

January 25, 2023
Wendi Zheng
Project Manager
NYSDEC – Region 2
47-40 21<sup>st</sup> Street
Long Island City, New York 11101

RE: Interim Remedial Measure Work Plan Letter Amendment- Stormwater Infiltration

840 East 233rd Street, Bronx, New York 10466

**NYSDEC BCP # C203119** 

Dear Ms. Zheng,

PW Grosser Consulting Engineer & Hydrogeologist, P.C. (PWGC) has prepared this Interim Remedial Measure (IRM) Work Plan Letter as an Amendment to the February 4, 2022 IRM Work Plan to address floodwater infiltration concerns at the neighboring commercial building (866 233<sup>rd</sup> Street) located adjacent to the east of the subject property (840 East 233rd Street). The subject property is currently enrolled in the New York State Department of Environmental Conservation's (NYSDEC's) Brownfield Cleanup Program (BCP) as a Participant. The scope of work detailed in this letter is based on previous correspondence between PWGC and Advanced Cleanup Technologies (ACT), in which basement flooding concerns were detailed, and a site visit by PWGC, NYSDEC, and ACT on September 27, 2022.

Based on reported observations during recent heavy rain events, there appears to be a concern that rainwater quickly seeps down the foundation walls, then downhill and eastwardly underneath the basement floor of this neighboring building, where it then reportedly seeps out of a short foundation in a deeper portion of the basement. The focus of this IRM is to mitigate against floodwater from entering the basement of the adjacent property during heavy rain events which have been common at this building during heavy rainstorms.

#### **Project Background**

The BCP property is located in the Wakefield section of the Bronx, New York and identified as Block 4857, Lot 49 on the New York City Tax Map. The BCP property is approximately 11,350 square feet in area and is improved with a one-story commercial building approximately 4,700 square feet in area with a partial basement and an asphalt-paved parking lot. The building is currently occupied for commercial use by Great Day Cleaners. The neighboring building to the east, which is the subject of this proposed IRM, is a one story commercial building with a full basement. A site location map is included as **Figure 1**.

Previous environmental assessments performed between the years 2016 and 2021 at the subject property included soil vapor and indoor air analyses which identified a soil vapor encroachment condition and groundwater sampling which identified an area of chlorinated solvent impact along the eastern property boundary. Based on these findings, NYSDEC required that the Participant perform a soil vapor intrusion study at the neighboring building to the east (866 233<sup>rd</sup> Street). On January 22, 2021, ACT mobilized to 866 233<sup>rd</sup> Street to perform a soil vapor intrusion study consisting of one indoor ambient air sample and two sub-slab



soil vapor samples. Analytical results for the ambient indoor air sample identified a concentration of trichlorethylene (TCE) at 7.2 ug/m³ and soil vapor concentrations of TCE of 26 ug/m³ and 28,000 ug/m³. Additionally, several chlorinated solvent compounds including tetrachloroethene (PCE), vinyl chloride, and cis-1,2-dichloroethlene (DCE) were detected at elevated concentrations in soil vapor beneath this neighboring building. The results of the soil vapor intrusion study were evaluated using New York State Department of Health (NYSDOH) guidance and it was determined that mitigation measures were warranted to address the vapor intrusion at 866 233<sup>rd</sup> Street. Previous site assessments and investigations have also identified that the depth to the groundwater table beneath the basement of the building is approximately two to three feet.

On December 15, 2021, PWGC mobilized to the property along with ACT and NYSDEC to assess options for vapor intrusion mitigation measures at 866 233<sup>rd</sup> Street. During the site inspection, multiple locations were observed on the basement floor that were identified as potential pathways for soil vapor intrusion including three sump pits which were covered with sheet metal, trenches which appeared to be approximately two to three inches wide, and multiple gouged areas with exposed subsurface that ranged from one-inch to 6-inches in diameter. These trenches and sumps were installed by the current property owner to manage flooding issues. These identified potential pathways were sealed and covered under a March 2022 IRM Work Plan in August and September of 2022 when the trenches were channelized with fiberglass bottoms and covers were placed over the sump pits.

