HALEY & ALDRICH OF NEW YORK
237 W 35th Street
16th Floor
New York, NY 10001
646.277.5685

09 March 2022
File No. 0203708

Chief, Site Control Section
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233

Attention: Kelly Lewandowski, P.E.

Subject: Notice of Change of Use 01
NYSDEC Site C224345 – 101 Fleet Place LLC
101 Fleet Place
Brooklyn, New York

Dear Ms. Lewandowski:

Haley & Aldrich of New York (Haley & Aldrich) is submitting this Change of Use Request 01 on behalf of 101 Fleet Place LLC, 101 Fleet Realty LLC and 101 Fleet Holding LLC (the Applicants, collectively, "101 Fleet"), for the site located at 101 Fleet Place, Brooklyn, NY (the Site), to notify the Department of the proposed plan to demolish the existing structure, excavate and install a foundation element in order to vest for the 421-a program. The Site is pursuing Affordable Housing under the 421-a Program which has a deadline of June 15th, 2022, to have a foundation element installed for "any building with anticipated affordable housing" within the program.

The proposed activities under this Notice of Change of Use include demolition of the existing structure in conformance with the NYCDOB requirements, excavation in the center of the Site to development depth (approximately 12 feet below current grade) and installation of a singular foundation element for vesting the Site for 421-a. The selected area for the foundation element is located within an area on the Site documented to have minimal impacts.

During excavation, Haley & Aldrich will provide remedial oversight of the anticipated excavation/ transportation/ disposal of soil and Community Air Monitoring in accordance with a Site Soil Materials Management Plan, included in Attachment B, which includes proposed locations of Community Air Monitoring Stations. Following excavation and installation of the foundation element, the area will be backfilled with certified clean fill and capped by an impermeable barrier (concrete or asphalt) and tied into the existing slab.

Should you have any questions regarding this request please do not hesitate to contact the undersigned at Jbellew@haleyaldrich.com or 646-277-5686.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

James M. Bellew
Principal

Emily L. Snead, P.G.
Senior Project Manager

Enclosures

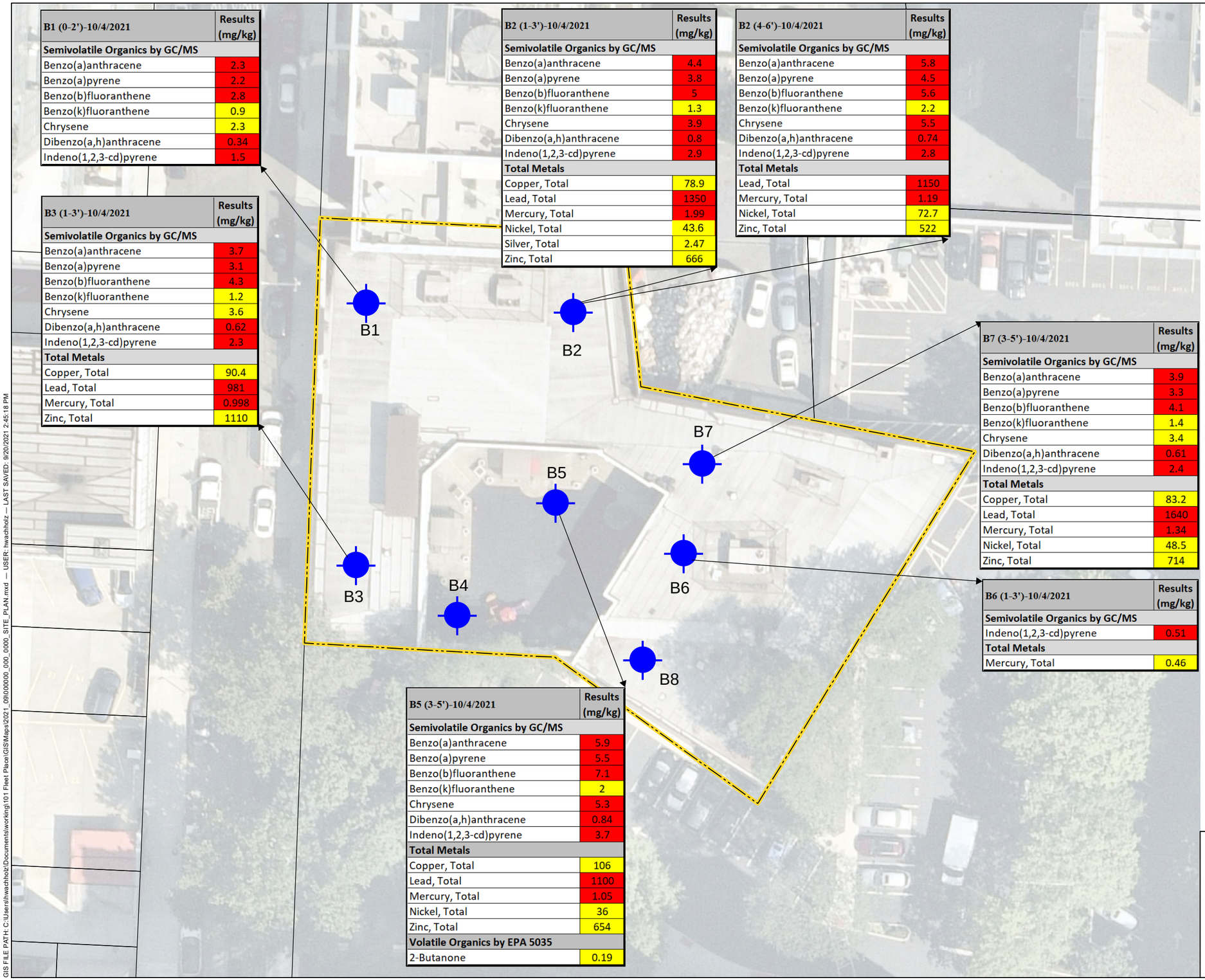
Cc:

Madeleine Babick (NYSDEC)	Email: madeleine.babick@dec.ny.gov
Gerard Burke (NYSDEC)	Email: gerard.burke@dec.ny.gov
Jennifer Andaloro (NYSDEC)	Email: jennifer.andaloro@dec.ny.gov
Jane O'Connell (NYSDEC)	Email: jane.oconnell@dec.ny.gov
Melissa Doroski (NYSDOH)	Email: melissa.doroski@health.ny.gov
Jacob Kohn (101 Fleet Place LLC)	Email: kohnjacob@gmail.com
Christine Leas (Sive, Paget & Riesel P.C.)	Email: cleas@sprlaw.com

Attachments:

Figure 1 – Remedial Investigation - Map of Soil Chemistry
Attachment A – NYSDEC Change of Use Editable
Attachment B – Site Soil Materials Management Plan

FIGURE



B1 (0-2')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	2.3
Benzo(a)pyrene	2.2
Benzo(b)fluoranthene	2.8
Benzo(k)fluoranthene	0.9
Chrysene	2.3
Dibenzo(a,h)anthracene	0.34
Indeno(1,2,3-cd)pyrene	1.5

B2 (1-3')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	4.4
Benzo(a)pyrene	3.8
Benzo(b)fluoranthene	5
Benzo(k)fluoranthene	1.3
Chrysene	3.9
Dibenzo(a,h)anthracene	0.8
Indeno(1,2,3-cd)pyrene	2.9
Total Metals	
Copper, Total	78.9
Lead, Total	1350
Mercury, Total	1.99
Nickel, Total	43.6
Silver, Total	2.47
Zinc, Total	666

B2 (4-6')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	5.8
Benzo(a)pyrene	4.5
Benzo(b)fluoranthene	5.6
Benzo(k)fluoranthene	2.2
Chrysene	5.5
Dibenzo(a,h)anthracene	0.74
Indeno(1,2,3-cd)pyrene	2.8
Total Metals	
Lead, Total	1150
Mercury, Total	1.19
Nickel, Total	72.7
Zinc, Total	522

B3 (1-3')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	3.7
Benzo(a)pyrene	3.1
Benzo(b)fluoranthene	4.3
Benzo(k)fluoranthene	1.2
Chrysene	3.6
Dibenzo(a,h)anthracene	0.62
Indeno(1,2,3-cd)pyrene	2.3
Total Metals	
Copper, Total	90.4
Lead, Total	981
Mercury, Total	0.998
Zinc, Total	1110

B7 (3-5')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	3.9
Benzo(a)pyrene	3.3
Benzo(b)fluoranthene	4.1
Benzo(k)fluoranthene	1.4
Chrysene	3.4
Dibenzo(a,h)anthracene	0.61
Indeno(1,2,3-cd)pyrene	2.4
Total Metals	
Copper, Total	83.2
Lead, Total	1640
Mercury, Total	1.34
Nickel, Total	48.5
Zinc, Total	714

B6 (1-3')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Indeno(1,2,3-cd)pyrene	0.51
Total Metals	
Mercury, Total	0.46

B5 (3-5')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	5.9
Benzo(a)pyrene	5.5
Benzo(b)fluoranthene	7.1
Benzo(k)fluoranthene	2
Chrysene	5.3
Dibenzo(a,h)anthracene	0.84
Indeno(1,2,3-cd)pyrene	3.7
Total Metals	
Copper, Total	106
Lead, Total	1100
Mercury, Total	1.05
Nickel, Total	36
Zinc, Total	654
Volatile Organics by EPA 5035	
2-Butanone	0.19

LEGEND

- SITE BOUNDARY
- PARCEL BOUNDARY
- SOIL BORING

	NY-RESRR	NY-UNRES	Units
Semivolatile Organics by GC/MS			
Benzo(a)anthracene	1	1	mg/kg
Benzo(a)pyrene	1	1	mg/kg
Benzo(b)fluoranthene	1	1	mg/kg
Benzo(k)fluoranthene	3.9	0.8	mg/kg
Chrysene	3.9	1	mg/kg
Dibenzo(a,h)anthracene	0.33	0.33	mg/kg
Indeno(1,2,3-cd)pyrene	0.5	0.5	mg/kg
Total Metals			
Copper, Total	270	50	mg/kg
Lead, Total	400	63	mg/kg
Mercury, Total	0.81	0.18	mg/kg
Nickel, Total	310	30	mg/kg
Silver, Total	180	2	mg/kg
Zinc, Total	10000	109	mg/kg
Volatile Organics by EPA 5035			
2-Butanone	100	0.12	mg/kg

NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NOTES

1. ALL LOCATIONS ARE APPROXIMATE AND BASED ON FIELD MEASUREMENTS.
2. ASSESOR PARCEL DATA SO8URCE: NEW YORK CITY DEPARTMENT OF CITY PLANNING GIS
3. AERIAL IMAGERY SOURCE: NEARMAP, 12 AUGUST 2021

N

0 30 60
SCALE IN FEET

HALEY ALDRICH

101 FLEET PLACE
BROOKLYN, NEW YORK

MAP OF SOIL CHEMISTRY

OCTOBER 2021

FIGURE 1

GIS FILE PATH: C:\Users\hwachholz\Documents\working\101 Fleet Place\GIS\Maps\2021_09\000000_000_0000_SITE_PLAN.mxd — USER: hwachholz — LAST SAVED: 9/20/2021 2:45:18 PM

ATTACHMENT A

Change of Use Forms

HALEY ALDRICH

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion, and/or Ownership

Required by 6NYCRR Part 375-1.11(d) and 375-1.9(f)

To be submitted at least 60 days prior to change of use to:

Chief, Site Control Section
New York State Department of Environmental Conservation
Division of Environmental Remediation, 625 Broadway
Albany NY 12233-7020

I. Site Name: 101 Fleet Place Redevelopment **DEC Site ID No.** C224345

II. Contact Information of Person Submitting Notification:

Name: Haley & Aldrich - James Bellew

Address1: 237 West 35th Street, 16th Floor

Address2: New York, New York 10001

Phone: (646) 277-2686 E-mail: jbellew@haleyaldrich.com

III. Type of Change and Date: Indicate the Type of Change(s) (check all that apply):

☐ Change in Ownership or Change in Remedial Party(ies)

☐ Transfer of Certificate of Completion (CoC)

☒ Other (e.g., any physical alteration or other change of use)

Proposed Date of Change (mm/dd/yyyy): 03/21/2022

IV. Description: Describe proposed change(s) indicated above and attach maps, drawings, and/or parcel information.

The proposed activities under this Change of Use includes, demolition of the existing structure in conformance with NYCDOB requirements, excavation in the entire vicinity of the Site to development depth (approximately 12 feet below current grade) and installation of a foundation element in the Building footprint to vest the Site for 421-a. Following excavation and installation of the foundation element, the area will be backfilled with certified clean fill and capped by an impermeable barrier (concrete or asphalt) and tied into the existing slab. Slab will remain in place in conformance to NYCDOB requirements.

If "Other," the description must explain and advise the Department how such change may or may not affect the site's proposed, ongoing, or completed remedial program (attach additional sheets if needed).

The selected area for the foundation element is located within an area on the Site documented to have minimal impacts.

V. Certification Statement: Where the change of use results in a change in ownership or in responsibility for the proposed, ongoing, or completed remedial program for the site, the following certification must be completed (by owner or designated representative; see §375-1.11(d)(3)(i)):

I hereby certify that the prospective purchaser and/or remedial party has been provided a copy of any order, agreement, Site Management Plan, or State Assistance Contract regarding the Site's remedial program as well as a copy of all approved remedial work plans and reports.

Name: _____ _____
(Signature) (Date)

_____
(Print Name)

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

VI. Contact Information for New Owner, Remedial Party, or CoC Holder: If the site will be sold or there will be a new remedial party, identify the prospective owner(s) or party(ies) along with contact information. If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/ECs), indicate who will be the certifying party (attach additional sheets if needed).

