SITE HEALTH AND SAFETY PLAN

Good Counsel Site: Open Space Fill Area
52 North Broadway
White Plains, New York

PROJECT NO. 26736.00

July 2018

Prepared by:

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White Plains, New York 10606
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HEALTH & SAFETY BRIEFING FORM
Emergency Phone Numbers

City of White Plains	Westchester County
Agency	Phone
VHB	(914) 467-6600
Fire Department	911
Ambulance/EMS	911
Westchester County Department of Health	(914) 813-5000
State Poison Center	(800) 222-1222
U.S. EPA National Response Center	(800) 424-8802
White Plains Police Department	(914) 422-6111
U.S. Environmental Protection Agency	(877) 251-4575 [USEPA Region 2]
Nearest Hospital	**White Plains Hospital**
	(914) 681-1155
See directions and map in Appendix D	20 Davis Avenue, White Plains, NY
Emergency Evacuation Meeting Point:	To the northwest of the site, toward the former gymnasium
Evacuation Signal:	Long car horn beep

Summary of Site-Related Hazards

Chemical Hazards and Source: Backfill beneath the existing geotextile liner have been confirmed to contain concentrations of semi-volatile organic compounds (SVOCs) in contravention of New York State Department of Environmental Conservation (NYSDEC) Unrestricted Use Soil Cleanup Objectives (UUSCOs). In addition, soil vapor beneath the geotextile liner was previously confirmed to contain concentrations of petroleum compounds, chlorinated solvents and methane.

Physical Hazards: Heat stress; slip/trip/fall hazards; uneven terrain; fire/explosion hazards; sun (UV); noise; underground or overhead utilities present; biological hazards including deer ticks carrying lyme disease, insects, snakes, poisonous plants (poison ivy, poison oak and poison sumac).

The following emergency equipment is located on-site at the following locations:

First-aid Kit: In vehicle
Eyewash: In vehicle
Shower: None available. Call 911 or go to hospital
Fire Extinguisher: In subcontractor vehicle

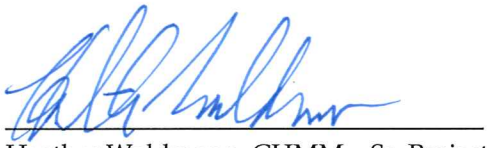
ACKNOWLEDGEMENT

This Site Health and Safety Plan (HASP) outlines procedures, guidelines, and certification of hazard assessment which are intended to be used by VHB (VHB personnel while conducting regulated on-site work activities. This HASP has been prepared in accordance with applicable Occupational Safety and Health Administration (OSHA) standards including 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response (HAZWOPER) and guidance presented in the U.S. Army Corps of Engineers (USACE) Safety and Health Requirements Manual (EM 385-1-1). This HASP presents a generic framework to be used for the preparation of a Site-specific HASP as may be deemed necessary for on-site work to be performed by VHB. A copy of this plan will be available on-site during all site activities. A designated VHB staff member at the site will serve as the site safety and health officer (SSHO) and will advise other on-site VHB personnel of exposure conditions, controls, and the need for protective equipment as outlined in this plan. This plan will be made available to sub-contractors, client personnel, or other involved parties.

The Site-specific HASP has been developed by VHB after reviewing relevant site-specific field data compiled to date and outlines site-specific hazards and control procedures. The HASP may be revised based on new data obtained during on-site activities and/or changes in site conditions or activities.

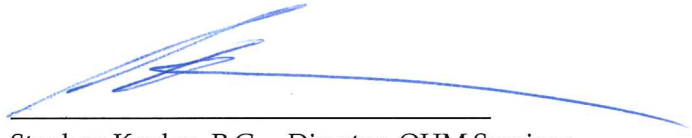
The Site HASP has been developed specifically for the site conditions anticipated. This document is to be reviewed and referenced in the field as necessary. The HASP and appendices must be reviewed and understood by all VHB site personnel and subcontractors prior to any on-site work. Then Site personnel must sign and date the "Team Members Sign-off Page" at the end of this HASP indicating that the HASP was read and understood.

The Site HASP was prepared by:



Heather Waldmann, CHMM – Sr. Project Manager

This Site HASP has been reviewed and approved by:



Stephen Kaplan, P.G. – Director, OHM Services

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I. SITE DESCRIPTION

Location and Site Description

The target property for this HASP is a backfilled former athletic field located at 52 North Broadway in White Plains, New York (hereinafter the "subject property"). The subject property is identified by the street address of 52 North Broadway, White Plains, New York.

The subject property is located to the north of Ross Street and to the west of the Cross Westchester Expressway (aka Interstate 287) in the City of White Plains, Westchester County, New York. The former athletic field was constructed between circa 2004 and 2006 utilizing imported backfill containing construction and demolition (C&D) debris. Following involvement by the New York State Department of Environmental Conservation (NYSDEC), the backfilled area was covered with a geotextile membrane, soil cap and vegetated cover. The subject property is also referred to as the "Good Counsel Site: Open Space Fill Area."

The subject property, along with adjacent areas, is proposed to be redeveloped with residential buildings. Based upon the known presence of backfilled materials, a Phase II ESA is proposed, which will include a geophysical survey, geotechnical borings, soil sampling and soil vapor sampling activities.

Site Background

A Site history for the subject property is outlined in a memorandum prepared by AKRF, Inc. (AKRF), dated October 21, 2016. AKRF reviewed the following documents during the preparation of the aforementioned memorandum:

- Site Investigation Plan, dated August 18, 2004, prepared on behalf of The Sisters of the Divine Compassion and WJL Equities Corporation.
- Site Investigation Report & Remediation Plan, dated January 10, 2005, prepared by EnviroClean Services, LLC, prepared on behalf of The Sisters of the Divine Compassion and WJL Equities Corporation.
- Property Deed, dated August 24, 2006 for 52 North Broadway, White Plains. This deed was recorded September 28, 2006 with the Westchester County Clerk.
- Notice of Violation correspondence from the NYSDEC to WJL Equities re: NYSDEC Case No. R3-20040511-68, dated February 28, 2007.
- Final Engineer's Report, dated March 28, 2007, prepared by EnviroClean Services, LLC on behalf of The Sisters of the Divine Compassion and WJL Equities Corporation.
- Correspondence from the NYSDEC to The Sisters of the Divine Compassion re: NYSDEC Case No. R3-20040511, dated October 22, 2014.
- Correspondence from EnviroClean Services, LLC with attached Soil & Soil Vapor Analysis Report to the NYSDEC, dated August 12, 2012.

