

Phase II Work Plan (Short Form)

For

**96-98 Degraw Street
Brooklyn, New York 11231
Block 329, Lot(s) 22 & 23
OER Project Number *NA***

**E-Designation *NA*
CEQR Number *NA*
Use/Bulk Variance Action**

Prepared for:

**The Other Half, LLC. &
The Green Witch Project, LLC.
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Prepared by:

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Introduction

This Phase II Investigation Work Plan has been developed for the above referenced site. The site is located within the Columbia Street Waterfront District of Brooklyn. The following work scope has been developed in response to Phase I ESA findings, and the proposed development project.

Site Location, Current Use, and Proposed Development Plan

The Site is located in the Columbia Street Waterfront District of Brooklyn and is identified as Block 329 and Lot(s) 22 and 23. Currently, the Site is comprised of two adjoining undeveloped parcels, with a combined footprint of approximately 3,500 square feet. The Property is currently used for vehicle storage purposes, and as such, is unpaved, but graded with gravel. The development project consists of the construction of two single-family residential buildings. The proposed buildings will be three stories, have wall height of 31'-8", and a setback of 6'-6" from the street. The buildings will span the width of the property, be 63'-7" long, and will each maintain a 30' partially paved patio/rear yard. The water table is expected at approximately 14 feet below grade surface (bgs). Layout of the proposed site development is presented in Figure 1.0.

Phase I ESA Summary

List the on-site and primary off-site recognized environmental conditions (RECs) in bullet form. The Phase I ESA is included in Attachment 1.

- Urban fill and construction debris
- Possible former USTs

Phase II Investigation Work Scope

Geophysical Survey

A geophysical survey will be performed across the entire site to investigate for the presence of potential USTs, drums, etc. that were identified in historic Sanborn maps, during site reconnaissance, etc. Please understand that OER strongly suggests that a GPR survey be conducted across any site where historic demolition activities occurred prior to the site becoming vacant, or more selectively where any suspect historic tank removals have not been properly documented.

Soil, Groundwater and Soil Vapor Summary

An investigation of soil, soil vapor and groundwater is being performed to properly characterize the site for potential environmental impacts from historic on-site/off-site uses, operations, etc. The proposed sampling event will address both RECs and historic fill, as well as to provide general horizontal/vertical characterization across the site for development purposes. The sampling procedures of this investigation will be performed in accordance with the NYSDEC Technical Guidance for Site Investigation and Remediation DER-10.

Three test borings will be completed at the site. Please see attached site plan depicting sample point locations, where soil, groundwater, and soil vapor samples will be collected. At a minimum, a total of six soil samples will be collected from the three test borings. A minimum of three groundwater samples will be collected. A total of two soil vapor and one ambient air samples will be collected. The depth of groundwater is expected to be encountered at approximately 14 feet bgs and general groundwater flow direction is expected to be west. Each sample point location at the site will be accurately measured to fixed benchmarks (i.e., select properly lines, adjacent structures, etc.) or by a precision GPS that is capable of coordinating a fixed point with within +/- 1 foot.

Soil Sampling

A geologist/engineer/QEP will screen the soil samples during borehole advancement for organic vapors with a photo-ionization detector (PID) and evaluated for visual and olfactory impacts prior to collecting environmental samples. All field work will be recorded in a field log. A Geoprobe 6610DT track mounted drill rig will be used and if necessary, more advanced drilling technology will be used to complete the site investigation. At a minimum, two soil samples will be collected from each test borings (for a total of six soil samples) for laboratory analysis. A surface soil sample (from the 0-2 feet bgs interval) and subsurface soil sample (from the two (2) foot interval beneath the proposed maximum excavation depth. Discrete (grab) samples will be taken from the aforementioned sampling intervals. The subsurface soil samples may also serve as in-situ post-excavation soil samples for the remedial plan. A third soil sample may be collected from each or several test boring(s) if 1) elevated PID readings and/or visual and olfactory observations are noted during borehole advancement and/or 2) field observations identify an upper fill layer underlain by native material the additional soil sample from the upper zone of the native layer will help delineate the vertical migration of impacts (if any), as well as determine a more detailed remedy and potentially provide a cost savings for disposal options.

Monitoring Well Installation and Groundwater Sampling

The 1 ¼" inch-diameter pre-pack groundwater monitoring wells will be installed. Representative groundwater samples will be collected using low-flow sampling techniques. Properly sized screen and silica sand pack will be used for noted site conditions. A representative groundwater sample will be collected from each well with a peristaltic pump and dedicated tubing. Sampling will be conducted in accordance with NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and Sampling Guidelines and Protocols, dated March 1991. Groundwater wells will be gauged with a water level meter to record a depth to groundwater reading (1/100 foot), and if necessary, an interface meter to determine the thickness of LNAPL or DNAPL. The well casings will be surveyed by a trained QEP and/or NYS licensed surveyor to facilitate preparation of a groundwater contour map and determine the direction of groundwater flow.

Soil Vapor Sampling

Samples will be collected in accordance with the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH October 2006). Conditions in the field may require adjustment of sampling locations. Groundwater is expected to be encountered at a depth of 14 feet.

Two soil vapor samples will be collected. Soil vapor implants will be set at a depth of approximately four feet. The soil vapor probe will be installed between one and two feet above the groundwater interface. The implants will be installed using a Geoprobe 6610DT drill rig. Sampling will occur for the duration of 2 hours.

Two sub-grade soil vapor, and one ambient air samples will be collected. A GeoProbe 6610 will be utilized to set soil vapor points at four feet below grade, a depth just below the base of the proposed building slab. Once the sampling points are set in glass bead and sealed with bentonite above, a helium tracer vapor will be applied using the recommended bucket apparatus and a helium detector used, to confirm a sufficient seal at the surface. An indoor and ambient air sample will be collected concurrently with and for the duration of the sub-grade soil vapor samples. Ambient air sample collection will be conducted 3-5 feet above the ground to represent the breathing zone. Sub-grade soil vapor and ambient air will be sampled concurrently, and sampling will occur for the duration of 2 hours.

Samples will be collected in 6-Liter Summa canisters that have been certified clean by the laboratory and samples will be analyzed by using USEPA Method TO-15. Flow rate for both purging and sampling will not exceed 3 L/hr. 2-hours following soil vapor probe installation, one to three implant volumes shall be purged prior to the collection of any soil-vapor samples. A sample log sheet will be maintained summarizing sample

identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of the soil vapor extracted, vacuum of canisters before and after the samples are collected, apparent moisture content of the sampling zone, and chain of custody protocols.

As part of the vapor intrusion evaluation, a tracer gas will be used in accordance with NYSDOH protocols to serve as a quality assurance/quality control (QA/QC) device to verify the integrity of the soil vapor probe seal. A container (box, plastic pail, etc.) will serve to keep the tracer vapor in contact with the probe during testing. A portable monitoring device will be used to analyze a sample of soil vapor for the tracer vapor prior to sampling. If the tracer sample results show a significant presence of the tracer, the probe seals will be adjusted to prevent infiltration. At the conclusion of the sampling round, tracer monitoring will be performed a second time to confirm the integrity of the probe seals.

Sample Analysis

Soil, groundwater, and soil vapor samples will be submitted to a NYSDOH Environmental Laboratory Accreditation Program (ELAP)-certified laboratory for Full analysis:

- Volatile Organic Compounds by EPA Method 8260;
- Semi-volatile organic compounds by EPA Method 8270;
- Pesticides/PCBs by EPA Method 8081/8082; and
- Target Analyte List metals by EPA Method 6010 and 7471;
- Soil vapor samples will be analyzed for VOCs by using USEPA Method TO-15.

All groundwater samples will be analyzed for both filtered (dissolved) and unfiltered (total) metals.

If either LNAPL and/or DNAPL are detected, appropriate samples will be collected for characterization and “finger print analysis” and required regulatory reporting (i.e. NYSDEC spills hotline) will be performed.

Quality Assurance/Quality Control Procedures

QA/QC procedures will be used to provide performance information with regard to accuracy, precision, sensitivity, representation, completeness, and comparability associated with the sampling and analysis for this investigation. Field QA/QC procedures will be used (1) to document that samples are representative of actual conditions at the Site and (2) identify possible cross-contamination from field activities or sample transit. Laboratory QA/QC procedures and analyses will be used to demonstrate whether analytical results have been biased either by interfering compounds in the sample matrix, or by laboratory techniques that may have introduced systematic or random errors to the analytical process. QA/QC samples (field and trip blanks, duplicates, etc.) will be collected and analyzed at an ELAP-certified laboratory.

Investigation Derived Waste

Cuttings may be disposed at the site within the borehole that generated them to within 24 inches of the surface unless:

- Free product or grossly contaminated soil, are present in the cuttings;
- The borehole has penetrated an aquitard, aquiclude or other confining layer; or extends significantly into bedrock;
- Backfilling the borehole with cuttings will create a significant path for vertical movement of contaminants. Soil additives (bentonite) may be added to the cuttings to reduce permeability;
- The soil cannot fit into the borehole.

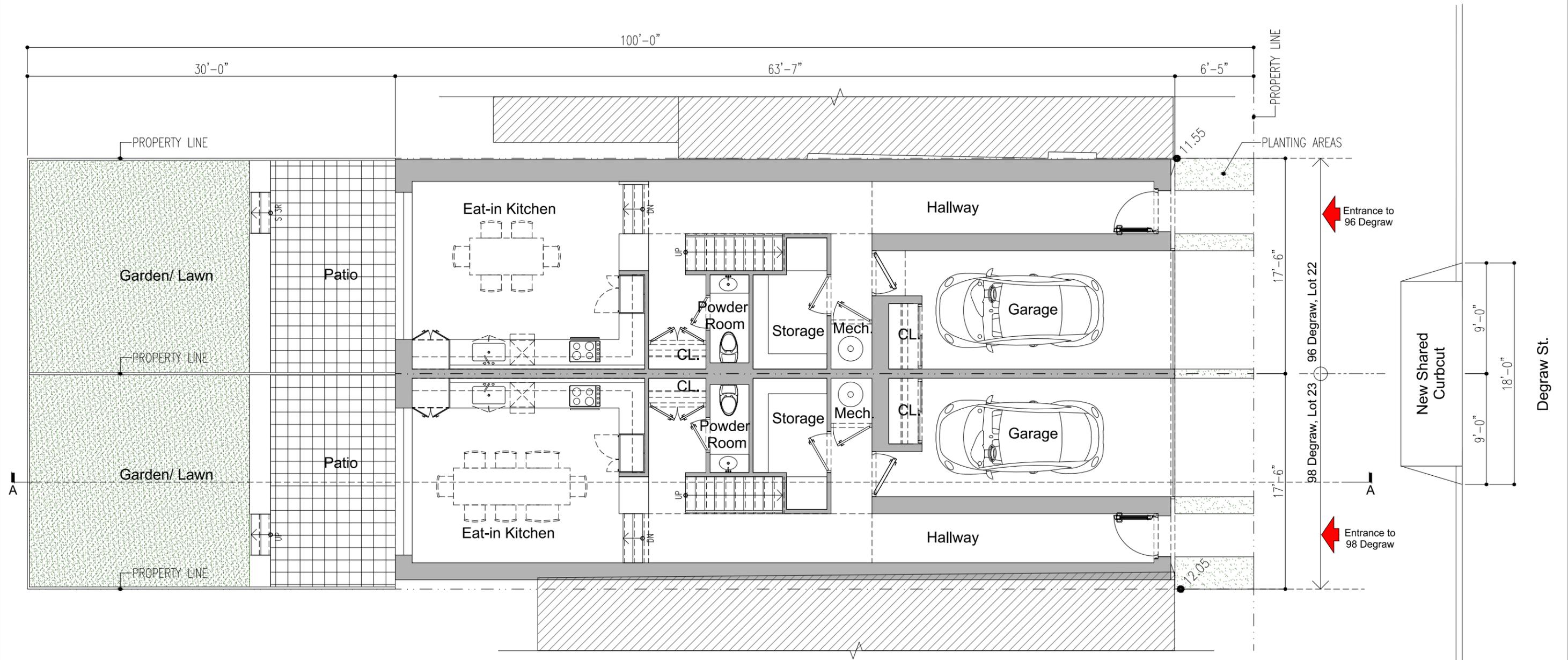
Those soil cuttings needing to be managed on-site will be containerized in properly labeled DOT approved 55-gallon drums for future off-site disposal at a permitted facility. All boreholes which require drill cuttings disposal would ultimately be filled with bentonite chips (hydrated) and asphalt/concrete capping. Disposable sampling equipment including, spoons, gloves, bags, paper towels, etc. that came in contact with environmental media will be double bagged and disposed as municipal trash in a facility trash dumpster as non-hazardous trash.

Reporting

A Phase II Investigation Report (template version) will be prepared following completion of the field activities and receipt of the laboratory data. The report will provide detailed summaries of the investigative findings. Soil, groundwater and soil vapor analytical results will be compared to the NYSDEC Part 375-6.8(a) Unrestricted Used Soil Cleanup Objectives, appropriate Part 375-6.8(b) Restricted Soil Cleanup Objectives and NYSDEC Part 703 Groundwater Quality Standards (GQS) (class GA) or Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS), and NYSDOH October 2006 Final Guidance for Evaluating Soil vapor Intrusion Matrices. The report will include an updated sampling plan, spider diagrams, analytical data tables for all reported constituent compounds (including non-detectable concentrations) and remedial recommendations, as warranted.

Investigation HASP

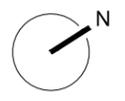
An OSHA compliant Health and Safety Plan that meets all OSHA HAZWOPER requirements will be implemented during the site work to protect worker safety. The Site Safety Coordinator will ensure full compliance of the HASP in accordance with applicable health and safety laws and regulations. All field personnel involved in investigation activities will participate in training required under OSHA HAZWOPER 29 CFR 1910.120, including 40-hour hazardous waste operator training and annual 8-hour refresher training. Emergency telephone numbers will be posted at the site location before any work begins. A safety meeting will be conducted before each shift begins. Topics to be discussed include task hazards and protective measures (physical, chemical, environmental); emergency procedures; PPE levels and other relevant safety topics including a highlighted route map to the nearest hospital/emergency room. Meetings will be documented in a log book or specific form. Potential on-site chemicals of concern include VOCs, SVOCs, Pesticides/PCBs, and Metals (specifically arsenic, lead, and mercury at a minimum). Information fact sheets and/or summary tables for each contaminant group are included in the HASP. A copy of this HASP will be on-site during each sampling event.



