under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by New York State Department of Environmental Conservation (NYSDEC). The Site location is shown on Figure 1. The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index No. C360136-02-14, executed on March 13, 2014. The Site is identified as NYSDEC BCP Site No. C360136.

As previously reported to the NYSDEC in the 2021 PRR, ownership of the Site, and associated the BCP annual inspection and reporting obligations, were transferred from Crestwood Builders Group, LLC (Crestwood) to XGEN Properties, LLC (XGEN) in September 2021. The activities reported herein have been performed on behalf of XGEN, who currently holds ownership of the Site. The Site has been occupied throughout the entirety of this reporting period. Prior to the onset of investigation and remediation activities, the Site was used for commuter parking and as an auto repair facility. Historically, since the 1950s, 300 and 308 Columbus Avenue were developed as gasoline stations with underground storage tanks (USTs) operating until approximately 2004. Each lot contained a single-story building utilized for auto repair-related services. The Site was vacant prior to its use as gasoline filling stations.

Remedial investigations (RIs) performed from May 2012 to November 2013 identified separate phase petroleum product in soil samples collected from 3 to 6 feet below grade at the southern service bay at 308 Columbus Avenue. This discovery necessitated spill reporting to the NYSDEC Spills Division on May 30, 2012, who assigned Spill No. 1202031 to the Site. The 2012 RI also revealed solvent-related volatile organic compounds (VOCs) in soil from 1 to 6 feet below grade beneath the northern service bay at 300 Columbus Avenue. Regulatory records reviewed during the initial assessment of the Site identified a 250-gallon fuel oil UST and a sub-grade hydraulic lift at the southern service bay at 300 Columbus Avenue, and the potential for three 1,000-gallon USTs and one 550-gallon waste oil UST at 308 Columbus Avenue. The three 1,000-gallon USTs were not identified during remedial actions conducted between May and October 2014; however, two sub-grade hydraulic lift systems, an oil-water separator, and a 550-gallon waste oil UST were identified beneath the southern service bay at 308 Columbus

Avenue, and an additional oil-water separator, two sub-grade hydraulic lift systems, and a 1,000-gallon UST were identified at 300 Columbus Avenue.

Remediation activities completed at the Site included removal of the remaining USTs, hydraulic lifts, oil-water separators and contaminated soil and fill. Engineering Controls (ECs) included installation of a composite cover system and a passive sub-slab depressurization system (SSDS). Institutional Controls (ICs) included: an environmental easement restricting use of the Site to restricted residential, commercial, and industrial uses; groundwater use restrictions; and the implementation of a Site Management Plan (SMP). Following completion of the remediation activities and construction of the new Site building, confirmatory indoor air sampling was conducted to document the efficacy of the ECs (composite cover system and passive SSDS) installed at the Site. In August 2015, two indoor air samples (plus a duplicate sample) were collected from the first floor of the Site building and one ambient air sample was collected in the Site parking lot for comparative purposes. The air samples were collected utilizing certified clean 6-liter Summa® canisters over an approximately 8-hour sampling period. The indoor air sample results were compared to the New York State Department of Health (NYSDOH) Air Guideline Values (AGVs) and to background levels of VOCs in indoor air presented in Appendix C of the NYSDOH Vapor Intrusion Guidance Document. No VOCs were detected at concentrations above NYSDOH AGVs and/or published background levels.

A Final Engineering Report (FER) detailing the remedial activities completed at the Site was submitted to, and approved by, NYSDEC, which resulted in the issuance of a Certificate of Completion (COC) on December 14, 2015. Ongoing Site management activities are being performed in accordance with the NYSDEC- and NYSDOH-approved September 2015 SMP. The SMP provides detailed descriptions of all procedures required to manage known and potential residual contamination. Activities conducted at the Site under the SMP during this reporting period included an inspection to determine the integrity of the composite cover system and the proper operation of the passive SSDS. In addition to the annual inspection requirements outlined in the SMP, the NYSDEC and NYSDOH requested that differential pressure measurements be collected from sub-slab monitoring points installed within the footprint of the Site building to evaluate the relationship between ambient pressure within the building and the pressure below the concrete floor slab.