According to the information provided in AKRF's October 21, 2016 memorandum, the former athletic field (the subject property) was constructed between 2004 and 2006 with imported C&D debris. The Sisters of Divine Compassion received a Special Permit from the City of White Plains for the construction of the athletic field, and WJL Equities Corporation imported more than 30,000 cubic yards (c.y.) of fill material to the subject property. On April 23, 2004, the NYSDEC inspected the site and determined that the fill material contained C&D debris which

included asphalt and crushed concrete. The use of the imported backfill material was determined to be in violation of the NYSDEC's solid waste regulations, as use of fill containing C&D requires approval from the NYSDEC.

In September 2004, an Order on Consent was issued, indicating that an investigation of the backfilled area was required. The Order on Consent further stipulated that all investigation and remediation reports be reviewed and approved by the NYSDEC with a final report certified by a professional engineer. Site investigation activities conducted in November 2004, which included the excavation of test pits and the collection and analysis of samples of the fill material, determined that semi-volatile organic compounds (SVOCs) were present in the fill materials at concentrations which exceed the NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives (UUSCOs).

In July 2005, the NYSDEC approved a plan to import an additional 30,000 c.y. of recognizable, uncontaminated concrete, asphalt, rock, brick and soil (RUCARBS) to complete the athletic field. The additional backfill activities occurred from August 2005 through October 2005. Soil samples obtained from the additional imported material reported concentrations of SVOCs in contravention of NYSDEC Part 375 UUSCOs, consistent with the previously imported fill.

The NYSDEC required that a geotextile liner be installed above the imported materials, followed by a soil cap and vegetated cover to prevent direct contact with the fill material and to prevent the infiltration of groundwater. These activities were completed in July 2005. A deed restriction was placed on the property to identify the boundaries of the backfilled area, prevent disturbance of the geotextile liner, maintain the site cap and restrict use of the area to open space. The NYSDEC further stipulated that they be notified of any disturbance of the backfilled area and that any proposed change of use of the backfilled area be reviewed and approved by the NYSDEC.

A Final Engineer's Report was submitted to the NYSDEC in March 2007 and in October 2014, the NYSDEC issued correspondence indicating that there were no continuing obligations under the Order on Consent.

Additional investigation activities were conducted in 2012 to evaluate the fill area in association with a potential redevelopment. The soil sampling activities identified exceedances of SVOCs consistent with previous investigations, and identified petroleum compounds, chlorinated solvents and methane in soil gas beneath the geotextile liner. The results were provided to the NYSDEC; however, the potential redevelopment was not further pursued at that time

Hazards On-site

Based on the information provided above, backfill beneath the existing geotextile liner have been confirmed to contain concentrations of SVOCs in contravention of NYSDEC UUSCOs. In addition, soil vapor beneath the geotextile liner was previously confirmed to contain concentrations of petroleum compounds, chlorinated solvents and methane.

II. ON-SITE OBJECTIVES

Planned work will consist of the following activities:

- VHB staff will conduct a visual inspection of the overall property. VHB will take photographs and note relevant observations.
- VHB will provide oversight of a geophysical and ground-penetrating radar (GPR) survey which will be utilized to identify subsurface utilities.
- VHB will also provide oversight during the activities associated with site investigation activities. These activities include geotechnical borings, soil borings and soil sampling activities, and soil vapor sampling activities.

III. ON-SITE CONTROL AND ORGANIZATION

On-Site Control

The purpose of on-site control is to prevent unauthorized entry to the overall property and prevent inadvertent contact with contaminated and potentially contaminated areas. During fieldwork, access to the work area will be limited to authorized personnel with proper personal protective equipment and appropriate training. No unauthorized access of personnel or motor vehicles will be allowed within the work area.

Project Organization

VHB Personnel

Health & Safety Manager: Stephen Kaplan

The Health and Safety Manager will serve to provide senior level support and assume corporate responsibility for the implementation of Health and Safety activities under work performed during this contract. The Health & Safety Manager serves as VHB's Health and Safety Manager and provides for the senior technical review of HASPs, as well as supporting the team in assessing potentially applicable Health and Safety Requirements.

Task Manager (TM): Heather Waldmann

The TM has responsibility and authority to direct all work operations. The TM coordinates safety and health functions with the Site Safety and Health Officer (SSHO), has the authority to oversee and monitor the performance of the SSHO, and bears ultimate responsibility for the proper implementation of the HASP.

Site Safety and Health Officer (SSHO): Heather Waldmann

The (SSHO) has full responsibility and authority to develop and implement this HASP and verify compliance. The SSHO reports to the TM. The SSHO is on site or readily accessible to the site during all work operations and has the authority to halt site work if unsafe conditions are detected.

Site Supervisor: Christopher Rooney

The Site Supervisor is responsible for field operations and reports to the TM. The Site Supervisor ensures the implementation of the HASP requirements and procedures in the field.

Site Personnel: Site workers are responsible for ensuring compliance with the HASP. Site workers are required to use appropriate PPE; report incidents, unsafe acts and conditions; and following the work and safety and health instructions of the TM, SSHO, and Site Supervisor.

Regulatory Representatives: No regulatory representatives are currently anticipated to be on-site during field activities. However, as it is assumed that the NYSDEC will be notified of the proposed activities, there is a potential for a representative of the NYSDEC to be present on-site.

Client Representatives: No representatives of the Client are anticipated to be on-site during field activities. However, a representative of the current property owner may be on-site during the proposed subsurface investigation activities.

Contractors

Subcontractors shall be made aware of the site emergency response procedures and any potential health and safety concerns identified in this HASP and shall be provided a copy of the HASP for review prior to the initiation of field activities. Subcontractors will receive a HASP briefing prior to the start of work by VHB personnel. It is VHB's policy to require subcontractors to provide their own HASP while working on the site in addition to following procedures established by VHB.

Personnel Training Requirements

The Task Manger is responsible for confirming that VHB personnel working on site have received the necessary training prior to working on the site. The following training is required of VHB personnel working on the site.

1. **Site Personnel:** VHB site personnel must have completed a 40 hour OSHA HAZWOPER training program. If the 40 hour training program was completed more than 12 months prior to commencement of site work, then VHB personnel must have completed an 8 hour refresher training class at a point during the prior 12 month period. A wallet-size copy of the most recent HAZWOPER training certificate must be available at the site at all times. Personnel must also have additional health and safety training as required by the VHB Employee Manual.

2. **Managers and Supervisors:** In addition to the requirements above, any on-site supervisor must also have received an additional 8 hours of HAZWOPER supervisor training as outlined in the OSHA HAZWOPER standard at 29 CFR1910.120.

Pre-Entry Briefing

Site Workers and Visitors: In addition to the training requirements above, a site-specific briefing must be provided to all individuals, including visitors, who enter the site beyond the site entry point. The briefing must include the following information about the site:

- Availability of the HASP
- Recognition of site hazards
- Site lay-out including work zones, places of refuge, emergency procedures, emergency exits and evacuation routes
- Training on the use of site-specific Personal Protective Equipment (PPE)
- Decontamination procedures for equipment and PPE

Communication Procedures

A cellular phone must be present at the work site for use by VHB personnel in emergency situations or for other work-related use by VHB field personnel. The phone must be checked each day prior to site activities to ensure proper operation. In the event of an emergency, first contact the appropriate emergency response agency (i.e. medical, fire, police), and then notify the TM or SSHO.