First Floor Plan
1/8" = 1'-0"

96 Degrav st.	98 Degrav st.
1FL Gross Area: 1,107 sf	1FL Gross Area: 1,065 sf
Lot 22, Block 329 BSA Calendar: 13-13 BZ	Lot 23, Block 329 BSA Calendar: 13-14 BZ

"All partitions and exits shall be as approved by DOB."



Attachment A

Phase I ESA



PHASE I
ENVIRONMENTAL
SITE ASSESSMENT

VACANT PARCELS
96 DEGRAW STREET (BLOCK: 329 LOT: 22)
AND
98 DEGRAW STREET (BLOCK: 329 LOT: 23)
BROOKLYN, NEW YORK 11231

PREPARED FOR:

THE OTHER HALF LLC (96 DEGRAW)
AND
THE GREEN WITCH PROJECT (98 DEGRAW)

131 UNION STREET, GROUND FLOOR
BROOKLYN, NEW YORK 11231

PREPARED BY:

LAUREL ENVIRONMENTAL ASSOCIATES, LTD.
53 WEST HILLS ROAD, SUITE 1
HUNTINGTON STATION, NEW YORK

DECEMBER 19, 2012
LEA PROJECT # 12-381



96 and 98 Degraw Street, Brooklyn, New York

**LAUREL ENVIRONMENTAL ASSOCIATES, LTD.
ENVIRONMENTAL CERTIFICATION**

LEA Project ID #: 12-381

Report: Phase I Environmental Site Assessment, ASTM E1527-05

Inspection Date: November 20, 2012

Resource Date: November 2012

Report Date: December 19, 2012

Site: 96 and 98 Degraw Street, Brooklyn, New York 11231
Located on the south side of Degraw Street, west of Columbia and east of Van Brunt Streets

Weather Conditions: 52°F; Overcast

Inspection Limitations: None

Clients: The Other Half, LLC and The Green Witch Project, LLC

Report Prepared By:

Christopher J. Connolly
Environmental Scientist

Carla M. Sullivan, QA/QC
VP, Senior Geologist

ENVIRONMENTAL PROFESSIONAL CERTIFICATION

I declare that, to the best of my professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in § 312.10 of 40 Code of Federal Regulations (CFR) 312.

The Environmental Professional who directed this project has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Scott A. Yanuck
Principal

Date

EXECUTIVE SUMMARY AND FINDINGS

On-site:

1. The subject property is comprised of two adjoining undeveloped vacant lots with a combined footprint of approximately 3,500 square feet in area. The site is currently graded with gravel, and is utilized for vehicle storage. According to Sanborn Historical Maps, the property was occupied by two 3-story residential buildings until sometime between 1988 and 1991, when the buildings were likely demolished. The property has remained undeveloped since demolition and is relatively flat, and fronts along Degraw Street. The subject property is located in a residential and commercial area of the Columbia Street Waterfront District in Kings County, New York.
2. Housekeeping was noted to be good throughout the subject site. The site was observed free of debris and no staining of the ground was noted.
3. There was no evidence of a current or former private septic system or cesspool at the subject property. Sanitary waste from the former buildings was likely handled by the City of New York municipal sewer system. In addition, there was no evidence of any pits, ponds, or lagoons used in connection with waste treatment or waste disposal.
4. According to Sanborn Fire Insurance Maps, the subject property was used for residential purposes since the construction of the original buildings, sometime prior to 1886. The property has been vacant since between 1988 and 1991.
5. The subject property is currently utilized for vehicle storage purposes, with a plan to erect a multi-family building in preliminary stages.
6. As the property is undeveloped, no fill ports and/or vent pipes, which indicate the presence of USTs or ASTs, were noted at the subject property at the time of the site inspection. Based upon our site reconnaissance, interviews, and review of state and local records, *LEA* identified no evidence of existing USTs or ASTs at the subject property. However; no determination can be made as to whether any USTs or ASTs were present at the former buildings prior to their demolition.

Off-site:

1. There is one NPL listed site located within a one-mile radius of the subject property. Gowanus Canal, ID #NYN000206222, is a large, 100-foot wide, 1.8-mile long canal, with a history of industrial traffic and contamination, currently undergoing extensive investigation and remediation. This site is located 4,747 feet hydraulically cross-gradient from the subject property, and should not pose a recognized environmental condition.
2. There are eight IHWD site listings, within a one-mile radius of the subject property. Due to the geographic and hydraulic locations of these sites, with respect to the subject property, none should pose a recognized environmental condition.
3. There is one Solid Waste Facility located within a ½-mile radius of the subject property. Known as 20th Century Recycling, ID #24TA2, located 1,620 feet hydraulically side-gradient from the subject property, is listed as a large transfer station for unknown wastes. Due to the geographic and hydraulic location relative to the subject property, this site should not pose a recognized environmental condition.

4. There are four active NYSDEC listed spills and one active NYSDEC listed leaking UST located within a ½-mile radius of the subject property. Due to the geographic and hydraulic locations, relative to the subject property, magnitude of spill and/or resource affected, none should present a recognized environmental condition.

Based on the findings of this investigation, *Laurel Environmental Associates, Ltd. (LEA)* has discovered the following recognized environmental conditions at the subject property, 96 and 98 Degraw Street, Brooklyn, New York.

Recognized Environmental Conditions

- Urban fill and construction debris
- Possible former USTs

Potential Impacts

Moderate Risk
Moderate Risk

EXECUTIVE RECOMMENDATIONS

Based on the above conclusions *LEA* recommends the following:

1. Conduct a geophysical survey of the property to identify any possible underground storage tanks or other anomalies.
2. Conduct continuous soil borings around any marked anomalies, and at three additional locations at the property. Soil samples should be collected from 0-2' below grade, and either two feet into clean material if contamination is found, or 4-6' below grade (corresponding to the assumed slab level of the future building), if no signs of contamination are found. Analyze samples for VOCs, SVOCs, Metals and PCBs.
3. Collect a groundwater sample at the property using a pre-pack direct push well. Sample collected should be analyzed for VOCs, SVOCs, Metals, and PCBs.
4. Three soil vapor samples should be collected across the site, at a depth of four feet below grade, using 6-litre summa canisters with 2 hour flow controllers and analyzed for VOCs using TO-15 method.
5. Review results and compare to the appropriate regulatory standards and guidelines.

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REPORT SPECIFICATIONS

This report contains (55) pages of text.

Copies and circulation of this report are as follows:

- (3) Two bound and one electronic copy to The Other Half, LLC and The Green Witch Project, LLC, c/o Mr. Hernan Galvis

- (1) One copy in the confidential clients file at *Laurel Environmental Associates, Ltd.*

This report is prepared for the exclusive use of the principal(s) noted above and is considered private and confidential. *LEA* shall not release this report or any of the findings of this report to any person or agency except with the authorization of the named principal(s).

The accuracy of the findings obtained through this environmental audit was considered to be of paramount importance during the formulation of this report. However, the accuracy of this report is limited to the information available from interviews, records, and plans released by the property owner or his representatives, and the respective regulatory agencies; their attorneys and information officers, whose interest in issues presented herein is unknown to *LEA*.

1.0 INTRODUCTION

Laurel Environmental Associates, Ltd. was retained by The Other Half, LLC and The Green Witch Project, LLC to conduct a Phase I Environmental Site Assessment (ESA) of the industrial property located at 96 and 98 Degraw Street, Brooklyn, New York (please see Figure 1.0, Site Location).

The purpose of this Phase I ESA is to determine if any recognized environmental conditions exist within the property in question. Recognized Environmental Conditions (RECs) would include, but not be limited to: hazardous/toxic wastes or raw chemicals stored, dumped, or spilled on the site; underground storage of hazardous materials; friable asbestos in building materials/structures; and identification of potential off-site sources of hazardous waste contamination, such as industrial facilities adjoining the subject site.

The conclusions of this Phase I ESA are based on findings at the time of *LEA*'s site visit and review of readily ascertainable historical records, regulatory documents, and databases made available within a reasonable time period. Due to limited availability, *LEA* is not able to make any determinations with respect to portions of the subject property and structures which were not inspected or regulatory documents not provided within a timely fashion.

1.1 ASTM STANDARD PRACTICE E-1527-05

1.1.1 Purpose

The purpose of the American Society for Testing and Material (ASTM) Standard Practice for Environmental Site Assessments, E-1527-05, as well as Practice E-1528-06, is to define good commercial and customary practice in the United States of America for conducting an *ESA* of a parcel of *commercial real estate* with respect to the range of contaminants within the scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and *petroleum products*. As such, this practice is intended to permit a *user* to satisfy one of the requirements to qualify for the *innocent landowner defense* to CERCLA liability: that is, the practices that constitute "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in 42 USC § 9601(35)(B). An evaluation of *business environmental risk* associated with a parcel of commercial real estate may necessitate investigation beyond that identified in this practice.

1.1.2 Definition of Recognized Environmental Conditions

In defining a standard of good commercial and customary practice for conducting an *environmental site assessment* of a parcel of *property*, the goal of the processes established by this practice is to identify *recognized environmental conditions*. The term *recognized environmental conditions* means the presence or likely presence of any *hazardous substances* or *petroleum products* on a *property* under conditions that indicate an existing release, a past release, or a material threat of a release of any *hazardous substances* or *petroleum products* into structures on the *property* or into the ground, groundwater, or surface water of the *property*. The term includes *hazardous substances* or *petroleum products* even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not *recognized environmental conditions*.

It is not generally within the scope of this report to perform intrusive or aggressive testing of suspect materials observed at the site. Materials will be identified as environmentally suspect; however, a representative sampling procedure is required to fully assess the occurrence of the following materials: electrical devices containing Poly-Chlorinated Biphenyls (PCBs); the presence of radon gas; lead-based paint; asbestos containing materials; and mold.

1.2 SCOPE OF WORK

To complete the Environmental Site Assessment, the following tasks were performed in conformance with American Society for Testing and Material (ASTM) Standard Practice for Environmental Site Assessments, E-1527-05:

1. A detailed walk-through inspection of the subject property or representative areas of the property.
2. An interview with the owner and facility manager concerning past and/or present operations conducted at the subject property.
3. Comparison of fair market value and listed sale price.
4. An environmental lien search was not provided by the clients.
5. The presence of suspect asbestos containing materials (ACM) was noted.
6. The presence of suspect lead-based paints was noted.
7. A review of New York City building department, fire marshal, and/or tax assessor's office records to identify past owners, possible uses of the property, and construction details.
8. A review of state and federal regulatory agency documents concerning the location of known hazardous waste sites within proximity of the subject property.
9. A review of files/documents maintained by state and local regulatory agencies to investigate potential environmental hazards associated with the subject property when such information exists.
10. Major sources of electromagnetic fields were identified.
11. Identification of surrounding property use.
12. Sanborn Fire Insurance Maps review from 1886 to 2007
13. A review of historical aerial photograph from 1994.
14. A review of historical topographical maps from 1947 and 1967.
15. An identification of data failure and gaps.
16. Approximate the depth to groundwater and direction of regional groundwater flow beneath the subject property.
17. List recommendations for further study, as required (added to standard ASTM scope of work).

Findings, conclusions, and recommendations presented in Sections 8.0 through 10.0 (pages 39 through 42), are based on the careful consideration of the results of the above research. Any recommendations made are formulated with respect to maintaining or protecting the collateral value of the property and providing protection from toxic tort lawsuits.

Business environmental risk can have a material or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate. It is not necessarily limited to those environmental issues required to be investigated in the ASTM Standard Practice for Environmental Site Assessments, E-1527-05. Consideration of business environmental risk issues may involve addressing one or more non-scope considerations, some of which are identified on the following page.

There may be environmental issues or conditions at the subject property that parties may wish to assess in connection with commercial real estate that are outside the scope of this practice. As noted by the legal analysis in Appendix X1 of the ASTM Standard Practice for Environmental Site Assessments, E-1527-05, some substances may be present on a property but are not included in CERCLA's definition of hazardous substances (42 USC § 9601(14)) or do not otherwise present potential CERCLA liability. In any case, they are beyond the scope of this report. The following listed concerns are several non-scope considerations that entities may want to assess in connection with commercial real estate. No implication is intended as to the relative importance of inquiry into such non-scope considerations and this list of non-scope considerations is not intended to be all-inclusive, but can be completed upon request.

- 1) Lead in Drinking Water
- 2) Regulatory Compliance
- 3) Cultural and Historical Resources
- 4) Industrial Hygiene
- 5) Health and Safety
- 6) Ecological Resources
- 7) Endangered Species
- 8) Indoor Air Quality, and
- 9) Mold Sampling of Air and Surfaces

1.3 CONFLICT CERTIFICATION

Laurel Environmental Associates, Ltd. has no present or contemplated future ownership interest or financial interest in the real estate that is the subject of this Environmental Assessment Report. *LEA* has no personal interest with respect to the subject matter of the Environmental Site Assessment or the parties involved, and *LEA* has no relationship with the property or the owners thereof which would prevent an independent and unbiased analysis of the environmental or other conditions of the property.

1.4 VIABILITY OF PHASE I ESA

An updated Phase I ESA should be performed if it appears that the property transaction will not close by the Phase I ESA Report Viability Date. Pursuant to Section 4.6 of ASTM E1527-05, Phase I ESAs are considered viable for 180 days. In calculating the Report Viability Date, *LEA* used the date that was the earliest of the following four tasks: the interview of those present owners identified in Section 10 of ASTM E1527-05, the government record review, and the visual inspection of the subject property and adjoining properties.