The purpose of this PRR is to document the site management activities associated with the Site's ECs and ICs, and to certify that the controls have been implemented in accordance with the SMP. The reporting period on the IC/EC Certification Form (Attachment B) is the one-year period between November 23, 2021 and November 23, 2022. In addition to documenting the site management activities, this PRR also provides a summary of the differential pressure measurements collected from sub-slab monitoring points installed in the concrete floor slab.

### Site Management Requirements

For additional information related to the nature and extent of contamination identified at the Site, and for details associated with the completed remedial work to address the identified contamination, please refer to the appropriate sections of the FER and SMP. The site management requirements for evaluating the performance and effectiveness of the remedy at the Site, the composite cover system, and all affected media are summarized in Table T1 (referenced from the September 2015 SMP) on the following page; the table also indicates the specific tasks completed during this reporting period.

Table T1
Monitoring/Inspection Requirement Summary

Monitoring Program	Frequency*	Matrix	Analysis	Completed this Period?
Site Cover System	Annually. First Inspection no more than 18 months after COC, then at least annually thereafter.	Cover System Integrity	Visual Inspection of Conditions	Yes
SSDS Routine Operations Inspections	Annually. First Inspection no more than 18 months after COC, then at least annually thereafter.	SSDS System Operations	Visual Inspection	Yes
Contingency Indoor Air Sampling	If necessary, based on the Site inspection program or a request to decommission or terminate components of the SSDS with the approval of NYSDEC.	Indoor Air at 3 Sampling Locations	EPA Method TO-15	No

\* The frequency of events was conducted as specified in the SMP.

COC – Certificate of Completion

### Cover System and SSDS Monitoring Requirements

Direct exposure to residual contaminated soil remaining at the Site is being prevented by an engineered composite cover system made up of the constructed concrete floor slab, asphalt-paved parking lot, concrete sidewalks, and landscaped areas. The concrete floor slab for the enclosed portion of the Site also includes the underlying vapor barrier and passive SSDS. The location and details of the cover system and passive SSDS are shown on Figures 2 and 3, respectively. The as-built drawings for the cover system and SSDS are included in the SMP. The annual inspection and monitoring requirements specified in the SMP for the cover system and SSDS are described below:

Inspection of the composite cover system will occur on an annual basis as long as the Environmental Easement is in effect to ensure the system's integrity. Monitoring will consist of visual inspection, including an evaluation of the integrity of the concrete floor slab of the lowest (first floor) level and support columns into the floor and wall joints. If any cracks or openings are identified, they shall be screened for organic vapors with a photoionization detector (PID) and any readings shall be noted. In addition, any cracks or openings in the floor shall be properly sealed.

Inspection of the passive SSDS will occur on an annual basis concurrently with the cover system inspection, and will consist of visual inspection of the aboveground SSDS piping for integrity and/or damage that would prohibit proper functioning of the SSDS. The inspection will also include the entire length of accessible piping from the manifold floor slab up through the roof exhaust. The wind-driven turbine will be inspected to confirm proper function.

### Cover System and SSDS Monitoring

On November 11, 2022, AKRF completed a Site inspection in accordance with the SMP to confirm building conditions, composite cover system integrity, and operation of the passive SSDS. The composite cover system was found to be intact, with no signs of significant cracking, damage, or erosion that would affect the integrity of the cover system. The SSDS system was observed to be intact with no visible signs of damage or broken seals, and the wind-driven turbine for the passive SSDS stack on the roof was properly operating as described in the SMP. While no visual evidence of damage to the cover system or SSDS was noted, a PID was used to field-screen background conditions in indoor areas, around pipe penetrations, and around accessible SSDS components (piping, values, and the exhaust stack) to confirm the visual observations. The PID was calibrated with 100 parts per million (ppm) isobutylene calibration gas and fresh air in accordance with manufacturer's specifications. No PID readings above background levels were noted during the inspection.

