Excavation Work Plan

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Jacob Riis Houses

1223 FDR Drive

Manhattan, NY 10009

Prepared for:

NEW YORK CITY HOUSING AUTHORITY

Prepared by:

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1.0 Introduction

LiRo Engineers, Inc. (LiRo) was retained by the New York City Housing Authority (NYCHA) to perform environmental supervision of excavation activities on the property referred to as the Riis Houses (hereafter referred to as the Site). The Site is located in the borough of Manhattan between East 8th Street and East 13th Street, east of Avenue D, and west of the Franklin D. Roosevelt (FDR) Drive.

Excavation activities are proposed to repair a potable water service connection on the east side of Riis Houses Building 4, located at 1223 FDR Drive, between Building 4 and FDR Drive as shown on the Site Location Map, provided as Figure 1.

The purpose of this Excavation Work Plan is to provide procedures for soil management and community air monitoring during excavation and soil handling activities to address potential petroleum and Manufactured Gas Plant (MGP) impacted soils.

1.1 Proposed Project Description

The proposed project includes the excavation of a trench on the east side of 1223 FDR Drive to repair potable water service connection to Building 4. The proposed trench dimensions are approximately 35 to 40 feet in length, 4 feet in width, and 4-6 feet in depth. The total length of the water service is approximately 50 to 60 feet.

1.2 Site Background

The Site is located on the footprint of the former East 11th Street MGP site. The 11th Street Works was located on the lower East Side of Manhattan prior to 1903 and continued operation until after 1920 when the structures were removed. The East 11th Street MGP site was located on the north side of East 11th Street and the south side of East 12th Street. The plant grounds extended from the east side of Avenue D to the East River. The plant also extended from Avenue C to the East River on the block bounded by the north side of East 12th Street and the south side of East 13th Street. Today, the buildings located at this site are the Jacob Riis Houses, the Haven Plaza North Co-op Apartments, the New York City Department of Environmental Protection (NYCDEP) pumping station and the grounds of the St. Emeric Roman Catholic Church and School.

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2.0 Soil Management

2.1 Soil Stockpiling

If soil cannot be immediately used for backfilling in accordance with a pre-determined beneficial use exemption per 6 CRR-NY 360.13 (c), it will be temporarily stockpiled and covered. Excavated soil will be temporarily stockpiled pending a determination of on-site reuse applicability, and prior to loading for off-site transport and disposal. Soil stockpiles will meet the following requirements:

- Soil will be screened onsite for signs of MGP and petroleum-related contamination (staining or odor). A photoionization detector (PID) will also be used to screen soil for organic vapors.
- Potentially contaminated soil (i.e., signs of staining or odor) and soil that will not be reused onsite will be placed on a layer of a minimum of 6-mil polyethylene sheeting or equivalent. This material will stockpiled for sampling and ultimate off-site disposal.
- The stockpiles will be covered with a minimum of 6-mil polyethylene sheeting that will be securely anchored to the ground. Active stockpiles will be covered at the end of daily activities.

If soils contain visual or olfactory evidence of MGP-impacts, including coal tar or free product, the soil will not be re-used on site and will be disposed off-site in accordance with applicable Federal, State, and Local statutes and regulations.

2.2 Waste Characterization and Disposal

2.2.1 Waste Characterization

The soil stockpiled for off-site disposal will be sampled and analyzed prior to leaving the Site. This process includes analyzing the soil stockpile for laboratory analyses needed to obtain disposal facility approval.

Analytical parameters for disposal facility approval are facility-specific, and should be requested prior to the collection/analysis of waste characterization samples. Typical analyses required to obtain disposal facility approval include the following parameters:

- Resource Conservation and Recovery Act (RCRA) hazardous waste characteristics (ignitability, reactivity, corrosivity);
- Full Toxicity Characteristic Leaching Procedure (TCLP) for RCRA metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, herbicides
- Total petroleum hydrocarbons (TPH);
- VOCs via USEPA Method 8260C;
- SVOCs via USEPA Method 8270D;
- Metals via USEPA Method 6010C;
- Pesticides via USEPA Method 8081B; and
- Polychlorinated biphenyls (PCBs) via USEPA Method 8082A.