1.5 SIGNIFICANT ASSUMPTIONS

Information regarding the subject property was reasonably ascertainable and therefore, no significant assumptions have been made, unless otherwise noted in a specific section of this report.

1.6 USER RELIANCE

This report was prepared solely for the use of the clients, The Other Half, LLC and The Green Witch Project, LLC, and is not intended for use by third parties. Unauthorized third parties shall indemnify and hold *LEA* harmless against any liability for any loss arising out of, or related to, reliance by any third party on any work performed hereunder, or the contents of this report.

1.7 DATA GAPS

Any data gaps identified herein, as defined by ASTM Practice E 1527-05 § 3.2.20, are not considered to have significantly affected the ability to identify recognized environmental conditions in connection with the subject property and do not alter the conclusions of this report.

1.8 LIMITATIONS

To the best of *LEA's* knowledge, the information contained in this report is true and accurate. Due diligence has been exercised by *LEA* personnel in the compilation of the information contained herein, appropriate to environmental professionals engaged in investigations of this sort. *LEA* makes no guarantees regarding the accuracy of information gained from other sources.

The subject property location and boundaries as understood by *LEA* are depicted in the maps appended to this report. It is the responsibility of the reader to verify that the location and boundaries depicted herein are correct.

1.9 SITE DETAILS AND INSPECTION OVERVIEW

Site Details and Inspection Overview [†]		
Site Address	96 and 98 Degraw Street, Brooklyn, New York	
Cross Streets	Columbia and Van Brunt Streets	
Site Owner	The Other Half, LLC (96 Degraw) The Green Witch Project, LLC (98 Degraw)	
Site Occupant	Parking Lot	
Tax Lot	Block: 329 Lots: 22 + 23	
Municipality	Columbia Street Waterfront District, Kings County, New York	
Zoning	M1-1	
USGS Quadrangle	Jersey City	
Physical Location	Latitude 40° 41' 08.51" North Longitude 74° 00' 11.85" West	
NAICS Code Usage	531190 – Vacant lot rental or leasing	
Land Size	Approximately 3,500 square feet	
Site Elevation	15 feet	
Site Topography	Unremarkable	
Date of Construction	N/A	
Current Heating System	N/A	
Utilities	Electric	N/A
	Natural Gas	N/A
	Water	City of New York
	Sanitary System	N/A
Chemical Storage*	N/A	
Drum Storage	N/A	
Petroleum Storage Tanks	N/A	
Suspect Asbestos	N/A	
Water Damage/Mold Growth	N/A	

[†]Based on areas available for inspection, not all areas may have been accessible.

*Other than typical housekeeping and/or janitorial supplies.

2.0 SITE DESCRIPTION

Scott A. Yanuck, a *LEA* Senior Hydrogeologist and Site Inspector completed the inspection of the subject property on November 20, 2012. The inspection was conducted unassisted. The property was walked through and any indication of an environmental hazard was noted. Operations conducted at the subject property were observed, photographs were taken of the subject property, associated structures, and adjoining properties. Please refer to Appendix A of this report.

2.1 BUILDING AND PROPERTY INSPECTION

The subject property is comprised of two adjoining undeveloped parcels with a combined footprint of approximately 3,500 square feet. The site is unpaved but graded with gravel, and is utilized for vehicle storage. According to Sanborn Historical Maps, the property was occupied by two 3-story residential buildings until sometime between 1988 and 1991, when the buildings were likely demolished. The property has remained empty since as early as 1991. The site is relatively flat, and fronts along Degraw Street. The subject property is located in a residential and commercial area of the Columbia Street Waterfront District in Kings County, New York.

2.2 GENERAL HOUSEKEEPING PRACTICES

Housekeeping was noted to be good throughout the subject site. The site was observed free of debris and no staining of the ground was noted.

2.3 VEGETATION

The subject property is covered entirely with gravel and does not support any vegetation.

2.4 CLASS V INJECTION WELLS

Class V injection wells are used to inject non-hazardous fluids underground. Most Class V wells are used to dispose of wastes into or above underground sources of drinking water and can pose a threat to groundwater quality, if not managed properly. Most Class V wells are shallow disposal systems that depend on gravity to drain fluids directly into the ground. There are over 20 well sub-types that fall into the Class V category and these wells are used by individuals and businesses to inject a variety of non-hazardous fluids underground. The United States Environmental Protection Agency (USEPA) estimates that there are more than 650,000 Class V wells in operation nationwide. Most of these Class V wells are unsophisticated shallow disposal systems that include storm water drainage wells, cesspools, and septic

system leach fields. However, the Class V well category also includes more complex wells that are typically deeper and are often used at commercial and/or industrial facilities.

Other more sophisticated Class V well types could include aquifer storage and recovery wells or geothermal electric power wells - that are used to inject geothermal fluids extracted from subsurface hydrothermal systems. Complex Class V wells also include wells that are used for pilot Geologic Sequestration (GS) projects that are experimental in nature. On December 10, 2010, the USEPA finalized regulations for GS projects. These new regulations include the creation of a new class of wells, Class VI. The USEPA understands that some of the wells permitted as Class V experimental technology wells may no longer be used for experimental purposes. Following the final rule, Class V wells that are not being used for experimental purposes must be re-permitted as Class VI wells and will be subject to Class VI requirements.

Class V wells are a concern because they pose a risk to underground sources of drinking water. Because of this they are regulated by the Underground Injection Control (UIC) program under the Authority of the Safe Drinking Water Act.

2.4.1 Septic Systems

There was no evidence of a current or former private septic system or cesspool at the subject property. Former sanitary waste at buildings that previously occupied the property was likely handled by municipal sewer system, supplied by the City of New York. In addition, there was no evidence of any pits, ponds, or lagoons used in connection with waste treatment or waste disposal.

2.4.2 Storm Water Drainage

Storm water is handled by natural drainage across the site and runoff to Degraw Street.

2.4.3 Floor Drains

No floor drains are present, as the subject property is undeveloped.

2.5 CURRENT SITE OPERATIONS

The subject property is currently utilized for vehicle storage purposes, with a plan to erect a multi-family building in preliminary stages.

2.6 PAST SITE OPERATIONS

According to Sanborn Fire Insurance Maps, the subject property was used for residential purposes since the construction of the original buildings, sometime prior to 1886. The property has been vacant since between 1988 and 1991.

2.7 CHEMICAL USE AND STORAGE

No chemical storage was noted on the subject site.

2.7.1 Biohazardous Waste

No biohazardous waste is generated or stored on the subject site.

2.8 DRUM STORAGE

No drum storage was noted during the site inspection.

2.9 UNDERGROUND AND ABOVEGROUND STORAGE TANKS

The subject property was inspected for tank fill ports, vent pipes, and other signs of aboveground storage tanks (ASTs) and/or underground storage tanks (USTs). As the property is undeveloped, no fill ports and/or vent pipes, which indicate the presence of USTs or ASTs, were noted at the subject property at the time of the site inspection. Based upon our site reconnaissance, interviews, and review of state and local records, *LEA* identified no evidence of existing USTs or ASTs at the subject property. However; no determination can be made as to whether any USTs or ASTs were present at the former buildings, prior to their demolition.

2.9.1 Emergency Generators

No emergency generators and associated tanks were observed during our site reconnaissance.

2.10 PCBs IN ELECTRICAL TRANSFORMERS AND FLUORESCENT LIGHTING BALLASTS

There are three types of transformers defined in the Poly-Chlorinated Biphenyls (PCBs) regulations:

- ◆ PCB Transformer: Any transformer containing 500 parts per million (ppm) PCBs or greater.
- ◆ Non-PCB Transformer: Any transformer containing less than 50 ppm PCBs.
- ◆ PCB Contaminated Transformer: Any transformer containing 50-499 ppm PCBs. These transformers are not subject to parts of the regulations, such as marking requirements, and if drained of liquid, to disposal requirements. Any liquid drained from these transformers must be stored and disposed of in accordance with the regulations.

Transformers often contain dielectric liquid for the primary purpose of increasing resistance of the unit to arcing and acting as a heat transfer media, helping to cool the coils. The majority of transformers are filled with mineral oil, but a small percentage of these liquid-filled transformers contain PCB Askarel coolant liquid. The term “Askarel” is a generic term used for a group of nonflammable synthetic chlorinated hydrocarbons. All types of Askarels sold prior to 1979 contained 60 to 100 percent PCBs. Askarel transformers were manufactured in a variety of sizes, i.e. 3 to 3,000 gallons of PCB liquid, and are generally used in hazardous locations where flammability is of concern. PCB transformers are no longer produced because of the USEPA ban on the manufacture of new equipment containing PCBs.

Prior to the banning of PCB manufacturing in 1976, the compounds were used in small amounts during the production of fluorescent light ballasts. According to USEPA regulations, light ballasts containing less than three pounds of PCBs are exempt from special hazardous waste transportation and disposal and may be disposed of as municipal wastes; however, removal is not required by law. To determine if the light ballasts contain PCBs, the light fixtures would have to be dismantled, the make and model number obtained, and the manufacturer contacted. If the lighting is to remain, maintenance personnel should be advised of the possibility that the ballasts may contain PCBs. Workers should exercise caution when handling the ballasts, taking care not to cause leaks. Protective gloves and clothing should be worn when handling ballasts.

There are no pad or pole-mounted transformers located at the subject property. The property is undeveloped, therefore no PCB containing light fixtures are present.

2.11 FRIABLE AND NON-FRIABLE SUSPECT ASBESTOS CONTAINING MATERIALS

The USEPA designated material containing more than 1% asbestos to be considered as an Asbestos Containing Material (ACM). Where asbestos containing material is determined to be “Friable” (capable of being crushed by hand pressure and having a high potential to release airborne fibers), it is the recommendation of the USEPA that strong response action be taken. Such actions may take the form of removal, encapsulating, repair, enclosure, or an operations and maintenance program. The response action is determined depending on the severity and nature of the individual problem.

No friable or non-friable suspect asbestos containing materials were noted during the inspection.

2.12 SUSPECT LEAD-BASED PAINT

Use of lead in household paint was banned by the USEPA effective January 1, 1978. The USEPA and the U.S. Department of Housing and Urban Development (HUD) consider lead-based paint as containing a lead concentration equal to or greater than 1.0 milligram per square centimeter (mg/cm²) or 0.5% lead by weight, as defined by Title X of the 1992 Housing and Community Development Act.

No lead-based paints are present at the subject property.

2.13 WATER DAMAGE AND MOLD GROWTH

Humidity or wetness, caused by water leaks, spills from plumbing failures, or condensation, can cause mold growth on interior and exterior surfaces; including but not limited to walls, ceilings, carpets, or furniture. Mold is a living organism that produces mold spores through reproduction. These spores are tiny particles that drift through the air until finding wet, humid areas in which they thrive. Although mold does not affect everyone it can cause health problems when inhaled. Mold can trigger asthma attacks, and some produce toxins that may be hazardous if people are exposed to large quantities of these molds. Mold spores and related *mycotoxins* can also pose a serious health threat to individuals who have compromised immune systems.

A full mold inspection was not requested or completed as part of this assessment, as it is beyond the scope of this report. As the subject property does not support any structures, no evidence of mold and/or mold related odors was noted at the time of the site inspection. It should be noted that mold may be present in hidden areas not observed during *LEA's* site reconnaissance. Of particular concern would be areas that experience water damage and areas of high humidity. Caution should be taken following any future water release within the subject building. Water leaks and water damage should be addressed immediately to help prevent the formation of mold spores. Visual evidence of mold should be addressed immediately by professional remediation contractors hired to address such issues.

2.14 WETLANDS AND NYSDEC ECOLOGICAL ZONE

For regulatory purposes under the Clean Water Act, the term wetlands means "those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include streams, swamps, marshes, bogs, and similar areas". The New York State Official Tidal Wetlands Inventory is maintained by the New York State Department of Environmental Conservation (NYSDEC) Bureau of Marine Resources in the Tidal Wetlands Inventory and Geographic Information System (GIS) Unit. The statutory definition of a tidal wetland can be found in New York's Environmental Conservation Law, Article 25, entitled "Tidal Wetlands Act."

According to maps provided by the NYSDEC, the subject property does not reside within a fresh water or tidal wetlands area. An inspection of the subject property by *LEA* did not observe the presence of wetlands within its boundaries. Upper New York Bay was located within a ¼-mile radius of the subject property 750 feet hydraulically down-gradient.



ZONE I - COASTAL LOWLANDS

Geology	This zone is a terminal moraine of the great ice sheet. Topographic relief is low.
Elevation	Ranges from sea level to 200 feet
Soils	The soils are glacial outwash and deltaic sands medium to moderately coarse-textured on gravel and recent alluvium. The soils tend to be strongly acid and are of low fertility.
Vegetation	All of the Coastal Lowlands are included in the oak natural vegetation zone. Much of the forest is scrubby due to the poor soils. Oak is the principal hardwood tree, while pitch pine is the principal conifer.
Land Use	This zone continues to experience a rapid expansion of urban and suburban development.

This Data Set shows boundaries of the Ecological Regions (Ecozones) of New York State and has been modified by *LEA*.

2.15 RADON

Radon is a heavy, colorless, odorless, radioactive gas formed by the radioactive decay of radium. Radon is associated with specific geologic formations that contain granite, uranium minerals, certain shales, and phosphate related minerals. Radon, being a gas, can migrate to and accumulate in confined spaces such as building basements. Continued exposure to radon gas has been associated with increased lung cancer risk and possible genetic damage.

The USEPA has set a maximum action level of 4 picocuries per liter (pCi/l) in air. At concentrations above this level, the USEPA recommends remedial measures to lower the concentrations.

According to monitoring data completed by the NYS Department of Health, Bureau of Radiation Protection, the Kings County has an average indoor radon concentration of 0.6 pCi/l. Given this information, radon is not considered a significant environmental concern within the subject building.