### Additional Monitoring

While not required under the SMP, the NYSDEC and NYSDOH requested that differential pressure measurements be collect from the two sub-slab monitoring points (MP-1 and MP-2) that were installed within the footprint of the Site building during construction as an added component of the Site inspection for this reporting period. As noted in the Cover System and SSDS Inspection Form (Attachment A), the two sub-slab monitoring points (MP-1 and MP-2) were found to be covered with tile/laminate flooring and were inaccessible. In an effort to limit the damage to existing flooring and the impact that work would have on the occupants/tenants of the Site building, AKRF proposed the installation of two temporary sub-slab monitoring points (TMP-1 and TMP-2) where the concrete floor slab was exposed (maintenance/storage areas). The NYSDEC and NYSDOH approved the proposed locations of, and installation procedures for, the temporary monitoring points in an email dated December 6, 2022.

On December 15, 2022, AKRF mobilized to the Site to install two temporary sub-slab monitoring points (TMP-1 and TMP-2) at the approximate locations shown on Figure 3. The temporary sub-slab monitoring points were installed by advancing a 1-inch diameter drill bit through the concrete floor slab, installing ½-inch tubing into the gas permeable aggregate layer below the slab, and filling the void around the tubing with hydrated bentonite. A digital manometer was connected to the tubing and the differential pressure measurements were recorded, after which the tubing was removed and the 1-inch diameter boreholes were backfill/patched with concrete. The differential pressure measurements collected from the temporary sub-slab monitoring points are summarized below in Table T2.

Table T2
Sub-Slab Differential Pressure Readings

<b>Monitoring Point ID</b>	Location	Differential Pressure (inH2O)
TMP-1	Storage Room in northern portion of the Site Building	-0.010
TMP-2	Maintenance Room in the southern portion of the Site building	-0.016

Notes:  $inH_20$  = inches of water column

The findings from the evaluation of differential pressure measurements collected indicate that there was lower pressure below the concrete floor slab than the ambient pressure within the building at the time the measurements were collected, suggesting that vacuum-like conditions existed below the slab.

### **Corrective Measures**

No corrective measures were required as a result of the inspection.

### Site Management Schedule

The site management requirements planned for future evaluation of the performance and effectiveness of the remedy at the Site are outlined below in Table T3. These monitoring and inspection events will be completed in accordance with the SMP.

Table T3
Future Monitoring/Inspection Plan

Monitoring Program	Next Scheduled Event	Frequency*	Matrix	Analysis
Site Cover System	November 2023	Annually	Cover System Integrity	Visual Inspection of Conditions
SSDS Routine Operations Inspections	November 2023	Annually	SSDS System Operations	Visual Inspection
Contingency Indoor Air Sampling	TBD	If necessary per SMP	Indoor Air at 3 Sampling Locations	EPA Method TO-15

Notes: \* The frequency of events will be conducted as specified in the SMP.

### IC/EC Certification

A Site-wide inspection was conducted on November 11, 2022, as specified in the SMP, to ensure that all aspects of the remedy were in-place and effective. A copy of the Cover System and SSDS Inspection Form is provided as Attachment A. Based on the Site-wide inspection and the data evaluation summarized in this report, the following certification is made for the Site, as documented in the IC/EC Certification Form provided in Attachment B:

- The institutional controls and engineering controls employed at this Site are unchanged from the date the controls were put in place, or last approved by the NYSDEC Division of Environmental Remediation (DER);
- Nothing has occurred that would impair the ability of such controls to protect public health and the environment;
- Nothing has occurred that would constitute a violation or failure to comply with the SMP for these controls; and
- Access to the Site will continue to be provided to the NYSDEC DER to evaluate the remedy, including access to evaluate the continued maintenance of this control.

If you have any questions or require additional information, please contact me at 914-922-2382.

Sincerely, AKRF, Inc.

Bryan Zieroff, CPG, LEP Senior Technical Director Rebecca A. Kinal, P.E. Vice President

cc: Giovanni Gentile – XGEN Properties, LLC T. McClintock - AKRF, Inc.