However, since the trenches and sumps were sealed, there have been episodes of periodic flooding in the basement of this neighboring building, practically in a lower-level basement which is separated from the primary basement by a partial foundation wall. It is apparent that the mitigation measures taken in August and September 2022 have interfered with the flooding control apparatus that the neighboring property owner created and there is the potential that some of the floodwater may be entering the basement from beneath the floor. The proposed activities detailed in this work plan are an effort to mitigate against the intrusion of floodwater from infiltrating the basement during flooding events and to avoid vapor mitigation measures from resulting in a separate environmental concern for the neighboring property.

#### **Proposed Remedial Activities**

To mitigate against the potential for floodwater from entering the basement floor of the building, a groundwater dewatering system will be installed the basement of the neighboring building. This system will be designed to operate on a temporary basis during periods of high groundwater or flooding events.

#### Pilot Testing

The initial activities for this IRM will include the installation of one temporary well point installed to a depth of four feet below basement floor grade. The temporary well will be constructed with braided PVC tubing and equipped with a submersible well pump outfitted with a float switch which will enable the pump to be activated once groundwater levels beneath the floor reach a critical height. The pump will be connected to hosing or tubing that will dispense the water into a 55-gallon drum. It is also anticipated that approximately one 55-gallon drum worth of potentially contaminated water will be generated during the pilot test. The



water will be sampled for VOCs by EPA method 8260 to determine the appropriate offsite disposal and required future filtration.

The efficacy of this well point method will be analyzed during a rainstorm event under the supervision of an environmental professional to determine if this approach will be effective in mitigating against potentially impacted groundwater from entering the basement. During this pilot test, a water sample will be collected in compliance with Rules of The City of New York, Title 15, Chapter 19. **Appendix A** includes product information for the proposed temporary well material and submersible pump. The location where this pilot test will be conducted is illustrated on **Figure 2**.

#### Well System Installation

If the pilot test is deemed to be successful and demonstrated that a well-point/pump apparatus is effective at mitigating against groundwater emanating from the direction of the area of chlorinated solvent impact in the subsurface from flowing into the basement, then a permanent well-point/pump system will be installed.

The permanent well point system will be comprised of at least three four-inch diameter PVC wells with 0.010 slotted screens installed to a depth of four feet. A submersible pump will be installed into each well and outfitted with a float switch which will enable to activate the wells when groundwater levels reach a critical level. The pumps will be connected to hosing or tubing which will be connected to a filtration system to treat the potentially impacted water before it is discharged into the sewer system.

The mitigation system will consist of the following items:

- At least three four-inch diameter PVC wells with 0.010-inch slot screens installed to 4 feet below basement grade.
- Zoeller submersible well jet pumps (or equivalent) will be installed into each well point and outfitted with a float switch to activate the pumps when necessary.
- The pumps, when activated, will purge water into tubing/hosing that will enter a filtration system (i.e.: granulated activated carbon units) before being discharged into the sewer system.

Following a successful pilot test, the proposed details of the well-point system including the locations of the wells, the electrical components of the system, the placement of the electrical lines and hosing lines, and the components of the water filtration system will be included in a supplemental submittal to NYSDEC for approval.

#### IRM Activity Derived Wastes

It is anticipated that approximately one 55-gallon drum worth of soil will be generated during well point installation. Based on the proposed general locations of these well-points, it is anticipated that soil cuttings generated under this IRM will be non-hazardous. Once the project is completed, soil cuttings will be transferred off site for disposal at an appropriate facility in accordance with local, state, and federal guidance.

Community Air Monitoring Program



Air monitoring will be conducted in accordance with NYSDEC's generic community air monitoring program (CAMP) protocols as outlined in the guidance included in **Appendix B**.

The initial IRM Work Plan which this letter is an addendum to is attached as Appendix C.

If you have any questions regarding the activities detailed in this IRM Work Plan Letter, please do not hesitate to contact us.

Sincerely,

P.W. Grosser Consulting, Inc.