☐ Prospective Owner ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: _____

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

Certifying Party Name: _____

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

VII. Agreement to Notify DEC after Transfer: If Section VI applies, and all or part of the site will be sold, a letter to notify the DEC of the completion of the transfer must be provided. If the current owner is also the holder of the CoC for the site, the CoC should be transferred to the new owner using DEC's form found at http://www.dec.ny.gov/chemical/54736.html. This form has its own filing requirements (see 6NYCRR Part 375-1.9(f)).

Signing below indicates that these notices will be provided to the DEC within the specified time frames. If the sale of the site also includes the transfer of a CoC, the DEC agrees to accept the notice given in VII.3 below in satisfaction of the notice required by VII.1 below (which normally must be submitted within 15 days of the sale of the site).

Within 30 days of the sale of the site, I agree to submit to the DEC:

1. the name and contact information for the new owner(s) (see §375-1.11(d)(3)(ii));
2. the name and contact information for any owner representative; and
3. a notice of transfer using the DEC's form found at http://www.dec.ny.gov/chemical/54736.html (see §375-1.9(f)).

Name: _____ _____

(Signature) (Date)

_____

(Print Name)

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

Continuation Sheet

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________________________

New York State Department of Environmental Conservation

Instructions for Completing the 60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion (CoC), and/or Ownership Form

Submit to: Chief, Site Control Section, New York State Department of Environmental Conservation, Division of Environmental Remediation, 625 Broadway, Albany NY 12233-7020

Section I	**Description**
Site Name	Official DEC site name. (see http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3)
DEC Site ID No.	DEC site identification number.

Section II	**Contact Information of Person Submitting Notification**
Name	Name of person submitting notification of site change of use, transfer of certificate of completion and/or ownership form.
Address1	Street address or P.O. box number of the person submitting notification.
Address2	City, state and zip code of the person submitting notification.
Phone	Phone number of the person submitting notification.
E-mail	E-mail address of the person submitting notification.

Section III	**Type of Change and Date**
Check Boxes	Check the appropriate box(s) for the type(s) of change about which you are notifying the Department. Check all that apply.
Proposed Date of Change	Date on which the change in ownership or remedial party, transfer of CoC, or other change is expected to occur.

Section IV	**Description**
Description	For each change checked in Section III, describe the proposed change. Provide all applicable maps, drawings, and/or parcel information. If "Other" is checked in Section III, explain how the change may affect the site's proposed, ongoing, or completed remedial program at the site. Please attach additional sheets, if needed.

Section V Certification Statement

This section must be filled out if the change of use results in a change of ownership or responsibility for the proposed, ongoing, or completed remedial program for the site. When completed, it provides DEC with a certification that the prospective purchaser has been provided a copy of any order, agreement, or State assistance contract as well as a copy of all approved remedial work plans and reports.

Name	The owner of the site property or their designated representative must sign and date the certification statement. Print owner or designated representative's name on the line provided below the signature.
Address1	Owner or designated representative's street address or P.O. Box number.
Address2	Owner or designated representative's city, state and zip code.
Phone	Owner or designated representative's phone number.
E-Mail	Owner or designated representative's E-mail.

Section VI Contact Information for New Owner, Remedial Party, and CoC Holder (if a CoC was issued)

Fill out this section only if the site is to be sold or there will be a new remedial party. Check the appropriate box to indicate whether the information being provided is for a Prospective Owner, CoC Holder (if site was ever issued a COC), Prospective Remedial Party, or Prospective Owner Representative. Identify the prospective owner or party and include contact information. A Continuation Sheet is provided at the end of this form for additional owner/party information.

Name	Name of Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.
Address1	Street address or P.O. Box number for the Prospective Owner, Prospective Remedial Party, or Prospective Owner Representative.
Address2	City, state and zip code for the Prospective Owner, Prospective Remedial Party, or Prospective Owner Representative.
Phone	Phone number for the Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.
E-Mail	E-mail address of the Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.

If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/EC), indicate who will be the certifying party(ies). Attach additional sheets, if needed.

Certifying Party	
Name	Name of Certifying Party.
Address1	Certifying Party's street address or P.O. Box number.
Address2	Certifying Party's city, state and zip code.
Phone	Certifying Party's Phone number.
E-Mail	Certifying Party's E-mail address.

Section VII Agreement to Notify DEC After Property Transfer/Sale

This section must be filled out for all property transfers of all or part of the site. If the site also has a CoC, then the CoC shall be transferred using DEC's form found at http://www.dec.ny.gov/chemical/54736.html

Filling out and signing this section of the form indicates you will comply with the post transfer notifications within the required timeframes specified on the form. If a CoC has been issued for the site, the DEC will allow 30 days for the post transfer notification so that the "Notice of CoC Transfer Form" and proof of it's filing can be included. Normally the required post transfer notification must be submitted within 15 day (per 375-1.11(d)(3)(ii)) when no CoC is involved.

Name	Current property owner must sign and date the form on the designated lines. Print owner's name on the line provided.
Address1	Current owner's street address.
Address2	Current owner's city, state and zip code.

ATTACHMENT B

Site Soil Management Plan
(Provided As Separate Link)

HALEY ALDRICH

HALEY ALDRICH

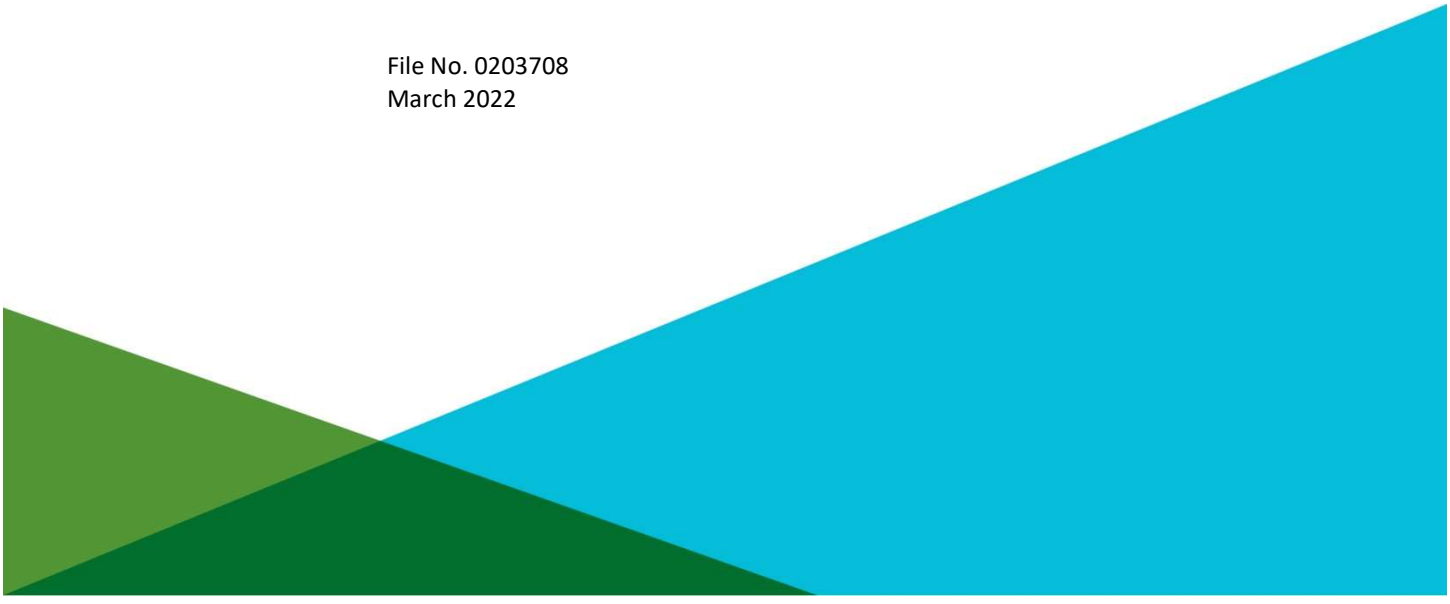
www.haleyaldrich.com

SOIL MATERIALS MANAGEMENT PLAN
101 FLEET PLACE REDEVELOPMENT
101 FLEET PLACE
BROOKLYN, NEW YORK
BCP SITE NO. C224345

by Haley & Aldrich of New York
237 West 35th Street, 16th Floor
New York, New York 10001

for 101 Fleet Place LLC, 101 Fleet Realty LLC and 101 Fleet Holding LLC
40 Oser Avenue, Suite 4
Hauppauge, New York 11788

File No. 0203708
March 2022



HALEY & ALDRICH OF NEW YORK
237 West 35th Street
16th Floor
New York, NY 10001
646-277-5688

09 March 2022
File No. 0203708

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233

Attention: Madeleine Babick

Subject: Soil Materials Management Plan
101 Fleet Place Redevelopment
101 Fleet Place
Brooklyn, New York 11201 (Site)
BCP Site No. C224345

Dear Ms. Babick,

On behalf of 101 Fleet Place LLC, 101 Fleet Realty LLC and 101 Fleet Holding LLC (the Applicants, collectively, "101 Fleet"), Haley & Aldrich of New York is submitting for the review and approval of the New York State Department of Environmental Conservation (NYSDEC) this draft Soil Materials Management Plan (SMMP) for the 101 Fleet Place Redevelopment (Brownfield Cleanup Program Site C224345), located at 101 Fleet Place in the Kings County neighborhood of Brooklyn, NY (the Site). This SMMP is being submitted as part of the submission of the Change of Use to install the foundation element to vest for 421-a. The plan has been developed based on the NYSDEC Technical Guidance for Site Investigation and Remediation (DER-10) – issued May 2010, NYSDEC Commissioner's Policy 51/Soil Cleanup Guidance Policy dated October 21, 2010 (CP-51), the New York Code of Rules and Regulations (NYCRR) 6 NYCRR Part 364 Waste Transporter Permits, and 6 NYCRR Part 375, Environmental Remediation Programs dated December 14, 2006 (Part 375).

Please do not hesitate to contact us if there are any questions regarding this submittal or any other aspects of the project.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

James M. Bellew
Principal

Emily L. Snead, P.G.
Senior Project Manager

Cc:

Gerard Burke (NYSDEC)	Email: gerard.burke@dec.ny.gov
Jane O'Connell (NYSDEC)	Email: jane.oconnell@dec.ny.gov
Jennifer Andaloro (NYSDEC)	Email: jennifer.andaloro@dec.ny.gov
Melissa Doroski (NYSDOH)	Email: melissa.doroski@health.ny.gov
Jacob Kohn (101 Fleet)	Email: kohnjacob@gmail.com
Christine Leas (Sive, Paget & Riesel P.C.)	Email: cleas@sprlaw.com

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1. Introduction

Pursuant to the submission of the Change of Use to install the foundation element to vest for 421A, Haley & Aldrich of New York (Haley & Aldrich) has prepared this Soil Materials Management Plan (SMMP) on behalf of 101 Fleet Place LLC. 101 Fleet Place LLC applied to and was accepted into the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP, Site No. C224345) as a Volunteer. A Brownfield Cleanup Agreement (BCA) was executed by the NYSDEC and 101 Fleet Place LLC (the "Volunteer"), effective March 7, 2022. This SMMP provides details for sampling, excavation, loading, transportation, and disposal of generated soil and historical fill from the proposed construction of a foundation element located at 101 Fleet Place, Brooklyn, NY (the Site).

This SMMP is based on the findings presented in the Phase II Environmental Site Investigation by Haley & Aldrich dated October 2021 which was executed under the New York City Office of Environmental Remediation (NYCOER) E-Designation Program. This SMMP was prepared in general accordance with the NYSDEC Technical Guidance for Site Investigation and Remediation (DER-10) – issued May 2010, NYSDEC Commissioner's Policy 51/Soil Cleanup Guidance Policy dated October 21, 2010 (CP-51), the New York Code of Rules and Regulations (NYCRR) 6 NYCRR Part 364 Waste Transporter Permits, and 6 NYCRR Part 375, Environmental Remediation Programs dated December 14, 2006 (Part 375). This SMMP is applicable to contractors engaged in disturbance of soil and groundwater in the vicinity of and on the Site, generally where contaminated soil, soil vapor, and/or groundwater have been identified to be impacted by the former Site operations.

1.1 SITE BACKGROUND

The approximately 20,073-square-foot Site is improved with a one-story building encompassing the entire footprint formerly operated by a childcare center, Duffield Children Center. The Site is identified as Block 2061 Lot 100 on the New York City tax map and is bounded by residential homes to the north and to the south, Fleet Place followed by commercial, office space, and miscellaneous garage/parking area to the west, and residential buildings to the east. The Site is located in a developed area including predominantly residential-related uses, with commercial, office, transportation, and utility buildings located further east and west. A project locus showing the Site location is provided on Figure 1.

1.2 OBJECTIVES

This SMMP is part of Haley & Aldrich's overall environmental support services for 101 Fleet related to the intrusive activities during installation of the foundation element pursuant to 421-a vesting. This SMMP was written to satisfy the NYSDEC requirements in connection with a Notification of Change of Use for construction at the Site. Upon approval of the Change of Use and SMMP, the approved documents will be provided to the New York City Office of Environmental Remediation (NYCOER) to obtain a Notice of No Objection (NNO). This SMMP shall only apply to the sampling (waste classification for disposal), excavation, loading, transportation, and disposal of soil generated at the Site associated with installation of the foundation element as shown in Figure 2.

2. Pre-Excavation Activities

Location-specific excavation required for the installation of the foundation element is shown on Figure 2. The foundation element will require excavation of soil to a depth of 12 feet below grade surface (ft bgs).

2.1 DEFINITIONS

Excavation – Excavation is considered unclassified and consists of removal of material encountered to contract level, stockpiling, testing, loading, handling, transporting, and subsequent legal disposal of such.

Improvements – Human-produced items such as concrete, brick, asphalt, piping, etc. Those items not naturally occurring.