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Sample containers will be marked and identified with labels indicating the project name, sample location, sample ID, the date and time of sampling, preservatives utilized, etc. All samples will be transported to an ELAP certified laboratory under chain of custody protocol.

2.2.2 Disposal

Disposal of hazardous and non-hazardous soil shall be in accordance with applicable Federal, State, and Local statutes and regulations. Proposed waste transporters and disposal facilities will be provided to NYCHA for review/approval prior to off-site disposal. Prior to material transport, a signed letter of agreement to accept waste as characterized will be provided by the disposal facility. The letter shall indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified. The disposal facility permit will be provided by the facility to the QEP for review/approval prior to off-site disposal.

The generation of construction and demolition (C&D) debris such as pavements (concrete, asphalt), sidewalks, concrete structures is possible during this project. Prior to removal to an NYSDEC-permitted recycling facility, the QEP will ensure that the C&D is free of site soil.

2.2.3 Waste Haulers

Solid waste (including hazardous waste, if identified) will be transported by a hauler permitted in accordance with the NYCRR Part 364 along with a manifest in accordance with 6 NYCRR Part 372.

2.3 On-Site Soil Reuse

Excavated soil that is not visually or olfactory observed to be petroleum or MGP impacted (i.e., signs of staining or odor) may be reused onsite beneath paved areas (e.g., asphalt, concrete) without further sampling in accordance with 6 CRR-NY 360.13 (c) Exemption for on-site reuse of fill material. It is the intent to reuse as much of the suitable soil as backfill for this project. Fill materials must be covered with 12-inches of soil that meets the criteria for “General Fill” per 6 CRR-NY 360.13.

2.4 Soil Import

Fill import will be performed in conformance with applicable guidance, rules and regulations. Proposed fill sources along with associated sampling data will be provided to the QEP for review/approval prior to import to the Site.

Proposed fill will be sampled prior to import. The soil must meet the NYSDEC 6 NYCRR Part 375 Table 375-6.8(b) Restricted Residential Use soil cleanup objectives (SCOs). Sampling parameters include:

- VOCs via USEPA Method 8260C;
- SVOCs via USEPA Method 8270D;
- TAL Metals via USEPA Method 6010C;
- Pesticides via USEPA Method 8081B; and

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- PCBs via USEPA Method 8082A.

Imported Fill Material sampling frequency will be in accordance with the NYSDEC DER-10 Table 5.4(e)10 provided below.

NYSDEC DER-10 Table 5.4(e)10 Recommended Number of Soil Samples for Soil Imported To or Exported From a Site			
Contaminant	**VOCs**	**SVOCs, Inorganics & PCBs/Pesticides**	
Soil Quantity (cubic yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
➢ 1000	Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER		

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3.0 Community Air Monitoring Plan

The air quality will be monitored during construction-related intrusive work performed at the Site. Real-time air monitoring for VOCs and particulates (i.e., dust) will be conducted at locations upwind and downwind of the designated work area when intrusive activities are in progress. Implementation of the CAMP, including continuous real time monitoring will be performed during all ground intrusive activities.

Air monitoring equipment will be set up, tested, and calibrated in accordance with the manufacturer specification prior to excavation activities. The CAMP stations will be set up at the upwind and downwind locations as dictated by the daily wind direction. Designated field personnel will oversee particulate measurements throughout the day. The initial measurement for the day will be collected before the start of work and will establish the background level for that day. The action levels and required responses are described below.

3.1 VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) during intrusive work. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown. 4. All 15-minute readings must be recorded and be available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

3.2 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers

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in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and provided that no visible dust is migrating from the work area
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

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4.0 Summary Reporting

An Excavation Summary Report will be provided to NYCHA to document compliance with this Excavation Work Plan. The Excavation Summary Report will include:

- A site survey or as-built drawing showing the excavation limits identifying any soil sample locations;
- Manifests for all soil/fill exported from the site as well as associated acceptance letters and facility permits/registrations;
- Truck tickets/manifests for all soils imported for backfill of the excavation with associated analytical data;
- Community air monitoring data collected during intrusive activities; and
- A description of activities performed, including a summary of analytical data collected, quantities of materials imported and exported to the site, disposal facilities and sources of imported fill materials, and any deviations from this Excavation Work Plan.