Paul K. Boyce, PE, PG

President and CEO

Ryan Morley, PG

Project Manager

I, Paul K. Boyce, PE, certify that I am currently a NYS registered professional engineer, as defined in 6 NYCRR Part 375, and that this Interim Remedial Measure Addendum Letter was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Paul K. Boyce, PE

E Name

PE Signature

074604

PE License #

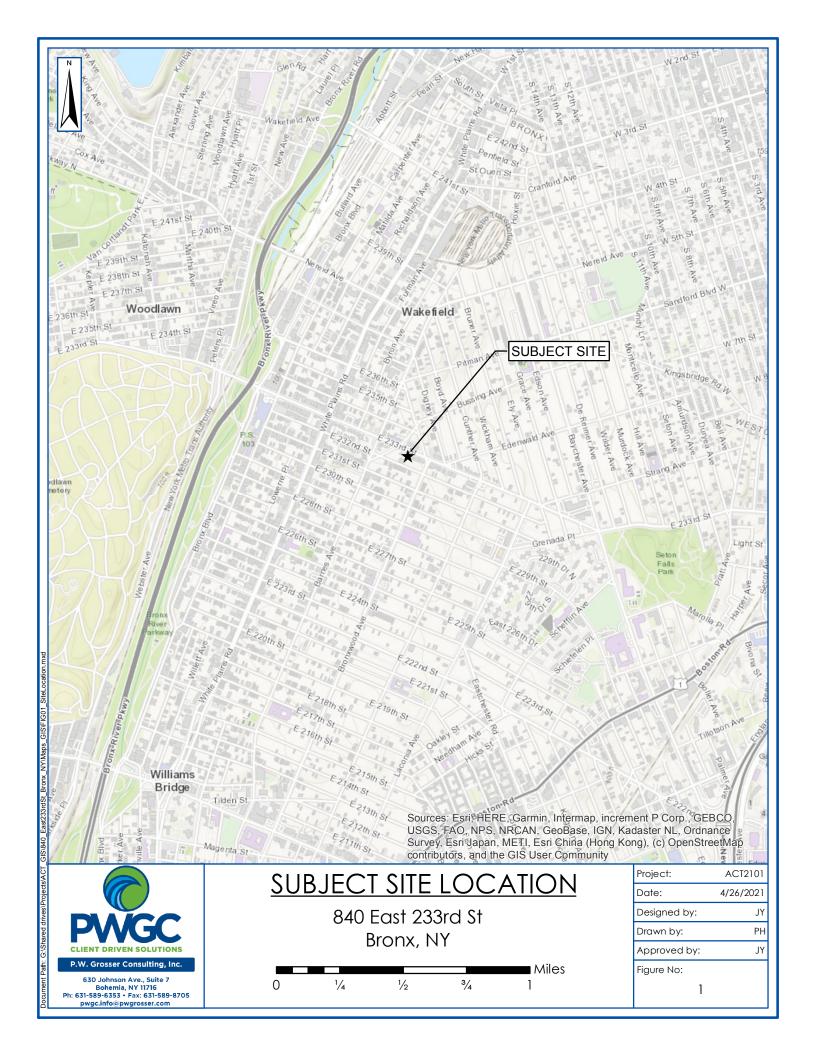
January 25, 2023

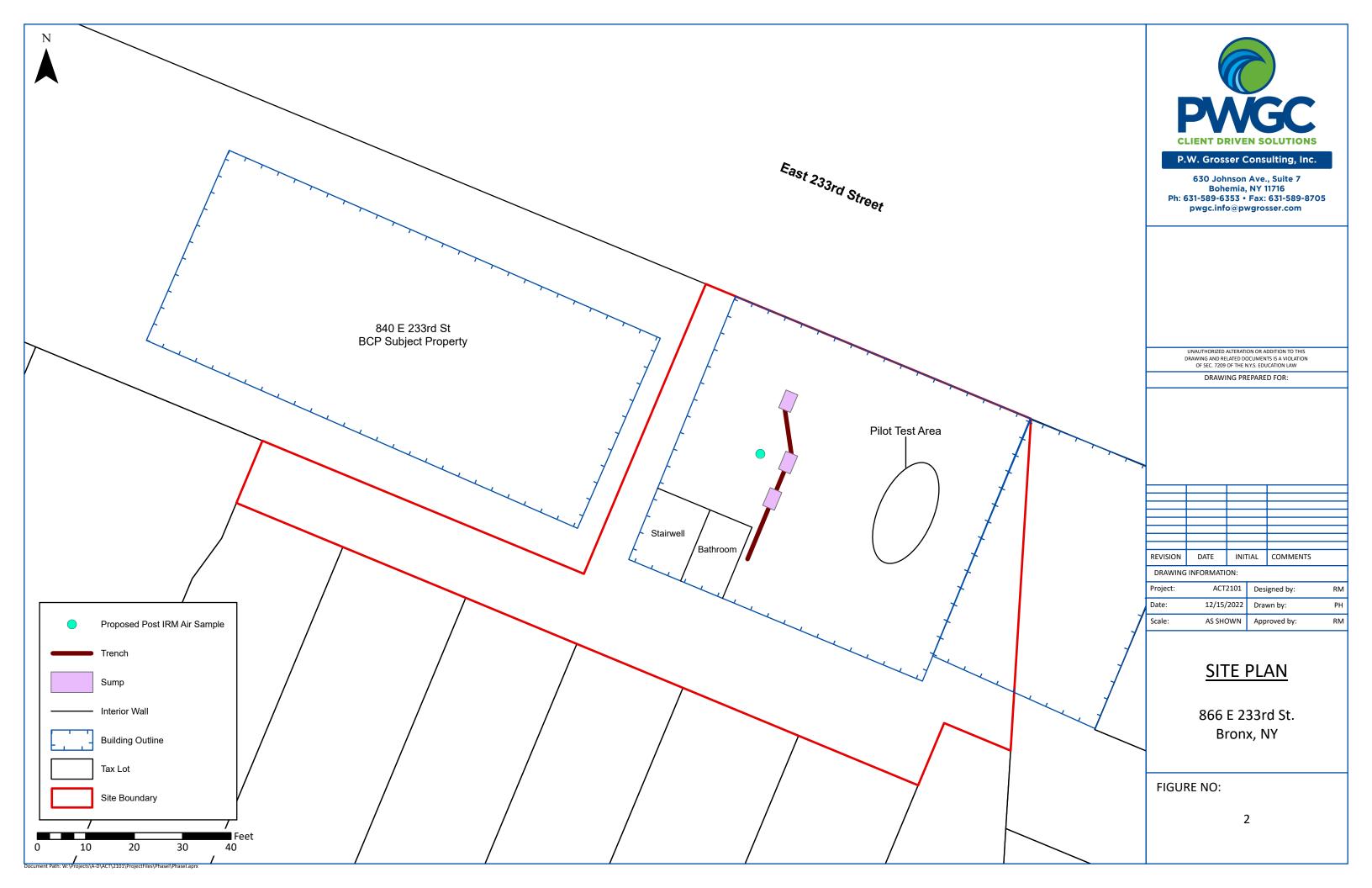
Date





#### **FIGURES**







#### **APPENDIX A**

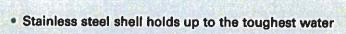
### WELL



# **20ELLER TRUSTED HOME SOLUTIONS**

## 4-IN SUBMERSIBLE Well Pump

- Draw water from your well for your home or farm.
- Ideal for small to medium-sized homes
- 3 Wire (plus ground) models require control box



- Built-in check valve
- Stainless steel motors