Non-Hazardous Excavated Material (NHEM) – Material that may include or contain mixtures of the following: soil (including, but not limited to, natural undisturbed material), debris, concrete, and concrete products (including steel and fiberglass reinforcing rods that are embedded in the concrete), asphalt pavement, brick, glass, rock, and incidental ash. This material includes material defined in Title 6New York Code of Rules and Regulations 360-7.1(b) (i) and will exceed 6 NYCRR Part 375-6.8(a) Unrestricted Use ("Track 1") Soil Cleanup Objectives and NYSDEC DER-10 Recommended Soil Cleanup Objectives.

Petroleum Contaminated Material (PCM) – Material (soil, concrete sediment, UST contents, fill, debris, etc.) that meets the NYSDEC STARS Memo #1 definition of petroleum-contaminated material from known source areas. Petroleum-contaminated material shall be evidenced by the following observationsand be from a known source area: producing higher than background responses on a portable vapor meter such as a photo ionization detector (PID) or flame ionization detector, petroleum-like odor, visual impacts (e.g., staining or discoloration), proximity to known releases from existing or historic petroleum storage tanks or systems, and exceed the guidance values provided in the NYSDEC STARS Memo #1. An assessment of whether the excavated material is petroleum-contaminated or is non-petroleum contaminated material will be made by analytical testing of representative material samples. Sampling shall be performed under the supervision of 362 Shepherd Development's field representative.

Hazardous Waste – Material meeting the definition of a Resource Conservation and Recovery Act (RCRA) hazardous waste as defined in 40 CFR Part 261, New York State ECL Section 27-09 or 6 NYCRR Part 371.

Environmentally Clean Fill and Backfill – For fill and backfill proposed for use as cover material (landscaped areas of the Site within two vertical feet of the final surface grade elevation), environmentally clean fill is defined as soil that has been tested utilizing methods that yield laboratory reporting limits that are below the regulatory comparison criteria and found to contain:

a. No detectible concentrations of volatile organic compounds (VOCs)
b. No other organic compounds or inorganic constituents at concentrations above 6 NYCRR 375-6 Unrestricted Use Soil Cleanup Objectives (SCO)

c. No other organic compounds or inorganic constituents at concentrations above the lower of theNYSDEC CP-51: Soil Cleanup Guidance Residential Use, Protection of Ecological Resources, and Protection of Groundwater Supplemental SCOs, and
d. No ecological resources (as described in CP-51, Section V.C.) have been identified at the Site, and therefore, the Supplemental SCOs for Ecological Resources shall not apply

For fill and backfill proposed for use below cover material (as defined in the previous paragraph) and beneath areas with no potential for public contact (e.g., floor slabs and pavement), environmentally clean fill is defined as soil that has been analyzed utilizing laboratory methods that yield reporting limitsthat are below the regulatory comparison criteria and found to contain:

a. No detectable concentrations of volatile organic compounds
b. No other organic compounds or inorganic constituents at concentrations above the lower DER-10 Technical Guidance for Site Investigation and Remediation, Appendix 5, "Allowable Constituent Levels for Imported Fill or Soil" Restricted Residential Use and Ecological ResourcesSoil Cleanup Objectives
c. No other organic compounds or inorganic constituents at concentrations above the lower of the NYSDEC CP-51: Soil Cleanup Guidance Residential Use, Protection of Ecological Resources, and Protection of Groundwater Supplemental SCOs, and
d. No ecological resources (as described in CP-51, Section V.C.) have been identified at the Site, and therefore, the SupplementalSCOs for Ecological Resources shall not apply

2.2 SITE UTILITIES

Prior to the start of excavation at the Site, 101 Fleet's General Contractor will contact appropriate underground facilities protective organizations (e.g., New York DIGNET Service) in accordance with applicable laws and regulations for a utility mark-out and for information regarding buried utilities in public rights-of-way. 101 Fleet's General Contractor will be responsible for obtaining Site blueprints and plans that adequately depict the locations of underground utilities, including water and sewer lines that may exist inside the public rights-of-way, because the DIGNET Service does not typically enter onto and mark-out private property. 101 Fleet's General Contractor will be responsible for protecting and supporting, if necessary, any utilities uncovered during excavation. 101 Fleet's General Contractor will also acquire the necessary permits required by the New York City Department of Buildings (NYCDODB) and the New York City Department of Transportation (NYCDOT).

2.3 SOIL CONDITIONS

Based on the observations made during the sampling work completed to date, subsurface soil at the Site consists of urban fill material extending to approximately 10 ft bgs, underlain by dark brown to olive, coarse to medium sand with varying amounts of glass, gravel, brick, asphalt, cinder, and silt to approximately 12 ft bgs.

2.4 HEALTH AND SAFETY PROCEDURES

101 Fleet's General Contractor and Haley & Aldrich will each be responsible for the compliance of their own employees with proper safety procedures. All on-site activities outlined in this plan will be performed in compliance with the Site-Specific Health and Safety Plan (HASP), provided in Appendix A.

3. Environmental Confirmation Sampling

One confirmation soil sample will be collected for every 900 square feet of excavation base in accordance with NYSDEC DER-10, or at an alternative frequency approved by NYSDEC. While a remedial action has not been determined at this time, confirmation samples will be collected to confirm that Unrestricted Use SCOs have been achieved.

3.1 CONFIRMATION SAMPLING PROCEDURES

Excavation associated with the installation of the foundation element to vest for 421-a is anticipated to be less than 900 square feet in area. Therefore, one confirmation sample is anticipated, however additional confirmation soil samples may be collected from the base of the excavation (12 ft bgs) if necessary, and in accordance with NYSDEC DER-10 to document remedial performance and will be analyzed for the Part 375 list of VOCs, semi-volatile organic compounds (SVOCs), pesticides, polychlorinated (PCBs), metals, Per- and Polyfluoroalkyl Substances (PFAS), and 1,4-dioxane. Samples will be collected into laboratory-provided bottle ware. VOCs will be collected directly into Terracore or Encore containers. Samples will be transported under standard chain of custody protocol to an Environmental Laboratory Approval Program (ELAP) certified laboratory. Should additional soil samples be deemed necessary, confirmation sampling will be conducted in accordance with NYSDEC DER-10.

Figure 3 depicts the approximate location of the confirmation soil sample proposed to be collected by Haley & Aldrich in the proposed excavation area.

The samples will be analyzed by Alpha Laboratories of 8 Walkup Drive, Westborough MA 01581. Alpha is New York State Department of Health (NYSDOH) ELAP certified. Haley & Aldrich will utilize Chain of Custody forms to document samples collected, analytical methods, and general quality assurance/quality control associated with the handling of samples to the laboratory.

ASP Category B deliverables will be prepared for remedial performance samples collected during implementation of this SMMP. Data Usability Summary Reports (DUSR) will be prepared by a qualified data validator and the findings will be reported in the Construction Completion Report (CCR) which will be incorporated into the Final Engineering Report (FER).

4. Quality Assurance and Quality Control

The following QA/QC procedures will be maintained to allow for audit of the project by the NYSDEC, NYSDOH andHaley & Aldrich. Haley & Aldrich personnel will utilize standard field reporting forms, or their equivalent,during sampling and testing. All entries in the field notebook, field data sheets, and Chain-of-Custody form will be made in ink or on electronic forms. Examples are presented in Appendix C. These include:

- Field Report Worksheet
- Chain-of-Custody form

When completed, the above documentation will become part of the project file.

Haley & Aldrich will also maintain a notebook dedicated to recording pertinent activities. In addition to any forms that will be filled out summarizing fieldwork, electronic daily reports will be submitted to the project team and NYSDEC. The daily field log for all Site activities will typically include such items as:

- Date
- Meteorological conditions (temperature, wind, precipitation)
- Site conditions (e.g., dry, damp, dusty, etc.)
- Identification of crew members (Haley & Aldrich) and other personnel (e.g., agency or Site owner) present
- Description of field activities
- Location(s) where work is performed
- Problems encountered and corrective actions taken
- Record of Site photographs
- Records of field measurements or descriptions recorded, and
- Notice of modifications to the scope of work.

The following typical Chain-Of-Custody procedures will be implemented by Haley & Aldrich during the soil sampling.

A. The samples are under the "custody" of the Haley & Aldrich field personnel when one or more of the following criteria are met:

    1. The samples are in his/her possession
    2. The samples are in view after being in possession
    3. The samples are locked up or sealed securely to prevent tampering, or
    4. The samples are in a designated secure area

B. The original of the Chain-of-Custody form must accompany the samples at all times after collection until receipt at the analytical laboratory. A copy of the Chain-of-Custody form will be kept by the sampling collector until it is filed at Haley & Aldrich in the project file.

C. When the possession of samples is transferred, the individuals relinquishing and receiving the samples will sign, date, and note the time on the Chain-Of-Custody form.

D. When samples are shipped, Haley & Aldrich personnel, or designated representative, will note the courier name and airbill number, if applicable, on the Chain-Of-Custody form. Prior to shipping, coolers will be secured with signed custody seals in order for the laboratory to confirm that coolerswere not opened during shipping.

E. The Chain-of-Custody form will contain information to distinguish each sample from any othersample. This information will include:

1. The project name and address for which sampling is being conducted;
2. The name(s) and signature(s) of sampler(s)
3. The matrix being sampled (e.g., soil);
4. The sampling date and time;
5. The specific sampling location in sufficient detail to allow re-sampling at the samelocation;
6. The number of containers and the volume of sample collected; and
7. The analytical method to be performed.

F. The Chain-Of-Custody record is kept electronically by Alpha.

Haley & Aldrich will review all analytical data for completeness and acceptability for disposal at the chosen disposal facility prior to submission to the NYSDEC. Haley & Aldrich will track each truck to each disposal facility by logging and reconciling the trucks leaving the Site to the weight tickets/gate ticket daily prior to submission to the NYSDEC.

5. Community Air Monitoring Program

5.1 COMMUNITY AIR MONITORING PLAN

The Community Air Monitoring Plan (CAMP) will require real-time monitoring for particulates (i.e., dust) and VOCs at the upwind and downwind perimeters when ground intrusive activities, including soil excavation, soil handling, test pit excavation and/or trenching, are in progress at the Site. The CAMP aims to provide protection for residents in the designated work area and residents of the downwind community from potential airborne releases that directly result from the remedial construction activities conducted at the Site. Adherence to the monitoring action levels specified in the CAMP requires monitoring and, when necessary, corrective actions to abate emissions, and/or shutdown work. The CAMP also helps to confirm that work activities do not spread contamination off-site through the air. In addition, visual and olfactory observations will be made to keep dust and odors at a minimum around the work areas. VOCs will be monitored using photoionization detectors (PIDs), and particulates will be monitored using TSI DustTrak Environmental Monitor (DustTraks) equipment. Readings will be recorded every 15-minutes at the Site by field personnel.

The following actions will be taken based on monitoring of particulate concentrations:

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter ($\mu g/m^3$) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 $\mu g/m^3$ 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 $\mu g/m^3$ above the upwind level, work will be stopped, and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 $\mu g/m^3$ of the upwind level and in preventing visible dust migration.

The following actions will be taken based on VOC monitoring:

- 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 will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will 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 will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will 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 will be shut down.

5.2 ODOR, DUST, AND NUISANCE CONTROL PLAN

Dust, odor, and nuisance controls will be accomplished by the remediation contractor as described in this section.

Odor Control

This odor control plan is capable of controlling emissions of nuisance odors off-Site. Specific odor control methods to be used if needed will include application of foam suppressants or tarps over the odor or VOC source areas. If nuisance odors are identified, work will be halted, and the source of odors will be identified and corrected. Work will not resume until nuisance odors have been abated. The NYSDEC and NYSDOH will be notified of odor events and of other complaints about the project. Implementation of odor controls is the responsibility of the Contractor. Monitoring odor emission, including the halt of work, will be the responsibility of the RE or his/her designated representative.

Necessary means will be employed to prevent on- and off-Site nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (a) direct load-out of soils to trucks for off-Site disposal; (b) use of chemical odorants in spray or misting systems; and (c) use of staff to monitor odors in surrounding neighborhoods.

Where odor nuisances have developed during remedial work and cannot be corrected, or where the release of nuisance odors cannot otherwise be avoided due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering excavation and handling areas under tented containment structures equipped with appropriate air venting/filtering systems.

Dust Control

A dust suppression plan that addresses dust management during ground-intrusive on-Site work will include, at a minimum: (a) use of a dedicated water distribution system, on-Site water truck for road wetting, or an alternate source with suitable supply and pressure for use in dust control; (b) gravel used for on-Site roads to provide a clean and dust-free road surface; and (c) on-Site roads will be limited in total area to minimize the area required for water spraying.

Other Nuisances

A plan for rodent control will be developed and used by the remediation contractor during Site preparation (including clearing and grubbing) and during remedial work. A plan for noise control will be developed and used by the remediation contractor during Site preparation and remedial work and will conform, at a minimum, to the New York City Department of Environmental Protection (NYCDEP) noise control standards.

6. Management of Excavated Soil

On-Site personnel involved in excavation activities shall comply with applicable Occupational Safety and Health Administration (OSHA) rules and regulations, New York City Department of Buildings (NYCDOB) requirements, and the HASP presented as Appendix A to this SMMP.

Due to Site constraints, minimal stockpiling will be conducted on Site, and the proposed Site activities call for direct loading of excavated soil for immediate removal from the Site. However, should it be necessary for material to be stockpiled on Site, excavated material requiring off-Site disposal will not be placed directly on the surface of the ground, and will be stockpiled either on impervious cover or poly sheeting. Stockpiles will be covered daily to prevent the migration of the excavated soils off-Site. Other erosion control measures, such as silt fence or stacked hay bales, will be installed along the perimeter of the stockpile, if necessary, to minimize erosion. Odor is not anticipated during Site excavation activities. The covering of the stockpiles should also limit odor should PCM be encountered during excavation.