Medical Surveillance

Refer to the VHB Medical Surveillance Program for routine medical surveillance requirements. Employees who may have been injured, received a health impairment, developed signs or symptoms which may have resulted from exposure to hazardous substances resulting from an emergency incident, or exposed during an emergency incident to hazardous substances at concentrations above the permissible exposure limits or the published exposure levels without the necessary personal protective equipment being used, should seek medical attention as soon as possible.

IV. HAZARD EVALUATION

Chemicals of Concern

Backfill beneath the existing geotextile liner have been confirmed to contain concentrations of SVOCs in contravention of NYSDEC UUSCOs. In addition, soil vapor beneath the geotextile liner was previously confirmed to contain concentrations of petroleum compounds, chlorinated solvents and methane. Permissible exposure limits for commonly encountered contaminants is provided below. It should be noted that there are no specific exposure limits associated with methane.

Permissible Exposure Limits

Substance (see Section A above)	IDLH Level	ACGIH TLV	OSHA PEL	Action Level[1]	Skin Absorption Hazard	IP
Arsenic	Not specified	Not specified	Not specified	Not specified	Not specified	Not specified
Chromium	Not Specified	0.5 ppm	1 ppm	0.25 ppm	Yes	Not specified
Mercury	Not Specified	50 ppm	50 ppm	25 ppm	Yes	Not Specified
Silver	Not Specified	Not Specified	Not Specified	Not Specified	Yes	Not Specified
Kerosene	Not specified	200 mg/m^3	Not specified	100 mg/m^3	Yes	Not specified
Benzene*	500 ppm	0.5 ppm	1 ppm	0.25 ppm	Yes	9.24
Isopropyl benzene	900 ppm	50 ppm	50 ppm	25 ppm	Yes	8.75
Naphthalene	500 ppm	10 ppm	10 ppm	5 ppm	Yes	8.12
n-Propylbenzene	500 ppm	0.5 ppm	1 ppm	0.25 ppm	Yes	8.73
Toluene	500 ppm	20 ppm	200 ppm	10 ppm	Yes	8.82

1,2,4-Trimethylbenzene	Not specified	25 ppm	Not specified	12.5 ppm	Yes	8.27
1,3,5-Trimethylbenzene	Not specified	25 ppm	Not specified	12.5 ppm	Yes	8.39
Xylenes	1,000 ppm	100 ppm	100 ppm	50 ppm	Yes	8.56
Lead	400 mg/m^3	0.15 mg/m^3	0.05 mg/m^3	0.05 mg/m^3	Yes	Not Specified
Alpha-Chlordane	Not Specified	Not Specified	Not Specified	Not Specified	Not Specified	Not Specified

NOTES:
[1]VHB's Action Level is one-half the ACGIH TLV unless 8-hr OSHA PEL is more conservative.
IDLH = Immediately Dangerous to Life and Health
* = Carcinogen
PEL = Permissible Exposure Level
TLV = Threshold Limit Value
IP = Ionization Potential
PPM = Parts per million
Mg/m^3 = Milligrams per cubic meter

VHB site worker's exposure to airborne contaminants will be monitored during any intrusive site activities when airborne concentrations of contaminants could exceed the VHB action level. A photoionization detector (PID) will be utilized to monitoring airborne contaminants on-site during the subsurface investigation activities.

In accordance with the OSHA Hazard Communication Standard and the HAZCOM training requirements outlined in the VHB Employee Manual, Material Safety Data Sheets (MSDS) will be maintained and available at the site for all chemicals, including decontamination chemicals, used on-site by VHB personnel. Secondary containers will be labeled pursuant to the VHB Hazard Communication Plan. Personnel will read the MSDSs and follow the appropriate safety precautions when using the chemicals. Any questions regarding the MSDS information will be referred to the SSHO or Health and Safety Manager.

Biological Hazards

Biological hazards may be encountered particularly on an undeveloped, abandoned or vacant, or wooded site. Biological hazards may include:

Disease-Carrying Animals - Animals may carry the rabies virus or deer ticks that may transmit the Lyme disease virus to humans. Avoid all contact with animals or heavily vegetated areas that may contain ticks. If contact with plant flora is made, check the body for ticks, including the scalp.

Poisonous Reptiles – Snakes such as rattlesnakes, water moccasin, and copperhead are found in New England. Avoid areas that may harbor snake populations such as high grasses, shrubs, or crevices.

Poisonous insects – Common examples include bees and wasps. Hives can be located above, below or on the ground. If necessary, an insecticide may be recommended for control; check with the SSHO. Long sleeves and long pants will offer some protection against inadvertent contact. *VHB and subcontractor personnel who have insect allergies are instructed to inform the SSHO prior to field activities. In addition, all personnel with potentially life threatening insect allergies are required to bring their epi pens or rescue medicines to the field with them for use in the event of a sting.*

Poisonous Spiders – Common examples include the Brown Recluse, and Black Widow spiders. Venom toxicity of spiders varies by species, gender and age, so all spiders should be avoided. Long sleeves and long pants will offer some protection against inadvertent contact.

Poisonous & Toxic Plants – Examples include poison ivy, oak and sumac; and hog weed. Avoid contact whenever possible. Reactions typically occur 2-3 days after exposure. Long sleeves and long pants will offer some protection against inadvertent contact. If skin comes in contact with suspected poisonous plants, immediately wash hands, arms and any other exposed skin with soap and water.

Physical Hazards

Heavy Equipment

Equipment, including earth-moving equipment, drill rigs, or other heavy machinery, will be operated in compliance with the manufacturer's instructions and limitations and well as any applicable regulations. The operator is responsible for inspecting the equipment daily to verify that it is functioning properly and safely.

Operation of equipment at the Site poses potential physical hazards. The following precautions should be observed whenever heavy equipment is in use:

- PPE, including steel-toed boots, safety glasses, reflective vests and hard hats must be worn.
- Personnel must be aware of the location and operation of heavy equipment and take precautions to avoid getting in the way of its operation.
- Workers must never assume that the equipment operator sees them; eye contact and hand signals should be used to inform the operator of intent. Personnel should not walk directly in back of, or to the side of heavy equipment without the operator's knowledge. Always make heavy equipment operator aware of your presence.
- High visibility traffic safety vests are required to be worn when working in high traffic zones or where heavy equipment is being operated.
- The heavy equipment operation work area must be coned off to distinctly mark the boundaries.
- All non-essential personnel and pedestrians must be kept out of the work area.

