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**EXPLANATION OF SIGNIFICANT  
DIFFERENCE**  
**EBENEZER PLAZA 1 SITE**  
**PUBLIC COMMENT PERIOD ANNOUNCED**

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**Brooklyn / Kings County / Site No. C224240 / July, 2018**

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

**This Explanation of Significant Difference provides a thirty (30) day comment period to the public. If you have questions or need additional information you may contact any of the following:**

**Project-Related Questions**

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**How to Comment:** NYSDEC is accepting written comments this document for 30 days, from **July 4 through August 3, 2018**. The document is also available for public review at the location(s) identified at the bottom of section 1.0. Please submit comments to the NYSDEC project manager listed above.

## **1.0 INTRODUCTION**

This notice describes the progress of the cleanup at the Ebenezer Plaza 1 Site ("Site) and the changes in the site remedy. Ebenezer Plaza 1 is a site within New York's Brownfield Cleanup Program (BCP). The BCP encourages the voluntary cleanup of contaminated properties known as "brownfields" so that they can be reused and redeveloped. These uses may include recreation, housing, business or other uses. A brownfield site is any real property where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance adopted by DEC that are applicable based on the reasonably anticipated use of the property, in accordance with applicable regulations.

For more information about the BCP, visit:

<http://www.dec.ny.gov/chemical/8450.html>

The site is located at 94 New Lots Avenue, in an urban area in Brownsville, Brooklyn. The property is

bounded by New Lots Avenue to the north, Sackman Street to the west, Powell Street to the east, and Hegeman Avenue to the south. On March 9, 2018, the New York State Department of Environmental Conservation (NYSDEC) issued a decision document which selected a remedy to clean up the site. Upon the request of the remedial party, the Department has considered a revised remedial action plan. In lieu of excavating a total of 18,000 cubic yards of contaminated soil, 13,500 cubic yards of contaminated soil will be excavated and contaminated soils as depths exceeding 6.5 feet will be addressed through the installation of seventy-one (71) infusion wells for in situ (“in-place”) chemical oxidation (ISCO). Like the original remedy, the revised remedy will aim to achieve a Track 2 Restricted Residential cleanup.

This Explanation of Significant Difference (ESD) will become part of the Administrative Record for this Site. The information here is a summary of what can be found in greater detail in documents that have been placed in the following repositories:

**Brooklyn Public Library**  
East Flatbush Branch  
9612 Church Avenue  
Brooklyn, NY 11212  
(718) 922-0927

**Brooklyn Community  
Board #16**  
444 Thomas S. Boyland  
Street – Room 103  
Brooklyn, NY 11212  
(718) 385-0323

**Brooklyn Public Library**  
Spring Creek Branch  
12143 Flatlands Avenue  
Brooklyn, NY 11207  
(718) 257-6571

## **2.0 SITE DESCRIPTION AND ORIGINAL REMEDY**

### **2.1 Site History, Contamination, and Selected Remedy**

The site is 1.26-acres and is bordered by New Lots Avenue to the north, Sackman Street to the west, Powell Street to the east, and Hegeman Avenue to the south. Please see Figure 1, Site Location Map. The site is currently vacant. The property appears to have been developed since 1928 with various uses including residential building, auto garage, drycleaner, gasoline filling station, auto repair, a car wash, warehouse, parking, used auto sales, public center, church, newspaper distribution, restaurant supply, and auto wrecking lot in two areas. Such historic uses led to contamination on-site.

Beginning in 2009, investigation of the site began under NYSDEC's Spills program which indicated soil and groundwater contamination by volatile organic compounds (VOCs). This resulted in the treatment of a portion of the site via in-situ chemical oxidation (ISCO) over a series of four applications, the most recent in 2016. Soil and groundwater were analyzed for VOCs, semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Based upon investigations conducted to date, the primary contaminants of concern include lead, barium, tetrachloroethene (or “PCE”), benzo(a)anthracene, and 1,2,4-trimethylbenzene.

Four monitoring wells were sampled in the most recent round of groundwater sampling in May 2017. PCE was the only chlorinated solvent detected above groundwater standards, with one well impacted at a concentration of 17 parts per billion (ppb), slightly exceeding the groundwater standard for of 5 ppb. Several petroleum related VOCs were also detected above groundwater standards in one well, most notably 1,2,4-trimethylbenzene, exceeding the groundwater standard of 5 ppb with a concentration of 450 ppb. Data does not indicate any off-site impacts in groundwater related to this site.