Dust suppression will be performed during work activities where the potential for elevated dust conditions exists. Water will be used to spray/mist excavation areas in these instances to mitigate and prevent off-site migration of airborne dust.

6.1 DISPIOSAL FACILITIES AND WASTE TRANSPORTERS

Based on the information available to date, it is anticipated that soil and fill material excavated at the Site will be disposed of at a combination of facilities. Haley & Aldrich will confirm these facilities after waste characterization sampling has been completed and the classification of material is determined. Once the disposal facilities are confirmed by the Contractor, Haley & Aldrich will inform the NYSDEC and receive the appropriate approval prior to off-site disposal.

Haley & Aldrich assumes that the Contractor(s) will perform their own waste characterization sampling for disposal facility approval purposes. Based on the above, excavated material from the ground surface to an estimated distance above the soil/groundwater interface will most likely be classified as “urban fill” or non-hazardous excavated material and is subject to this management plan. Haley & Aldrich assumes that the Contractor(s) will ensure that all requirements, permits and manifests are obtained prior to performing any work in the area and will be provided for project documentation.

All hazardous and non-hazardous materials subject to this management plan should be transported from the point of generation to an appropriately permitted Treatment, Storage and Disposal (TSD) facility. In addition, all non-hazardous contaminated material should be removed in a similar fashion. When hazardous materials, non-hazardous contaminated materials and non-contaminated materials subject to this plan are removed, 101 Fleet will authorize Haley & Aldrich to sign as the “Generator” on behalf of 101 Fleet. The truck driver and the receiving facility will also sign the waste manifest forms, as required. After delivery of the waste to the TSD facility, the signed and completed waste manifests will be provided to 101 Fleet.

6.2 LOADING AND TRANSPORTATION PROCEDURES

Typical loading and transportation procedures include the following:

- Trucks will be inspected upon arrival to the Site to document that they are arriving clean and have current Part 364 Waste Transporter Permits.
- The receiving facility the trucks will be delivering excavated soil/ fill material to (noted on manifests) will be checked against the list provided to the NYSDEC to confirm that they are approved for use on this project.
- Exposed material will be covered on each truck after loading. The cover will be secured and remain in place until the container has reached the disposal facility.
- Prior to leaving the Site, trucks and any heavy equipment operating on impacted soil, including excavators and backhoes, will be inspected to confirm that excess material has not adhered to the truck and equipment is decontaminated according to the procedures in the section below.
- Transport of material by the transporter will be performed Monday through Friday during normal daytime business hours and to the approved disposal facilities only. At the direction ofthe NYSDEC, work hours may be moved to afternoon hours, with material being delivered thefollowing morning.
- If loads contain wet soil/fill capable of producing free liquid, truck liners will be used.
- Transporters will use approved truck routes to transport materials from the Site to the expressways. Transporters will use interstate or officially approved truck routes to the maximumextent possible. To the extent possible and in conformance with all applicable regulations, all vehicles will be routed away from residential and environmentally sensitive areas.
- Each disposal facility gate/weight ticket (billing document) shall include the following information:
  - Disposal facility name, address, and telephone number
  - Site of material source (i.e., 101 Fleet Place, Brooklyn, NY)
  - Scale ticket number
  - Associated manifest number
  - Truck license plate number
  - Trailer license plate number
  - Transporter's name
  - Gross, net, and tare weight of the load

A copy of the manifest/ticket form for each container, and copies of all disposal-facility scale tickets, will be obtained for record and summarized in daily field reports submitted to the NYSDEC on a daily basis. A sample manifest is in Appendix B.

6.3 DECONTAMINATION PROCEDURES

Before exiting the Site, trucks will be required to stop at a truck egress station to be examined for evidence of soil on the undercarriage, body, and wheels. If observed, soil and debris will be removed from vehicles and equipment, as necessary using brooms, shovels, and/or potable water. If required, clean potable water will be provided from a municipal source. Truck wash waters will be collected and disposed of offsite in an appropriate manner.

7. Reporting

7.1 DAILY REPORTING

Daily reports providing a general summary of activities for each day of active remedial work will be submitted electronically via email to the NYSDEC and NYSDOH Project Managers by the end of the following business day. Those reports will include:

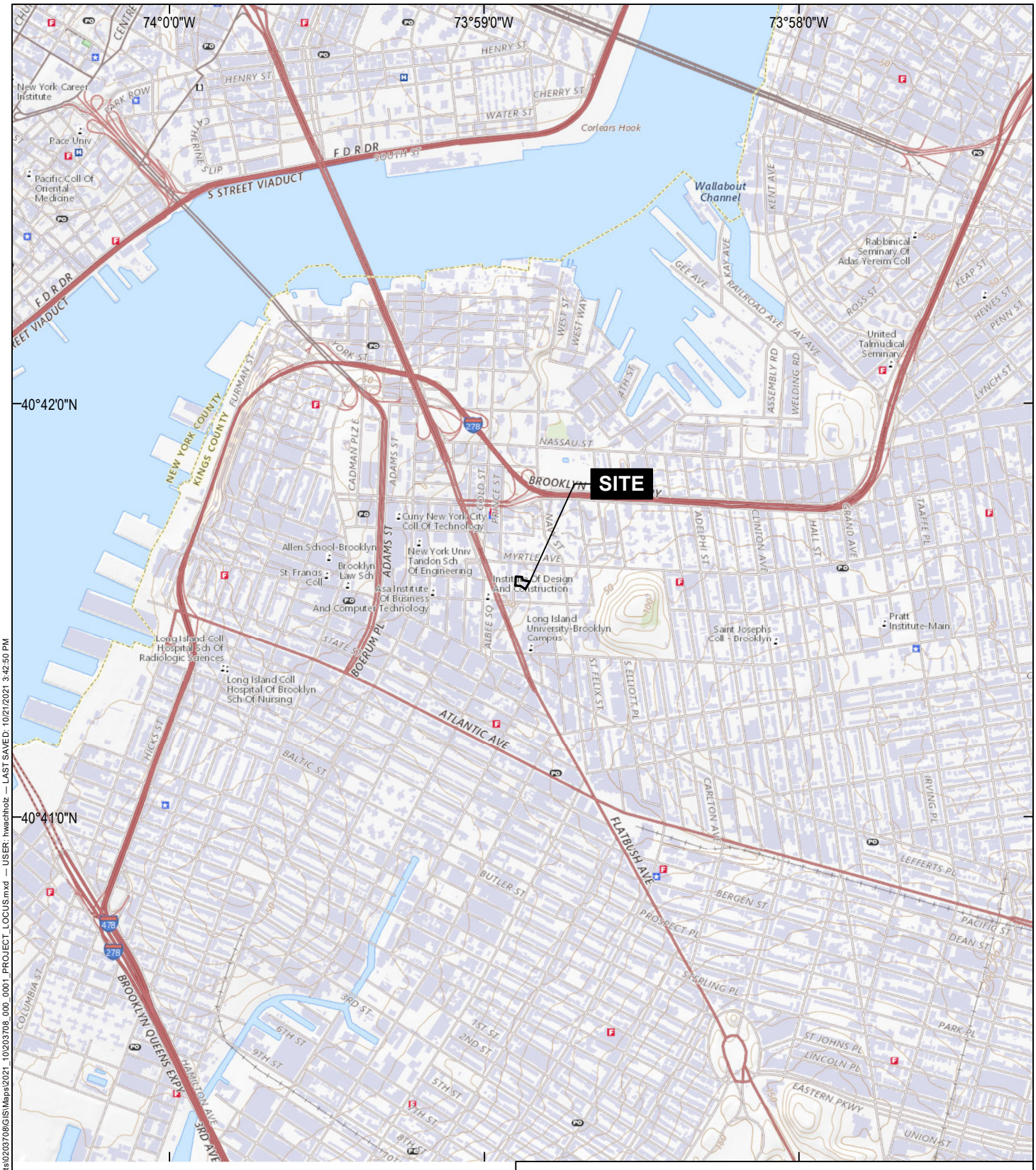
- Project number and statement of the activities and an update of progress made and locations of excavation and other remedial work performed
- Quantities of material imported and exported from the Site
- Status of on-Site soil/fill stockpiles
- A summary of all citizen complaints, with relevant details (basis of complaint, actions taken etc.)
- A summary of CAMP results noting all excursions. CAMP data may be reported, and
- Photographs of notable Site conditions and activities.

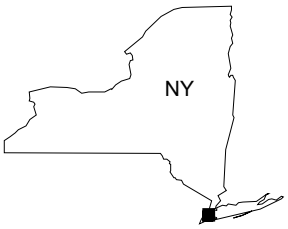
Daily reports will be provided every day when work involving soil or slab disturbance is conducted. Daily reports are not intended to be the primary mode of communication for notification to the NYSDEC and/or NYSDOH of emergencies (accidents, spills), requests for changes to the SMMP or other sensitive or time critical information. However, such information will be included in the daily reports. Emergency conditions and changes will be communicated directly to the NYSDEC/NYSDOH project manager by personal communication.

7.2 CONSTRUCTION COMPLETION REPORT

Upon completion of work involving soil and slab disturbance, a Construction Completion Report summarizing all work conducted at the Site will be submitted to the NYSDEC and NYSDOH. The report will include representative photographs of on-Site activities as well as copies of all daily reports, laboratory analytical results from confirmation sampling and copies of the DUSRs prepared for confirmation sample(s) collected.

FIGURES





HALEY ALDRICH

101 FLEET PLACE
BROOKLYN, NEW YORK

PROJECT LOCUS

MAP SOURCE: ESRI
SITE COORDINATES: 73°58'52"N, 40°41'33"W

APPROXIMATE SCALE: 1 IN = 2000 FT
NOVEMBER 2021

FIGURE 1

B1 (0-2')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	2.3
Benzo(a)pyrene	2.2
Benzo(b)fluoranthene	2.8
Benzo(k)fluoranthene	0.9
Chrysene	2.3
Dibenzo(a,h)anthracene	0.34
Indeno(1,2,3-cd)pyrene	1.5

B3 (1-3')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	3.7
Benzo(a)pyrene	3.1
Benzo(b)fluoranthene	4.3
Benzo(k)fluoranthene	1.2
Chrysene	3.6
Dibenzo(a,h)anthracene	0.62
Indeno(1,2,3-cd)pyrene	2.3
Total Metals	
Copper, Total	90.4
Lead, Total	981
Mercury, Total	0.998
Zinc, Total	1110

B2 (1-3')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	4.4
Benzo(a)pyrene	3.8
Benzo(b)fluoranthene	5
Benzo(k)fluoranthene	1.3
Chrysene	3.9
Dibenzo(a,h)anthracene	0.8
Indeno(1,2,3-cd)pyrene	2.9
Total Metals	
Copper, Total	78.9
Lead, Total	1350
Mercury, Total	1.99
Nickel, Total	43.6
Silver, Total	2.47
Zinc, Total	666

B2 (4-6')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	5.8
Benzo(a)pyrene	4.5
Benzo(b)fluoranthene	5.6
Benzo(k)fluoranthene	2.2
Chrysene	5.5
Dibenzo(a,h)anthracene	0.74
Indeno(1,2,3-cd)pyrene	2.8
Total Metals	
Lead, Total	1150
Mercury, Total	1.19
Nickel, Total	72.7
Zinc, Total	522

B7 (3-5')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	3.9
Benzo(a)pyrene	3.3
Benzo(b)fluoranthene	4.1
Benzo(k)fluoranthene	1.4
Chrysene	3.4
Dibenzo(a,h)anthracene	0.61
Indeno(1,2,3-cd)pyrene	2.4
Total Metals	
Copper, Total	83.2
Lead, Total	1640
Mercury, Total	1.34
Nickel, Total	48.5
Zinc, Total	714

B6 (1-3')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Indeno(1,2,3-cd)pyrene	0.51
Total Metals	
Mercury, Total	0.46

B5 (3-5')-10/4/2021	Results (mg/kg)
Semivolatile Organics by GC/MS	
Benzo(a)anthracene	5.9
Benzo(a)pyrene	5.5
Benzo(b)fluoranthene	7.1
Benzo(k)fluoranthene	2
Chrysene	5.3
Dibenzo(a,h)anthracene	0.84
Indeno(1,2,3-cd)pyrene	3.7
Total Metals	
Copper, Total	106
Lead, Total	1100
Mercury, Total	1.05
Nickel, Total	36
Zinc, Total	654
Volatile Organics by EPA 5035	
2-Butanone	0.19

B8

LEGEND

- SITE BOUNDARY
- PARCEL BOUNDARY
- SOIL BORING
- PROPOSED FOUNDATION ELEMENT LOCATION
- POTENTIAL COMMUNITY AIR MONITORING LOCATION

NOTES

1. ALL LOCATIONS ARE APPROXIMATE AND BASED ON FIELD MEASUREMENTS.
2. ASSESOR PARCEL DATA SO8URCE: NEW YORK CITY DEPARTMENT OF CITY PLANNING GIS
3. AERIAL IMAGERY SOURCE: NEARMAP, 12 AUGUST 2021