Slip, Trip and Fall Hazards

Proper housekeeping practices should be utilized, including the removal of debris, tools, cords and hoses from the work area in order to minimize trip hazards. Manhole covers should be properly secured and should never be left unattended while open. If trip hazards cannot be removed from the work area, same should be secured and cones should be utilized to identify the hazard.

Heat Stress

Heat stress can pose a significant health hazard on site. Four environmental factors affect the amount of stress a worker faces in a hot work area: temperature, humidity, radiant heat (such as from the sun or a furnace), and air velocity in addition to individual effects such as age, weight, fitness, medical condition, and acclimatization to the heat. To reduce the possibility of heat-related illness, workers should drink sufficient volumes of fluids and establish a work schedule that will provide sufficient rest periods for cooling down. Personnel shall maintain an adequate supply of non-caffeinated drinking fluids on site for personal hydration. Workers should be aware of signs and symptoms of heat-related illnesses, as well as the proper first aid for these conditions. The following chart summarizes the various types of heat stress, signs and symptoms and response actions:

Signs/Symptoms	Condition	Response Required
Red rash on skin, intense itching/inflammation	Heat Rash	Increase fluid intake and monitor affected worker.
Heavy sweating, lack of muscle coordination; muscle spasms, pain in the hands and feet, or abdomen	Heat Cramps	Increase fluid intake, frequent rest periods, monitor affected worker for more serious symptoms.
Heavy sweating, pale, cool, moist skin; lack of coordination; fainting, weakness, headache, dizziness, nausea	Heat Exhaustion	Remove worker to a cool, shady area. Administer fluids and allow worker to rest until fully recovered. Closely monitor worker for additional signs of heat exhaustion. If symptoms reoccur, release worker from day's activities after he/she has fully recovered.
Red, hot, dry skin; disorientation, unconsciousness Lack of, or reduced perspiration, nausea, dizziness and confusion, strong, rapid pulse.	Heat Stroke	Immediately contact 911. Remove the victim to a cool, shady location and observe for signs of shock. Attempt to comfort the victim by administering small amounts of cool water (if conscious), loosen clothing, place cold compresses at neck, underarms, and groin. Follow instructions of 911 until help arrives.

Workers will use sunscreen as appropriate on exposed skin to protect against the harmful effects of UV exposure including sunburn and skin cancer. Sunscreen should be reapplied every few hours of sun exposure. Sunscreen will be available on site for workers to use.

Cold Stress

Workers performing activities during colder weather months may encounter extremely cold temperatures, as well as conditions of snow and ice, making activities in the field difficult. Adequate cold weather gear, especially head and footwear are essential under these conditions. Workers should be aware of signs and symptoms of hypothermia and frostbite and be able to recognize these symptoms in their fellow co-workers. Workers should be trained in first aid for these conditions, which are summarized below:

Signs/Symptoms	Condition	Response
Confusion, slurred speech, slow movement, sleepiness, warm feeling	Hypothermia	Remove victim to warm area, give warm fluids, warm body core as rapidly as possible, remove outer clothing and wrap torso in blankets with hot water bottle or other heat source. Get medical attention immediately.
Reddish or white area on skin (for Caucasians) purplish patches for darker individuals, frozen skin	Frostbite	Place affected extremity in warm, not hot water, or wrap in warm towels. Get medical attention.

Noise Protection

Workers will wear appropriate hearing protection when operating or working near heavy equipment such as drill rigs, system operations, or other mechanical equipment including generators. The use of heavy equipment may

generate noise above the OSHA permissible exposure limit for noise of 90 dB(A) for an 8-hour time weighted average. If loud noise is present or normal conversation becomes difficult, hearing protection in the form of earplugs or equivalent is required.

Electrical Equipment Shock Hazards

Electrical equipment to be used during field activities will be suitably grounded and insulated. Ground fault circuit interrupters (GFCI), or equivalent, will be used with electrical equipment to reduce the potential for electric shock hazards. VHB employees will typically come into contact with electricity when operating mechanical equipment or breaker panels associated with a remediation system. Lock out/tag out procedures in accordance with 29 CFR 1910.147 will be conducted before activities begin. Workers conducting the operation will positively isolate the piece of equipment, lock out/tag out the energy source, and verify the effectiveness of the isolation. Only employees who perform the lock out/tag out procedure may remove their own tags/locks. Employees will be thoroughly trained before initiating these activities.

Excavations

Workers will not enter excavations greater than 4 feet in depth without appropriate protective systems such as benching, sloping, or shoring. Side slopes will not be steeper that a 1:1 rise-over-run ratio without approval from a qualified geotechnical engineer. Excavation activities will be conducted in accordance with OSHA Excavation Safety policy 29 CFR 1926, Subpart P. Excavations will be continuously inspected for evidence of the possible occurrence of cave-ins or slides. Work will then cease until appropriate safeguards are put in place. Dredged material from the excavation will be placed a minimum distance of 2 feet away from the excavation so as not to fall back into the opening.

At the end of the work day, open excavations will be clearly marked and secured to prevent nearby workers or unauthorized personnel from entering them.

Underground and Overhead Utilities

The locations of underground pipes, fuel lines, electrical conductors, water, sewer, telecom, and natural gas lines must be determined prior to any intrusive activities such as drilling or excavations using mechanical equipment. Hand-operated equipment shall not be used in areas with known electrical hazards. If equipment with upright booms or masts is to be used such as a drill rig, a minimum distance of 20 feet from overhead utilities such as power lines is required.

By law, excavators and contractors working in the five boroughs of New York City and Nassau and Suffolk Counties on Long Island must contact New York 811, at (800) 272-4480, at least 48 hours prior to beginning any mechanized digging or excavation work to ensure underground utility lines are marked. VHB will ensure that the contractor has a valid One Call Ticket No. prior to the start of field activities.

If an underground utility is damaged during site operations, mechanical equipment will immediately shut down until the damage can be assessed. Depending on the type of utility involved (e.g., water, electrical, natural gas) the appropriate local utility entity will be notified.

Elevated Work Platforms

When working at heights that expose employees to falls greater than 4 feet, the requirements of 29 CFR 1926.502 shall be observed. In such instances, a safety harness shall be worn and the lanyard secured at a level not lower than the employee's waist, limiting the fall distance to a maximum of 4 feet.

Fire/Explosion Hazards

Site workers should have an increased awareness concerning fire and explosion hazards whenever working near flammable materials. Petroleum hydrocarbons, as an example, may present an explosion hazard when they come into contact with an ignition source. All flammable materials must be kept away from ignition sources. Proper precautions shall be taken to reduce fire hazards when dispensing flammable materials through bonding and grounding of drums and containers. All sources of ignition such as metal cutting and welding; hot surfaces; frictional heat; static, electrical and mechanical sparks will be eliminated.

