NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau B
625 Broadway, 12th Floor, Albany, NY 12233-7016
P: (518) 402-9768 I F: (518) 402-9773
www.dec.ny.gov

March 27, 2015

Michael Pintchik
478 Bergen Street
Brooklyn, NY 11217

Re: Cinderella 248 LLC
Site ID No. C224160
Brooklyn, Kings County
Remedial Work Plan & Decision Document

Dear Mr. Pintchik:

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (NYSDOH) have reviewed the Remedial Work Plan (RWP) for the Cinderella 248 LLC site dated October 2014 and prepared by FPM Group on your behalf. The RWP is hereby approved. Please ensure that a copy of the approved RWP is placed in the document repositories. The draft plan should be removed.

Attached is a copy of the Department's Decision Document for the site. The remedy is to be implemented in accordance with this Decision Document. Please ensure that a copy of the Decision Document is placed in the document repositories.

Please contact the Department's Project Manager, Alicia Barraza, at 518-402-9690 or alicia.barraza@dec.ny.gov at your earliest convenience to discuss the next steps. Please recall the Department requires notice of seven calendar days prior to the start of field work.

Sincerely,

Robert J. Cozzy
Director
Remedial Bureau B
Division of Environmental Remediation

Enclosure

ec *w/attachments*:

R. Schick
M. Ryan
M. Komoroske, DEC
A. Barraza, DEC
J. Nehila, DEC R2
J. O'Connell, DEC R2
Krista Anders, DOH
Justin Deming, DOH
Bridget Boyd, DOH
Stephanie Davis, FPM Group
James Rigano, Esq.

DECISION DOCUMENT

Cinderella 248 LLC
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224160
March 2015

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

Cinderella 248 LLC
Brownfield Cleanup Program
Brooklyn, Kings County
Site No. C224160
March 2015

Statement of Purpose and Basis

This document presents the remedy for the Cinderella 248 LLC site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Cinderella 248 LLC site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Remedial Design

   A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

   a. Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;

   b. Reducing direct and indirect greenhouse gases and other emissions;

   c. Increasing energy efficiency and minimizing use of non-renewable energy;

   d. Conserving and efficiently managing resources and materials;

   e. Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;

   f. Maximizing habitat value and creating habitat when possible;

   g. Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and

   h. Integrating the remedy with the end use where possible and encouraging green and sustainable redevelopment.

2. Vapor Mitigation

   Any current and future buildings located at 248 Flatbush Avenue, Brooklyn, NY, will be required to have a sub-slab depressurization system, or a similar engineered system, to prevent the migration of vapors into the building from groundwater and/or soil. This system will also be designed and constructed to address potential vapor intrusion in off-site buildings at 244, 250, 252 and 254 Flatbush Avenue, and 82 St Marks Avenue.

3. Institutional Controls (ICs)

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

   a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

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

   c. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and

   d. requires compliance with the Department approved Site Management Plan.

4. Site Management Plan (SMP)

   A Site Management Plan is required, which includes the following:

   a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

      i. Institutional Controls: The Environmental Easement will require periodic certification, restrict property and groundwater uses, and require compliance with a Site Management Plan.

      ii. Engineering Controls: The sub-slab depressurization system will require monitoring and maintenance.

   b. This IC/EC plan includes, but may not be limited to:

      i. descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;

      ii. provisions for the management and inspection of the identified engineering controls;

      iii. maintaining site access controls and Department notification; and

      iv. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

March 27, 2015

Date

Robert Cozzy, Director
Remedial Bureau B

DECISION DOCUMENT

Cinderella 248 LLC
Brooklyn, Kings County
Site No. C224160
March 2015

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

Brooklyn Public Library, Pacific Branch
25 Fourth Avenue at Pacific Street
Brooklyn, NY 11217
Phone: (718) 638-1531

Brooklyn Community Board #6
250 Baltic Street
Brooklyn, NY 11201
Phone: (718) 643-3027

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Site Location: The site is located at 248 Flatbush Avenue in Brooklyn, Kings County, and is Block 936 and Lot 12. It is bounded to the east by Flatbush Avenue, to the south by a commercial building, to the west by a small courtyard and residences, and to the north by a liquor store and restaurant.