0 30 60
SCALE IN FEET

HALEY ALDRICH

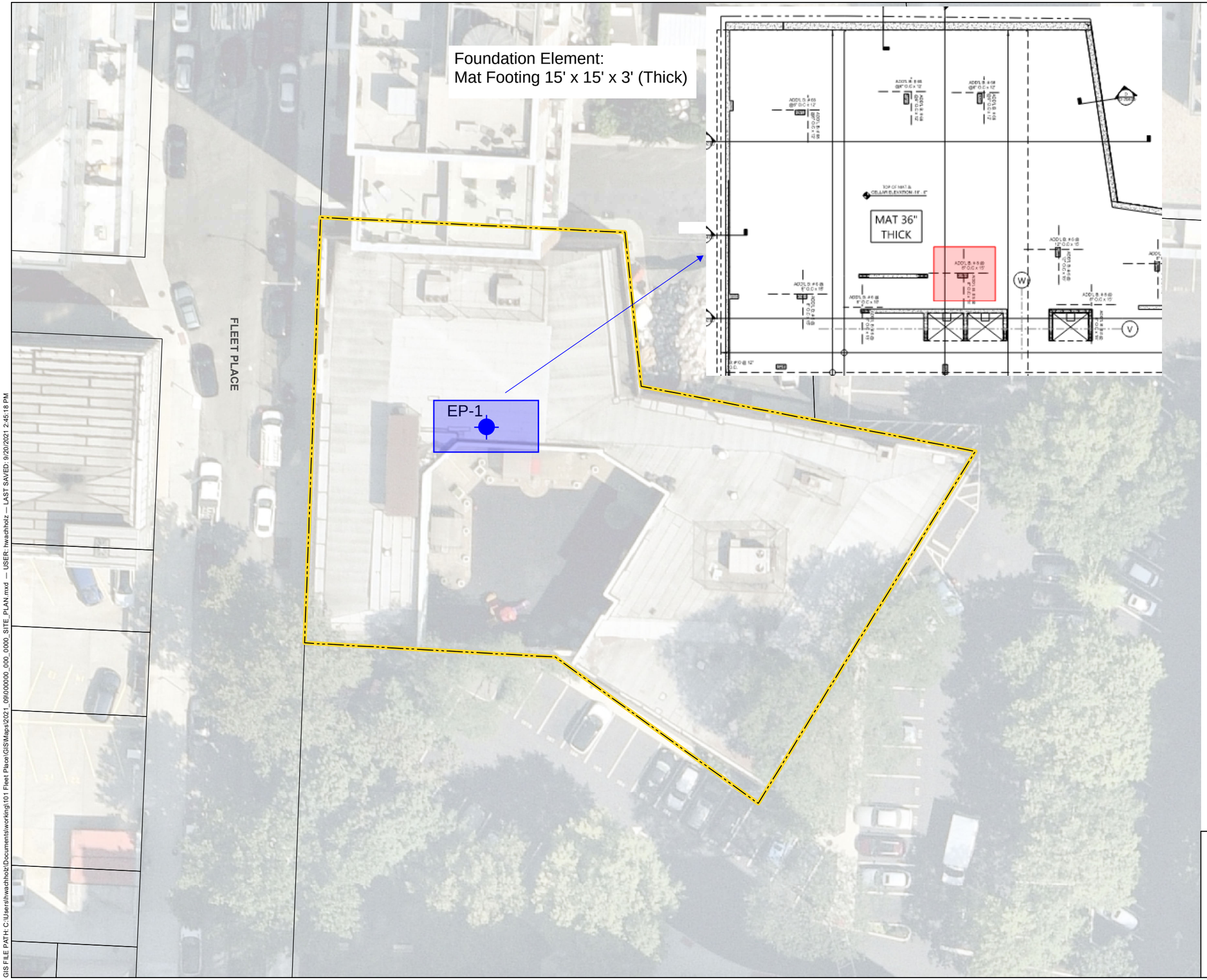
101 FLEET PLACE
BROOKLYN, NEW YORK

SITE LOCATION PLAN

MARCH 2022

FIGURE 2

GIS FILE PATH: C:\Users\hwachholz\Documents\working\101 Fleet Place\GIS\Maps\2021_09\000000_000_0000_SITE_PLAN.mxd — USER: hwachholz — LAST SAVED: 9/20/2021 2:45:18 PM



LEGEND

- SITE BOUNDARY
- PARCEL BOUNDARY
- PROPOSED CONFIRMATION SOIL SAMPLE LOCATION
- PROPOSED FOUNDATION ELEMENT LOCATION

NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NOTES

1. ALL LOCATIONS ARE APPROXIMATE AND BASED ON FIELD MEASUREMENTS.
2. ASSESOR PARCEL DATA SO8URCE: NEW YORK CITY DEPARTMENT OF CITY PLANNING GIS
3. AERIAL IMAGERY SOURCE: NEARMAP, 12 AUGUST 2021

0 30 60
SCALE IN FEET

HALEY ALDRICH

101 FLEET PLACE
BROOKLYN, NEW YORK

CONFIRMATION SOIL SAMPLE LOCATION PLAN

MARCH 2022

FIGURE 3

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APPENDIX A

HASP

HALEY & ALDRICH, INC.
SITE-SPECIFIC SAFETY PLAN

FOR

101 Fleet Place

101 Fleet Place, Brooklyn, New York

Project/File No. 0203708

Gensuite EZ Scan®

BI - Developers

Prepared By: Emily Snead	**Date: 11/2/2021**
Approvals: The following signatures constitute approval of this Health & Safety Plan.	
Insert Field Safety Managers electronic signature.	
Field Safety Manager: Brian Ferguson	**Date: 11-04-2021**
Insert Project Manager's electronic signature.	
Project Manager: Emily Snead	**Date: 11/4/2021**
HASP Valid Through: 12-31-2022	

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Attachment C	Roles and Responsibilities
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Attachment E	Project Site Forms
Attachment F	Site-Specific Operating Procedures

STOP WORK AUTHORITY

In accordance with Haley & Aldrich (Haley & Aldrich) Stop Work Authority Operating Procedure (OP1035), any individual has the right to refuse to perform work that he or she believes to be unsafe without fear of retaliation. He or she also has the authority, obligation, and responsibility to stop others from working in an unsafe manner.

STOP Work Authority is the stop work policy for all personnel and subcontractors on the Site. When work has been stopped due to an unsafe condition, Haley & Aldrich site management (e.g., Project Manager [PM], Site Health & Safety Officer [SHSO], etc.) and the Haley & Aldrich Senior Project Manager (SPM) will be notified immediately.

Reasons for issuing a stop work order include, but are not limited to:

- The belief/perception that injury to personnel or accident causing significant damage to property or equipment is imminent.
- An Haley & Aldrich subcontractor is in breach of site safety requirements and/or their own site HASP.
- Identifying a substandard condition (e.g., severe weather) or activity that creates an unacceptable safety risk as determined by a qualified person.

Work will not resume until the unsafe act has been stopped OR sufficient safety precautions have been taken to remove or mitigate the risk to an acceptable degree. Stop work orders will be documented as part of an on-site stop work log, on daily field reports to include the activity/activities stopped, the duration, person stopping work, person in-charge of stopped activity/activities, and the corrective action agreed to and/or taken. Once work has been stopped, only the Haley & Aldrich SPM or SHSO can give the order to resume work. Haley & Aldrich senior management is committed to support anyone who exercises his or her “Stop Work” authority.

ISSUANCE AND COMPLIANCE

This HASP has been prepared in accordance with Occupational Safety and Health Administration (OSHA) regulations (CFR 29, Parts 1904, 1910, and 1926) if such are applicable.

The specific requirements of this HASP include precautions for hazards that exist during this project and may be revised as new information is received or as site conditions change.

- This HASP must be signed by all Haley & Aldrich personnel involved in implementation of the SOW (Section 2 of this HASP).
- This HASP, or a current signed copy, must be retained at all times when Haley & Aldrich staff are present.
- Revisions to this HASP must be outlined within the contents of the HASP. If immediate or minor changes are necessary, the Field Safety Manager (FSM), Haley & Aldrich, SSO and/or Project Manager (PM) may use Attachment 1 (HASP Amendment Form), presented at the end of this HASP. Any revision to the HASP requires employees and subcontractors to be informed of the changes so that they understand the requirements of the change.
- Deviations from this HASP are permitted with approval from the Haley & Aldrich FSM, PM, or Senior Health & Safety Manager (SHSM). Unauthorized deviations may constitute a violation of Haley & Aldrich company procedures/policies and may result in disciplinary action.
- This HASP will be relied upon by Haley & Aldrich's subcontractors and visitors to the site. Haley & Aldrich's subcontractors must have their own HASP which will address hazards specific to their trade that is not included in this HASP. This HASP will be made available for review to Haley & Aldrich's subcontractors and other interested parties (e.g. Facility personnel and regulatory agencies) to ensure that Haley & Aldrich has properly informed our subcontractors and others of the potential hazards associated with the implementation of the SOW to the extent that Haley &Aldrich is aware.

This site-specific HASP provides only site-specific descriptions and work procedures. General safety and health compliance programs in support of this HASP (e.g., injury reporting, medical surveillance, personal protective equipment (PPE) selection, etc.) are described in detail in the Haley &Aldrich Corporate Health and Safety Program Manual and within Haley & Aldrich's Standard Operating Procedures Both the manual and SOPs can be located on the Haley & Aldrich's Company Intranet. When appropriate, users of this HASP should always refer to these resources and incorporate to the extent possible. The manual and SOPs are available to clients and regulators upon request.

EMERGENCY EVENT PROCEDURES

1 - ASSESS THE SCENE

- **STOP WORK**
- Review the situation and ascertain if it's safe to enter the area.
- Evacuate the site if the conditions are unsafe.

2 - EVALUATE THE EMERGENCY

- **Call 911, or designated emergency number, if required.**
- **Provide first aid for the victim if qualified and safe to do so.**
  - First aid will be addressed using the onsite first aid kit. *
    - If providing first aid, remember to use proper first aid universal precautions if blood or bodily fluids are present.
- **If exposure to hazardous substance is suspected, immediately vacate the contaminated area.**
  - Remove any contaminated clothing and/or equipment.
  - Wash any affected dermal/ocular area(s) with water for at least 15 minutes.
  - Seek immediate medical assistance if any exposure symptoms are present.

** Note: Haley & Aldrich employees are not required or expected to administer first aid / CPR to any Haley & Aldrich staff member, Contractor, or Civilian personnel at any time; it is Haley & Aldrich´s position that those who do are doing so on their own behalf and not as a function of their job.*

3 - SECURE THE AREA

- **Cordon off the incident area, if possible.**
  - Notify any security personnel, if required.
  - Escort all non-essential personnel out of the area, if able.

4 - REPORT ON-SITE ACCIDENTS / INCIDENTS TO PM / SSO

- **Notify the PM and SSO as soon as it is safe to do so.**
  - Assist PM and SSO in completing any additional tasks, as required.

5 - INVESTIGATE / REPORT THE INCIDENT

- **Record details of the incident for input to the Gensuite.**
  - Complete any additional forms as requested by the PM and SSO.

6 - TAKE CORRECTIVE ACTION

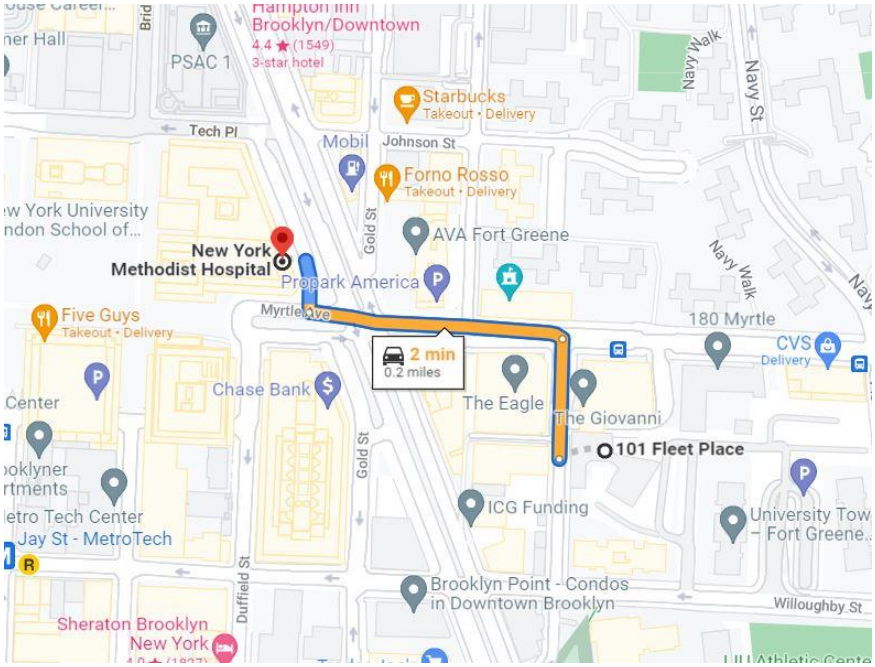
- **Implement corrective actions per the PM following root cause analysis.**
  - Complete Lessons Learned form.