Because of the possibility for fire or explosion, open flames or other sources of ignition will not be allowed in contaminated zones. In addition, personnel working on site will **not** be allowed to smoke under any circumstances. In the event of a fire, work will cease and the area will be evacuated. Local fire responders will be notified immediately. Site workers should not attempt to put out fires that have progressed beyond the incipient stage unless they are properly trained and equipped with the right equipment to do so. A fully charged ABC dry chemical fire extinguisher will be readily available for use during all scheduled activities on the Site. To reduce the possibility of an explosion, open flames and smoking will not be permitted on the site. Adequate precautions will be taken to prevent the ignition of flammable vapors. All site personnel will be familiar with the location and availability of fire alarm pull boxes and fire suppression equipment.

High Traffic Area Hazards

Vehicular traffic represents one of the most common hazards that cause serious injury or death when working at Sites. Risk from vehicular traffic may be minimized by safe operating practices by the employee during Site work.

Site personnel will wear highly visibility orange safety vests in areas of heavy traffic. Employees should make an effort to be aware of their surroundings and potentially dangerous traffic areas at all times. If work is being done that will in any way inhibit the employees' ability to continuously be aware of their surroundings, such as crouching down to sample a monitoring well or taking notes, tall orange cones should be placed around the employee to make motorists aware of their presence. Tall orange traffic cones should also be placed in work areas considered to be highly dangerous traffic areas. Any work performed in a road or on the shoulder of the road should require a police detail to monitor worker safety in vehicular traffic in addition to the use of orange vests and orange traffic cones.

Confined Spaces

VHB personnel are prohibited from entering confined spaces including but not limited to tanks, pits, sumps, trenches, vessels, drainage structures, utility vaults, catch basins and pipe tunnels.

Confined spaces may be described as having, but not being limited to, the following characteristics:

- Is large enough to permit an employee to enter and perform work
- Has limited or restricted means of entry and exit
- Is not equipped, designed, or intended for continuous human occupancy

In addition, one or more of the following conditions may be present in a permit-required confined space:

- Contains or has the potential to contain a hazardous atmosphere
- Contains or has the potential to contain a material with the potential to engulf or entrap an employee
- Is so configured that an employee may become trapped, disoriented, or asphyxiated by wall configurations or smaller cross sections
- Contains any other established safety or health hazards such as electrical equipment or moving parts

This site has been carefully evaluated with regard to the presence of confined spaces as defined in 29 CFR 1910.146. It has been determined that confined spaces are present on the subject property. However, VHB personnel will not be permitted to enter confined spaces.

In the event that a subcontractor is required to enter a confined space, an applicable entry permit will be prepared and the space will only be entered in accordance with 29 CFR 1910.146.

Additional Hazards

No additional physical hazards are anticipated, with the exception of uneven terrain. However, if additional hazards are identified, they will be documented in the HASP, as appropriate.

V. PERSONAL PROTECTIVE EQUIPMENT (PPE)

A. Level of Protection

The purpose of PPE is to protect employees from hazards and potential hazards they are likely to encounter during site activities. VHB personnel will be provided with the appropriate safety equipment and protective clothing. It is the responsibility of the SSHO to inform every worker about the required level of protection and must provide proper training in the use of the safety equipment.

The required levels of PPE to be worn are described below:

The level of protection assigned for the task covered by this plan is level: D

Level D (Minimum Level of Protection)

1. Disposal Tyvek coveralls or other suitable work clothes;
2. Gloves – At a minimum, nitrile gloves will be worn by VHB personnel while collecting soil and/or groundwater samples. Leather gloves should be worn while completing tasks that could result in an injury to the hands.
3. Steel toe Boots;
4. Safety glasses;
5. Hard hat, optional; depending on work activity and SSHO requirements.

Level C

1. Full-face or half-mask air purifying respirator (APR);
2. Hooded chemical-resistant clothing; chemical-resistant coveralls are recommended because they provide a higher level of protection. Disposable Tyvek coveralls over regular work clothes can be substituted but only if they are appropriate for the level of potential exposure and resistant to the contaminants of concern found at the site.
3. Gloves-outer, chemical resistant;
4. Gloves-inner, chemical resistant;
5. Safety glasses or chemical splash goggles;
6. Boots: chemical-resistant steel toe and shank or chemical-resistant boot covers;
7. Hard hat, optional; depending on work activity and SSHO requirements.

Guidelines for Respiratory Protection

For sites which have not been fully characterized, air monitoring will be conducted during field activities because significant levels of contamination could be present in the breathing zone. A PID, detector tubes, and other measuring devices will be used to detect contaminants and determine if action levels have been exceeded.

If levels exceed the "Action Level" in the ambient air and site conditions require the use of a respirator, operations will immediately cease and the SSHO will be notified.

VHB field personnel will not be assigned to tasks requiring the use of respiratory protection equipment (RPE) without consulting with, and having received authorization from the Health and Safety Manager. VHB personnel are required to receive medical surveillance; training in the use, inspection, and maintenance of respirators; fit testing; and proper selection techniques prior to the use of any RPE.

For specific requirements on the RPE refer to the VHB Respirator Protective Equipment Program. Companies, sub-contractors, and organizations other than VHB with on-site workers will be required to supply and train their employees with RPE, as necessary. All other on-site personnel will be held strictly liable and responsible for the proper use of RPE, and the health and safety of their personnel while on-site.

VI. ESTABLISHMENT OF WORK ZONES AND DECONTAMINATION PROCEDURES

Establishment of Work Zones

For the purposes of the visual inspection, establishment of work zones is not warranted, as projected work activities will be limited to walking around the site.

During completion of the site investigation activities, the following work zones will be established where potential contamination exists:

- Exclusion Zone ("Hot Zone"): The area where work activities are conducted and when applicable, where contamination is found. The exclusion zone must be clearly defined as such by the use of traffic cones, caution tape, site figures, etc., so that it is clearly indicated that unauthorized personnel are prohibited from access.
- Contamination Reduction Zone: A designated transitional area where employees' clothing and equipment are decontaminated. Typically, outer protective suits and equipment are washed using Alconox, rinsed and then removed. Hands and face should also be washed in this area.
- Support Zone: An area designated as contamination-free that is considered a base for workers to plan and manage field operations.

Throughout the project, personnel will be performing a variety of tasks. Decontamination will be accomplished in a number of ways, depending on the equipment used and the tasks performed. In some cases, only a boot rinse may be necessary, while in other situations, a complete decontamination of personnel and equipment (including heavy machinery) may be required. The objective of decontamination is not only to properly clean workers and equipment, but also to prevent contaminated soil or water from leaving the site in an uncontrolled manner (i.e., bottom of boots or tires) and posing a potential threat to the surrounding community.

Under certain conditions steam cleaning of heavy machinery and other equipment may be necessary. Both subcontractors and client personnel should be prepared to perform steam cleaning operations.