Site Features: The site is a one-story building with a full basement that encompasses the entire property. It is approximately 2,300 square feet in area and is currently vacant. There is no parking associated with the site. The topography of the site is generally flat and the surrounding area slopes gradually to the northwest. The building is serviced by municipal water and sewer. The sewer connection is present in the southeast corner of the basement. The building was formerly heated via fuel oil-fired heating equipment located in the boiler room of the basement. The heating equipment and associated aboveground storage tank (AST) were disconnected and the heating equipment was removed. The closed AST remains in place.

Current Zoning/Use(s): The site is located in a R7A residential zone with a C2-4 commercial overlay. This zoning permits both residential and commercial uses. The site was most recently used for commercial purposes. Anticipated future use of the site will be commercial and residential, with a structure similar to the architecture of the neighboring buildings on St. Marks Avenue.

Historic Uses(s): The building was constructed between 1888 and 1906 and housed a dry cleaner and shoe repair facility for the last twenty years. Previous uses included a dry goods store, book store, closet/wardrobe business and a woodworker. In 2005, an investigation focused on a reported historic leak of cooling water from the first floor dry cleaning machine into the basement boiler room. Based on elevated field instrument readings, it was concluded that the subsurface soil beneath the boiler room was impacted by solvents. Contaminated soil was excavated, under direction of the owner, to a depth of 5 feet below the basement floor. Confirmation sampling resulted in trace levels of volatile organic compounds (VOCs) below the recommended levels in the Department’s technical and administrative guidance memorandum (TAGM) 4046 in use at that time. Also in 2005, deeper soil borings were installed in the basement to determine whether groundwater was impacted. (The full basement is approximately 8 to 10 feet in height.) These borings were installed from the basement floor to a depth of 10 feet and sampled continuously for VOCs. No VOCs were detected above the SCOs.

Site Geology and Hydrogeology: The topographic elevation of the site vicinity is approximately 70 feet above mean sea level. Soils underlying the site are classified as Urban Land and consist of brown silty fine sand and brown to medium sand with some cobbles and trace fine to medium and coarse gravel. The depth to groundwater beneath the site is approximately 60 feet below the basement floor and groundwater flow direction is generally to the northwest. No public water or other supply wells were identified within one-half mile of the site. The nearest body of water is the Gownaus Canal located approximately 0.67 miles west-northwest of the site.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to residential use (which allows for restricted-residential use, commercial use and industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Volunteer(s) does/do not have an obligation to address off-site contamination. The Department has determined that this site poses a significant threat to human health and the environment and there are off-site impacts that require remedial activities; accordingly, enforcement actions are necessary.

The Department has sought to identify any parties (other than the Volunteer) known or suspected to be responsible for contamination at or emanating from the site, referred to as Potentially Responsible Parties (PRPs). The Department has attempted to bring an enforcement action against the PRPs. If an enforcement action cannot be brought, or does not result in the initiation of a remedial program by any PRPs, the Department will evaluate the off-site contamination for action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the State incurs or has incurred.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and

- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- indoor air
- sub-slab vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

TETRACHLOROETHYLENE (PCE)

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater; and

- soil vapor intrusion

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination:

Based on investigations conducted to date, the primary contaminant of concern is tetrachloroethylene (PCE).

Groundwater -

In early 2014, three new monitoring wells were installed and sampled to further evaluate on-site groundwater conditions. PCE exceeded the NYS groundwater standard at each of the wells, ranging from 6.4 to 25 parts per billion (ppb). The maximum PCE detection was from a location in the basement directly below the former dry cleaning machine. Petroleum-related VOCs were noted at one well at concentrations slightly exceeding the NYS groundwater standards. Previous groundwater and soil data did not show any petroleum-related VOCs, indicating that these detections are not site related. No SVOCs, pesticides, PCBs or site-related metals exceeded the NYS groundwater standards.

