

DECISION DOCUMENT

1840 Park Avenue Site
Brownfield Cleanup Program
Manhattan, New York County
Site No. C231140
February 2021



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

DECLARATION STATEMENT - DECISION DOCUMENT

1840 Park Avenue Site
Brownfield Cleanup Program
Manhattan, New York County
Site No. C231140
February 2021

Statement of Purpose and Basis

This document presents the remedy for the 1840 Park Avenue 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 1840 Park Avenue 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;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve

energy efficiency as an element of construction.

2. Excavation

Excavation and off-site disposal of all on-site soils which exceed unrestricted SCOs, as defined by 6 NYCRR Part 375-6.8 and any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination. If a Track 1 cleanup is achieved, a Cover System will not be a required element of the remedy.

Approximately 4,203 cubic yards of contaminated soil will be removed from the site.

3. Backfill

On-site soil which does not exceed the above excavation criteria may be used to backfill the excavation and establish the designed grades at the site.

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil and establish the designed grades at the site.

4. Vapor Intrusion Evaluation

As part of the Track 1 remedy, a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

5. Local Institutional Controls

If no EE or SMP is needed to achieve soil, groundwater, or soil vapor remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Article 141 of the NYCDOHMH code, which prohibits potable use of groundwater without prior approval.

Conditional Track 1

The intent of the remedy is to achieve Track 1 unrestricted use; therefore, no environmental easement or site management plan is anticipated. If the soil vapor intrusion (SVI) evaluation is not completed prior to completion of the Final Engineering Report, then a Site Management Plan (SMP) and Environmental Easement (EE) will be required to address the SVI evaluation and implement actions as needed; if a mitigation or monitoring action is needed, a Track 1 cleanup can only be achieved if the mitigation system or other required action is no longer needed within 5 years of the date of the Certificate of Completion.

In the event that Track 1 unrestricted use is not achieved, including achievement of groundwater and soil vapor remedial objectives, the following contingent remedial elements will be required, and the remedy will achieve a Track 4 restricted residential cleanup, at a minimum.

6. Cover System

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.

7. Institutional Controls

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 NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

8. Site Management Plan

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:
 - Institutional Controls: The Environmental Easement discussed in paragraph 6 above.
 - Engineering Controls: The cover system described in paragraph 5 above.

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;
 - a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - provisions for the management and inspection of the identified engineering controls;
 - 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. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
 - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

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.

February 12, 2021



Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

1840 Park Avenue Site
Manhattan, New York County
Site No. C231140
February 2021

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:

DECInfo Locator - Web Application
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C231140>

New York Public Library-125th Street Branch
224 E 125th St
New York, NY 10035
Phone: (212) 534-5050

Manhattan Community Board 11
1664 Park Avenue, Ground Floor

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 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

Location:

The site is located at 1840-185 Park Avenue in the East Harlem neighborhood of Manhattan, NY. The site is comprised of a portion of a single tax parcel (Block 1751, Lot No. 33) totaling 9,458 square feet (0.22 acres). The site is bordered by East 127th Street to the north, followed by the Promise Academy Charter School; the remaining portion of Lot 33 (which is not part of the BCP site) and East 126th Street to the south; Park Avenue and elevated Metro-North railroad tracks to the east, followed by the Association to Benefit Children; and residential apartment buildings to the west. There are three schools located within one-quarter mile of the site.

Site Features:

The site is currently developed with a vacant asphalt-paved parking lot. No buildings or other structures are present, although chain-link and/or corrugated metal fencing are present along the northern, southern and eastern property boundaries. The previous buildings on site were demolished by 2008, and the site has served as a paved parking lot since.

Current Zoning and Land Use:

The site is currently zoned as a paired M1-6 / R9 (manufacturing/residential) special purpose district. The area immediately surrounding the site is a densely developed urban area, consisting primarily of residential and mixed-use (commercial/retail and residential) properties.

Past Use of the Site:

The site was previously comprised of ten small tax parcels (former lot numbers 33, 34, 35, 36, 37, 38, 39, 40, 132, and 137) as early as 1896. Each of the former tax parcels was developed with a single 4-story building occupying most of the parcel footprint, with a small rear yard area. The use of the buildings was not identified in 1896, although each was noted to be mixed-use (retail/residential) by 1911, including a laundry facility. By 1939, a small 1-story auto repair shop was present at the northwestern corner of the site. The auto repair facility was demolished by 1951.

