



June 7, 2018

Ref: 82513.17

Damon A. Amadio, P.E.  
Commissioner of Building  
City of White Plains  
70 Church Street  
White Plains, NY 10601

Re: Phase II Environmental Site Assessment  
Good Counsel Site  
52 North Broadway  
White Plains, New York

Dear Commissioner Amadio,

Pursuant to your request, VHB Engineering, Surveying and Landscape Architecture, P.C. (VHB) is pleased to prepare this Phase II Environmental Site Assessment (ESA) and SEQR consultant scope of services for the above-referenced property (hereinafter the "subject property").

## **PROJECT UNDERSTANDING**

Based upon correspondence provided to VHB by the City of White Plains Building Department, a field located at the southeast portion of the Good Counsel property was filled with soil and debris from off-site sources between circa 2004 and 2006, covered with a geomembrane and finished with soil to produce a field at the school property. A developer is currently proposing to redevelop the Good Counsel Site and is beginning its SEQR process. The City of White Plains is interested in having a Phase II ESA conducted for the field to assess the soil and soil vapor conditions. In addition, VHB will provide the City of White Plains its integrated services which are designed to facilitate the technical review and SEQR compliance as needed by the City as this project moves through the land use approval process.

VHB has been requested to prepare a scope of services that will involve seven (7) soil borings to 25 feet below grade surface (bgs), and four (4) soil borings into 10 to 15 feet of competent rock (cored and

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preserved) for geotechnical purposes<sup>1</sup>, four soil vapor collection points from below the geomembrane, and patching the geomembrane in each location. VHB is proposing to utilize a full size (10 wheel) drill rig with 4.25" inside diameter (ID) hollow stem augers, and backfilling boring locations with drill spoils to depths of five feet bgs (or to the depth just beneath the existing geomembrane. In addition, to hollow stem augers, mud rotary and NQ rock coring drilling methods may be necessary to complete the scope of services for this project. These drilling methods will generate excess drill spoils that will require drumming and off-site disposal.

Soil sampling will be conducted within each of the 11 soil borings. Each analysis suite will be submitted for, and compared to, New York State Department of Environmental Conservation (NYSDEC) parameters set forth in 6 NYCRR Tables 375-6.8(a) and 375-6.8(b). More specifically, each of the 11 soil borings will be submitted for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). In addition, five (5) representative samples will also be submitted for polychlorinated biphenyls (PCBs), pesticides and heavy metals.

Although the presence of asbestos-containing materials (ACM) is not currently a known condition, VHB has been asked to provide a contingency for ACM analysis as part of this scope and fee estimate.

VHB is aware that the subject property was previously issued an Order on Consent by the NYSDEC. In order to avoid confusion that may occur with multiple entities interacting with the NYSDEC, VHB will not contact the NYSDEC directly. Instead, VHB will prepare a site-specific Work Plan for submission to the NYSDEC by the City of White Plains.

Prior to accessing the subject property, VHB will provide requisite proof of insurance to the property owner. VHB understands that an access agreement must be executed by both VHB and the property owner. The access agreement will memorialize the project scope and timeframes for field work. VHB's in-house counsel will review the property owner's insurance and access agreement requirements, and may provide comments as necessary prior to execution by VHB.

A VHB Project Scientist will be on-site during all phases of the proposed field work: geophysical survey, drilling and drummed soil removals.

## **SCOPE OF SERVICES**

The Phase II ESA will be combination of time card (TC) and lump sum (LS) components. The scope of services for the Phase II ESA are further described below:

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<sup>1</sup> Boring logs will be provided with the Phase II ESA report inclusive of blow counts for the four (4) soil borings drilled into 10 to 15 feet of competent rock. No geotechnical recommendations will be provided by VHB. The geotechnical borings are intended to assist the User in the design of the site, and it should be noted that no site plan has been provided to VHB.



### Phase II ESA Field Activities (TC & LS)

As noted above, the Phase II ESA will be a combination of LS and TC efforts, these are defined by VHB as summary report and field activities, respectively. Field activities are associated with the evaluation of documented fill material (i.e., buried concrete, asphalt and soils from off-site construction projects) and soil vapor as related to documented fill material (e.g., petroleum-related hydrocarbons) and decomposition of buried vegetation resulting in detectable concentration of methane beneath the geomembrane.

It should be noted that the projected field investigations described below are based on VHB's current knowledge of the subject property.

#### *Geophysical Survey*

VHB's drilling subcontractor will notify "Call Before You Dig" at least 72 hours prior to initiating the work to identify the location of underground utilities in the vicinity of the subject property. All movable on-site infrastructure and obstacles (e.g., dumpsters, pallets, vehicles, etc.) must be removed from the proposed sampling locations prior to our mobilization to the site.

Due to the reported presence of two buried sanitary lines and electric lines that travel through the fill area, a private utility markout and geophysical survey is anticipated as part of this scope of services. In addition, as this work is being contracted between VHB and the City of White Plains Building Department, VHB is formally requesting that information regarding the locations of sanitary lines in the vicinity (e.g., Building Department plans for the existing buildings, Department of Public Works sewer connection plans, etc.) be made available to VHB prior to the conduct of the geophysical survey.