Soil -

In late 2013, soil sampling was conducted to further evaluate soil conditions near the former dry cleaning machine and the sewer connection. Soil samples were collected from below the basement slab at depths of 5 to 10 feet, with the deeper borings concentrated in areas of potential contamination. (The basement floor is approximately 8 to 10 feet below ground surface.) All results for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, pesticides and polychlorinated biphenyls (PCBs) were below the Part 375 residential use SCOs.

One sample was collected from the limited material present within a concrete box that contained the sewer trap. All results for VOCs were below the NYS Part 375 unrestricted use SCOs.

Soil Vapor, Indoor Air and Sub-Slab Vapor -

In August 2011, an on-site vapor intrusion investigation included the collection of three sub-slab soil vapor samples, three indoor air samples and one ambient air sample. PCE was detected in the indoor air at concentrations ranging from 1.7 µg/m3 to 24.4 µg/m3, and in the sub-slab at concentrations ranging from 4,010 µg/m3 to 20,800 µg/m3. According to the NYSDOH Matrix 2 for PCE, mitigation to minimize vapor intrusion and subsequent human exposures is recommended.

In early 2014, an off-site soil vapor, sub-slab soil vapor, and indoor air investigation was conducted to further delineate off-site vapor impacts. At the adjacent court yard, the maximum concentration of PCE in soil vapor was 13 µg/m3. Indoor air and sub-slab soil sampling were performed in the basements of two off-site locations southeast and northwest of the site at 254 Flatbush Avenue and 76 St. Marks Avenue. An ambient air sample was also collected from a location outside of 254 Flatbush Avenue. At 254 Flatbush Avenue, PCE in the sub-slab was 3.2ug/m3 and 440 ug/m3; and indoor air was 3.6ug/m3 and 5.7 ug/m3. At 76 St. Marks Avenue, PCE in the sub-slab was ND and 8.4 ug/m3; and indoor air was 1.1 ug/m3. PCE at the ambient air location was 3.9 ug/m3. Further delineation of off-site vapor and groundwater impacts will be completed under the State Superfund Program.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

Direct contact with contaminants in soil is unlikely because the site is covered with buildings. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not contaminated by the site. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Indoor air impacts that may be the result of soil vapor intrusion have been identified in one on-site building and three off-site structures. Actions are needed to minimize soil vapor intrusion for these structures. Sampling indicates that soil vapor intrusion is a concern for off-site structures and additional investigation is necessary.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 2: Restricted use with generic soil cleanup objectives remedy.

The selected remedy is referred to as the Sub-Slab Depressurization System remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. Remedial Design

   A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

   a. Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
   b. Reducing direct and indirect greenhouse gases and other emissions;
   c. Increasing energy efficiency and minimizing use of non-renewable energy;
   d. Conserving and efficiently managing resources and materials;
   e. Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
   f. Maximizing habitat value and creating habitat when possible;
   g. Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
   h. Integrating the remedy with the end use where possible and encouraging green and sustainable redevelopment.

2. Vapor Mitigation

   Any current and future buildings located at 248 Flatbush Avenue, Brooklyn, NY, will be

required to have a sub-slab depressurization system, or a similar engineered system, to prevent the migration of vapors into the building from groundwater and/or soil. This system will also be designed and constructed to address potential vapor intrusion in off-site buildings at 244, 250, 252 and 254 Flatbush Avenue, and 82 St Marks Avenue.

3. Institutional Controls (ICs)

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

   a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

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

   c. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and

   d. requires compliance with the Department approved Site Management Plan.