During completion of the site investigation activities, the following decontamination procedures will be followed:

- All equipment will be decontaminated prior the beginning of field activities and after the completion of each boring with a liquinox/potable water wash and potable water rinse.
- In general, everything that may come in contact with contaminated media must either be decontaminated or discarded prior to exit. In addition to worker protection, care will be taken to avoid cross-contamination of samples and other facility areas.
- Disposable PPE and equipment will be properly bagged and disposed of.
- Employees will wash their hands and faces with soap and water prior to eating or smoking.

Emergency Decontamination

In the event of direct contact of contaminated media with a worker's skin, hair, eyes, etc., where decontamination of the affected area must be conducted immediately, the affected worker(s) will be escorted to previously identified facilities by the Site Safety Officer and/or client personnel. Facilities should include emergency showers, eyewashes and lavatories. If these facilities are not available at the site, then a portable emergency eyewash will be brought to the site. For emergency decontamination of on-site workers, the following facilities are on-site and available for use: **Call 911.**

VII. CONTINGENCY PROCEDURES

A. Hazardous Chemical Spill Procedures

In the event of a hazardous material spill, identify the source of the spill and, if it can be performed safely, contain from a distance in order to protect employees and the environment. Other actions to consider include: Realigning the container to stop the flow, utilizing available spill control materials,

use available materials, soil, etc. to contain the flow. Access to the spill area by unauthorized personnel must be prohibited to minimize exposure and the spread of contamination. The TM should be notified immediately so that any required notifications and further actions can be taken. In the event of a significant spill an emergency cleanup contractor will be notified and, as may be required, notification be made to appropriate local, state and Federal officials.

B. Emergency Medical Care

All local emergency contact information is outlined in the Health and Safety Briefing Form located on the first page of this HASP. This form should be posted at several prominent locations throughout the jobsite. In case of a medical emergency notify an Ambulance/EMS. A first aid kit, eyewash and/or shower should be accessible at the jobsite to treat injuries. Personnel should be decontaminated in the field to the extent possible prior to transport to a medical facility. Report all accidents to the SSHO, TM and Health and Safety Manager.

C. Evacuation Procedures

Should the necessity arise for the evacuation of personnel from the site, due either to chemical exposure or physical danger (i.e. fire, explosion or lightning), the evacuation signal will be sounded and all personnel involved in the on-site work will meet at a location designated as specified on the HASP Briefing Form. The SSHO or designee will notify the appropriate officials. The work area will not be reoccupied until it has been determined that the danger no longer exists. In addition, reentry into the site will not be allowed without proper PPE.

Authorities and the fire department shall be alerted and all personnel moved to a safe distance from the involved area. Site workers shall stay upwind from vapors or smoke and upgradient from spills. If workers are in the Exclusion Zone, then they should exit through the established decontamination area whenever possible.

D. Adverse Weather Conditions

In the event of adverse weather conditions such as thunderstorms, tornado warnings, etc. personnel should halt operations and seek appropriate shelter.

VIII. PERIODIC REVIEW OF HASP AND SITE INSPECTIONS

Site inspections may be conducted by the SSHO or designee to ensure that health and safety controls are adequate and properly implemented at the work-site. Changes to the HASP will be made based on annual reviews of the written program; the discovery of new conditions or concerns; or to reflect regulatory or company-implemented changes.

APPENDIX A

PERSONAL EXPOSURE RECORD, AIR MONITORING RECORD, AND CALIBRATION/MAINTENANCE RECORD

APPENDIX A

PERSONAL EXPOSURE RECORD

Name:

Date:

Time:

Symptoms:

Medical Attention Required: ☐ Yes ☐ No

Treatment:

Prognosis:

Date Returned to work:

Date:

PPE Issued: ☐ Yes ☐ No

Type:

Signature of Site Safety and Health Officer:

_____

Date: _____

Signature of Health and Safety Manager:_____

Date: _____

AIR MONITORING RECORD

Date:

Time:

Location:

Method: _____ Photoionization Detector _____ Detector Tubes _____Other

Type of Device: Serial No.:

Level of Contamination:

Contaminant:

"Action Level":

Action Taken (e.g., cease work; continue work; none):

_____

AIR MONITORING RECORD

Date:

Time:

Location:

Method: _____ Photoionization Detector _____ Detector Tubes _____ Other

Type of Device: Serial No.:

Level of Contamination:

Contaminant:

"Action Level":

Action Taken (e.g., cease work; continue work; none): _____

CALIBRATION/MAINTENANCE RECORD

Calibration

Date:								
Time:								
Method:								
Standard (ppm):								
Response (ppm):								
Span Setting:								

Maintenance

Date:								
Time:								
Problem:								
Remedy:								

APPENDIX B

TEAM MEMBERS SIGN-OFF PAGE

APPENDIX B

TEAM MEMBERS SIGN-OFF PAGE

Prior to going on-site all team members must read and understand the HASP.

I have read and understand the HASP.

Name	Signature	Date

APPENDIX C

SITE MAPS

FIGURE 1 – SITE LOCATION MAP

SITE NAME: Good Counsel Site: Open Space Fill Area
STREET ADDRESS: 52 North Broadway
CITY, STATE, ZIP: White Plains, New York 10603
PROJECT NUMBER: 26736.00
SOURCE: USGS Topo Map, White Plains, NY Quadrangle