The two southernmost parcels were undeveloped by 1968. Between 1979 and 1986, the buildings on three of the former lots were demolished. Between 1991 and 1992, the northwestern corner was developed with a small 1-story auto repair shop. The remaining commercial/retail and residential buildings were demolished between 1996 and 2001, and the auto repair shop was demolished circa 2008. Central portions of the site appear to have been utilized as an equipment storage yard through the mid-2010s, when the site was converted to the existing parking lot facility.

Site Geology and Hydrogeology:

Subsurface soils at the site consists of dark brown silty sand, mixed with fill material (brick and wood fragments) from the surface to approximately 5 and 8 feet below grade, underlain by brown fine to medium-grained sand with mixtures of silt and coarse sand to a depth of at least 20 feet below grade. Groundwater at the site is present at a depth of 15 to 16 feet below grade. Groundwater flow is generally to the east towards Park Avenue. The site is not located within a designated flood zone area.

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 restricted-residential use (which allows for 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 under the Brownfield Cleanup Agreement is a Participant. The Applicant has an obligation to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary.

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

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:

xylene (mixed)	barium
benzo(a)anthracene	cadmium
benzo(a)pyrene	lead
benzo(b)fluoranthene	mercury
benzo(k)fluoranthene	tetrachloroethene (PCE)
chrysene	acetone
dibenz[a,h]anthracene	ethylbenzene
indeno(1,2,3-CD)pyrene	toluene

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

- groundwater
- soil

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.

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), pesticides, and emerging contaminants (ECs). Soil vapor was sampled for VOCs. Based upon investigations conducted to date, the primary contaminants of concern include tetrachloroethene (PCE), xylene, SVOCs and metals.

Soil - Several VOCs were detected near a suspected underground storage tank (UST) in the northeastern portion of the site above unrestricted use soil cleanup objectives (UUSCOs). VOCs detected included acetone at a maximum concentration of 0.72 parts per million (ppm) compared to the UUSCO of 0.05 ppm, ethylbenzene (max. 32 ppm compared to UUSCO of 1 ppm), xylenes at 254 ppm (compared to the UUSCOs for mixed xylene of 0.26 ppm), and toluene (5.9 ppm compared to UUSCO of 0.7 ppm). Several SVOCs were detected throughout the site, with the highest concentrations near the suspected UST. SVOCs include benzo(a)anthracene (max. 66 ppm compared to UUSCO of 1 ppm), benzo(a)pyrene (max 44 ppm compared to UUSCO of 1 ppm), benzo(b)fluoranthene (max 45 ppm), benzo(k)fluoranthene (max 39 ppm compared to UUSCO of 1 ppm), chrysene (max 58 ppm compared to UUSCO of 1 ppm), dibenz(a,h)anthracene (6.3 ppm compared to UUSCO of 0.33 ppm), and indeno(1,2,3-cd)pyrene (21 ppm compared to UUSCO of 0.5 ppm). Several metals were detected throughout the site, including barium (max 995 ppm compared to UUSCO of 350 ppm), cadmium (max 4.05 ppm compared to UUSCO of 2.5 ppm), lead (max 2,420 ppm compared to UUSCO of 63 ppm), and mercury (max 1.58 ppm compared to UUSCO of 0.18 ppm). No PCBs or pesticides were detected at concentrations exceeding their UUSCOs. Data does not indicate any off-site impacts in soil related to this site.

Groundwater - Tetrachloroethene (PCE) was found at a maximum concentration of 7.4 parts per billion (ppb) and was detected in all four wells above its Ambient Ground Water Quality Standard (AGWQS) of 5 ppb. One pesticide, dieldrin (max 0.016 ppb), was detected in 3 of 4 wells above

its AGWQS of 0.004 ppb. Perfluorooctanoic Acid (PFOA) (max 63.3 ppt) and Perfluorooctanesulfonic acid (PFOS) (max 129 ppt) were detected above the maximum contaminant level of 10 parts per trillion (ppt). PFOA and PFOS were found in similar concentrations in the background wells. Data does not indicate any off-site impacts in groundwater related to this site.

Soil Vapor - PCE was detected in soil vapor at a maximum concentration of 1.61 micrograms per cubic meter (ug/m³), acetone was detected at 729 ug/m³, and 1,1,1-trichloroethane was detected at 57.3 ug/m³. The petroleum related compounds including ethylbenzene (max 1.15 ug/m³), xylenes (5.52 ug/m³), toluene (3.54 ug/m³) were also detected. Data does not indicate any off-site impacts in soil vapor related to this site.

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*.