- Corrosion-resistant cable guard
- Safety rope eyelet included



100% FACTORY TESTED



PART #	НР	GPM	VOLTS	WIRE	DISCHARGE	WELL DEPTH (FT.)	CONTROL BOX REQUIRED
1450-0009	1/2	12	230	3	1-1/4-IN	125	1010-2336
1450-0010	1/2	12	115	2	1-1/4-IN	125	NOT REQUIRED
1450-0011	1/2	12	230	2	1-1/4-IN	125	NOT REQUIRED
1451-0006	3/4	12	230	3	1-1/4-IN	250	1010-2337
1451-0007	3/4	12	230	2	1-1/4-IN	250	NOT REQUIRED
1452-0005	1	12	230	3	1-1/4-IN	325	1010-2338
1452-0006	1	12	230	2	1-1/4-IN	325	NOT REQUIRED
1452-0007	1	18	230	3	1-1/4-IN	150	1010-2338
1452-0008	1	18	230	2	1-1/4-IN	150	NOT REQUIRED
1453-0004	1	26	230	2	1-1/4-IN	80	NOT REQUIRED



Product Categories / Pipe, Hose, Tube & Fittings / Tube Products / Tubing / Plastic & Rubber Tubing / Multipurpose PVC Tubing / Food & Beverage PVC Tubing / Tubing: PVC, 1 1/4 in Inside Dia, 1 5/8 in Outs...