The original remedy called for the excavation and off-site disposal of approximately 28,000 cubic yards of soil to be removed from the site. Of those 28,000 cubic yards, approximately 18,000 cubic yards were to be removed for remedial purposes and the additional 10,000 cubic yards was to be removed due to

redevelopment requirements. The original remedy also called for a cover system, a sub slab depressurization system (SSDS) in any new buildings, and institutional and engineering controls. The remedy would have resulted in a Track 4 cleanup, however if the excavation achieved a Track 2 restricted residential cleanup, a cover system would not have been a required element of the remedy.

Additional site details, including environmental and health assessment summaries, are available on NYSDEC's Environmental Site Remediation Database (by entering the Site ID, CC224240) at:

<http://www.dec.ny.gov/cfm/external/derexternal/index.cfm?pageid=3>

### **3.0 CURRENT STATUS**

The applicant is a participant in the Brownfield Cleanup Program. To date, all buildings on-site have been demolished and the remedial party is prepared to implement the remedial action. The remedial investigation was completed in May 2018. No remedial action has been performed on-site to date.

### **4.0 DESCRIPTION OF SIGNIFICANT DIFFERENCE**

#### **4.1 New Information**

Based upon the demonstrated effectiveness of the ISCO treatments conducted on-site from 2013 to 2015, the remedial party has proposed, and the Department has agreed to examine the effectiveness of ISCO to treat deeper soils and groundwater in lieu of deeper soil excavation. All soils within the first 6.5 feet below grade will be removed, in addition to remaining urban fill and soils excavated for development. Remaining soils and groundwater will receive a minimum of two rounds of ISCO injections and groundwater concentrations will be monitored. The proposed revised remedy consists of:

- All surface soils to a depth of 6.5 feet below grade surface, which exceed Restricted Residential Soil Cleanup Objectives (RRSCOs), will be excavated and transported off-site for disposal. It is estimated that the entire site will be excavated of urban fill to an approximate depth of 6.5 feet, in addition to a chlorinated VOCs hot spot, totaling approximately 13,500 cubic yards of contaminated soil. Please refer to Figure 2. The soil removal will provide for protection of public health and the environment.
- Chemical oxidation will be utilized to treat contaminants in groundwater and soils below 6.5 feet. Ferrous Sulfate Heptahydrate will be used to oxidize the contaminants. 71 infusion wells will be installed in a tight grid and gravity fed with the oxidizing agent. Please see Figure 3. The revised remedy calls for two rounds of ISCO infusion.
- A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable Soil Cleanup Objectives (SCOs). Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building

foundations and building slabs. If a Track 2 restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy.

- Any on-site buildings will be required to have an SSDS, or other acceptable measures, to mitigate the migration of vapors into the building from remaining soil and groundwater contamination.
- Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 4 restricted residential cleanup at a minimum and will include an environmental easement, and site management plan as described below.
- Imposition of an institutional control in the form of an environmental easement for the controlled property which will:
  - require 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);
  - allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
  - restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH) or New York City Department of Health (NYCDOH); and
  - require compliance with the Department approved Site Management Plan.
- A Site Management Plan is required, which includes the following:
  - 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:
    - Institutional Controls: The Environmental Easement discussed in paragraph 6, above.
    - Engineering Controls: The cover system discussed in paragraph 4 and the SSDS discussed in paragraph 5.
  - a. This plan includes, but may not be limited to:
    - an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
    - descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
    - maintaining site access controls and Department notification; and
    - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
  - b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
    - monitoring of groundwater to assess the performance and effectiveness of the remedy;
    - a schedule of monitoring and frequency of submittals to the Department; and

- c. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
  - o procedures for operating and maintaining the remedy; and
  - o compliance inspection of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

## 4.2 Comparison of Changes with Original Remedy

The original remedy includes the removal of 18,000 cubic yards of contaminated soil across the site; the revised remedy calls for the removal of 13,500 cubic yards of contaminated soils from the site. The revised remedy will remove urban fill to a depth of 6.5 feet below grade across the entire site in addition to further pockets of VOC-contaminated soils. Please see the revised remedy excavation depths in Figure 2. The original remedy included excavation at deeper intervals, while the revised remedy addresses contaminated soils and groundwater at the same depths through the installation of 71 infusion wells for in-situ chemical oxidation (ISCO). Details of the ISCO treatment are outlined in section 4.1.