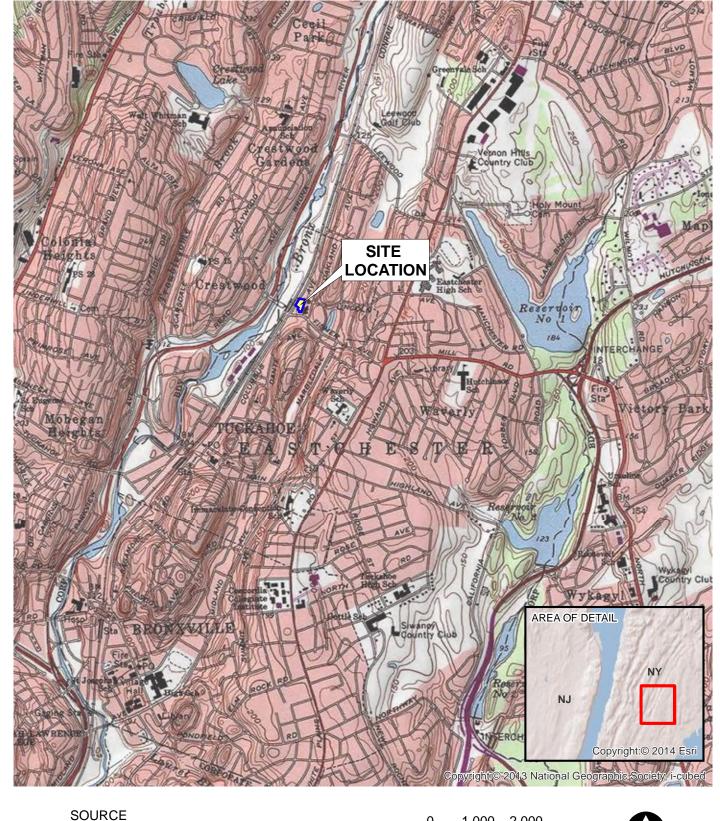
Figure 1 – Site Location Map Figure 2 – Site Cover System Plan