#### GRAINGER APPROVED GRAINGERCHOICE

## Tubing: PVC, 1 1/4 in Inside Dia, 1 5/8 in Outside Dia, 10 ft Lg, Clear, Polyester Braid

Item #796ZY9

Mfr. ModelZUSA-HT-

6806

UNSPSC #0

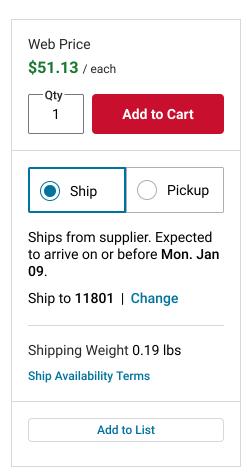
Catalog Page #N/A

Country of Origin China. Country of Origin is subject to change.

#### **Technical Specs**

Item	Tubing
Application	Beverages, Food
Color	Clear
Food Application	Dairy, Food, and Beverage
Hardness	Shore A 65
Inside Diameter	1 1/4 in
Jacket Color	No Jacket
Jacket Material	No Jacket
Material	PVC
Material Trade Name	Not Applicable
Material Trade Number	Not Applicable
Maximum Operating Pressure	60 psi
Maximum Operating	140 Degrees F

Outside Diameter	1 5/8 in	
Overall Length	10 ft	
Peristaltic Pump Compatible	No	
PEX Type	Not Applicable	
Resistance Properties	Hardening Resistant, Swelling Resistant	
Reinforcement	Polyester Braid	
Standards	FDA	
Wall Thickness	0.1875 in	
Food and Beverage Compatibility	Beer, Citric Acid, Distilled Water, Glycerin, Linseed Oil, Milk, Orange Juice, Potable Water, Salt Water, Vinegar	
Petroleum Product	Fuel Oil, Grease, Kerosene,	





Chemical Compatibility	Ammonia, Freon 12, Hydrochloric Acid 10%, Hydrochloric Acid 48%, Hydrogen Peroxide, Iodine, Nitric Acid 35%, Phosphoric Acid 10%, Potassium Chloride, Potassium Nitrate, Potassium Sulfate, Silver Nitrate, Sodium Carbonate, Sodium Chloride, Sodium Chloride
Autoclavable	No
Bend Radius	15 3/4 in

Clarity	Clear
Does Not Contain	Not Applicable
Fitting Compatibility	Barbed
Flexibility	Semi-Flexible
Stripe Color	No Stripe
System of Measurement	Inch
Tube Form	Coil
Vacuum Rated	Not Rated for Vacuum
Flow Application	Food and Beverage
For Environment	High Pressure
For Fluid Type	Beverages
Industry Application	Pharmaceutical

Lubricants, Mineral Oil

Compatibility



#### **APPENDIX B**

# Appendix C Community Air Monitoring Plan

#### **New York State Department of Health Generic Community Air Monitoring Plan**

#### Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical-specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

#### Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

**Continuous monitoring** will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

**Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

Final DER-10 Page 204 of 226 Technical Guidance for Site Investigation and Remediation May 2010 overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

#### VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- 1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- 2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- 3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.
- 4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

#### Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

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- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m<sup>3</sup>) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m<sup>3</sup> above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m<sup>3</sup> above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m<sup>3</sup> of the upwind level and in preventing visible dust migration.
- All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

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#### Additional Community Air Monitoring Plan Requirements

- When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.
- o If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Depending upon the nature of contamination, chemical-specific colorimetric tubes of sufficient sensitivity may be necessary for comparing the exposure point concentrations with appropriate pre-determined response levels (response actions should also be pre-determined). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.
- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m3 or less at the monitoring point.