Both the original and revised remedy require engineering controls as part of the environmental cleanup. The original remedy calls for a site cover; the revised remedy also requires a site cover. An SSDS is a component of both the original remedy and the revised remedy.

Institutional controls in the original remedy will also be included in the revised remedy. Those institutional controls include limitations on land use, restrictions of groundwater use, prohibitions of agricultural uses, an environmental easement and a site management plan. Specifications of the site management plan are outlined in section 4.1. Both the original remedy and the revised remedy require the completion of periodic certifications of the institutional controls.

## 5.0 SCHEDULE AND MORE INFORMATION

This Explanation of Significant Difference provides a thirty (30) day comment period to the public. If you have questions or need additional information you may contact any of the following:

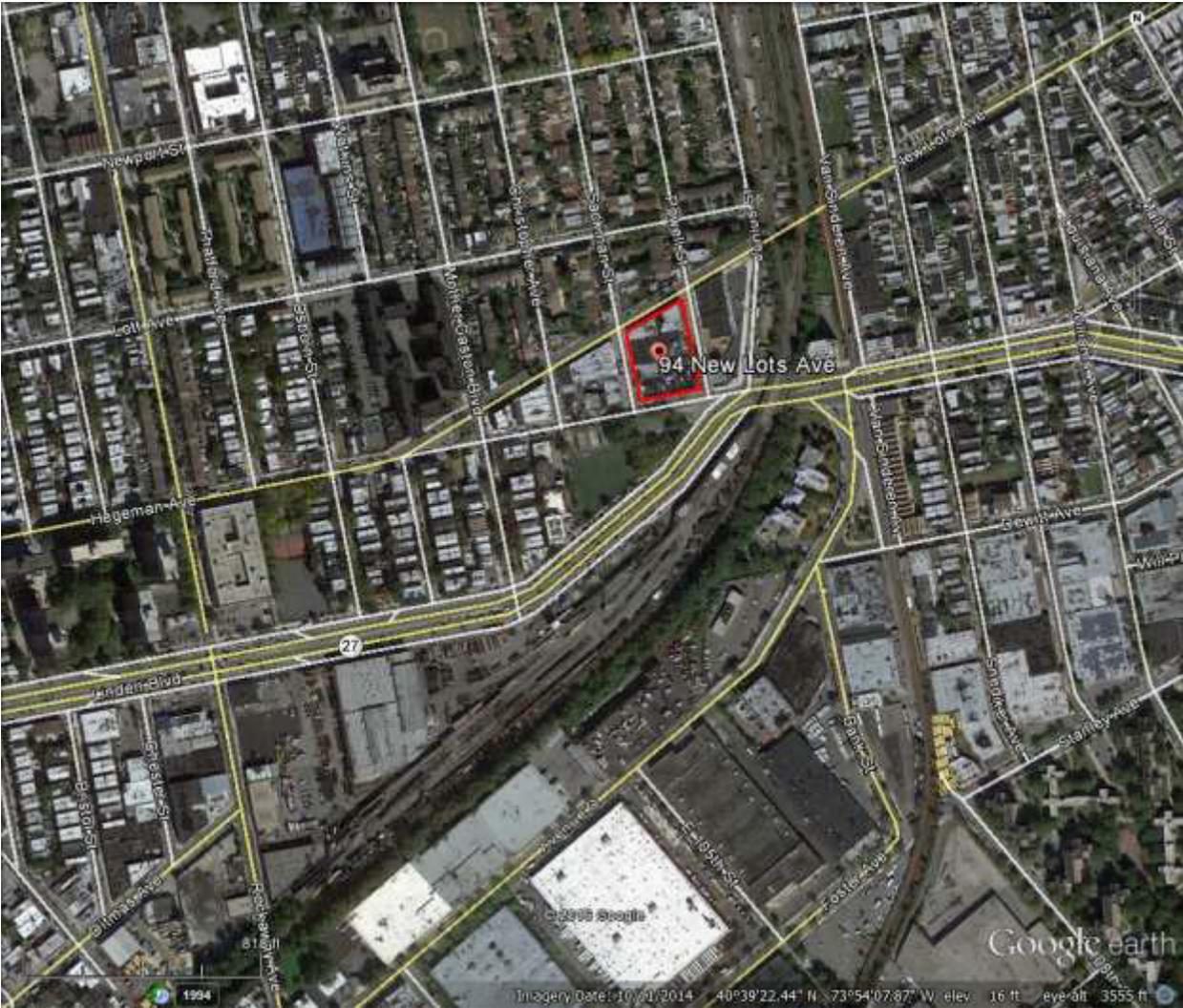
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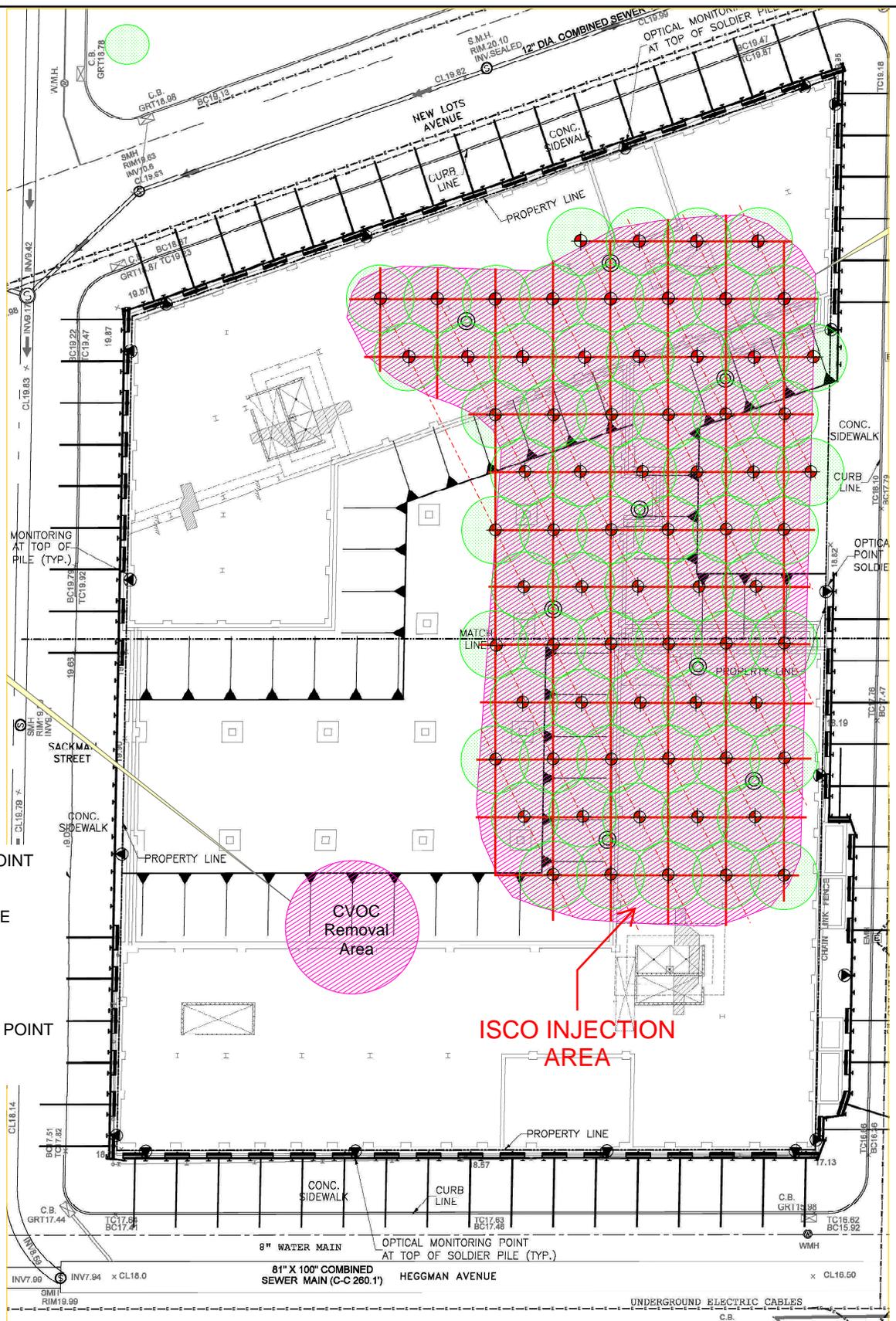
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# BROWNFIELD CLEANUP PROGRAM

Figure 1: Site Location Map







-  INJECTION POINT
-  APPROXIMATE RADIUS OF INFLUENCE
-  INTERSTIAL MONITORING POINT

# EBENZER PLAZA 1 - BCP Site C224240

Figure 3  
ISCO Infusion grid