Since the site is fenced and covered by asphalt or concrete, people will not come into contact with site-related soil and groundwater contamination unless they dig below the surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in soil vapor (air spaces within the soil) may move into 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. Because there is no on-site building, inhalation of site contaminants in indoor air due to soil vapor intrusion does not represent a concern for the site in its current condition. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future onsite development. In addition, environmental sampling indicates soil vapor intrusion is not a concern for offsite buildings.

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

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

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 1: Unrestricted use remedy.

The selected remedy is referred to as the Soil Excavation 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;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
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- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.
- Additionally, to incorporate green remediation principles and techniques to the extent

feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

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As part of the Track 1 remedy, a soil vapor intrusion evaluation will be completed. The evaluation will include a provision for implementing actions recommended to address exposures related to soil vapor intrusion.

5. Local Institutional Controls

If no EE or SMP is needed to achieve soil, groundwater, or soil vapor remedial action objectives, then the following local use restriction will be relied upon to prevent ingestion of groundwater: Article 141 of the NYCDOHMH code, which prohibits potable use of groundwater without prior approval.

Conditional Track 1

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6. Cover System

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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.

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- 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 NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

8. Site Management Plan

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

- c. 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 described in paragraph 5 above.

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;
 - a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - provisions for the management and inspection of the identified engineering controls;
 - maintaining site access controls and Department notification; and
 - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- d. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