#### **APPENDIX C**



February 4, 2022 Wendi Zheng Project Manager NYSDEC – Region 2 47-40 21<sup>st</sup> Street Long Island City, New York 11101

RE: Interim Remedial Measure Work Plan Letter 840 East 233<sup>rd</sup> Street, Bronx, New York 10466

**NYSDEC BCP # C203119** 

Dear Ms. Zheng,

PW Grosser Consulting Engineer & Hydrogeologist, P.C. (PWGC) has prepared this Interim Remedial Measure (IRM) Work Plan Letter to address soil vapor intrusion concerns at the neighboring commercial building (866 233<sup>rd</sup> Street) located adjacent to the east of the subject property (840 East 233rd Street). The subject property is currently enrolled in the New York State Department of Environmental Conservation's (NYSDEC's) Brownfield Cleanup Program (BCP) as a Participant. The scope of work detailed in this letter is based on a conference call between PWGC, NYSDEC, and Advanced Cleanup Technologies (ACT), of Port Washington, New York, on December 8, 2021, and a site visit by PWGC, NYSDEC, and ACT on December 15, 2021.

#### **Project Background**

The BCP property is located in the Wakefield section of the Bronx, New York and identified as Block 4857, Lot 49 on the New York City Tax Map. The BCP property is approximately 11,350 square feet in area and is improved with a one-story commercial building approximately 4,700 square feet in area with a partial basement and an asphalt-paved parking lot. The building is currently occupied for commercial use by Great Day Cleaners. The neighboring building to the east, which is the subject of this proposed IRM, is a one story commercial building with a full basement. A site location map is included as **Figure 1**.

Previous environmental assessments performed between the years 2016 and 2021 at the subject property included soil vapor and indoor air analyses which identified a soil vapor encroachment condition and groundwater sampling which identified an area of chlorinated solvent impact along the eastern property boundary. Based on these findings, NYSDEC required that the Participant perform a soil vapor intrusion study at the neighboring building to the east (866 233<sup>rd</sup> Street). On January 22, 2021, ACT mobilized to 866 233<sup>rd</sup> Street to preform a soil vapor intrusion study consisting of one indoor ambient air sample and two sub-slab soil vapor samples. Analytical results for the ambient indoor air sample identified a concentration of trichlorethylene (TCE) at 7.2 ug/m³ and soil vapor concentrations of TCE of 26 ug/m³ and 28,000 ug/m³. Additionally, several chlorinated solvent compounds including tetrachloroethene (PCE), vinyl chloride, and cis-1,2-dichloroethlene (DCE) were detected at elevated concentrations in soil vapor beneath this neighboring building. The results of the soil vapor intrusion study were evaluated using New York State Department of Health (NYSDOH) guidance and it was determined that mitigation measures were warranted to address the vapor intrusion at 866 233<sup>rd</sup> Street. Previous site assessments and investigations have also



identified that the depth to the groundwater table beneath the basement of the building is approximately two to three feet.

On December 15, 2021, PWGC mobilized to the property along with ACT and NYSDEC to assess options for mitigation measures at 866 233<sup>rd</sup> Street. During the site inspection, multiple locations were observed on the basement floor that were identified as potential pathways for soil vapor intrusion including three sump pits which were covered with sheet metal, trenches which appeared to be approximately two to three inches wide, and multiple gouged areas with exposed subsurface that ranged from one-inch to 6-inches in diameter. The approximate locations of these potential pathways are illustrated on **Figure 2** and photographs of these locations are included as **Appendix A**.

#### **Proposed Remedial Activities**

Based on the observations documented during the site inspection and the shallow depth to the water table beneath the basement floor that prevents the installation of a subgrade mitigation system, such as a subslab depressurization system (SSDS), PWGC proposes the following measures:

- Sealing of exposed soils within trenches and gouges with cement/grout.
- Installing permanent manhole covers above the sump pits.

These measures are expected to act as a barrier against impacted vapors from encroaching into the indoor air of the basement at this building. At locations where trenches and gouges were observed, concrete and/or grout will be applied to seal off the exposed subsurface where vapor pathways may be able to infiltrate. At a minimum, the applied concrete or grout will match the thickness of the existing slab at each location. At the three sump pit locations, permanent water-tight manhole covers will be installed. The edges of floor cuts at these sump locations may require alterations in order for the manhole covers to fit properly.

It is anticipated that underlaying soils will not be disturbed during these activities; therefore, a site specific Health and Safety Plan or Community Air Monitoring Plan is not warranted. Generation of excess soils that require on site staging and/or off-site disposal is not anticipated. As a contingency measure, a 55-gallon drum will be kept on site to containerize removed soils and/or concrete debris that may be generated, if necessary.