PROJECT INFORMATION AND CONTACTS	
Project Name: 101 Fleet Place	**Haley & Aldrich File No.:** 0203708
Location: 101 Fleet Place, Brooklyn, New York	
Client/Site Contact: Phone Number:	101 Fleet Place LLC (563) 751-7496
Haley & Aldrich Field Representative: Phone Number: Emergency Phone Number:	**Yanxia Lin** (646) 277-7035 (201) 912-0052
Haley & Aldrich Project Manager: Office Phone Number: Cell Phone Number:	**Emily Snead** (917) 765-7145 (508) 918-8558
Field Safety Manager: Office Phone Number: Cell Phone Number:	**B**rian Ferguson 617.886.7439 617.908.2761
Subcontractor Project Manager: Phone Number:	Loraine Kelly (631) 796-7810
Nearest Hospital: Address: (see map on next page) Phone Number:	New York Methodist Hospital 15 MetroTech Center Brooklyn, NY 11201 (718) 488-3000
Nearest Occ. Health Clinic: http://www.talispoint.com/liberty/ext/ Address: (see map on next page) Phone Number:	BHMA Urgent Care 514 Fulton St Brooklyn, NY 11201 (718) 488-3000
Liberty Mutual Claim Policy	**WC6-Z11-254100-031**
Emergency Response Number:	**911**
Other Local Emergency Response Number:	N/A
Other Ambulance, Fire, Police, or Environmental Emergency Resources:	911

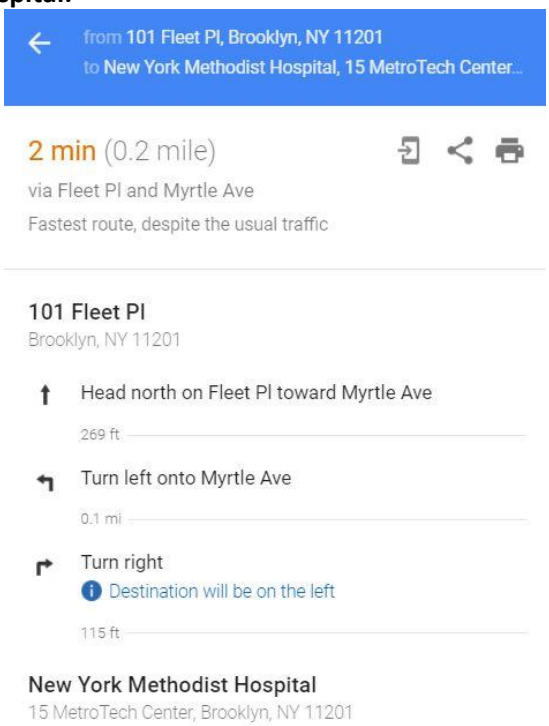
DIRECTIONS TO THE NEAREST HOSPITAL

Liberty Mutual Medical Location Directory

New York Methodist Hospital:



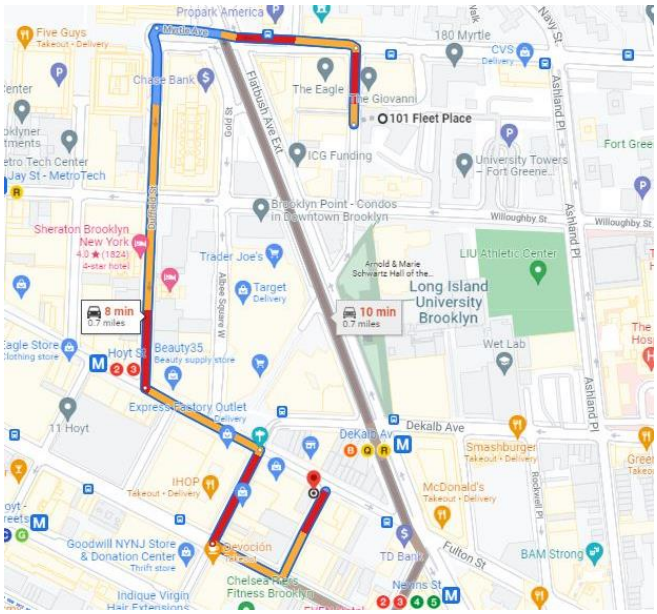
Directions to the Nearest Hospital:



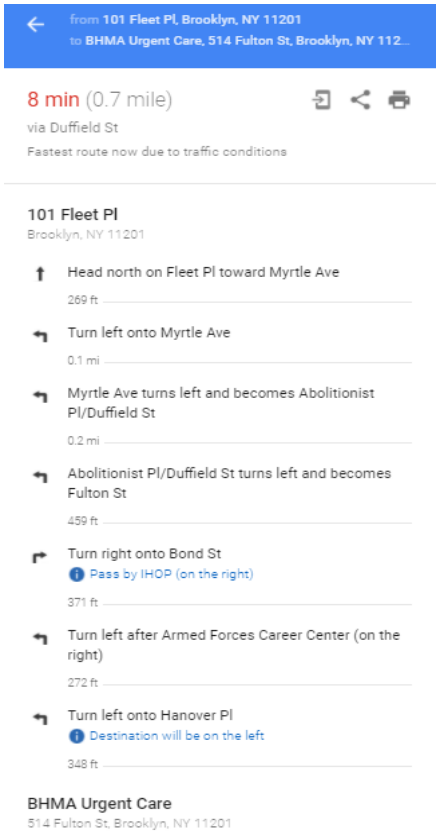
DIRECTIONS TO THE NEAREST URGENT CARE

Liberty Mutual Medical Location Directory

BHMA Urgent Care:



Directions to the Nearest Occupational Clinic:



1. WORK SCOPE

This Site-Specific Health and Safety Plan addresses the health and safety practices and procedures that will be exercised by all Haley & Aldrich employees participating in all work on the Project Site. This plan is based on an assessment of the site-specific health and safety risks available to Haley & Aldrich and Haley & Aldrich's experience with other similar project sites. The scope of work includes the following:

Work task will include 1) Drilling 2) Soil, soil vapor and groundwater sampling.

Project Task Breakdown

Task No.	Task Description	Employee(s) Assigned	Work Date(s) or Duration
1	Drilling	Zachary Simmel, Yanxia Lin	1 Week Anticipated
2	Soil, soil vapor, and groundwater sampling	Zachary Simmel, Yanxia Lin	1 Week Anticipated

Subcontractor(s) Tasks

Firm Name	Work Activity	Work Date(s) or Duration
Lakewood Environmental Services Corp.	Drilling	1 Week Anticipated

Projected Start Date: 2/14/2022

Projected Completion Date: 2/18/2022

2. SITE OVERVIEW / DESCRIPTION

Site Classification

Commercial

Site Description

The Site, located at 101 Fleet Place, Brooklyn, NY (Tax Block 2061, Lot 100) is an irregularly shaped parcel on the east side of Fleet Place, and between Myrtle Avenue and Willoughby Street. The total Site area is approximately 20,000 square feet (SF). The property has approximately 130 feet of frontage along Fleet Place and a lot depth of approximately 170 feet. The Site is occupied by a one-story day care center.

Background and Historic Site Usage

The 1887 Sanborn map depicts the Site developed with small residential buildings and a church. A commercial building is depicted on the 1904 map. By 1915, the church was replaced with four residential buildings, and by 1938 this area of the Site was vacant. Prior to 1969, a one-story building was constructed and occupied by the N.Y. Telephone Co. Garage (1969-1993) and a children center (1995- 2007). The city directory listings indicate historic residential use (1928-1934) and recent commercial use of the Site, including a construction company (2010-2014) and the Duffield Children Center (1997-present).

Site Status

Indicate current activity status and describe operations at the site:

Active

Site Plan

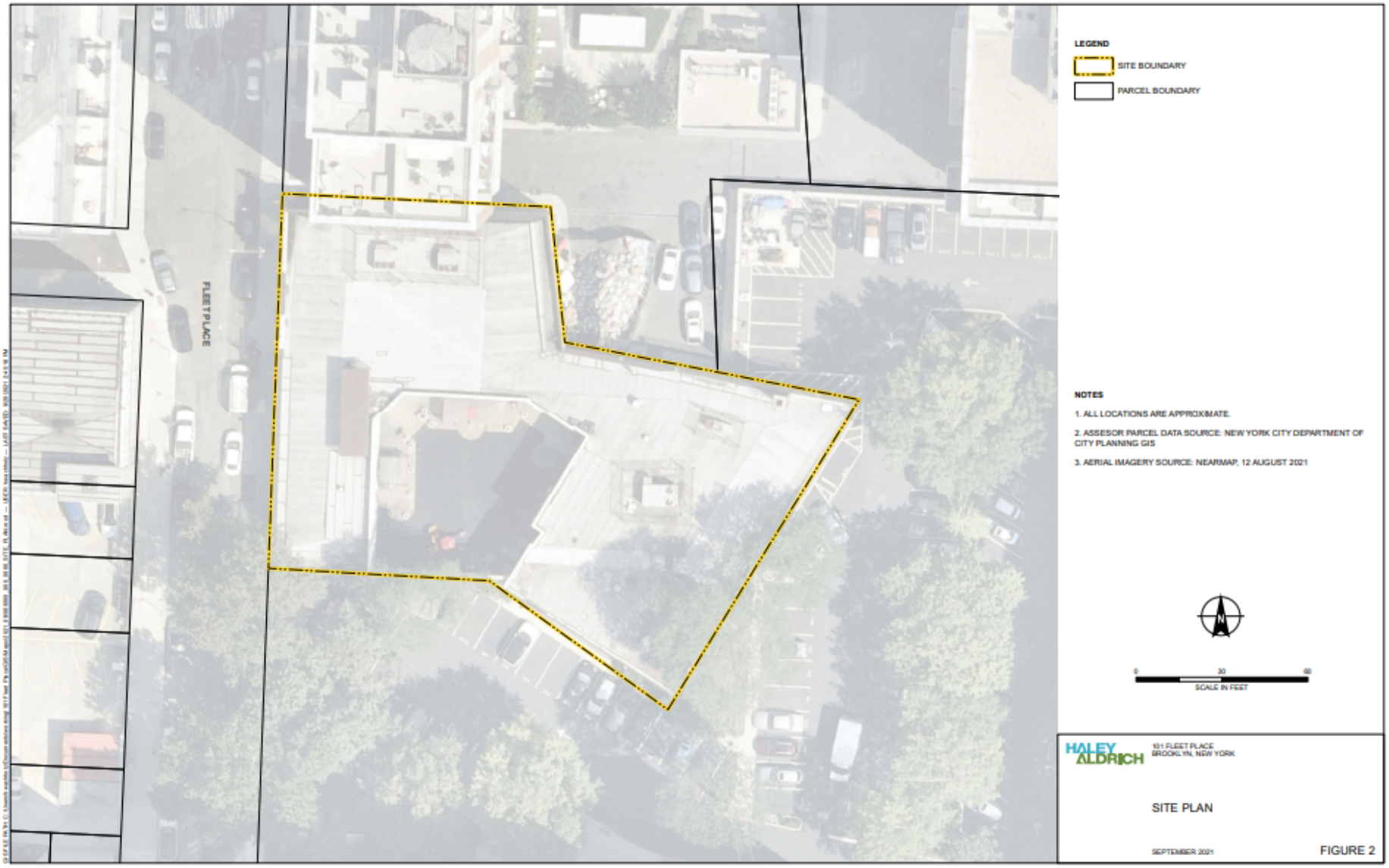
Is a site plan or sketch available? Yes

Work Areas

List and identify each specific work areas(s) on the job site and indicate its location(s) on the site plan:

Entire site

Site Plan



3. HAZARD ASSESSMENT

Indicate all hazards that may be present at the site and for each task. If any of these potential hazards are checked, it is the Project Manager's responsibility to determine how to eliminate / minimize the hazard to protect onsite personnel.

Site Chemical Hazards

Is this Site impacted with chemical contamination? Yes

Source of information about contaminants: Previous Investigation

Contaminant of Concern	Location/Media	Concentration	Units
Urban Fill	**Soil**	**SVOCs, Metals**	Select Units
Polycyclic aromatic hydrocarbons (PAHs)	**Soil**	**See Phase II ESI**	Select Units
Mercury	**Soil**	**1.99**	**mg/kg**
Lead	**Soil**	**1640**	**mg/kg**
Trichloroethylene	**Soil Vapor**	**6.77**	**ug/m3**

Polycyclic aromatic hydrocarbons (PAHs): are a class of chemicals that occur naturally in coal, crude oil, and gasoline. They also are produced when coal, oil, gas, wood, garbage, and tobacco are burned. PAHs generated from these sources can bind to or form small particles in the air. High-temperature cooking will form PAHs in meat and in other foods. Naphthalene is a PAH that is produced commercially in the United States to make other chemicals and mothballs. Cigarette smoke contains many PAHs.

Mercury: is an odorless, silver metallic liquid. It can be inhaled or absorbed through the skin. Contact may cause irritation to the skin or eyes. Toxic if ingested. Fume inhalation may cause irritation in the nose, throat or lungs. This is a corrosive chemical. Symptoms of poisoning include, muscle tremors, loss of appetite, and nausea. Long-term exposure may have effects on the central nervous system and kidneys. The PEL is 0.1 mg/m^3 averaged over an 8 hour shift.

Lead: The effects of lead are the same whether it enters the body through breathing or swallowing. Lead can affect almost every organ and system in your body. The main target for lead toxicity is the nervous system. Long-term exposure to lead can result in decreased performance in some tests measuring functions of the nervous system in adults. It may also cause weakness in fingers, wrists, or ankles. Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys and ultimately cause death.

Trichloroethylene: is a nonflammable colorless liquid with a sweet odor. Trichloroethylene vapor is heavier than air and is found in low lying areas.

Urban Fill

Urban fill consists of historically placed soil materials commonly found in urban areas, and typically comprised of a heterogeneous mixture of granular and fine-grained soils containing various proportions of gravel and cobbles, construction and demolition debris, coal ash, wood ash or other deleterious materials. Urban fill usually contains anthropogenic levels of metals, petroleum hydrocarbons and/or polynuclear aromatic hydrocarbons (PAHs) due to non-point sources and/or which originated prior to placement. Significant portions of Boston and Cambridge are overlain with urban fill materials. Some urban fill may meet the definition of "historic fill" under the Massachusetts Contingency Plan (MCP) and therefore constitute a condition of No Significant Risk as "anthropogenic background."

Physical Hazards: Urban fill contain debris such as glass, ceramics, rebar, wire, wood, nails and other objects that contain sharp edges. Personnel should use caution and wear leather gloves to prevent cuts associated with handling material containing sharp and abrasive object.

Personal Hygiene: Always wash hands prior to eating and drinking. Take off work boots prior to getting in car and going home which will help prevent introducing contaminated soils to your car and home. Wash work clothing separately from non-work clothes to prevent clothing containing soil from urban fill to be cross contaminated with other clothing. Use chemical resistant gloves when handling soil to prevent contact with skin.