2.16 ELECTROMAGNETIC FIELDS

Although there are currently no regulations concerning the proximity of residential structures to major sources of electromagnetic fields (EMFs) such as overhead high tension wires, high levels of EMFs are an unresolved public health issue. Some recent studies have linked the presence of elevated EMFs to an increased risk of certain cancers and other illnesses. Although studies are ongoing and no definitive conclusions have been reached, the existing evidence indicates that potential health risks may exist for individuals who are exposed to these fields. In any case, the general perception of a risk associated with major sources of EMFs can reduce the marketability and value of real estate.

No high tension wires or substations were noted on or adjacent to the subject property.

2.17 NEIGHBORING PROPERTIES

The properties surrounding the subject site are residential and commercial in nature. Property usage directly adjoining or nearby is as follows:

<u><i>North of the subject site:</i></u>	<u><i>Current Usage</i></u>	<u><i>Past Usage</i></u>
• Degraw Street, adjoining	Roadway	Roadway
• Red Hook Container Terminal	Commercial	Commercial
<u><i>South of the subject site:</i></u>		
• Ganuze - Lighting & Electrical , adjoining	Commercial	Commercial
• Sackett Street	Roadway	Roadway
<u><i>East of the subject site:</i></u>		
• Three Story Dwellings, adjoining	Residential	Residential
• Parking Lot	Municipal	Municipal
<u><i>West of the subject site:</i></u>		
• Three Story Dwelling, adjoining	Residential	Residential
• Vacant Lot	Vacant	Commercial

Due to the benign usage at the surrounding properties, they should not have the potential to present a recognized environmental condition at the subject property. None of the surrounding properties are associated with any NYSDEC or USEPA Superfund List.

3.0 CLIENTS PROVIDED DOCUMENTS

The following section summarizes information provided by the clients, The Other Half, LLC and The Green Witch Project, LLC, with regard to this Phase I ESA. *LEA* staff completed the Questionnaire pertaining to the site inspection, which can be found in Appendix F of this report. The Questionnaire is intended to assist in gathering information that may be pertinent to identifying recognized environmental conditions relating to the subject property.

3.1 TITLE RECORDS

Land title records provide information on previous ownership of a property. Typically, deeds signifying transfer of a land parcel are recorded in county files and can be researched to determine the identity of past owners. A “Chain of Title” is a continuous record of ownership for a specific parcel. Title record information associated with the subject property has not been provided to *LEA* by The Other Half, LLC and The Green Witch Project, LLC, and is beyond the scope of this report.

3.2 ENVIRONMENTAL LIENS, ACTIVITY, AND USE LIMITATIONS

The Other Half, LLC and The Green Witch Project, LLC has provided no information regarding environmental liens, activity, or use limitations in connection with the subject property.

3.3 SPECIALIZED KNOWLEDGE

The Other Half, LLC and The Green Witch Project, LLC has provided no specialized knowledge that pertains to recognized environmental conditions in connection with the subject property. *LEA* was not provided with or made aware of previous environmental assessments or other documentation that is material to recognized environmental conditions in connection with the subject property, except as present.

3.4 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

The Other Half, LLC and The Green Witch Project, LLC has provided *LEA* with no commonly known or reasonably ascertainable information within the local community about the environmental integrity of the subject property.

3.5 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

The Other Half, LLC and The Green Witch Project, LLC has provided no information to *LEA* regarding valuation reduction for environmental issues in connection with the subject property.

3.6 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

The Other Half, LLC and The Green Witch Project, LLC provided *LEA* with contact information for access to the subject property. The site inspection was conducted unassisted.

3.7 REASON FOR PERFORMING THIS PHASE I ESA

The Other Half, LLC and The Green Witch Project, LLC retained *LEA* to complete this Phase I Environmental Site Assessment in connection with a real estate transaction.

4.0 REVIEW OF REGULATORY AGENCY RECORDS AND DOCUMENTS

To determine if the subject property was listed, known, or suspected of being a hazardous waste site, federal and state databases were reviewed. In addition, a Freedom of Information Letter (FOIL) was sent to the New York City Department of Environmental Protection (NYCDEP) requesting a review of any records that may have been maintained by the agencies concerning the subject property.

The records search was conducted by Toxics Targeting, Inc. meeting the specific requirements of ASTM Standard Practice for Environmental Site Assessments, E-1527-05, including those associated with governmental databases, search distances, and data currency.

4.1 USEPA NATIONAL PRIORITY LIST AND CERCLA SITES

4.1.1 USEPA NPL Superfund Sites

The USEPA maintains a database of unmanaged and/or forsaken hazardous waste sites. The database is known as the National Priority List (NPL). Sites included in this list are given priority by the USEPA for remedial action under the Federal Superfund Program. A particular site will be included on the NPL if it equals or exceeds an established "hazard classification system" score, or if it was designated as a top environmental priority site, in a particular State. A site is classified as an NPL site if all of the following criteria are satisfied:

1. The U.S. Department of Health & Human Services issues a health advisory recommending that people be evacuated from the site to avoid exposure.
2. The USEPA determines that the site was a potentially significant environmental hazard.
3. The USEPA determines that site remediation was more cost-effective than removal.

A review of the latest edition of the NPL, published in 2012, found that the subject property is not listed as a NPL site. There is one NPL listed site located within a one-mile radius of the subject property. Gowanus Canal, ID #NYN000206222, is a large, 100-foot wide, 1.8-mile long canal, with a history of industrial traffic and contamination, currently undergoing extensive investigation and remediation. This site is located 4,747 feet hydraulically cross-gradient from the subject property, and should not pose a recognized environmental condition.

4.1.2 USEPA CERCLA Sites

The USEPA Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 was designed to allow the federal government to directly address any potential release of hazardous waste that may endanger public health or welfare; in order to "provide for liability, compensation, clean-up, and emergency response for hazardous substances released into the environment and clean-up of inactive hazardous waste disposal sites".

Examination of the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database indicates that the subject site is not listed in the CERCLIS database. There are no CERCLIS listed sites located within a ½-mile radius of the subject property.

4.2 NYSDEC INACTIVE HAZARDOUS WASTE DISPOSAL SITES

The NYSDEC publishes a quarterly and annual report entitled "Inactive Hazardous Waste Disposal Sites in New York State" (IHWD), 2011, which lists all properties that have been found to contain, or are suspected of containing, significant amounts of hazardous or toxic contamination in one form or another.

A review of the annual report, quarterly updates, and reports from 1992 to 2012 indicates that the subject property is not listed as being an IHWD site. There are eight IHWD site listings, within a one-mile radius of the subject property. Due to the geographic and hydraulic locations of these sites, with respect to the subject property, none should pose a recognized environmental condition.

A synopsis of the nearby IHWD sites is as follows:

- ◆ *Designers Woodcraft* *ID #2-006* *455 feet hydraulically up -gradient*
 - This facility has been deleted from the reported data.
- ◆ *Fort Jay Dod Grant* *ID #231069* *4,068 feet hydraulically cross-gradient*
 - Site characterization was completed in 2008. Remedial work is underway and not yet complete.
- ◆ *K – Citizens MGP – Carroll Garden.* *ID #224012* *4,149 feet hydraulically side-gradient*
 - Listed as a dump with confirmed disposal of the following hazardous wastes; Coal Tar, Toluene, Tetrachloroethylene, and Methylene Chloride. Work is underway and not yet complete.
- ◆ *Gowanus Canal Site (two listings)* *ID #224133* *4,653 feet hydraulically cross-gradient*
 - Listed as a treatment pond, with significant threat to the public health or environment – Action Required. The following hazardous wastes were disposed of; Mercury, Copper, PCB-Archlor 1242, Coal Tar Pitch Volatiles, Lead, and DDE.
- ◆ *Castle Williams, Governors Isl.* *ID #2-020* *5,101 feet hydraulically cross-gradient*
 - This facility has been deleted from the reported data.
- ◆ *K – Fulton Works* *ID #224051* *5,200 feet hydraulically side-gradient*
 - Site characterization was completed in 2007. Remedial work is underway and not yet complete.
- ◆ *K – Metropolitan MGP* *ID #224046* *5,257 feet hydraulically cross-gradient*
 - Confirmed soil and groundwater contamination of BTEX and PAH compounds. A remedial investigation began in 2009. This site is classed as a significant threat to the public health or environment – action required.

4.3 NYSDEC HAZARDOUS SUBSTANCE WASTE DISPOSAL SITES

The NYSDEC Hazardous Substance Waste Disposal Sites (HSWD) database was reviewed to determine if the subject property or any site located within a one-mile radius of the subject property is listed as a HSWD Site. This database lists properties that are currently under study by the NYSDEC Division of Hazardous Waste Remediation, for inclusion into the IHWD program, as described in section 4.2.

After a thorough investigation, it was determined that neither the subject property nor any property within a one-mile radius is listed as a HSWD site.

4.4 NYS BROWNFIELDS SITES

The New York State (NYS) Brownfields Program was developed for sites that are abandoned, idle, or under-used industrial and/or commercial sites where expansion or redevelopment is complicated by real or perceived environmental contamination. Programs included in the 2011 Brownfields Cleanup Program (BCP) are the Voluntary Cleanup Program (VCP) and the Environmental Restoration Program (ERP).

After a thorough investigation, it was determined that neither the subject property nor any property within a one-mile radius is listed as a Brownfields site.

4.5 NYS LANDFILLS AND SOLID WASTE FACILITIES

The database of NYS Landfills identified no such facilities located within a ½-mile radius of the subject property. There is one Solid Waste Facility located within a ½-mile radius of the subject property. 20th Century Recycling, ID #24TA2, located 1,620 feet hydraulically side-gradient from the subject property, is listed as a large transfer station for unknown wastes. Due to the geographic and hydraulic location relative to the subject property, this site should not pose a recognized environmental condition.

4.6 NYSDEC SPILL AND LEAKING UST FILE

The NYSDEC Spill File was investigated for records of spills and leaking USTs located within a ½-mile radius of the subject property. A summary is presented in the table below:

NYSDEC Active Spills and Leaking USTs
Brooklyn, New York, within a ½-mile radius of the subject property

NYSDEC Spill #	Spill Type	Spill Name	Spill Location	Distance (feet)/ Direction from Site*
1201982	#2 fuel oil leaked to soil	LI College Hosp TTF	339 Hicks Street	2,380/side
9601482	Gasoline spilled to soil	76 Precinct NYPD – DDC	191 Union Street	1,057/side
0106455	Gasoline spilled to soil	Former ABM Service Station	434 Hicks Street/115-117 Kane Street	1,099/side
0612593	Gasoline spilled to soil	Pier #7	Brooklyn Port Authority	2,129/side
1009312	Gear oil spilled to soil	Gowanus Facility Upgrade Project	Columbia and Degraal St.	254/up

*Direction noted is in relation to the hydraulic gradient of the groundwater flow.

4.6.1 NYSDEC On-Site Listed Spills and Leaking Underground Storage Tanks

There are no closed or active NYSDEC listed spills or leaking underground storage tanks (USTs) located at the subject property.

4.6.2 NYSDEC Off-Site Listed Spills

There are four active NYSDEC listed spills located within a ½-mile radius of the subject property. Due to the geographic and hydraulic locations, relative to the subject property, magnitude of spill and/or resource affected, none should present a recognized environmental condition.

4.6.3 NYSDEC Off-Site Listed Leaking Underground Storage Tanks

There is one active NYSDEC listed leaking UST located within a ½-mile radius of the subject property. Due to the geographic and hydraulic location, relative to the subject property, magnitude of spill and/or resource affected, this spill should not present a recognized environmental condition.

4.7 NYSDEC REGISTERED CHEMICAL BULK STORAGE, MAJOR OIL STORAGE, AND PETROLEUM BULK STORAGE FACILITIES

The NYSDEC publishes a listing of all registered Chemical Bulk Storage (CBS), Major Oil Storage (MOS), and Petroleum Bulk Storage (PBS) Facilities in New York State, every year. This listing was investigated to determine whether the subject property or any adjoining properties are listed as such facilities.

After a thorough investigation, it was determined that neither the subject property nor any adjoining property is listed at the NYSDEC as a CBS, MOS, or PBS Facility.

4.8 NYS AND USEPA RCRA HAZARDOUS WASTE GENERATORS, TRANSFER, STORAGE, AND DISPOSAL SITES AND CORRACT SITES

Resource Conservation and Recovery Act (RCRA) 42 U.S.C. §6901 et seq. (1976) The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

4.8.1 NYS and USEPA RCRA Generators

The NYS and USEPA listing of Resource Conservation and Recovery Act (RCRA) Hazardous Waste Generators, dated 2011, was reviewed to determine whether the subject property or any adjoining properties are listed as State Facilities. After a thorough investigation, it was determined that neither the subject property nor any adjoining property is listed as a RCRA Hazardous Waste Generator.

4.8.2 NYS and USEPA RCRA TSD Sites and CORRACT Sites

The NYS and USEPA 2011 listing of Resource Conservation and Recovery Act (RCRA) Facilities with Corrective Actions (CORRACTs) and the NYSDEC 2010 listing of RCRA Treatment, Storage, and Disposal (TSD) Sites was reviewed to determine whether the subject property or properties within a one-mile radius are listed as state or federal facilities. After a thorough investigation, it was determined that the subject property is not listed as a RCRA TSD or CORRACT site. There is one property within a one-mile radius listed as a RCRA TSD and CORRACT site. Patterson Chemical Co, ID #NYD980592471, located 4,308 feet hydraulically cross-gradient from the subject property, is listed as a TSD facility, with RFA completed in 1994. No further information is disclosed. Due to the geographic and hydraulic location relative to the subject property, this site should not pose a recognized environmental condition.

4.9 USEPA EMERGENCY RESPONSE NOTIFICATION SYSTEM

The USEPA maintains a database of all spills to which the agency has responded. This database was investigated to determine the presence of an emergency response at the subject property.

After an investigation according to street address, it was determined that the subject property is not listed on the ERNS database.