Figure 3 – SSDS Location Plan

Attachment A: Cover System and SSDS Inspection Form

Attachment B: P.E. IC/EC Certification





**SOURCE** USGS 7.5 Minute Topographic Map MOUNT VERNON Quad 1979

1,000 2,000 Feet



**300 & 308 COLUMBUS AVE** 

TUCKAHOE, NEW YORK

SITE LOCATION MAP



**Environmental Consultants** 

440 Park Avenue South, New York, N.Y. 10016

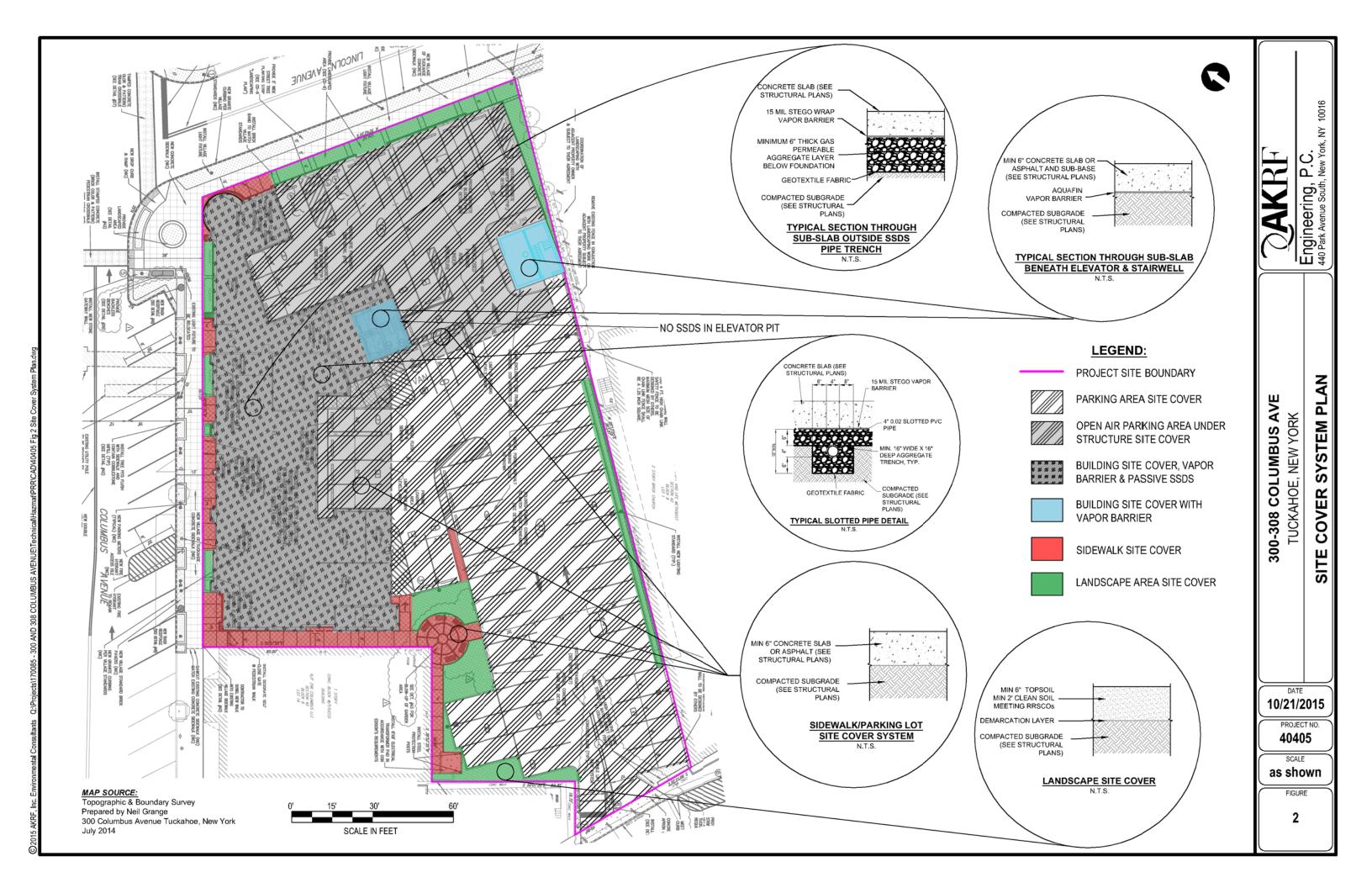
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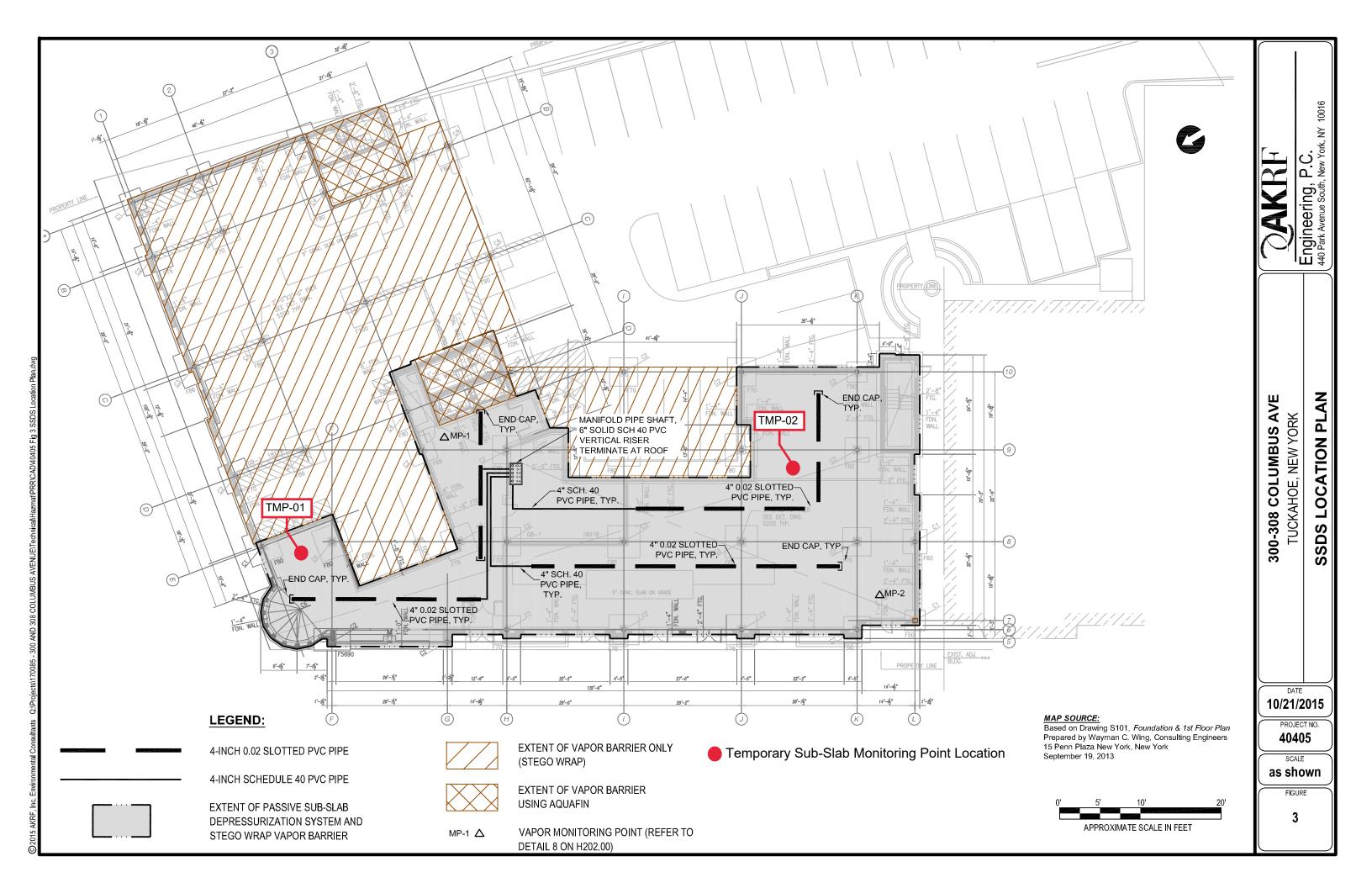
PROJECT No.