Site Hazards Checklist			
Weather			
High Winds	Cold Temperatures	Select Hazard	Select Hazard

High Winds

While high winds are commonly associated with severe thunderstorms and hurricanes they may also occur as a result of differences in air pressures, such as when a cold front passes across the area. They can cause downed trees and power lines, and flying debris (such as dust or larger debris), which adds additional risks and could lead to power outages, transportation disruptions, damage to buildings and vehicles, and serious injury.

Wind Advisory are issued for sustained winds 25 to 39 mph and/or gusts to 57 mph. High Wind warnings are issued by the National Weather Service when high wind speeds may pose a hazard or is life threatening. The criteria for this warning will varies by state. The Beaufort Wind Scale is a helpful tool to when dealing with high winds.

Cold Temperatures

Cold stress may occur at any time work is being performed at low ambient temperatures and high velocity winds. Because cold stress is common and has potentially serious illnesses associated with outdoor work during cold seasons, regular monitoring and other preventative measures are vital.

Refer to OP1003-Cold Stress for additional information and mitigation controls.

Biological			
Mosquitoes	Stinging Insects	Choose an item.	Choose an item.

Mosquitos

Work outdoors with temperatures above freezing will likely bring staff into contact with mosquitos. There are a variety of mosquito species that can transmit a range of diseases. Birds act as reservoirs for the viruses that can be collected by the mosquito and transmitted to a person. Majority of mosquitos are mainly a nuisance but staff need to take appropriate precautions to minimize the potential transmission of a virus that can result in one of the following diseases: West Nile, Eastern Equine Encephalitides and Western Encephalitides. Knowing some key steps that can minimize the risk of mosquito bites is, therefore, important in reducing the risks. Workers working outdoors should be aware that the use of PPE techniques is essential to preventing mosquito bites especially when working at sites where mosquitoes may be active and biting.

Use repellents containing DEET, picaridin, IR3535, and some oil of lemon eucalyptus and para-menthane-diol products provide longer-lasting protection. To optimize safety and effectiveness, repellents should be used according to the label instructions. Cover as much of your skin as possible by wearing shirts with long-sleeves, long pants, and socks whenever possible. Avoid use of perfumes and colognes when working outdoors during peak times when mosquitoes may be active; mosquitoes may be more attracted to individuals wearing perfumes and colognes.

Stinging Insects

Stinging Insects fall into two major groups: Apidae (honeybees and bumblebees) and vespids (wasps, yellow jackets, and hornets). Apidae are docile and usually do not sting unless provoked. The stinger of the honeybee has multiple barbs, which usually detach after a sting. Vespids have few barbs and can inflict multiple stings.

There are several kinds of stinging insects that might be encountered on the project site. Most stings will only result in a temporary injury. However, sometimes the effects can be more severe, even life-threatening depending on where you are stung and what allergies you have. Being stung in the throat area of the neck may cause edema (swelling caused by fluid build-up in the tissues) around the throat and may make breathing difficult.

In rare cases, a severe allergic reaction can occur. This can cause "anaphylaxis" or anaphylactic shock with symptoms appearing immediately or up to 30 minutes later. Symptoms include; Hives, itching and

swelling in areas other than the sting site, swollen eyes/eyelids, wheezing, chest tightness, difficulty breathing, hoarse voice, swelling of the tongue, dizziness or sharp drop in blood pressure, shock, unconsciousness or cardiac arrest. Reactions can occur the first time you are stung or with subsequent stings. If you see any signs of reaction, or are unsure, call or have a co-worker call emergency medical services (e.g., 911) right away. Get medical help for stings near the eyes, nose or throat. Stay with the person who has been stung to monitor their reaction.

Staff who are allergic to bee stings are encouraged to inform their staff/project manager. If staff member carries an Epi-pen (i.e., epinephrine autoinjector) they are encouraged to inform their colleagues in case they are stung and are incapable of administering the injection. Examine site for any signs of activity or a hive/nest. If you see several insects flying around, see if they are entering/exiting from the same place. Most will not sting unless startled or attacked. Do not swat, let insects fly away on their own. If you must, walk away slowly or gently "blow" them away. If a nest is disturbed and you hear "wild" buzzing, protect your face with your hands and run from the area immediately. Wear long sleeves, long pants, and closed-toed boots. Wear light colored clothes such as khakis. Avoid brightly colored, patterned, or black clothing. Tie back long hair to avoid bees or wasps from entanglement. Do not wear perfumes, colognes or scented soaps as they contain fragrances that are attractive. If bee or wasp is found in your car, stop and leave windows open.

Location/Terrain			
Slip/Trip/Falls	Choose an item.	Choose an item.	Choose an item.

Slips, Trips & Falls

Slip and trip injuries are the most frequent injuries to workers. Statistics show most falls happen on the same level resulting from slips and trips. Both slips and trips result from unintended or unexpected change in the contact between the feet and the ground or walking surface. Good housekeeping, quality of walking surfaces (flooring), awareness of surroundings, selection of proper footwear, and appropriate pace of walking are critical for preventing fall accidents.

Site workers will be walking on a variety of irregular surfaces, that may affect their balance. Extra care must be taken to walk cautiously near rivers because the bottom of the riverbed maybe slick and may not be visible. Rocks, gradient changes, sandy bottoms, and debris may be present but not observable.

Take your time and pay attention to where you are going. Adjust your stride to a pace that is suitable for the walking surface and the tasks you are doing. Check the work area to identify hazards - beware of trip hazards such as wet floors, slippery floors, and uneven surfaces or terrain. Establish and utilize a pathway free of slip and trip hazards. Choose a safer walking route. Carry loads you can see over. Keep work areas clean and free of clutter. Communicate hazards to on-site personnel and remove hazards as appropriate.

Miscellaneous			
Choose an item.	Choose an item.	Choose an item.	Choose an item.

Click + to Add Additional Hazard Language

Task Hazard Summary

Task 1 – Drilling

Drilling is conducted for a range of services that can include but are not limited to: soil characterization, environmental investigation, well installation, and ore exploration. Familiarity with basic drilling safety is an essential component of all drilling projects. Potential hazards related to drilling operations include, but are not limited to encountering underground or overhead utilities, traffic and heavy equipment, hoisting heavy tools, steel impacts, open rotation entanglement, and the planned or unexpected encountering of toxic or hazardous substances. While staff members do not operate drilling equipment, they may work in close proximity to operating drilling equipment and may be exposed to many of the same hazards as the drilling subcontractor. It is imperative that staff are aware of emergency stops and establish communication protocols with the drillers prior to the start of work.

See OP 1002 Drilling Safety for more information.

Task 2 – Soil Sampling

Soil sampling by H&A staff on active construction sites can be conducted in conjunction with a wide range activities such as building construction, earthwork and soil management related activities. These activities can include, but are not limited to: drill spoil characterization and management during building foundation element installation, characterization of excavated soils for management/disposal/reuse during earthwork activities, and as part of environmental remedial activities such as delineation and confirmation sampling. Familiarity with basic heavy construction safety, site conditions (geotechnical and environmental), and potential soil contaminants are essential components of soil sampling performed on active sites. Potential hazards related to soil sampling at construction sites include, but are not limited to: encountering site vehicle traffic and heavy equipment operations, manual lifting, generated waste, contact or exposure to impacted soil, and encountering unknown toxic or hazardous substances. Although soil sampling is commonly performed within active excavations, from stockpiles, or within trench excavations, sampling locations and situations will vary depending on site conditions. Care should be taken while entering and exiting excavations or trenches, and when accessing (climbing up or down) soil stockpiles, ensuring that the sampling area is not being actively accessed by construction equipment. Care should also be taken with handling of potentially environmentally impacted soil during sampling, with appropriate PPE identified and used. At no time during classification activities are personnel to reach for debris near machinery that is in operation, place any samples in their mouth, or come in contact with the soils without the use of gloves. Staff will have to carry and use a variety of sampling tools, equipment, containers, and potentially heavy sample bags. It is imperative that staff are aware of emergency / communication protocols with the Contractor prior to the start of work.

Select task from drop down menu. Click + to add additional tasks. Please ensure any project specific information is added to the task.

Task 2 – Soil Vapor

Soil gas sampling is employed as an indirect indicator of contamination in soil or groundwater particularly over and around landfill waste sites, or groundwater plumes. Soil gas sampling points can be installed manually using a slam bar or power driven mechanical devices (e.g., demolition hammer or Geoprobe) may be used based on site conditions (i.e., pavement, frozen ground, very dense clays, etc.). Soil gas samples can be drawn through the probe itself, or through Teflon tubing inserted through the probe and attached to the probe point. Samples are collected and analyzed as described below. Other field air monitoring devices, such as the Combustible Gas Indicator (CGI) and the Organic Vapor Analyzer (OVA), can also be used, depending on specific site conditions.

Because the sample is being drawn from underground, and no contamination is introduced into the breathing zone, soil gas sampling usually occurs in Level D. Nevertheless, ambient air should be constantly monitored to obtain background and breathing zone readings during the sampling procedure in the event the seal around the sampling point is breached. As long as the levels in ambient air do not rise above background, no upgrade of the level of protection is needed. Also, an underground utility search must be performed prior to sampling.

Task 2 – Water Sampling

Environmental water sampling could include activities such as groundwater sampling from permanent or temporary wells, or surface water sampling from streams, rivers, lakes, ponds, lagoons, and surface impoundments.

Sampling tasks could involve uncapping, purging (pumping water out of the well), and sampling, and/or monitoring, new or existing monitoring wells. A mechanical pump may be used to purge the wells and can be hand-, gas-, or electric-operated. Water samples taken from the wells are then placed in containers and shipped to an analytical laboratory for analysis. The physical hazards of these operations are primarily associated with the collection methods and procedures used.

When sampling bodies of water containing known or suspected hazardous substances, adequate precautions must be taken to ensure the safety of sampling personnel. The sampling team member collecting the sample should not get too close to the edge, where ground failure or slips, trips or falls may cause him/her to lose his/her balance. The person performing the sampling should have fall restraint or protection for the task. When conducting sampling from a boat in an impoundment or flowing waters, appropriate vessel safety procedures should be followed. Avoid lifting heavy coolers with back muscles; instead, use ergonomic lifting techniques, team lift or mechanical lifts. Wear proper gloves, such as when handling sample containers to avoid contacting any materials that may have spilled out of the sample containers.

Inhalation and absorption of COCs are the primary routes of entry associated with water sampling, due to the manipulation of sample media and equipment, manual transfer of media into sample containers, and proximity of operations to the breathing zone. During this project, several different groundwater

sampling methodologies may be used based on equipment accessibility and the types of materials to be sampled. These sampling methods may include hand or mechanical bailing. The primary hazards associated with these specific sampling procedures are not potentially serious; however, other operations in the area or the conditions under which samples must be collected may present chemical and physical hazards. The hazards directly associated with groundwater sampling procedures are generally limited to strains or sprains from hand bailing, and potential eye hazards. Exposure to water containing COCs is also possible. All tools and equipment that will be used at the site must be intrinsically safe (electronics and electrical equipment) and non-sparking or explosion-proof (hand tools).

Task Physical Hazards Checklist				
Potential Task Hazards	**Task 1** **Drilling**	**Task 2** **Soil, soil vapor, groundwater sampling**	**Task 3** Task Name	**Task 4** Task Name
Noise	☒	☐	☐	☐
Heavy Equipment	☒	☐	☐	☐
Hot Work	☒	☒	☐	☐
Slippery Surfaces	☒	☒	☐	☐
Ergonomics	☒	☒	☐	☐
Congested Area	☒	☒	☐	☐
Ground Disturbance	☒	☐	☐	☐
Line of Fire	☒	☐	☐	☐
Manual Lifting	☒	☒	☐	☐
Sharp Objects	☒	☒	☐	☐
Underground Utilities	☒	☐	☐	☐

Summary of Physical Hazards & Controls

Choose a building block.

Noise

Working around heavy equipment (drill rigs, excavators, etc.) often creates excessive noise. The effects of noise include physical damage to the ear, pain, and temporary and/or permanent hearing loss. Workers can also be startled, annoyed, or distracted by noise during critical activities. Noise monitoring data that indicates that working within 25 feet of operating heavy equipment result in exposure to hazardous levels of noise (levels greater than 85 dBA).

See OP 1031 Hearing Conservation for additional information.

Controls

- Personnel are required to use hearing protection (earplugs or earmuffs) within 25 feet of any operating piece of heavy equipment.
- Limit the amount of time spent at a noise source.
- Move to a quiet area to gain relief from hazardous noise sources.
- Increase the distance from the noise source to reduce exposure.

Heavy Equipment

Staff must be careful and alert when working around heavy equipment, failure or breakage and limited visibility can lead to accidents and worker injury. Heavy equipment such as cranes, drills, haul trucks, or other can fail during operation increasing chances of worker injury. Equipment of this nature shall be visually inspected and checked for proper working order prior to commencement of field work. Those operating heavy equipment must meet all requirements to operate the equipment. Haley & Aldrich, Inc. staff that supervise projects or are associated with high risk projects that involve digging or drilling should use due diligence when working with a construction firm.

See OP1052 Heavy Equipment for additional information.

Controls

- Only approach equipment once you have confirmed contact with the operator (e.g., operator places the bucket on the ground).
- Always maintain visual contact with operators and keep out of the strike zone whenever possible.
- Always be alert to the position of the equipment around you.
- Always approach heavy equipment with an awareness of the swing radius and traffic routes of all equipment and never go beneath a hoisted load.
- Avoid fumes created by heavy equipment exhaust.

Hot Work

Hot work is any work that could produce a source of ignition or temperature high enough to cause the ignition of flammable gases and combustible materials. Hot work activities include burning, welding, grinding, braising, soldering, using fire or spark-producing tools. The main hazards associated with hot work are getting burned directly by the hot work activity or by fires or explosions that result from an accumulation of combustible materials in the work area.