4.10 USEPA TOXIC RELEASE INVENTORY SITES

Section (§) 313 of the Emergency Planning and Community Right-to-Know Act (also known as Title III) of the Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499) requires the USEPA to establish an inventory of toxic chemical emissions from certain facilities. The reporting requirement applies to owners and operators of facilities that have ten or more full-time employees that are in Standard Industrial Classification (SIC) codes 20 through 39 (i.e., manufacturing facilities) and that manufacture, import, process, or otherwise use a listed toxic chemical in excess of specified threshold quantities. Inclusion in the list does not necessarily indicate that there has been a release of a toxic material to the environment at the site, only that listed chemicals have been used.

After a thorough investigation, it was determined that neither the subject property nor any property within a ¼-mile radius is listed as a TRI Facility.

4.11 NYS WASTEWATER DISCHARGE SITES

Wastewater treatment is one of the most common forms of pollution control. Its basic function is to speed up the natural purification processes. In many instances wastewater treatment is a two-stage process. In the primary stage of wastewater treatment, solids are allowed to settle and are then removed from wastewater. The secondary stage allows biological processes to further purify wastewater. The NYSDEC database identifies nearby Wastewater Discharge Facilities.

After a thorough investigation, it was determined that neither the subject property nor any property within a ⅛-mile radius is listed as a Wastewater Discharge Site.

4.12 USEPA AIR DISCHARGE SITES

The USEPA Aerometric Information Retrieval System (AIRS) database lists information on each air emission facility and indicates the type of air pollutant emission. Compliance information is also provided on each pollutant as well as the facility itself.

After a thorough investigation, it was determined that the subject property is not listed as an Air Discharge Site. There is one site located within a ¼-mile of the subject property listed as an Air Discharge Site. Nello Botti Cleaners, ID #3604700869, located 491 feet east of the subject property, is listed in compliance for the potential uncontrolled emissions of VOCs. Due to the resource affected and lack of traceability, no determination can be made as to the environmental threat to the subject property.

4.13 USEPA CIVIL AND ADMINISTRATIVE ENFORCEMENT DOCKET FACILITIES

This Civil and Administrative Enforcement Docket database is the USEPA's system for tracking administrative and judiciary cases filed on behalf of the agency by the Department of Justice.

After a thorough investigation, it was determined that neither the subject property nor any property within a 1/8-mile radius is listed as a Civil and Administrative Enforcement Docket site.

4.14 FEDERAL ENGINEERING CONTROL AND INSTITUTIONAL CONTROL REGISTRIES

The completion of site cleanup activities may include the implementation of engineering controls or institutional controls as part of the response action. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the instructional controls.

Neither the subject property nor any property located within a 1/2-mile radius of the subject property was identified on Federal Engineering Control or Institutional Control Registries.

4.15 TRIBAL LANDS

There are no Tribal Lands within a one-mile radius of the subject property. This was further confirmed by a search of Federal and State Tribal Land records, please refer to Figure 8.0.

4.16 ORPHAN SITES

Orphan Sites are facilities that have been identified on the Toxics Targeting Inc (TTI) Environmental Database Report; however, due to poor or inadequate address information, the facilities could not be mapped by TTI with relation to the subject property. Orphan Sites identified on the Database Report were reviewed, and none appear to be located at the subject property.

4.17 REGULATORY AGENCY DOCUMENTS REQUESTS

On November 20, 2012, **LEA** mailed a request to the New York City Department of Environmental Protection (NYCDEP) to view any records pertaining to the environmental condition of the subject property under the Freedom of Information Act (FOIA).

On December 10, 2012, **LEA** received notification from the NYCDEP, confirming their receipt of the request. As of December 19, 2012, **LEA** has not yet received a response from the NYCDEP stating whether records relevant to the environmental integrity of the subject property are available. If the agency is found to maintain such records, **LEA** will forward the information in the form of an addendum to The Other Half, LLC and The Green Witch Project, LLC.

5.0 SITE HISTORY

According to the New York City Department of Building records and Sanborn Fire Insurance Maps, past and present uses of the subject property are as follows:

- | | |
|------|--|
| 1886 | Sanborn Historical maps show the subject property to be occupied by two three story residential buildings. |
| 1904 | The subject building at 96 Degraw Street is depicted as a 'store' |
| 1977 | Both buildings are shown as three-story residential. |
| 1991 | The buildings are no longer present and the property is vacant. |
| 2003 | The subject property is shown as being used for parking. |

Historical Usage Summary:

The subject property was occupied by two 3-story residential buildings from as early as 1886 until between 1988 and 1991, when the buildings were likely demolished. The property has remained vacant since as early as 1991, and has most recently been utilized for vehicle storage. Past usage of the subject site should not present a recognized environmental condition at the subject property.

5.1 SANBORN FIRE INSURANCE MAP REVIEW

Sanborn® Fire Insurance Maps are an additional source of historical use information available for most developed areas. The maps were used for insurance purposes and indicate structures by name, type of construction, property usage, and address. **LEA** contracted EDR for a search of Sanborn Fire Insurance Maps adequate for the subject property and surrounding areas. According to Sanborn Historical Maps reviewed from 1886 - 2007, past uses of the subject site and surrounding properties are as follows:

Date	Subject Property	Surrounding Properties			
		North	South	East	West
1886	Maintains two three-story dwelling.	<i>Degraw Street</i> Dwellings	Dwellings <i>Sackett Street</i>	Dwellings	Dwellings
1904 to 1938	Maintains a three-story store and dwelling	No Change	No Change	No Change	No Change
1950	No Change	<i>Degraw Street</i> Dwellings and empty lots	Empty lot	No Change	Dwelling and an empty lot
1969	No Change	No Change	Parking lot	No Change	Dwelling and truck storage
1977 to 1981	Both buildings are shown as three-story residences	No Change	No Change	No Change	No Change
1982	No Change	No Change	Truck Storage	No Change	No Change
1986 to 1988	No Change	<i>Degraw Street</i> Vacant lot and truck storage	Warehouse <i>Sackett Street</i>	No Change	No Change
1991 to 2002	Both buildings appear to have been demolished. Now a vacant lot.	No Change	No Change	No Change	No Change
2003 to 2007	Depicted as 'Parking'	<i>Degraw Street</i> Long Island Hospital Parking	No Change	No Change	No Change

5.2 HISTORICAL TOPOGRAPHIC MAP REVIEW

Historical Topographic Maps are an additional source of useful information regarding historical site usage. The maps are generated and updated by the United States Geological Survey (USGS). Scale for the maps ranged from 1:24,000 to 1:62,500. The general elevation of the subject site and surrounding areas was noted as approximately 15 feet above sea level. *LEA* maintains Historical Topographic Maps in their Historical Database adequate for the subject property and surrounding areas.

A review of historical topographical maps from 1947 and 1967 did not show detailed information as to historical structures and usage of the subject property.

5.3 HISTORICAL AERIAL PHOTOGRAPH REVIEW

Aerial Photographs are often taken annually or bi-annually by government agencies or private entities and may be used to evaluate changes in land use patterns at specified dates to identify visible areas of potential environmental concern. A search for historical aerial photographs depicting the subject property and vicinity was conducted by EDR and *LEA*. It should be noted that the scale of the available aerial photographs precludes the distinct identification of structures and/or land uses on or in the vicinity of the subject property.

A review of an aerial photograph from 1994 showed the following:

Due to poor picture clarity, no information as to the historical structures and surrounding properties could be garnered from the image.

5.4 NYC ACRIS RECORDS

The NYC Automated City Register Information System (ACRIS) maintains property records and document images for the five boroughs from 1966 to the present. The database was searched and is included in the table below.

96 Degraw Street

Lot	Partial	Recorded / Filed	Document Type	Pages	Party1	Party2	Doc Amount
22	ENTIRE LOT	9/4/2012 3:55:18 PM	EASEMENT	9	THE GREEN WITCH PROJECT LLC	THE OTHER HALF LLC	0
22	ENTIRE LOT	9/4/2012 3:55:17 PM	EASEMENT	9	THE OTHER HALF LLC	THE GREEN WITCH PROJECT LLC	0
22	PARTIAL LOT	6/4/2012 10:25:29 AM	EASEMENT	8	THE GREEN WITCH PROJECT LLC	THE OTHER HALF LLC	0
22	PARTIAL LOT	6/4/2012 10:25:28 AM	EASEMENT	8	THE OTHER HALF LLC	THE GREEN WITCH PROJECT LLC	0
22	ENTIRE LOT	4/4/2012 3:16:20 PM	ASSUMPTION OF MORTGAGE	8	THE OTHER HALF LLC	SILVA, MANUEL	225,000
22	ENTIRE LOT	4/4/2012 3:16:19 PM	DEED	5	96 DEGRAW LLC	THE OTHER HALF LLC	300,000
22	ENTIRE LOT	12/28/2011 10:35:41 AM	MORTGAGE	7	96 DEGRAW LLC	SILVA, MANUEL	225,000
22	ENTIRE LOT	12/28/2011 10:35:40 AM	DEED	4	SILVA, MANUEL	96 DEGRAW LLC	280,000
22	ENTIRE LOT	11/2/1992	DEED	2	CITY OF NEW YORK	SILVA, MANUEL	0
22	ENTIRE LOT	8/18/1982	DEED	150	COMMISSIONER FINANCENY	NEW YORK CITY	0
22	ENTIRE LOT	3/9/1977	DEED	2	TOSPIGE REALTY LTD	KELLONG REALTY CORP	0
22	ENTIRE LOT	11/8/1976	MORTGAGE	4	TOSPIGE REALTY LTD	COSTALAS GEORGE	0
22	ENTIRE LOT	4/27/1972	DEED	2	LOPEZ REINALDO	CASTANO AL	0
22	ENTIRE LOT	5/24/1971	DEED	2	CADMAN PARKING CORP	LOPEZ REINALDO	0
22	ENTIRE LOT	5/3/1971	DEED	2	LOPEZ REINALDO	CADMAN PARKING CORP	0
22	ENTIRE LOT	8/25/1970	ASSIGNMENT, MORTGAGE	2	COBBLESVILLE RLTY LTD	SPANAKOS JOHN M	0
22	ENTIRE LOT	8/25/1970	MORTGAGE	4	LOPEZ RENALDO	COBBLESVILLES RLTY LTD	0
22	ENTIRE LOT	8/25/1970	DEED	2	COBBLESVILLES RLTY LTD	LOPEZ RENALDO	0
22	ENTIRE LOT	4/14/1970	DEED	2	CARANNANTE SAMUEL A	COBBLEVILLES RLTY LTD	0

98 Degraw Street

Lot	Partial	Recorded / Filed	Document Type	Pages	Party1	Party2	Doc Amount
23	ENTIRE LOT	9/4/2012 3:55:18 PM	EASEMENT	9	THE GREEN WITCH PROJECT LLC	THE OTHER HALF LLC	0
23	ENTIRE LOT	9/4/2012 3:55:17 PM	EASEMENT	9	THE OTHER HALF LLC	THE GREEN WITCH PROJECT LLC	0
23	PARTIAL LOT	6/4/2012 10:25:29 AM	EASEMENT	8	THE GREEN WITCH PROJECT LLC	THE OTHER HALF LLC	0
23	PARTIAL LOT	6/4/2012 10:25:28 AM	EASEMENT	8	THE OTHER HALF LLC	THE GREEN WITCH PROJECT LLC	0
23	ENTIRE LOT	12/27/2011 4:36:10 PM	DEED	5	98 DEGRAW LLC	THE GREEN WITCH PROJECT LLC	250,000
23	ENTIRE LOT	11/23/2011 9:46:06 AM	TAX LIEN SALE CERTIFICATE	83	CITY OF NEW YORK	BANK OF NEW YORK	0
23	ENTIRE LOT	8/18/2010 1:17:10 PM	TAX LIEN SALE CERTIFICATE	132	THE CITY OF NEW YORK	THE BANK OF NEW YORK MELLON	0
23	ENTIRE LOT	11/20/2001	DEED	4	CITY OF NEW YORK/DEF	98 DEGRAW LLC	0
23	ENTIRE LOT	7/27/2000	TAX LIEN SALE CERTIFICATE	31	CITY OF NEW YORK	BANK OF NEW YORK	0
23	ENTIRE LOT	1/25/1999	ASSIGNMENT OF TAX LIEN	1	NYCTL 1997-1 TRUST	BANK OF NEW YORK	0
23	ENTIRE LOT	6/18/1997	TAX LIEN SALE CERTIFICATE	34	CITY OF NEW YORK	BANK OF NEW YORK	0
23	ENTIRE LOT	4/18/1979	DEED	1	COMMISSIONER OF FINANCE OF THE CITY OF NEW YORK	THE CITY OF NEW YORK	0

5.6 LITTLE E DESIGNATION SITES

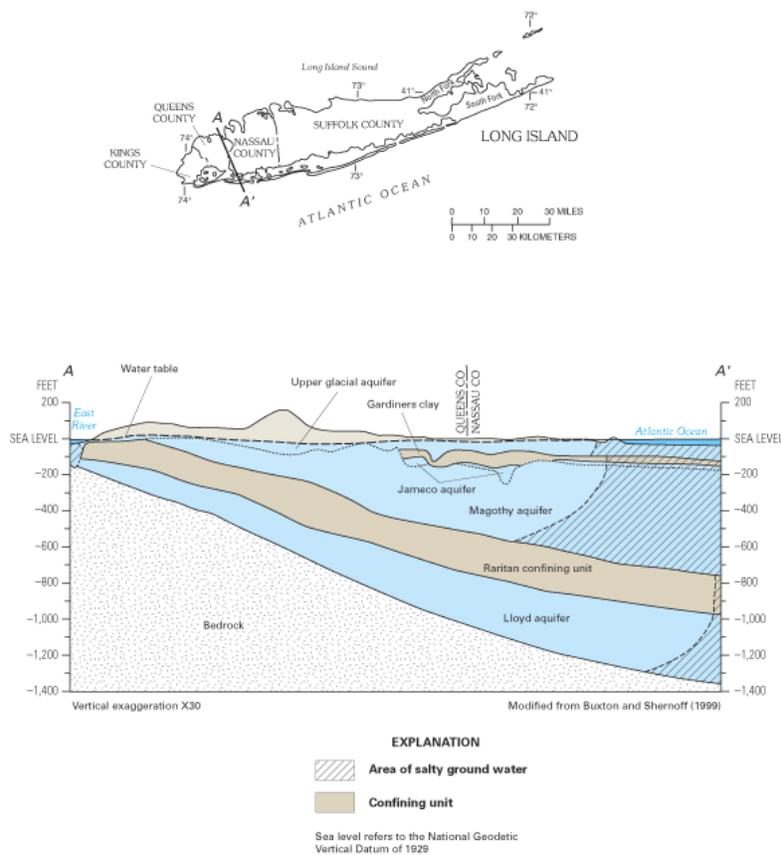
Lots designated with an “E” on the Zoning Maps of the City of New York for potential hazardous material contamination, air and/or noise quality impacts. The NYC records were searched thoroughly and **LEA** has determined the Subject property is not designated as a Little “E” site.