#### *NYSDEC Coordination*

As stated above, VHB will not contact the NYSDEC directly prior to commencing the field activities. However, VHB prepare a site-specific Work Plan for review by the NYSDEC. The aforementioned Work Plan will be provided to the NYSDEC by the property owner in advance of VHB's field activities.

#### *Fill Investigation*

Based upon the site history, impaired soils and solid debris have been imported to the site to fill former low-lying areas at the southeastern portion of the site to a depth of 25 feet bgs. VHB proposes to drill 11 borings at the southeastern portion of the subject property within the existing field.

As indicated above, each of the 11 borings will be drilled utilizing a 10-wheel truck mounted drill rig to a minimum depth of 25 feet bgs, and four (4) of these borings will be drilled into 10 to 15 feet of competent rock for geotechnical purposes. The following is the protocol established for the soil boring/geotechnical scope of services:



- Preclear to 5' +/- by hand to expose geotextile liner
- Cut liner in 1' x 1' square and remove
- Perform (11) 25' Soil Borings
  - 4 ¼" ID hollow stem auger
  - Split spoon sampler
  - Continuously from liner to 25'
  - Borings backfilled with cuttings to 5' bgs.
  - Borings grouted with a neat cement/bentonite grout from 5' bgs to grade
  - Sample custody transferred to VHB Project Scientist on site
- (4) 50' +/- Geotech Soil Borings
  - Split Spoon Samples 2" x 24"
  - Continuous from liner to 10' and then with a frequency of every 5' to refusal at bedrock
  - Samples obtained according to ASTM D-1586
  - Samples stored in zip lock plastic bags
  - 4 ¼" ID hollow stem augers
  - Upon refusal, the hole will be advanced 10' into bedrock utilizing an NQ-wire-line core drill
  - Rock cores will be stored in wooden boxes and VHB will accept custody
  - Borings will be grouted from the termination point to grade with a neat cement/bentonite grout
- All excess soil and liquid to be drummed and to remain on site by driller

Eleven (11) soil samples will be analyzed for NYSDEC Part 375 list VOCs using United States Environmental Protection Agency (USEPA) Method 8260<sup>2</sup> and NYSDEC Part 375 list SVOCs using USEPA Method 8270. In addition, five (5) representative soil samples will also be submitted for analysis of NYSDEC Part 375 list Metals using USEPA Methods 6010 and 7471, NYSDEC Part 375 list Pesticides using USEPA Method 8081 and NYSDEC Part 375 list PCBs using USEPA Method 8082.

Each soil sample will be transferred into laboratory-supplied glassware and maintained at a temperature at or below 4° Celsius. These fill soil samples will be submitted to an Environmental Laboratory Approval Program (ELAP) and National Environmental Accreditation Program (NELAP)-certified laboratory using appropriate chain-of-custody protocols.

### *Soil Vapor Investigation*

VHB will also conduct a soil vapor study to assess the potential for the present and migration of VOCs beneath the site. Four (4) soil vapor samples are proposed to be collected from beneath the geomembrane. The soil vapor samples will be installed and collected in accordance with current NYSDOH

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<sup>2</sup> Per New York State Department of Health (NYSDOH) guidance each VOC soil sample will be preserved using USEPA Method 5035 methodology.



Guidance and consultation with NYSDEC. The soil vapor samples will be submitted to an ELAP and NELAP-certified laboratory for VOCs using USEPA Method TO-15 plus methane. In addition, each soil vapor sample will be analyzed for helium for QA/QC purposes.

The following is the protocol established for the soil vapor sampling scope of services:

- Preclear to 5' +/- by hand to expose geotextile liner
- Cut liner in 1' x 1' square and remove
- (4) Soil vapor monitoring points – temporary
  - 6" SGC AT8625S implant & Teflon tubing installed with gravel and bentonite
  - 2 ½" ID hollow stem augers utilized to install points and then over-drill and remove points
  - Over-drill and remove implant and tubing
  - Grout to grade with a neat cement/bentonite grout
- All excess soil and liquid to be drummed and to remain on site by driller

#### *Drum Removals*

VHB estimates that 30 55-gallon DOT-approved drums of surplus drill spoils will be generated during the proposed investigation. Due to the former fill investigations, VHB assumes that additional waste characterization data will be necessary to obtain off-site disposal facility acceptance of this material. VHB has provided a cost estimate to provide and remove 30 55-gallon DOT-approved drums of surplus drill spoils as part of this investigation.

#### Phase II ESA Report (LS)

At the conclusion of Phase II ESA field activities, VHB will provide a Phase II ESA report. The Phase II ESA report will include a narrative of the findings of the Phase II ESA activities, inclusive of recommendations. Further, the Phase II ESA report will include site figures, laboratory data tables, site photographs and laboratory reports. This will include one round of revisions.

#### Technical Review, SEQR Compliance Services, and Meetings (TC)

VHB will assist with SEQR compliance and documentation review assistance as needed by the City of White Plains. It is understood that VHB will perform services under the sole direction of the City. This work would potentially include review of reports, plans, and other materials submitted through the approval process. In addition, VHB will help prepare any necessary compliance documentation as requested by the City. VHB will prepare for, attend, and participate in project meetings, public hearings, work sessions, and other meetings requested by the City. Services include coordination, travel, and supporting graphics. VHB will also perform project coordination services including conference calls with the Village staff as may be required.