40405

FIGURE 1

Q:\Westchester Data\AKRFData\40405 - 300-308 Columbus Ave, Tuckahoe\BCP\FER\GIS and Graphics\Hazmat\40405 Fig 1 Loc Map.mxd





### ATTACHMENT A COVER SYSTEM AND SSDS INSPECTION FORM

X YES

If no, describe:

NO

Cover System and S	SDS Inspection Form			
Overview of Cover System and SSDS Inspection a	requirements:			
1) General Site conditions at time of inspection;				
2) Site Cover System Inspection;				
3) Passive SSDS Inspection;				
4) Last SMP-related Site Activity conducted, upcom:	ing SMP-related tasks;			
5) Institutional Control (IC) Checklist (SMP, EWP n conducted);	naintained on-Site, routine SMP tasks being			
6) Evaluation of Engineering Controls (in office); and	d			
7) Site Documentation.				
1) General Site conditions at time of inspection:				
NAME: TIM MCCINTOCK	DATE: 11/11/2022			
TIME: 09:30	WEATHER: ~60°F OVERCAST			
Annual Inspection or Emergency Inspection (if emergency	gency, specify nature)?			
ANNUAL INSPECTION				
Notes: WIND: SOUTH @ 5-10MPH				
2) Cover System Inspection (Building Foundation, Concrete Sidewalks, and Landscaped Areas)  Is the cover system intact:	Concrete Parking Areas, Asphalt Parking Lot,			
X YES NO				
Z 123				
If no, describe:				
Are all access manhole and vapor monitoring point ca	aps in good condition:			

@NOTE: Monitoring points were inaccessible but they are maintained below tile & laminale

Flouring .

X YES

If no, describe:

NO

Indoor air sampling (if required)

Notes:\_\_\_

Any Additional Observations/Notes:
Current building occupants include & Metro Dental (dentist, ground Flour),
Lola New York (clathing store, ground floor), Nails (Noulsalon, ground floor),
and residential units (upper floors). No change in occupancy
Since the October 2021 ANNUAL INSPECTION.
7) Site documentation
Including updates regarding notification to NYSDEC regarding any changes to Site conditions/operations, plans for excavation, or need to conduct indoor air sampling).
Notes: No changes in status, no plannal excavation work,
NO planned renovations - Indear our sampling not warround
at this time