6.0 FAIR MARKET VALUE

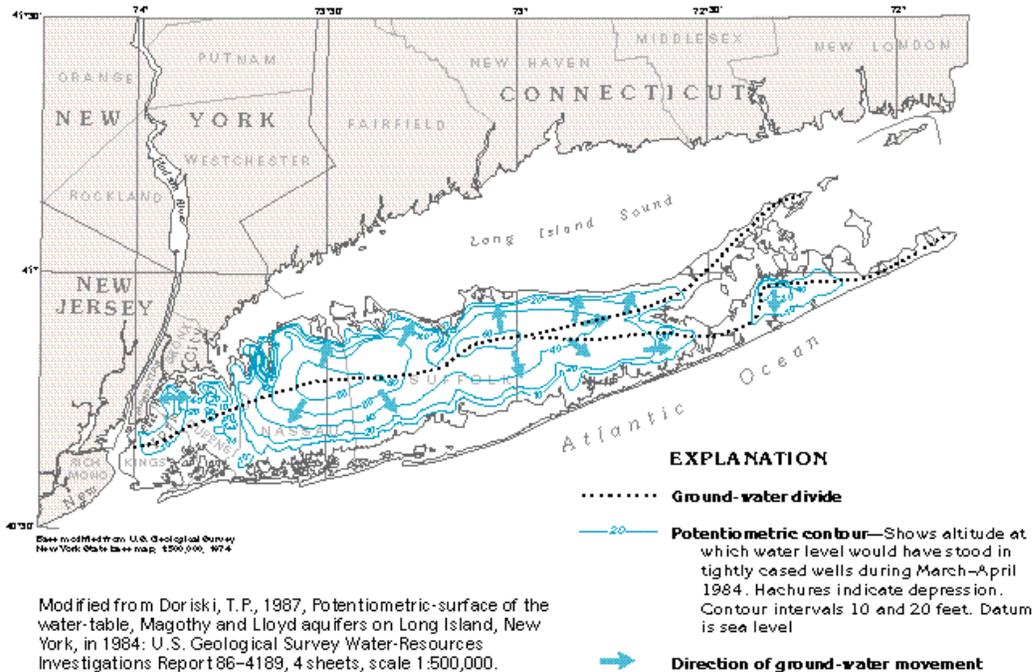
The subject property is not for sale; therefore an evaluation of the environmental integrity of the property cannot be made based upon market value.

7.0 SITE HYDROGEOLOGY

Kings County is located in the Atlantic Coastal Plain physiographic province that is characterized by low hills of unconsolidated sands, gravel, and silt. According to Franke (1972), regionally, the near-surface sediments consist of the Upper Glacial deposits that are characterized by southward sloping deposits of sand, gravel, and silt. The Upper Glacial deposits have a maximum thickness of 600 feet. They are underlain by the Magothy, Raritan, and Lloyd Formations. The Gardeners clay and the Jameco gravel separate the Upper Glacial deposits and the Magothy Formation along the southwest portion of Long Island. Due to less surficial contamination and higher well yields, the Magothy aquifer is the main supply for drinking and industrial water. Consequently, the USEPA has identified it as a Sole Source Aquifer. The subject site is in the Upper Glacial aquifer. Pump test data suggests hydraulic conductivity between the Magothy and Upper Glacial aquifers. However, discontinuous clay lenses may prevent this interaction in some areas.



According to groundwater contour maps provided by the NYCDEP and the NYSDEC, Topographic Quadrangles provided by the USGS, and previous work performed by **LEA** in the area, the subject property has an elevation of approximately 15 feet above mean sea level. Regional groundwater is estimated to be 14 feet below grade at the subject property and flowing in a westerly direction, towards the East River. A site specific hydrogeologic study is warranted to confirm localized on-site groundwater flow direction, which is beyond the scope of this report.



Modified from Doriski, T.P., 1987, Potentiometric-surface of the water-table, Magothy and Lloyd aquifers on Long Island, New York, in 1984: U.S. Geological Survey Water-Resources Investigations Report 86-4189, 4 sheets, scale 1:500,000.

Figure 72. The potentiometric surface of the upper glacial aquifer slopes gently to the north and south from a central high, except in the western part of the island where ground-water withdrawals have lowered the water table and created cones of depression.

7.1 GROUNDWATER USE

No active drinking water wells were noted at the subject property or at any of the adjoining sites during the site inspection, although it remains possible that private wells exist. The subject building, as well as the buildings in the vicinity of the subject site, is served with municipal water from the City of New York. Groundwater is not utilized for any purpose at the subject site. **LEA** did not observe any monitoring wells at the subject property at the time of our site reconnaissance.

The subject site is not located within 1,000 feet of a 100 year floodplain.

8.0 SUMMARY OF FINDINGS FROM RECONNAISSANCE AND RESEARCH

Based on the completion of the Phase I Environmental Site Assessment, *Laurel Environmental Associates, Ltd.* has come to the following conclusions:

- The subject property is comprised of two adjoining undeveloped parcels with a combined footprint of approximately 3,500 square feet. The site is unpaved but graded with gravel, and is utilized for vehicle storage. According to Sanborn Historical Maps, the property was occupied by two 3-story residential buildings until sometime between 1988 and 1991, when the buildings were likely demolished. The property has remained empty since as early as 1991. The site is relatively flat, and fronts along Degraw Street. The subject property is located in a residential and commercial area of the Columbia Street Waterfront District in Kings County, New York.
- Housekeeping was noted to be good throughout the subject site. The site was observed free of debris and no staining of the ground was noted.
- The subject property is covered entirely with gravel and does not support any vegetation.
- There was no evidence of a current or former private septic system or cesspool at the subject property. Former sanitary waste at buildings that previously occupied the property was likely handled by municipal sewer system, supplied by the City of New York. In addition, there was no evidence of any pits, ponds, or lagoons used in connection with waste treatment or waste disposal.
- Storm water is handled by natural drainage across the site and runoff to Degraw Street.
- No floor drains are present, as the subject property is undeveloped.
- The subject property is currently utilized for vehicle storage purposes, with a plan to erect a multi-family building in preliminary stages.
- According to Sanborn Fire Insurance Maps, the subject property was used for residential purposes since the construction of the original buildings, sometime prior to 1886. The property has been vacant since between 1988 and 1991.
- No chemical storage was noted on the subject site.
- No biohazardous waste is generated or stored on the subject site.
- No drum storage was noted during the site inspection.
- As the property is undeveloped, no fill ports and/or vent pipes, which indicate the presence of USTs or ASTs, were noted at the subject property at the time of the site inspection. Based upon our site reconnaissance, interviews, and review of state and local records, LEA identified no evidence of existing USTs or ASTs at the subject property. However; no determination can be made as to whether any USTs or ASTs were present at the former buildings, prior to their demolition.
- No emergency generators and associated tanks were observed during our site reconnaissance.
- There are no pad or pole-mounted transformers located at the subject property. The property is undeveloped, therefore no PCB containing light fixtures are present.

- No friable or non-friable suspect asbestos containing materials were noted during the inspection.
- No lead-based paints are present at the subject property.
- As the subject property does not support any structures, no evidence of mold and/or mold related odors was noted at the time of the site inspection.
- According to maps provided by the NYSDEC, the subject property does not reside within a fresh water or tidal wetlands area. An inspection of the subject property by LEA did not observe the presence of wetlands within its boundaries. Upper New York Bay was located within a ¼-mile radius of the subject property 750 feet hydraulically down-gradient.
- According to monitoring data completed by the NYS Department of Health, Bureau of Radiation Protection, the Kings County has an average indoor radon concentration of 0.6 pCi/l. Given this information, radon is not considered a significant environmental concern within the subject building.
- No high tension wires or substations were noted on or adjacent to the subject property.
- Due to the benign usage at the surrounding properties, they should not have the potential to present a recognized environmental condition at the subject property. None of the surrounding properties are associated with any NYSDEC or USEPA Superfund List.
- A review of the latest edition of the NPL, published in 2012, found that the subject property is not listed as a NPL site. There is one NPL listed site located within a one-mile radius of the subject property. Gowanus Canal, ID #NYN000206222, is a large, 100-foot wide, 1.8-mile long canal, with a history of industrial traffic and contamination, currently undergoing extensive investigation and remediation. This site is located 4,747 feet hydraulically cross-gradient from the subject property, and should not pose a recognized environmental condition.
- Examination of the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database indicates that the subject site is not listed in the CERCLIS database. There are no CERCLIS listed sites located within a ½-mile radius of the subject property.
- A review of the annual report, quarterly updates, and reports from 1992 to 2012 indicates that the subject property is not listed as being an IHWD site. There are eight IHWD site listings, within a one-mile radius of the subject property. Due to the geographic and hydraulic locations of these sites, with respect to the subject property, none should pose a recognized environmental condition.
- After a thorough investigation, it was determined that neither the subject property nor any property within a one-mile radius is listed as a HSWD site.
- After a thorough investigation, it was determined that neither the subject property nor any property within a one-mile radius is listed as a Brownfields site.
- The database of NYS Landfills identified no such facilities located within a ½-mile radius of the subject property. There is one Solid Waste Facility located within a ½-mile radius of the subject property. 20th Century Recycling, ID #24TA2, located 1,620 feet hydraulically side-gradient from the subject property, is listed as a large transfer station for unknown wastes. Due to the geographic and hydraulic location relative to the subject property, this site should not pose a recognized environmental condition.

- There are no closed or active NYSDEC listed spills or leaking underground storage tanks (USTs) located at the subject property.
- There are four active NYSDEC listed spills located within a ½-mile radius of the subject property. Due to the geographic and hydraulic locations, relative to the subject property, magnitude of spill and/or resource affected, none should present a recognized environmental condition.
- There is one active NYSDEC listed leaking UST located within a ½-mile radius of the subject property. Due to the geographic and hydraulic location, relative to the subject property, magnitude of spill and/or resource affected, this spill should not present a recognized environmental condition.
- After a thorough investigation, it was determined that neither the subject property nor any adjoining property is listed at the NYSDEC as a CBS, MOS, or PBS Facility.
- After a thorough investigation, it was determined that neither the subject property nor any adjoining property is listed as a RCRA Hazardous Waste Generator.
- After a thorough investigation, it was determined that the subject property is not listed as a RCRA TSD or CORRACT site. There is one property within a one-mile radius listed as a RCRA TSD and CORRACT site. Patterson Chemical Co, ID #NYD980592471, located 4,308 feet hydraulically cross-gradient from the subject property, is listed as a TSD facility, with RFA completed in 1994. No further information is disclosed. Due to the geographic and hydraulic location relative to the subject property, this site should not pose a recognized environmental condition.
- After an investigation according to street address, it was determined that the subject property is not listed on the ERNS database.
- After a thorough investigation, it was determined that neither the subject property nor any property within a ¼-mile radius is listed as a TRI Facility.
- After a thorough investigation, it was determined that neither the subject property nor any property within a ⅛-mile radius is listed as a Wastewater Discharge Site.
- After a thorough investigation, it was determined that the subject property is not listed as an Air Discharge Site. There is one site located within a ¼-mile of the subject property listed as an Air Discharge Site. Nello Botti Cleaners, ID #3604700869, located 491 feet east of the subject property, is listed in compliance for the potential uncontrolled emissions of VOCs. Due to the resource affected and lack of traceability, no determination can be made as to the environmental threat to the subject property.
- After a thorough investigation, it was determined that neither the subject property nor any property within a ⅛-mile radius is listed as a Civil and Administrative Enforcement Docket site.
- Neither the subject property nor any property located within a ½-mile radius of the subject property was identified on Federal Engineering Control or Institutional Control Registries.
- There are no Tribal Lands within a one-mile radius of the subject property. This was further confirmed by a search of Federal and State Tribal Land records, please refer to Figure 8.0.
- On December 10, 2012, **LEA** received notification from the NYCDEP, confirming their receipt of the request. As of December 19, 2012, **LEA** has not yet received a response from the NYCDEP stating whether records relevant to the environmental integrity of the subject property are available.

If the agency is found to maintain such records, **LEA** will forward the information in the form of an addendum to The Other Half, LLC and The Green Witch Project, LLC.

- Past usage of the subject site should not present a recognized environmental condition at the subject property.
- A review of historical topographical maps from 1947 and 1967 did not show detailed information as to historical structures and usage of the subject property.
- Due to poor picture clarity, no information as to the historical structures and surrounding properties could be garnered from the image.
- The subject property is not for sale; therefore an evaluation of the environmental integrity of the property cannot be made based upon market value.
- According to groundwater contour maps provided by the NYCDEP and the NYSDEC, Topographic Quadrangles provided by the USGS, and previous work performed by **LEA** in the area, the subject property has an elevation of approximately 15 feet above mean sea level. Regional groundwater is estimated to be 14 feet below grade at the subject property and flowing in a westerly direction, towards the East River.