N

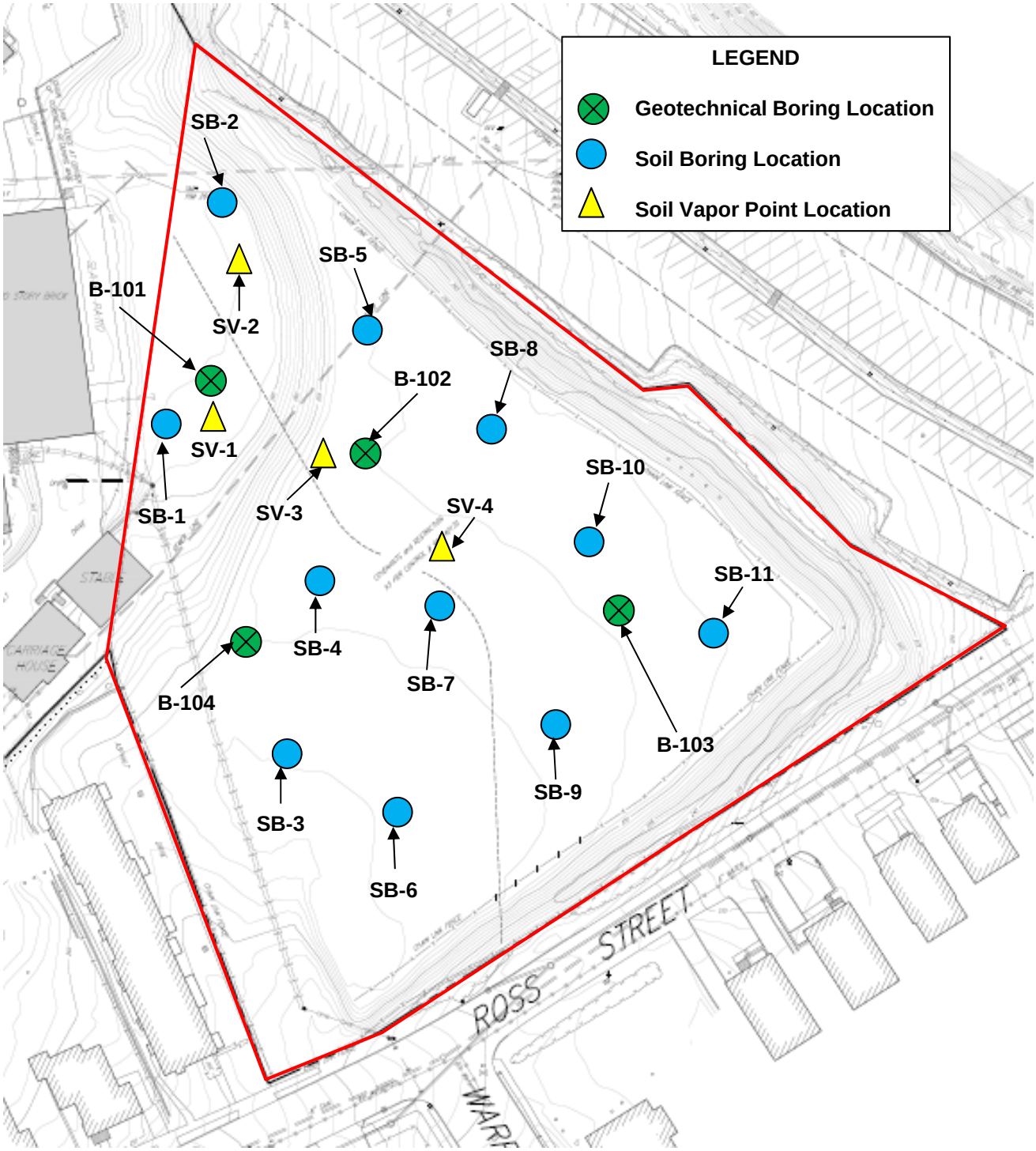


FIGURE 2 – PROPOSED BORING LOCATIONS MAP

SITE NAME: Good Counsel Site: Open Space Fill Area
STREET ADDRESS: 52 North Broadway
CITY, STATE, ZIP: White Plains, New York 10603
PROJECT NUMBER: 26736.00
SOURCE: Preliminary Existing Utilities Plan prepared by JMC

N

APPENDIX D

HOSPITAL ROUTE

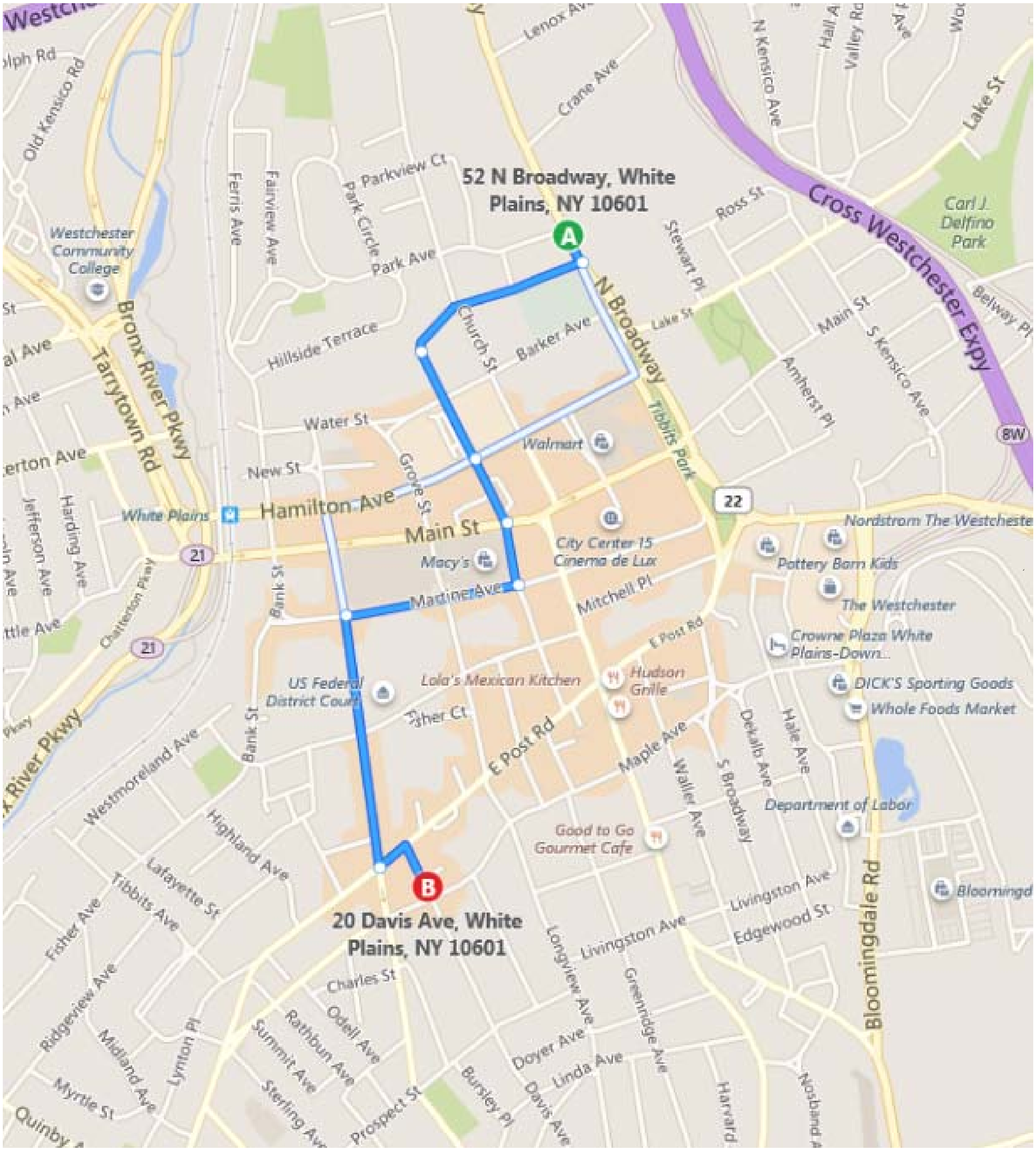
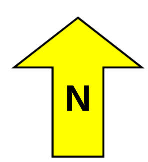