## ATTACHMENT B P.E. IC/EC CERTIFICATION



# Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



			Site Details	Box 1	
Sit	e No.	C360136			
Sit	e Name 30	0 - 308 Columbus Avenue	)		
City Co	e Address: y/Town: Tu unty: Westcl e Acreage:	hester	Zip Code: 10707		
Re	porting Perio	od: November 23, 2021 to	November 23, 2022		
				YES	NO
1.	Is the infor	mation above correct?		X	
	If NO, inclu	ıde handwritten above or or	n a separate sheet.		
2.		or all of the site property be mendment during this Repo	een sold, subdivided, merged, or undergone arting Period?		X
3.		been any change of use at CRR 375-1.11(d))?	the site during this Reporting Period		X
4.	•	ederal, state, and/or local pe property during this Repo	permits (e.g., building, discharge) been issued rting Period?	I	X
			2 thru 4, include documentation or evidence ously submitted with this certification form		
5.	Is the site of	currently undergoing develo	opment?		X
				Box 2	
				YES	NO
6.		ent site use consistent with Residential, Commercial, a	• •	X	
7.	Are all ICs	in place and functioning as	designed?	X	
	IF TI		UESTION 6 OR 7 IS NO, sign and date below REST OF THIS FORM. Otherwise continue.	and	
AC	Corrective M	leasures Work Plan must b	e submitted along with this form to address	these is:	sues.
Sig	nature of Ow	vner, Remedial Party or Desi	gnated Representative Date		

Box 2A YES NO 8. Has any new information revealed that assumptions made in the Qualitative Exposure X Assessment regarding offsite contamination are no longer valid? If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form. X 9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years) If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C360136 Box 3

### **Description of Institutional Controls**

Parcel Owner Institutional Control

42-8-10 XGEN Properties LLC

Ground Water Use Restriction

Monitoring Plan Site Management Plan

IC/EC Plan

Soil Management Plan Landuse Restriction

Imposition of an institutional control in the form of an environmental easement for the controlled property

•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);

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

•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

•requires compliance with the Department approved Site Management Plan.

XGEN Properties LLC 42-8-5

> Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan

IC/EC Plan

Imposition of an institutional control in the form of an environmental easement for the controlled property

- •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);
- •allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws:
- •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
- •requires compliance with the Department approved Site Management Plan.

Box 4

**Description of Engineering Controls** 

Parcel **42-8-10** 

42-8-5

**Engineering Control** 

Vapor Mitigation Cover System

A site cover will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. 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).

Vapor Mitigation Cover System

A site cover will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. 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).

Any future on-site buildings will be required to have a passive sub-slab depressurization system, or a similar engineered system, to prevent the migration of vapors into the building from soil and/or groundwater.

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	Periodic Review Report (PRR) Certification Statements	
	I certify by checking "YES" below that:	
	a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;	
	b) to the best of my knowledge and belief, the work and conclusions described in this certific are in accordance with the requirements of the site remedial program, and generally accepted and programs processes and the information processed in accounts and compacts.	
	engineering practices; and the information presented is accurate and compete.  YES NO	)
	<b>X</b> -	
	For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:	
	(a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;	
	(b) nothing has occurred that would impair the ability of such Control, to protect public health the environment;	and
	(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;	
	(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and	
	(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document	
	YES NO	)
	<b>X</b> -	
	IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.	
1	A Corrective Measures Work Plan must be submitted along with this form to address these issues.	
-	Signature of Owner, Remedial Party or Designated Representative Date	

### IC CERTIFICATIONS SITE NO. C360136

Box 6

### SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

Giovanni Gentile	at 232 N. Fulton Ave, N	/It. Vernon, NY 10552		
print name	print business add	dress		
am certifying as XGEN Pro	operties LLC's Manager	(Owner or Remedial Party)		
for the Site named in the Site Details Section of this form.				
		2/3/2022		
Signature of Owner, Remedial Par Rendering Certification	ty, or Designated Representative	Date		

### **EC CERTIFICATIONS**

Box 7

### **Professional Engineer Signature**

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

print name print business address

am certifying as a Professional Engineer for the Owner (XGEN Properties LLC)

Owner or Remedial Party)

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Remedial Party, Rendering Certification