9.0 CONCLUSIONS

Based on the information developed and provided as part of this Phase I Environmental Site Assessment, **LEA** has reached the following conclusions regarding recognized areas of environmental concern at the subject property, 96 and 98 Degraw Street, Brooklyn, New York:

Recognized Environmental Conditions

- Urban fill and construction debris
- Possible former USTs

Potential Impacts

Moderate Risk
Moderate Risk

10.0 RECOMMENDATIONS

Based on the above conclusions *LEA* recommends the following:

6. Conduct a geophysical survey of the property to identify any possible underground storage tanks or other anomalies.
7. Conduct continuous soil borings around any marked anomalies, and at three additional locations at the property. Soil samples should be collected from 0-2' below grade, and either two feet into clean material if contamination is found, or 4-6' below grade (corresponding to the assumed slab level of the future building), if no signs of contamination are found. Analyze samples for VOCs, SVOCs, Metals and PCBs.
8. Collect a groundwater sample at the property using a pre-pack direct push well. Sample collected should be analyzed for VOCs, SVOCs, Metals, and PCBs.
9. Three soil vapor samples should be collected across the site, at a depth of four feet below grade, using 6-litre summa canisters with 2 hour flow controllers and analyzed for VOCs using TO-15 method.
10. Review results and compare to the appropriate regulatory standards and guidelines.

Opinion of Impacts

The environmental professionals who have conducted the site visit and reviewed the results of the data collection effort have concluded that the aforementioned are “recognized environmental conditions”. The recognized environmental conditions have been quantified based on a range of qualitative impacts on the soil, water, and air resources or structures on the subject property.

As per our contractual agreement, *LEA* has provided recommendations for further study above. It is up to the user of this report, based on the individuals risk tolerance, fiduciary responsibility, or the applicable law, to determine the extent of further inquiry.

11.0 LIMITATIONS

The purpose of this investigation was to identify potential sources of contamination at the subject property and to satisfy all appropriate inquiry standards set forth in Section 9601 (35)(b) of CERCLA. The findings and conclusions set forth in this report are based upon information that was available to **LEA** during the inspection of the property and review of selected records and documents. If new information becomes available concerning the environmental integrity of the subject property after this date, or if the subject property is used in a manner other than that which is identified in this report, the findings and conclusions contained herein may have to be modified. Additionally, while this investigation was performed in accordance with good commercial and customary practice and generally accepted protocols within the consulting industry, **LEA** cannot guarantee that the property is completely free of hazardous substances or other materials or conditions that could subject The Other Half, LLC and The Green Witch Project, LLC to potential liability. The presence or absence of any such condition can only be confirmed through the collection and analysis of air, soil, and/or groundwater samples, which was beyond the scope of this investigation.

Limiting Conditions:

The preceding Environmental Site Assessment is subject to the following conditions and to such other conditions and limiting conditions as are set forth in the report.

1. **Laurel Environmental Associates, Ltd.** assumes no responsibility for hidden or latent conditions or misrepresentation by the property owner, his representatives, public information officials, or any authority consulted in connection with the compilation of this report.
2. This report is prepared for the sole and explicit purpose of assessing the potential liability with respect to the suspected presence of hazardous materials that may pose a potential health or environmental threat. It is also prepared for evaluating collateral risk associated with the same. This report is not intended to have any direct bearing on the value of the property.
3. The Environmental Site Assessment and the Environmental Site Assessment Report are for the sole use of the Principal Parties. No disclosure or reproduction shall be made of the preceding report without the prior written consent of **Laurel Environmental Associates, Ltd.**
4. **Laurel Environmental Associates, Ltd.** or any representative of **Laurel Environmental Associates, Ltd.** is not required to give testimony with reference to the opinions expressed herein without prior written arrangement.
5. **Laurel Environmental Associates, Ltd.** cannot be liable for information known only to the site owner or operator and not shared with **Laurel Environmental Associates, Ltd.**

12.0 TERMS AND CONDITIONS

The purpose of this Phase I Environmental Site Assessment (ESA) was to identify, to the extent feasible pursuant to the processes described herein to recognize environmental conditions, which are significant adverse environmental concerns in connection with the subject property. This practice is intended to permit the user to satisfy one of the requirements to qualify for the innocent landowner defense to CERCLA liability: that is, to undertake “all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice.” It also is intended to assist the user in developing information about the environmental condition of the subject property. This Phase I ESA is site specific in that it relates only to the environmental assessment of the property indicated herein.

12.1 SPECIAL TERMS AND CONDITIONS

This Phase I ESA was prepared essentially in accordance with ASTM Standards on Environmental Site Assessments: Phase I Environmental Site Assessment Process as set forth in E1527-05. No *environmental site Assessment* can wholly eliminate uncertainty regarding the potential for *recognized environmental conditions* in connection with a *property*. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for *recognized environmental conditions* in connection with a *property*, and this practice recognizes reasonable limits of time and cost.

12.2 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

This Phase I ESA was not intended to be in strict accordance with ASTM, be all inclusive, identify all potential concerns, or eliminate the possibility that the subject property may have environmental problems. Although **Laurel Environmental Associates, Ltd.** has taken great care to identify such concerns or problems, it is possible that conditions un-permitted, undocumented, not observed, or otherwise concealed on the subject property could exist. Additional information which was not found or made available to **LEA**, may result in a modification of the conclusions and recommendations presented.

12.3 LIMITING CONDITIONS AND METHODOLOGY USED

This Phase I ESA was prepared in a manner consistent with the level of skill ordinarily exhibited by members of the environmental auditing profession in this geographic region. No representations, expressed or implied, and no warranty or guarantee is included or intended in connection with this report. **LEA** cannot be responsible for any unauthorized use of, any misrepresentation of the information, or the information contained in this report. The information contained in this report has been obtained from readily ascertainable public sources, interviews, and from visual observations of the subject property, that may have been limited by secured areas, overgrown vegetation, or by other obstructions. Although great care has been taken by **LEA** in compiling and checking the information contained in this report to ensure that it is current and accurate, **LEA** disclaims any and all liability for any errors, omissions, or inaccuracies of such information and data, whether attributable to an advertence or otherwise, and for any consequences arising there-from. It is understood that **LEA** makes no representations or warranties of any kind, including, but not limited to, the warranties of fitness for a particular purpose of merchantability, nor should any such representation or warranty be implied with the respect to customer, it is employees or agents use thereof. **LEA** shall not be liable for any special, consequential, or exemplary damages resulting in whole or in part from customer use of the data. Liability on the part of **LEA** is limited to the monetary value paid for this report. This report does not constitute a legal opinion.

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14.0 DEFINITIONS

Abandoned Property – *property* that can be presumed to be deserted, or an intent to relinquish possession or control can be inferred from the general disrepair or lack of activity thereon such that a reasonable person could believe that there was an intent on the part of the current owner to surrender rights to the *property*.

Activity and use limitations – legal or physical restrictions or limitations on the use of, or access to, a site or facility: (1) to reduce or eliminate potential exposure to hazardous substances in the soil or ground water on the property, or (2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls, are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil or ground water on the property.

Actual knowledge – the knowledge actually possessed by an individual who is a real person, rather than an entity. Actual knowledge is to be distinguished from constructive knowledge that is knowledge imputed to an individual or entity.

Adjoining properties – any real property or properties the border of which is contiguous or partially contiguous with that of the property; or that would be contiguous or partially contiguous with that of the property but for a street, road, or other public thoroughfare separating them.

Aerial photographs – photographs taken from an aerial platform with sufficient resolution to allow identification of development and activities of areas encompassing the property. Aerial photographs are often available from government agencies or private collections unique to a local area.
See 8.3.4.1 of this practice.

All appropriate inquiry – that inquiry constituting “all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice” as defined in CERCLA, 42 USC § 9601(35) (B), that will qualify a party to a *commercial real estate* transaction for one of the threshold criteria for satisfying the LLPs to CERCLA liability (42 USC § 9601(35)(A) & (B) §9607(b) (3), §9607(q); and §9607(r)), assuming compliance with other elements of the defense.
See Appendix X1 of this practice.

Approximate minimum search distance – the area for which records must be obtained and reviewed pursuant to Section 8 subject to the limitations provided in that section. This may include areas outside the property and shall be measured from the nearest property boundary. This term is used in lieu of radius to include irregularly shaped properties.

Bona Fide prospective purchaser liability protection – (42 U.S.C. §9607(r) – a person may qualify as a bona fide prospective purchaser if, among other requirements, such person made “all appropriate inquiries into the previous ownership and uses of the facility in accordance with generally accepted good commercial and customary standards and practice.” Knowledge of contamination resulting from all appropriate inquiry would not generally preclude this liability protection. A person must make all appropriate inquiry on or before the date of purchase. The facility must have been purchased after January 11th, 2002.
See ASTM E1527-05 Appendix X1 for the other necessary requirements that are beyond the scope of this practice.

Brownfields amendments – amendments to CERCLA pursuant to the Small Business Liability Relief and Brownfields Revitalization Act, Pub. L. No. 107-118 (2002), 42 U.S.C. §§9601 *et seq.*

Building department records – those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property. Often building department records are located in the building department of a municipality or county. See 8.3.4.7.

Commercial real estate - any real *property* except a *dwelling* or *property* with no more than four dwelling units exclusively for residential use (except that a dwelling or property with no more than four dwelling units exclusively for residential use is included in this term when it has a commercial function, as in the building of such dwelling for profit). This term includes but is not limited to undeveloped real property and real property used for industrial, retail, office, agricultural, other commercial, medical, or educational purposes; property used for residential use when it has a commercial function, as in the building of such dwellings for profit.

Commercial real estate transactions – a transfer of title to or possession of real property, except that it does not include transfer of title to or possession of real property with respect to an individual dwelling or building containing fewer than five dwelling units, nor does it include the purchase of a lot or lots to construct a dwelling for occupancy by a purchaser, but a commercial real estate transaction does include real property purchased or leased by person or entities in the business of building or developing dwelling units.

Comprehensive Environmental Response, Compensation and Liability

Information Systems (CERCLIS) – the list of sites compiled by USEPA that USEPA has investigated or is currently investigating for potential hazardous substance contamination for possible inclusion on the National Priorities List.

Construction debris – concrete, brick, asphalt, and other such building materials discarded in the construction of a building or other improvement to property.

Contaminated public wells – public wells used for drinking water that have been designated by a government entity as contaminated by hazardous substance (for example, chlorinated solvents), or as having water unsafe to drink without treatment.

Contiguous property owner liability protection-(42 U.S.C. §9607(q))-a person may qualify for the *contiguous property owner liability protection* if, among other requirements, such person owns real property that is contiguous to, and that is or may be contaminated by hazardous substance from other real property that is not owned by that person. Furthermore, such person conducted *all appropriate inquiry* at the time of acquisition of the property and did not know or have reason to know that the property was or could be contaminated by a *release* or threatened release from the contiguous property. The all appropriate inquiry must not result in knowledge of contamination. If it does, then such person did “know” or “had reason to know” of contamination and would not be eligible for the *contiguous property owner liability protection*.

See Appendix X1 for the other necessary requirements that are beyond the scope of this practice.

CORRACTS list – a list maintained by EPA of hazardous waste treatment, storage, or disposal facilities and other RCRA-regulated facilities (due to past interim status or storage of hazardous waste beyond 90 days) that have been notified by the U.S. Environmental Protection Agency to undertake corrective action under RCRA.

Data Failure – a failure to achieve the historical research objectives in 8.3.1 through 8.3.2.2 even after reviewing the standard historical sources in 8.3.4.1 through 8.3.4.8 that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap.
See 8.3.2.3 of this practice.

Data gap – a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice, including, but not limited to site reconnaissance (for example, an inability to interview the key site manager, regulatory officials, etc.)
See 12.7 of this practice.

Demolition debris – concrete, brick, asphalt, and other such building materials discarded in the demolition of a building or other improvement to property.

Drum – a container (typically, but not necessarily, holding 55 gal (208 L) of liquid) that may be used to store hazardous substance or petroleum products.

Drywells – underground areas where soil has been removed and replaced with pea gravel, coarse sand, or large rocks. Dry wells are used for drainage, to control storm runoff, for the collection of spilled liquids (intentional and non-intentional) and wastewater disposal (often illegal).

Dwelling-structure or portion thereof used for residential habitation.

Engineering controls – physical modifications to a site or facility (for example, capping, slurry walls, or point of use water treatment) to reduce or eliminate the potential for exposure to hazardous substances or petroleum products in the soil or ground water on the property.

Environmental lien – a charge, security, or encumbrance upon title to a *property* to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of *hazardous substances* or *petroleum products* upon a *property*, including (but not limited to) liens imposed pursuant to CERCLA 42 USC § 9607(1) & 9607 (r) and similar state or local laws.

ERNS list – USEPA’s emergency response notification system list of reported CERCLA hazardous substance releases or spills in quantities greater than the reportable quantity, as maintained at the National Response Center. Notification requirements for such releases or spills are codified in 40 CFR Parts 302 and 355.

Federal Registration (FR) - publication of the United State government published daily (except for federal holidays and weekends) containing all proposed and final regulations and some other activities of the federal government. When regulations become final, they are included in the Code of Federal Regulations (CFR), as well as published in the Federal Register.

Fill dirt - dirt, soil, sand, or other earth, that is obtained off-site, which is used to fill holes or depressions, create mounds, or otherwise artificially change the grade or elevation of real property. It does not include material that is used in limited quantities for normal landscaping activities.

Fire insurance maps – maps produced for private fire insurance map companies that indicate uses of properties at specified dates and that encompass the property. These maps are often available at local libraries, historical societies, private resellers, or from the map companies who produces them.

Good faith – the absence of any intention to seek an unfair advantage or to defraud another party; an honest and sincere intention to fulfill one’s obligations in the conduct or transaction concerned.

Hazardous substance – a substance defined as a hazardous substance pursuant to CERCLA 42 USC§ 9601(14), as interpreted by USEPA regulations and the courts: “(A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title, (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, (42 USC § 6921) (but not including any waste the regulation of which under RCRA (42 USC §§ 6901 *et seq.*) has been suspended by Act of Congress), (D) any toxic pollutant listed under section 1317(a) of Title 33, (E) any hazardous air pollutant listed under section 112 of the Clean Air Act (42 USC § 7412), and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator (of USEPA) has taken action pursuant to section 2606 of Title 15. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).”