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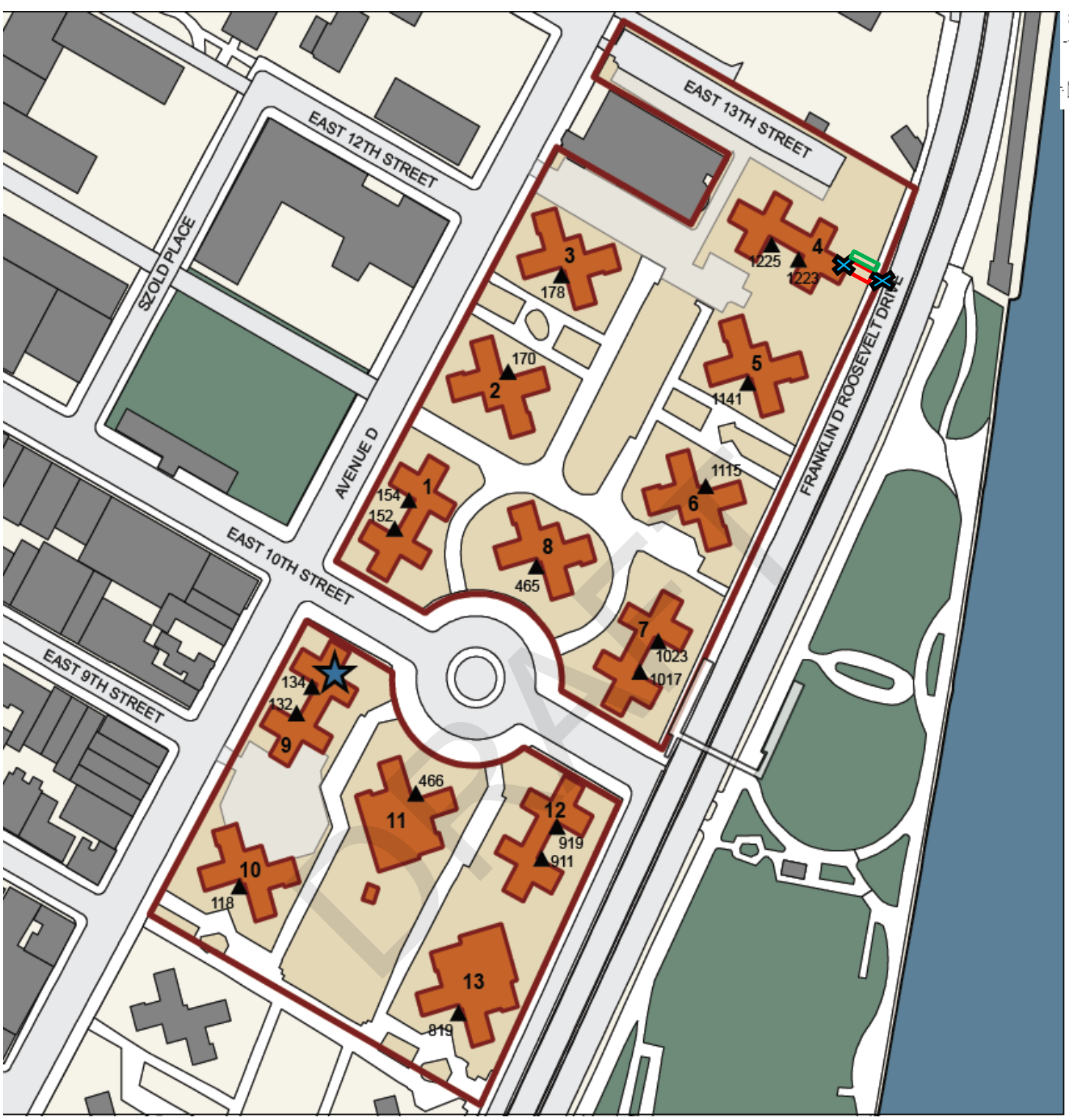

Legend

- Proposed Work Area
- Soil Staging Area
- CAMP Station (field placement subject to wind direction)
- NYCHA Development
- NYCHA Building
- Residential Addresses
- Management Office
- NYC Parks

0 320 Feet

SOURCE: NYCHA Performance Tracking & Analytics Department

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NYCHA- JACOB RIIS HOUSES
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SITE LOCATION MAP

DATE: 11/20/2023

FIGURE 1