FIGURE 1 – HOSPITAL ROUTE

SITE NAME: Good Counsel Site: Open Space Fill Area
STREET ADDRESS: 52 North Broadway
CITY, STATE, ZIP: White Plains, New York 10603
PROJECT NUMBER: 26736.00
SOURCE: Bing Maps



bing maps

A 52 N Broadway, White Plains, NY 10601
B 20 Davis Ave, White Plains, NY 10601

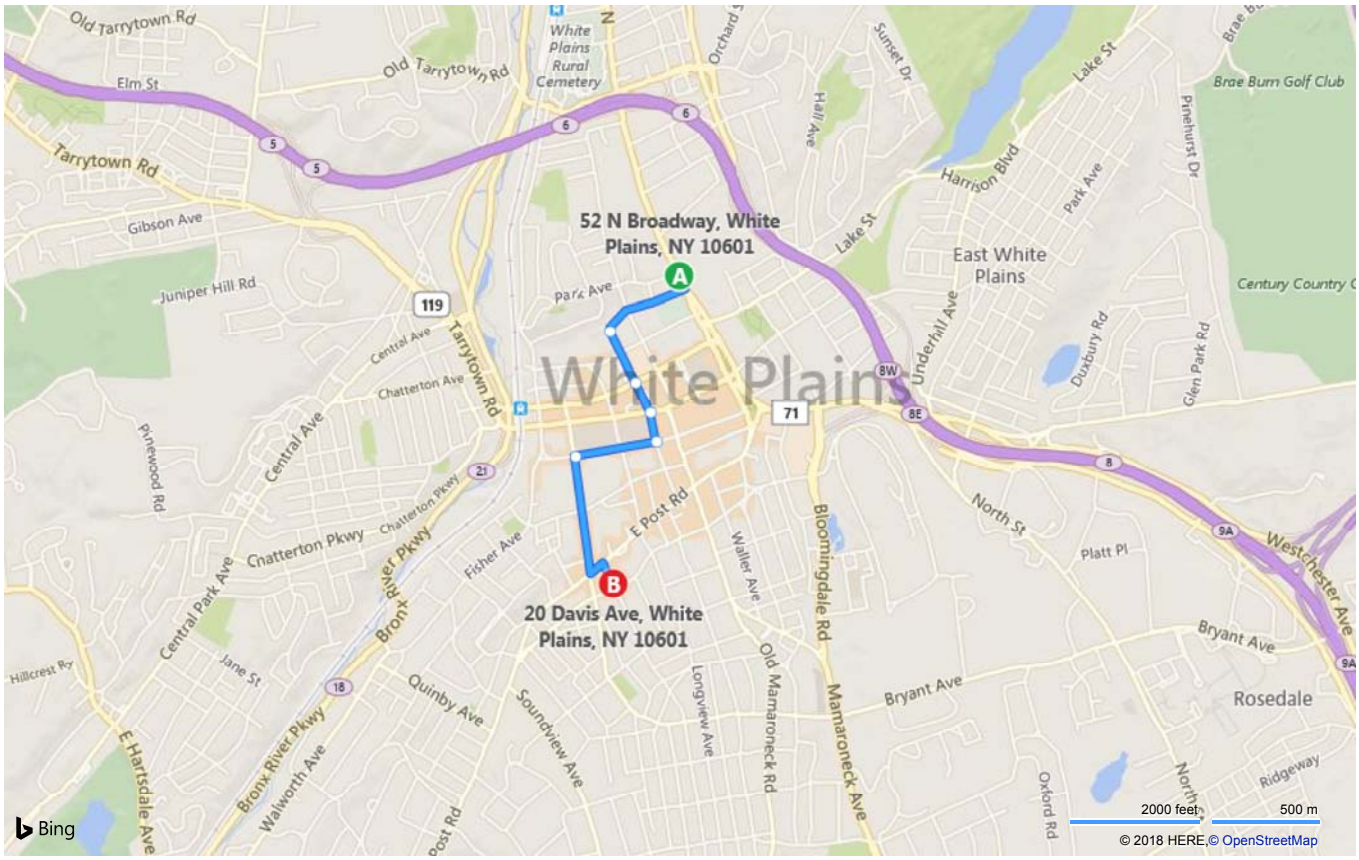
7 min, 1.4 mi
Light traffic (6 min without traffic)
Via Rockledge Ave, S Lexington Ave

Type your route notes here

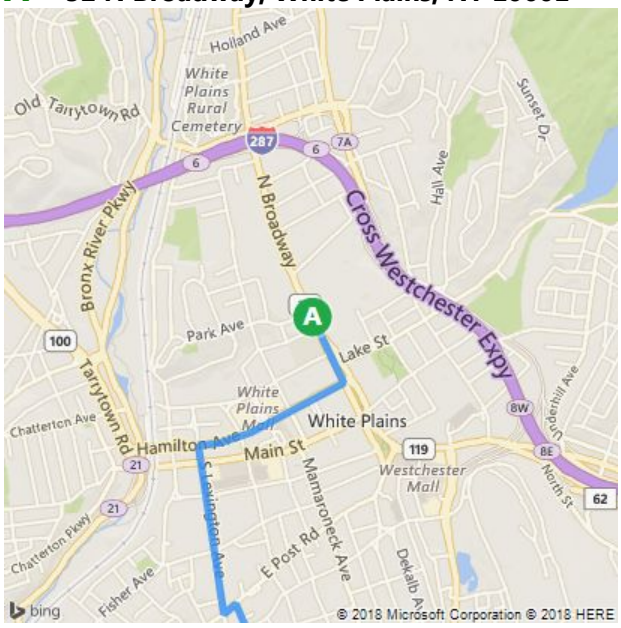
A 52 N Broadway, White Plains, NY 10601

↑	1.	Depart **RT-22 / N Broadway** toward Rockledge Ave	226 ft
↱	2.	Turn **right** onto **Rockledge Ave**	0.3 mi
↑	3.	Road name changes to **Cottage Pl**	0.2 mi
↑	4.	Road name changes to **Renaissance Sq**	0.1 mi
↑	5.	Road name changes to **Court St**	466 ft
↱	6.	Turn **right** onto **Martine Ave** 7-Eleven on the corner	0.2 mi
↰	7.	Turn **left** onto **S Lexington Ave**	0.4 mi
↰	8.	Turn **left** onto **RT-22 / E Post Rd**, and then immediately turn **right** onto **Davis Ave**	0.1 mi
	9.	Arrive at **Davis Ave** The last intersection is RT-22 / E Post Rd If you reach Maple Ave, you've gone too far	

B 20 Davis Ave, White Plains, NY 10601



A **52 N Broadway, White Plains, NY 10601**



B **20 Davis Ave, White Plains, NY 10601**