Hazardous waste – any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of RCRA, as amended, (42 USC § 6921) (but not including any waste the regulation of which under RCRA (42 USC §§ 6901-6992k.) has been suspended by Act of Congress). RCRA is sometimes also identified as the Solid Waste Disposal Act. RCRA defines a hazardous waste, in 42 USC § 6903, as: “a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may- (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.”

IC/EC registries – database of institutional controls or engineering controls that may be maintained by a federal, state or local environmental agency for purposes of tracking sites that may contain residual contamination and AULs. The names for these may vary from program and state to state, and include terms such as Declaration of Environmental Use Restriction database (Arizona), list of “deed restrictions” (California), environmental real covenants list (Colorado), Brownfields site list (Indiana, Missouri, Pennsylvania).

Institutional controls – a legal or administrative restriction (for example, “deed restrictions”, restrictive covenants, easements or zoning) on the use of, or access to, a site or facility to (1) reduce or eliminate potential exposure to hazardous substances in the soil or ground water on the property, or (2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment.

Interviews – those portions of this practice that are contained in Section 5.0 thereof and address questions to be asked of past and present owners, operators, and occupants of the property and question to be asked of local government officials.

Landfill – a place, location, tract of land, area, or premises used for disposal of solid waste as defined by state solid waste regulations. The term is synonymous with the term *solid waste disposal site* and is also known as a garbage dump, trash dump, or similar term.

Local government agencies – those agencies of municipal or county government having jurisdiction over the property. Municipal and county government agencies include but are not limited to cities, parishes, townships and similar entities.

Local street directories – directories published by private (or sometimes government) sources that show ownership, occupancy, and/or use of sites by reference to street addresses. Often local street directories are available at libraries, or historical societies, and/or local municipal offices.

See 8.3.4.6 of this practice.

LUST sites – state lists of leaking underground storage tank sites. RCRA gives USEPA and states, under cooperative agreements with USEPA, authority to clean up release from UST systems or require owner and operators to do so. (42 U.S.C. §6991b).

Major occupants – those tenants, subtenants, or other persons or entities each of which uses at least 40% of the subject property.

Material safety data sheet (MSDS) – written or printed material concerning a hazardous substance which is prepared by chemical manufacturers, importers, and employers for hazardous chemicals pursuant to OSHA’s Hazard Communication Standard, 29 CFR §1910.1200.

National Contingency Plan (NCP) – the National Oil and Hazardous Substance Pollution Contingency Plan, found at 40 CFR Part 300 that is the USEPA’s blueprint on how hazardous substances are to be cleaned up pursuant to CERCLA.

Occupants – those tenants, subtenants, or other persons or entities using the subject *property* or a portion of the subject *property*.

Owner – generally the fee owner of record of the *property*.

Petroleum exclusion – the exclusion from CERCLA liability provided in 42 USC § 9601(14), as interpreted by the courts and USEPA: “The term (hazardous substance) does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).”

Petroleum products – those substances included within the meaning of the *petroleum exclusion* to CERCLA, 42 USC § 9601(14), as interpreted by the courts and USEPA, that is: petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under Subparagraphs (A) through (F) of 42 USC § 9601(14), natural gas, natural gas liquids, liquefied natural gas, and synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). (The word fraction refers to certain distillates of crude oil, including gasoline, kerosene, diesel oil, jet fuels, and fuel oil, pursuant to *Standard Definitions of Petroleum Statistics*.)

Pits, ponds, or lagoons – man-made or natural depressions in a ground surface that are likely to hold liquids or sludge containing *hazardous substances* or *petroleum products*. The likelihood of such liquids or sludge being present is determined by evidence of factors associated with the pit, pond, or lagoon, including, but not limited to, discolored water, distressed vegetation, or the presence of an obvious wastewater discharge.

Property – the real property that is the subject of the *environmental site assessment* described in this practice. Real property includes buildings and other fixtures and improvements located on the property and affixed to the land.

RCRA TSD Facilities – those facilities on which treatment, storage, and/or disposal of hazardous wastes take place, as defined and regulated by RCRA.

Solvent - a chemical compound that is capable of dissolving another substance and may itself be a *hazardous substance*, used in a number of manufacturing/industrial processes including but not limited to the manufacture of paints and coatings for industrial and household purposes, equipment clean-up, and surface degreasing in metal fabricating industries.

Sump – a pit, cistern, cesspool, or similar receptacle where liquids drain, collect, or are stored.

TSD facility – treatment, storage, or disposal facility (see RCRA TSD facilities).

Underground storage tanks (UST) – any tank, including underground piping connected to the tank, that is or has been used to contain *hazardous substances* or *petroleum products* and the volume of which is 10% or more beneath the surface of the ground.

Wastewater – water that (1) is or has been used in an industrial or manufacturing process, (2) conveys or has conveyed sewage, or (3) is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. Wastewater does not include water originating on or passing through or adjacent to a site, such as storm water flows, that has not been used in industrial or manufacturing processes, has not been combined with sewage, or is not directly related to manufacturing, processing, or raw materials storage areas at an industrial plant.

14.1 ADDITIONAL DEFINITIONS – SPECIFIC TO ESA

Business environmental risk – a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice. Consideration of *business environmental risk* issues may involve addressing one or more non-scope considerations, some of which are identified in Section 13.

Due diligence – the process of inquiring into the environmental characteristics of a parcel of *commercial real estate* or other conditions, usually in connection with a commercial real estate transaction. The degree and kind of due diligence vary for different properties and differing purposes.

Environmental compliance audit – the investigative process to determine if the operations of an existing facility are in compliance with applicable environmental laws and regulations. This term should not be used to describe Practice E 1528 or 1527, although an environmental compliance audit may include an *environmental site assessment* or, if prior audits are available, may be part of an environmental site assessment.

Environmental professional – (1) a person who possesses sufficient specific education, training and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases (see §312.1(c)), on, at, in, or to a property, sufficient to meet the objectives and performance factors in §312.20(e) and (f). (2) Such a person must: (i) hold a current Professional Engineer's or Professional Geologist's license or registration from a state, tribe, or US territory (or the Commonwealth of Puerto Rico) and have the equivalent of three (3) years of fulltime relevant experience; or (ii) be licensed or certified by the federal government, a state, tribe, or US territory (or the Commonwealth of Puerto Rico) to perform environmental inquiries as defined in §312.21 and have the equivalent of three (3) years of full-time relevant experience; or (iii) have a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering or science and the

equivalent of five (5) years of full-time relevant experience; or (iv) have the equivalent of ten (10) years of full-time relevant experience. The person may be an independent contractor or an employee of the *user*.

Environmental site assessment (ESA) – the process by which a person or entity seeks to determine if a particular parcel of real *property* (including improvements) is subject to *recognized environmental conditions*. At the option of the user, an environmental site assessment may include more inquiry than that which constitutes *all appropriate inquiry* or, if the user is not concerned about qualifying for the LLPs, less inquiry than that constituting *all appropriate inquiry*. An environmental site assessment is different from an *environmental compliance audit*.

Historical recognized environmental condition – environmental condition which in the past would have been considered a *recognized environmental condition*, but which may or may not be considered a *recognized environmental condition* currently. The final decision rests with the *environmental professional* and will be influenced by the current impact of the *historical recognized environmental condition* on the property. If a past release of any hazardous substances or petroleum products has occurred in connection with the property and has been remediated, with such remediation accepted by the responsible regulatory agency (for example, as evidenced by the issuance of a no further action letter or equivalent), this condition shall be considered an *historical recognized environmental condition* and included in the findings section of the Phase I *Environmental Site Assessment* report. The *environmental professional* shall provide an opinion of the current impact on the property of this *historical recognized environmental condition* in the opinion section of the report. If this *historical recognized environmental condition* is determined to be a *recognized environmental condition* at the time the Phase I *Environmental Site Assessment* is conducted, the condition shall be identified as such and listed in the conclusions section of the report.

Innocent landowner defense – (42 USC § 9601(35) and § 9607(b) (3)). A person may qualify as one of three types of innocent landowners: (i) a person who “did not know and had no reason to know” that contamination existed on the property at the time the purchaser acquired the property; (ii) a government entity which acquired the property by escheat, or through any other involuntary transfer or acquisition, or through the exercise of eminent domain authority by purchase or condemnation; and (iii) a person who “acquired the facility by inheritance or bequest.” To qualify for the first type of innocent landowner LLP, such person must have made all appropriate inquiry on or before the date of purchase. Furthermore, the all appropriate inquiry must not have resulted in knowledge of the contamination. If it does, then such person did “know” or “had reason to know” of contamination and would not be eligible for the innocent landowner defense. See ASTM E1527-05 Appendix X1.

Key site manager – the person identified by the *owner* or *operator* of a *property* as having good knowledge of the uses and physical characteristics of the property.

Landowner Liability Protections (LLPs) – landowner liability protections under CERCLA; these protections include the bona fide prospective purchaser liability protection, contiguous property owner liability protection, and innocent landowner defense from CERCLA liability, See 42 USC § §9601(35)(A), 9601(40), 9607(b), 9607(q), 9607 (r).

Material threat – a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the *environmental professional*, is threatening and might result in impact to public health of the environment. An example might include an aboveground storage tank that contains a hazardous substance and which shows evidence of damage. The damage would represent a material threat if it is deemed serious enough that it may cause or contribute to tank integrity failure with a release of contents to the environment.

Obvious – that which is plain or evident; a condition or fact that could not be ignored or overlooked by a reasonable observer while visually or physically observing the *property*.

Other historical sources – any source or sources other than those designated in 7.3.4.1 through 7.3.4.8 that are credible to a reasonable person and that identify past uses of the property. The term includes, but is not limited to: miscellaneous maps, newspaper archives, internet sites, community organizations, local libraries, historical societies, current owners or occupants of neighboring properties, and records in the files and/or personal knowledge of the *property owner* and/or *occupants*. See ASTM E1527-05 Sections 3.2.58 and 8.3.4.8.

Practically reviewable – information that is *practically reviewable* means that the information is provided by the source in a manner and in a form that, upon examination, yields information relevant to the *property* without the need for extraordinary analysis or irrelevant data. The form of the information shall be such that the user can review the records for a limited geographic area. Records that cannot be feasibly retrieved by reference to the location of the *property* or a geographic area in which the *property* is located are not generally *practically reviewable*. Most databases of public records are *practically reviewable* if they can be obtained from the source agency by the county, city, zip code, or other geographic area of the facilities listed in the record system. Records that are sorted, filed, organized, or maintained by the source agency only chronologically are not generally practically reviewable. Listings in publicly available records which do not have adequate address information to be located geographically are not generally considered practically reviewable. For large databases with numerous facility records (such as RCRA hazardous waste generators and registered underground storage tanks), the records are not *practically reviewable* unless they can be obtained from the source agency in the smaller geographic area of zip codes. Even when information is provided by zip code for some large databases, it is common for an unmanageable number of sites to be identified within a given zip code. In these cases, it is not necessary to review the impact of all of the sites that are likely to be listed in any given zip code because that information would not be *practically reviewable*. In other words, when so much data is generated that it cannot be feasibly reviewed for its impact on the *property*, it is not *practically reviewable*.

Publicly available – information that is publicly available means that the source of the information allows access to the information by anyone upon request.

Reasonably ascertainable – for purposes of both Practice E 1527 and 1528, information that is (1) *publicly available*, (2) obtainable from its source within reasonable time and cost constraints, and (3) *practically reviewable*.

Recognized environmental conditions – the presence or likely presence of any *hazardous substances* or *petroleum products* on a *property* under conditions that indicate an existing release, a past release, or a material threat of a release of any *hazardous substances* or *petroleum products* into structures on the *property* or into the ground, ground water, or surface water of the *property*. The term includes *hazardous substances* or *petroleum products* even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not *recognized environmental conditions*.

User – the party seeking to use Practices E 1527 or E 1528 to complete an *environmental site assessment* of the *property*. A user may include, without limitation, a potential purchaser of *property*, a potential tenant of *property*, an *owner* of *property*, a lender, or a property manager.

Visually and/or physically observed – during a *site visit* pursuant to this practice, this term generally means observations made by vision while walking through a *property* and the structures located on it and observations made by the sense of smell, particularly observations of noxious or foul odors. The term “walking through” is not meant to imply that disabled persons who cannot physically walk may not conduct a *site visit*; they may do so by the means at their disposal for moving through the *property* and the structures located in it.

14.2 ACRONYMS

AULs – Activity and Use Limitations

CERCLA-Comprehensive Environmental Response, Compensation and Liability Act of 1980 (as amended, 42 USC § 9601 *et seq.*)

CERCLIS-Comprehensive Environmental Response, Compensation and Liability Information System (maintained by USEPA)

CFR-Code of Federal Regulations

CORRACTS-Facilities subject to Corrective Action under RCRA

ECs – Engineering Controls

USEPA-United States Environmental Protection Agency

EPCRA-Emergency Planning and Community Right to Know Act ((also known as SARA Title III), 42 USC § 11001 *et seq.*)

ERNS-Emergency Response Notification System

ESA-Environmental Site Assessment (different than an *environmental audit*; see 3.3.13)

FOIA-U.S. Freedom of Information Act (5 USC 552 *et seq.*)

FR-Federal Register

ICs – Institutional Controls

LLPs – Landowner Liability Protections under the Brownfields Amendments

LUST-Leaking Underground Storage Tank

MSDS-Material Safety Data Sheet

NCP-National Contingency Plan

NFRAP-Former CERCLIS sites where no further remedial action is planned under CERCLA

NPDES-National Pollutant Discharge Elimination System

NPL-National Priorities List

PCBs-Polychlorinated Biphenyls

PRP-Potentially Responsible Party (pursuant to CERCLA 42 USC § 9607(a))

RCRA-Resource Conservation and Recovery Act (as amended, 42 USC § 6901 *et seq.*)

SARA-Superfund Amendments and Reauthorization Act of 1986 (amendment to CERCLA)