#### **Post IRM Air Sampling**

Post IRM air sampling will be conducted by ACT as part of the upcoming Supplemental Remedial Investigation (SRI) which will include collecting two air samples from the basement where these IRM activities will be performed, and two air samples from the first floor level above this abasement area. Indoor air samples will be collected using 6-liter volume, batch certified SUMMA canisters outfitted with eight-hour flow controllers. An up-wind outdoor air sample will also be collected as a control measure to gauge background ambient air quality. Air samples will be analyzed for volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) method TO-15.



If you have any questions regarding the activities detailed in this IRM Work Plan Letter, please do not hesitate to contact us.

Sincerely,

P.W. Grosser Consulting, Inc.

Paul K. Boyce, PE, PG

President and CEO

Ryan Morley, PG

Project Manager

I, Paul K. Boyce, PE, certify that I am currently a NYS registered professional engineer, as defined in 6 NYCRR Part 375, and that this Interim Remedial Measure Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Paul K. Boyce, PE

PE Name

PE Signature

074604

PE License #

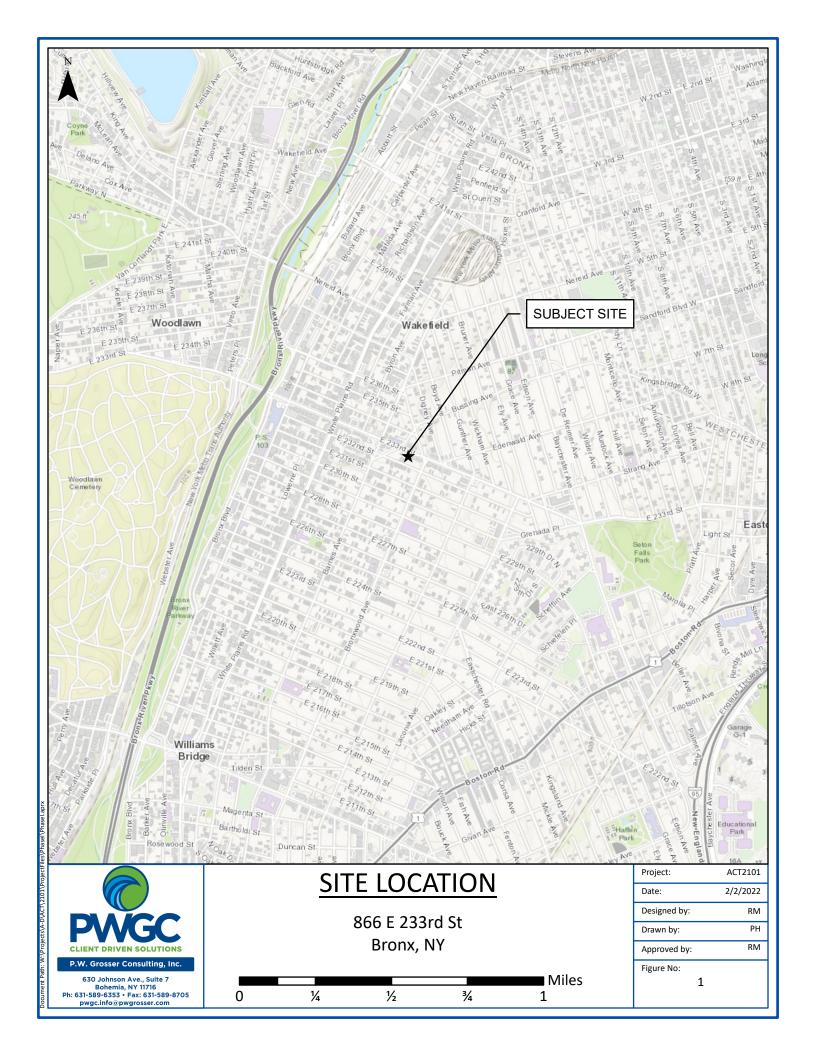
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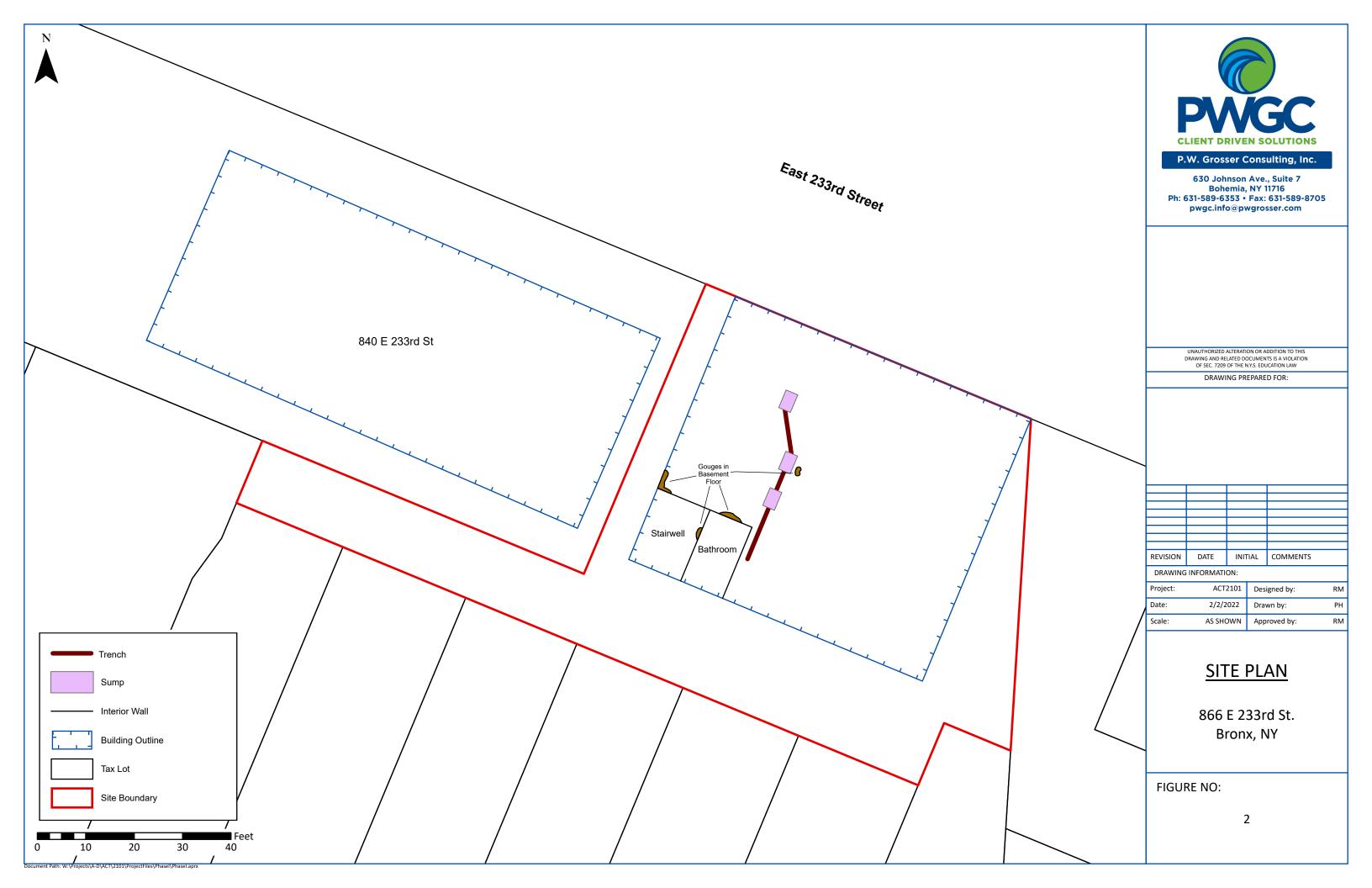
Date





#### **FIGURES**







#### **APPENDIX A**

#### 840 East 233rd Street, Bronx



1: View of the basement at 866 233rd Street.



2 : View of trenching with exposed soils on basement floor.



3 : Sump pit with metal cover.



4 : Area of exposed soil adjacent to one of the sump pits.



5 : Exposed soil along the western wall of the basement.



6 : Exposed soils near the bathroom in the basement.

#### 840 East 233rd Street, Bronx



7: View of trench in basement floor.



8 : Sump pit in the basement.



9 : Gouged area of the floor by the bathroom in the basement.