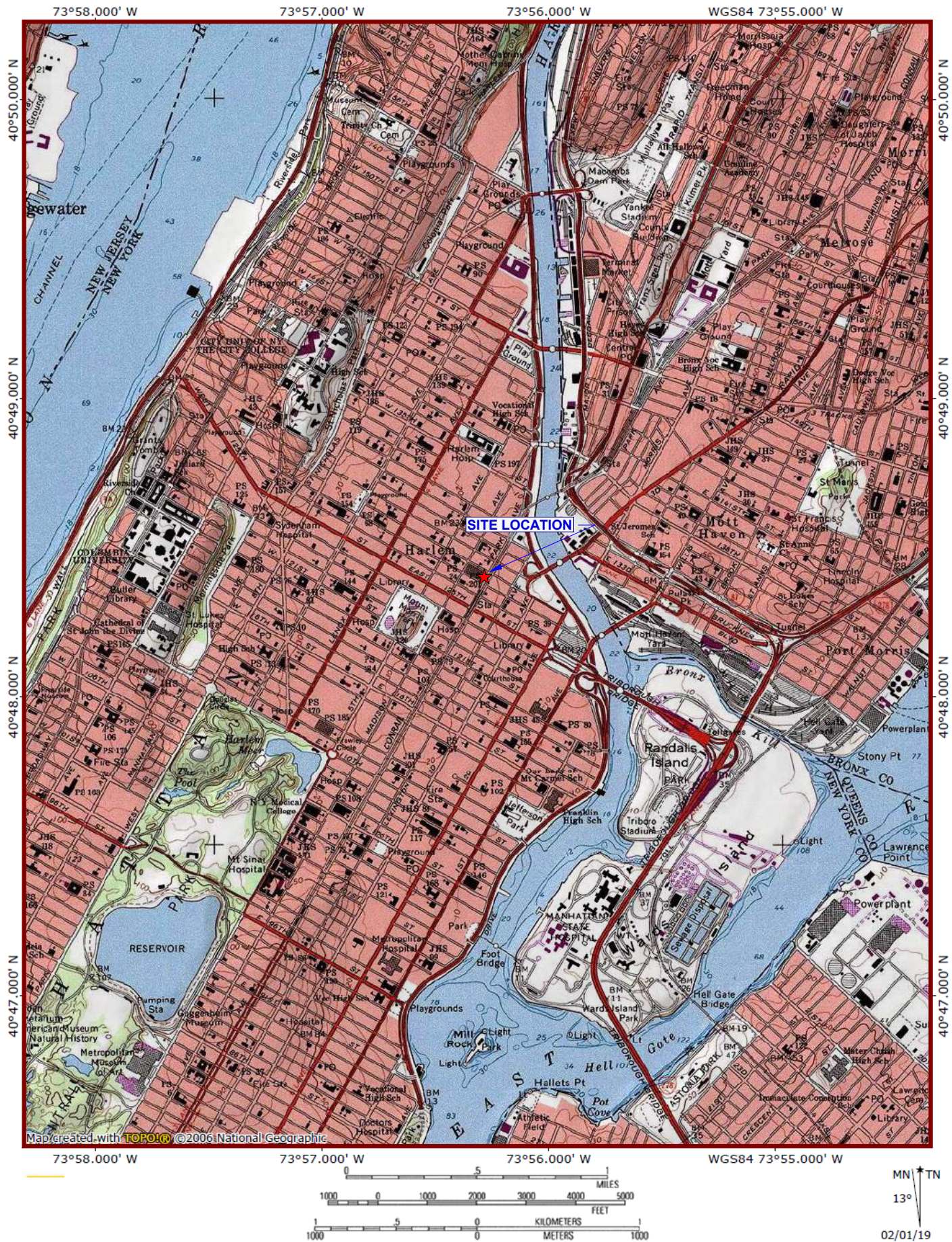


Figure No.
1

Site Name:	1840 Park Avenue Site
Site Address:	1840-1856 PARK AVENUE, MANHATTAN, NY
Drawing Title:	SITE LOCATION MAP

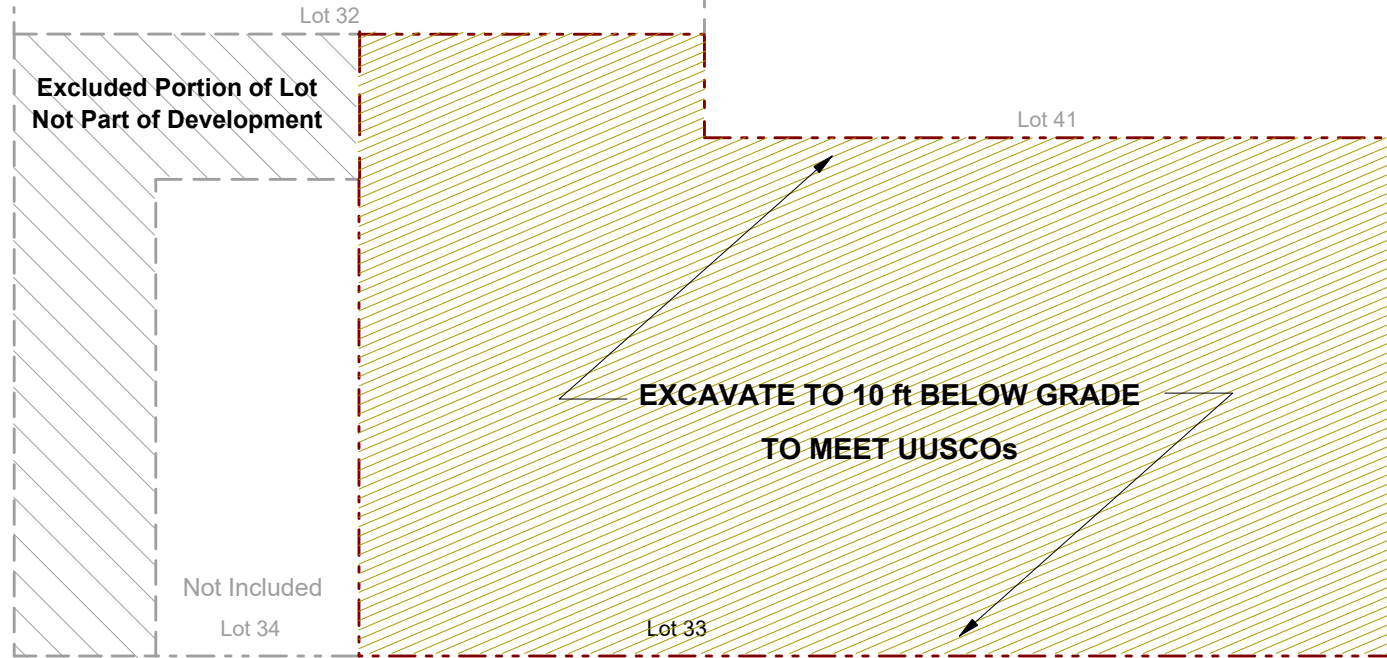


East 126th Street

SIDEWALK

East 127th Street

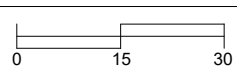
SIDEWALK



SIDEWALK

Park Avenue

SCALE:



Scale 1 Inch = 30 feet

KEY:

- Site Boundary
- Excluded Portion of Lot

Figure No.
2

Site Name:	1840 PARK AVENUE
Site Address:	1840- 1856 PARK AVENUE, MANHATTAN, NY
Drawing Title:	EXCAVATION PLAN