4. Site Management Plan (SMP)

   A Site Management Plan is required, which includes the following:

   a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

      i. Institutional Controls: The Environmental Easement will require periodic certification, restrict property and groundwater uses, and require compliance with a Site Management Plan.

      ii. Engineering Controls: The sub-slab depressurization system will require monitoring and maintenance.

   b. This IC/EC plan includes, but may not be limited to:

      i. descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;

      ii. provisions for the management and inspection of the identified engineering controls;

      iii. maintaining site access controls and Department notification; and

      iv. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

FIGURE 1 – SITE LOCATION

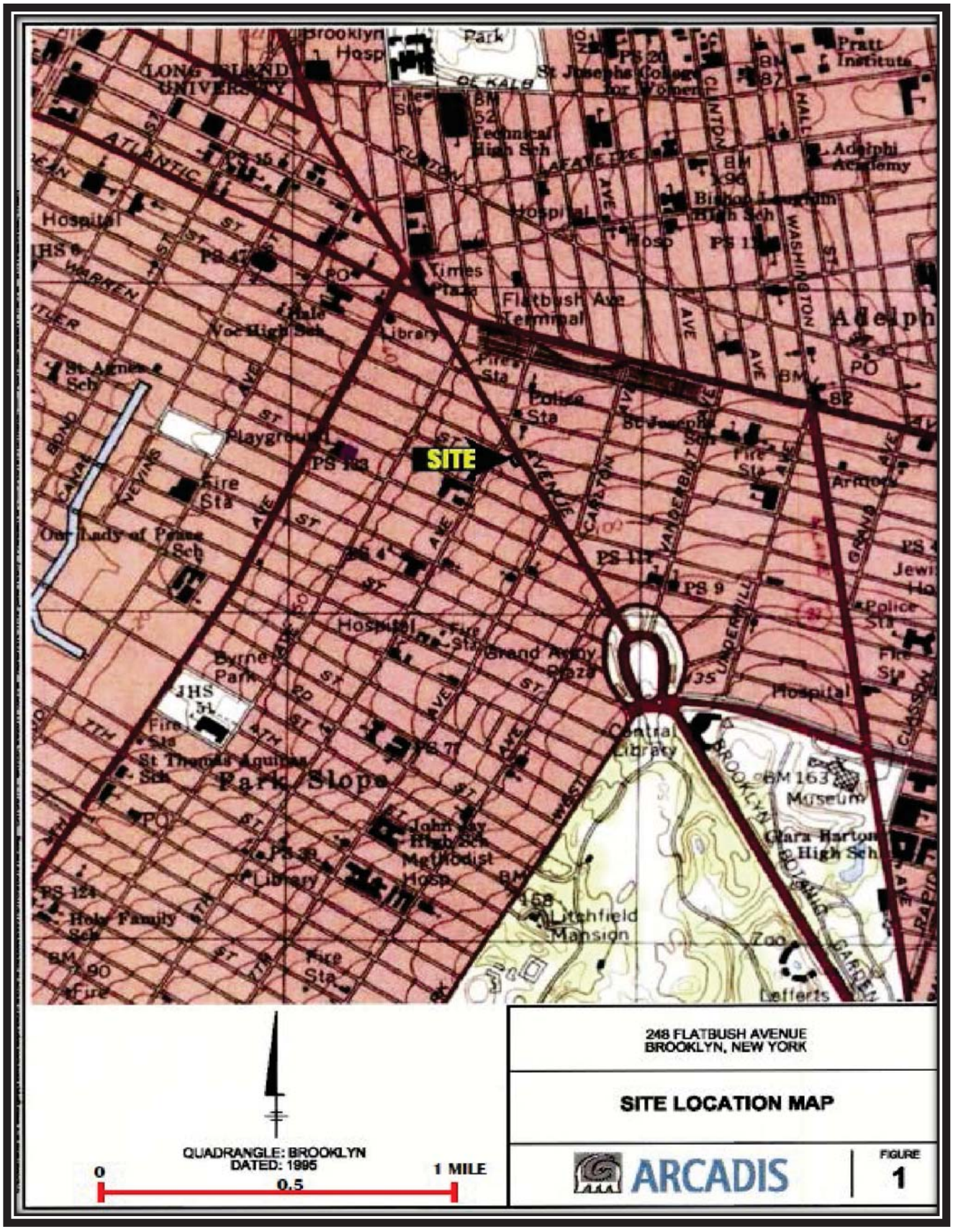

FIGURE 1A – SITE AND VICINITY

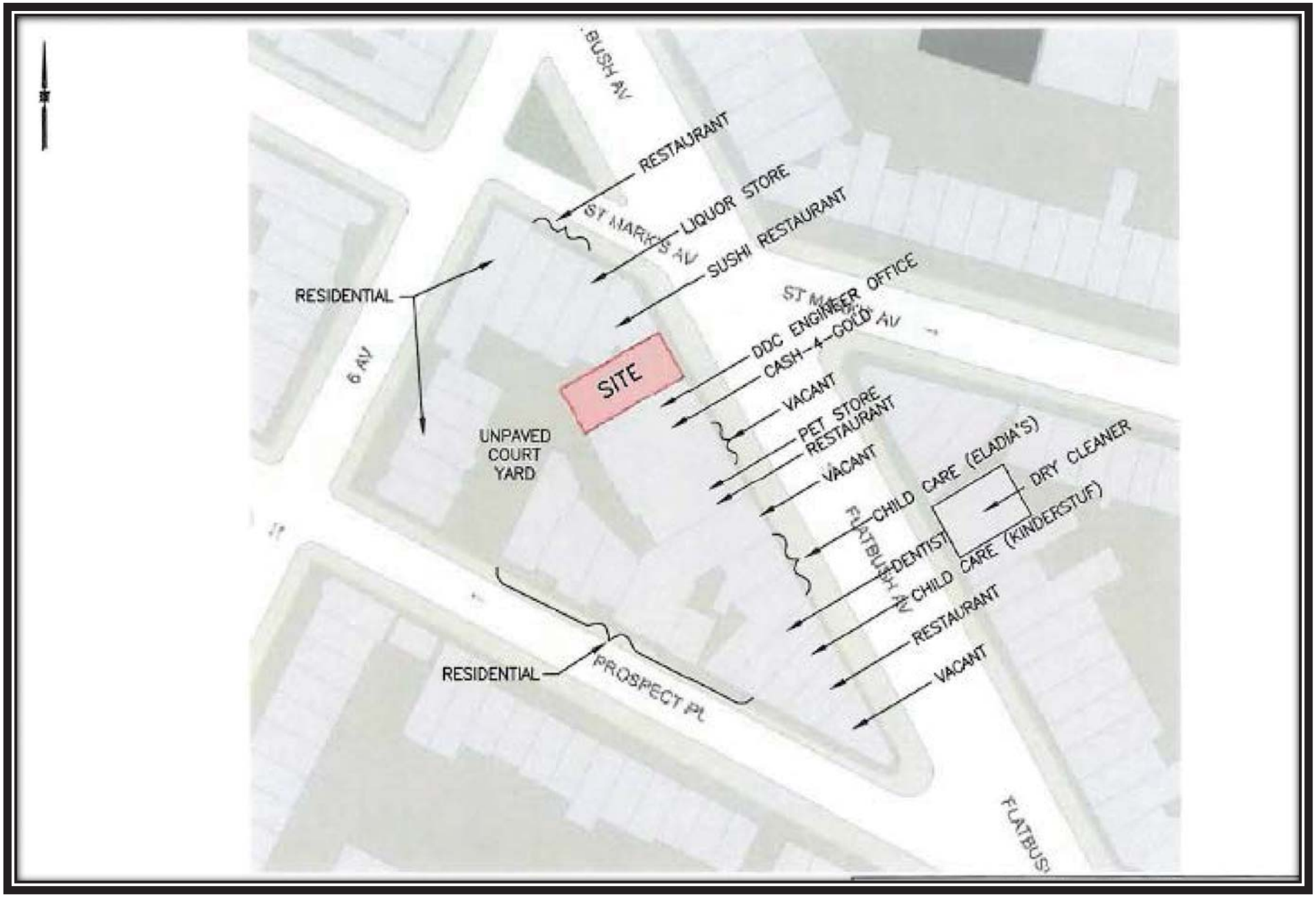

FIGURE 2 – PROPOSED REMEDY - SSDS LAYOUT