Performing hot work in Classified and Non-Classified areas are considered a hazardous activity, and a Permit to Work may be required. In general, the Hot Work Permit has five purposes:

- To serve as written permission to do the work;
- To provide a minimum checklist prior to the commencement of hot work;
- To outline the steps necessary for making the work site safe for conducting hot work;
- To alert operating personnel to the hot work in progress; and
- To provide a record of safe work practices performed during the permitted activity.

Work shall be conducted in accordance with OP1034 Hot Work.

Controls

- Hot Work Permit must be completed.
- Conduct a risk assessment of the proposed work area to identify combustible or flammable material.
- If potential for flammable gases exists in the work area they must be monitored with a gas detector prior to starting any hot work.
- The hot work equipment shall be in satisfactory operating condition and in good repair.
- All combustible and flammable materials shall be relocated at least 35' in all directions from the work site.

If relocating these materials is impractical, the following precautions shall be taken:

- Materials shall be shielded with fire-retardant covers or metal or fire-retardant guards or curtains.
- The edges of covers at the floor shall be tight to prevent the entrance of sparks, including at the point where several covers overlap when a large pile is being protected.
- A fire watch may be required.
- A fully charged and operable fire extinguisher appropriate for the type of potential fire shall be available for use in the work area (20lbs minimum).
- A nonflammable, impervious material shall seal sewer openings, ducts and drains. Where sealing is insecure or impractical, water spray or stream should be directed across openings.
- The location of the hot work relative to combustible and flammable materials and classified areas shall determine the need for a fire watch
- Personnel within the vicinity of the hot work shall be suitably protected against such dangers as heat, sparks, flash and slag.

Slippery Surfaces

Both slips and trips result from unintended or unexpected change in the contact between the feet and ground or walking surface. Good housekeeping, quality of walking surfaces, selection of proper footwear, and appropriate pace of walking are critical for preventing fall accidents. Slips happen where there is too little friction or traction between the footwear and walking surface.

Common causes of slips are wet or oily surfaces, spills, weather hazards, loose unanchored rugs or mats and flooring or other walking surfaces that do not have same degree of traction in all areas.

Weather-related slips and falls become a serious hazard as winter conditions often make for wet or icy surfaces outdoors. Even wet organic material or mud can create hazardous walking conditions. Spills and leaks can also lead to slips and falls.

Controls

- Evaluate the work area to identify any conditions that may pose a slip hazard.
- Address any spills, drips or leaks immediately.
- Mark areas where slippery conditions exist.
- Select proper footwear or enhance traction with additional PPE.

- Where conditions are uncertain or environmental conditions result in slippery surfaces walk slowly, take small steps, and slide feet on wet or slippery surfaces.

Ergonomics

Most Work-related Musculoskeletal Disorders (WMSDs) are caused by Ergonomic Stressors. Ergonomic Stressors are caused by poor workplace practices and/or insufficient design, which may present ergonomic risk factors. These stressors include, but not limited to, repetition, force, extreme postures, static postures, quick motions, contact pressure, vibration, and cold temperatures.

WMSDs are injuries to the musculoskeletal system, which involves bones, muscles, tendons, ligaments, and other tissues in the system. Symptoms may include numbness, tightness, tingling, swelling, pain, stiffness, fatigue, and/or redness. WMSD are usually caused by one or more Ergonomic Stressors. There may be individual differences in susceptibility and symptoms among employees performing similar tasks. Any symptoms are to be taken seriously and reported immediately.

See OP1053 Ergonomics for more information.

Controls

- Ensure workstations are ergonomically correct so bad posture is not required to complete tasks.
- Take periodic breaks over the course of the day.
- Stretch during break times.
- Break up tasks that require repetitive motion.
- Contact Corporate H&S with any ergonomic concerns

Congested Areas

Working in congested areas can expose both workers and the public to a wide range of hazards depending upon the specific activities taking place. Staff Members need to understand the work scope, work areas, equipment on-site, and internal traffic patterns to minimize or eliminate exposure potential.

Controls

- Provide barricades, fencing, warning signs/signals and adequate lighting to protect people while working in or around congested areas.
- Vehicles and heavy equipment with restricted views to the rear should have functioning back-up alarms that are audible above the surrounding noise levels. Whenever possible, use a signaler to assist heavy equipment operators and/or drivers in backing up or maneuvering in congested areas.
- Lay out traffic control patterns to eliminate excessive congestion.
- Workers in congested areas should always wear high visibility clothing.
- Be aware of Line of Fire hazards when performing work activities in congested areas.
- Hazards associated with SIMOPs should be discussed daily at Tailgate Safety Meetings.

Ground Disturbance

Ground disturbance is defined as any activity disturbing the ground. Ground disturbance activities include, but are not limited to, excavating, trenching, drilling (either mechanically or by hand), digging, plowing, grading, tunneling and pounding posts or stakes.

Because of the potential hazards associated with striking an underground utility or structure, the operating procedure for underground utility clearance shall be followed prior to performing any ground disturbance activities.

See OP1020 Working Near Utilities

Controls

Prior to performing ground disturbance activities, the following requirements should be applied:

- Confirm all approvals and agreements (as applicable) either verbal or written have been obtained.
- Request for line location has been registered with the applicable One-Call or Dial Before You Dig organization, when applicable.
    - Whenever possible, ground disturbance areas should be adequately marked or staked prior to the utility locators site visit.
- Notification to underground facility operator/owner(s) that may not be associated with any known public notification systems such as the One-Call Program regarding the intent to cause ground disturbance within the search zone.
- Notifications to landowners and/or tenant, where deemed reasonable and practicable.
- Proximity and Common Right of Way Agreements shall be checked if the line locator information is inconclusive.

Line of Fire

Line of fire refers to the path an object will travel. Examples of line of fire situations typically observed on project sites include lifting/hoisting, lines under tension, objects that can fall or roll, pressurized objects or lines, springs or stored energy, work overhead, vehicles and heavy equipment.

Controls

- Never walk under a suspended load.
- Be aware and stay clear of tensioned lines such as cable, chain and rope.
- Be cautious of torque stresses that drilling equipment and truck augers can generate. Equipment can rotate unexpectedly long after applied torque force has been stopped.
- Springs and other items can release tremendous energy if compressed and suddenly released
- Items under tension and pressure can release tremendous energy if it is suddenly released.
- Not all objects may be overhead; be especially mindful of top-heavy items and items being transported by forklift or flatbed.
- Secure objects that can roll such as tools, cylinders, and pipes.
- Stay clear of soil cuttings or soil stockpiles generated during drilling operations and excavations, be aware that chunks of soil, rocks, and debris can fall or roll.

Manual Lifting/Moving

Most materials associated with investigation, remedial, or construction-related activities are moved by hand. The human body is subject to damage in the forms of back injury, muscle strains, and hernia if caution is not observed in the handling process.

Controls

- Under no circumstances should any one person lift more than 49 pounds unassisted.
- Always push, not pull, the object when possible.
- Size up the load before lifting. If it is heavy or clumsy, get a mechanical aid or help from a worker.
- Bend the knees; it is the single most important aspect of lifting.
- When performing the lift:
    - Place your feet close to the object and center yourself over the load.
    - Get a good handhold.
    - Lift straight up, smoothly and let your legs do the work, not your back!
    - Avoid overreaching or stretching to pick up or set down a load.
    - Do not twist or turn your body once you have made the lift.
    - Make sure beforehand that you have a clear path to carry the load.
    - Set the load down properly.

Sharp Objects

Workers who handle sharp edged objects like sheets of steel or glass are at risk of cuts. Workers who handle sharp edged objects are also at risk of cuts. Injuries may occur to hands, fingers, or legs when they are in the way of the blade, when the blade slips, or if an open blade is handled unexpectedly. Other hazards at job sites include stepping on sharp objects (e.g. wooden boards with protruding nails, sharp work-tools, chisels, etc.) and colliding with sharp and/or protruding objects.

Controls

Always be alert when handling sharps. Never look away or become distracted while handling sharp objects. Use caution when working with tools; use right tool for the job. Keep tools sharp, dull blades are a safety hazard, requiring more force to make cuts which can lead to tool slippage. Wear appropriate PPE and do not handle sharp objects (i.e., broken glass) with bare hands. Use mechanical devices, when possible. Stay away from building debris; avoid handling site debris or placing your hand where you cannot see. Watch out for barbed wire and electrical fences; cover with a car mat or equivalent to cross or walk around; use the buddy system to avoid entanglement; wear gloves. Do not leave unprotected sharps unattended. Use protective shields, cases, styrofoam blocks, etc. Pass a sharp by handing it over carefully by the handle with the blade down or retracted. Fixed open blades are prohibited. Always cut away from the body, making several passes when cutting thicker materials. Make sure blades are fitted properly into the knife. Never cut items with a blade or other sharp object on your lap. Never try to catch a blade or cutting tool that is falling.

Underground Utilities

Various forms of underground/overhead utility lines or conveyance pipes may be encountered during site activities. Prior to the start of intrusive operations, utility clearance is mandated, as well as obtaining authorization from all concerned public utility department offices. Should intrusive operations cause

equipment to come into contact with utility lines, the SHSO, Project Manager, and Regional H&S Manager shall be notified immediately. Work will be suspended until the client and applicable utility agency is contacted and the appropriate actions for the situation can be addressed.

See OP1020 Work Near Utilities for complete information.

Controls

- Obtain as-built drawings for the areas being investigated from the property owner;
- Visually review each proposed soil boring locations with the property owner or knowledgeable site representative;
- Perform a geophysical survey to locate utilities;
- Hire a private line locating firm to determine location of utility lines that are present at the property;
- Identifying a no-drill or dig zone;
- Hand dig or use vacuum excavation in the proposed ground disturbance locations if insufficient data is unavailable to accurately determine the location of the utility lines.

4. PROTECTIVE MEASURES

The personal protective equipment and safety equipment (if listed) is specific to the associated task. The required PPE and equipment listed must be onsite during the task being performed. Work shall not commence unless the required PPE or Safety Equipment is present.

Required Safety & Personal Protective Equipment

Required Personal Protective Equipment (PPE)	**Task 1**	**Task 2**	**Task 3**	**Task 4**
	Drilling	Soil, soil vapor, and groundwater sampling	Enter task description.	Enter task description.
Safety Glasses	☒	☒	☐	☐
Hearing Protection	☒	☐	☐	☐
Safety Toed Shoes	☒	☒	☐	☐
Class 2 Safety Vest	☒	☒	☐	☐
Face Shield	☒	☒	☐	☐
Level of protection required	D	D	Select	Select
Required Safety Equipment				
First Aid Kit	☒	☒	☐	☐

5. TRAINING REQUIREMENTS

The table below lists the training requirements staff must have respective to their assigned tasks and that are required to access the Site.

Site Specific Training Requirements

HAZWOPER - 40 Hour (Initial); HAZPOWER - 8 Hour (Annual Refresher); Site - Specific Orientation

Task Specific Training Requirements

Required Training Type	**Task 1**	**Task 2**	**Task 3**	**Task 4**
	Drilling	Soil, soil vapor, and groundwater sampling	Enter task description.	Enter task description.
HAZWOPER - 40 Hour (Initial); HAZPOWER -8 Hour (Annual Refresher); and Site - Specific Orientation	☒	☒	☐	☐

6. AIR MONITORING PLAN AND EQUIPMENT

Exposures to airborne substances shall be fully characterized throughout project operations to ensure that exposure controls are effectively selected and modified as needed.

Is air/exposure monitoring required at this work site for personal protection? No

Is perimeter monitoring required for community protection? No

Air monitoring plan not applicable No

7. DECONTAMINATION & DISPOSAL METHODS

All possible and necessary steps shall be taken to reduce or minimize contact with chemicals and contaminated/impacted materials while performing field activities (e.g., avoid sitting or leaning on, walking through, dragging equipment through or over, tracking, or splashing potential or known contaminated/impacted materials.)

Personal Hygiene Safeguards

The following minimum personal hygiene safeguards shall be adhered to:

1. No smoking or tobacco products in any project work areas.
2. No eating or drinking in the exclusion zone.
3. It is required that personnel present on site wash hands before eating, smoking, taking medication, chewing gum/tobacco, using the restroom, or applying cosmetics and before leaving the site for the day.

It is recommended that personnel present on site shower or bathe at home at the end of each day of working on the site.

Decontamination Supplies

All decontamination should be conducted at the project site in designated zones or as dictated by Client requirements. Decontamination should not be performed on Haley & Aldrich owned or leased premises.

☐ Acetone	☒ Distilled Water	☐ Polyethylene Sheeting
☒ Alconox Soap	☐ Drums	☐ Pressure/Steam Cleaner
☐ Brushes	☐ Hexane	☒ Tap Water
☒ Disposal Bags	☐ Methanol	☐ Wash tubs
☒ 5 Gallon Buckets	☒ Paper Towels	☐ Other: Specify

Location of Decontamination Station
Decontamination will take place prior to leaving the site at the exit.

Standard Personal Decontamination Procedures

Outer gloves and boots should be decontaminated periodically as necessary and at the end of the day. Brush off solids with a hard brush and clean with soap and water or other appropriate cleaner whenever possible. Remove inner gloves carefully by turning them inside out during removal. Wash hands and forearms frequently. It is good practice to wear work-designated clothing while on-site which can be removed as soon as possible. Non-disposable overalls and outer work clothing should be bagged onsite prior to laundering. If gross contamination is encountered on-site contact the Project Manager and Field Safety Manager to discuss proper decontamination procedures.

The steps required for decontamination will depend upon the degree and type of contamination but will generally follow the sequence below.

1. Remove and wipe clean hard hat
2. Rinse boots and gloves of gross contamination
3. Scrub boots and gloves clean
4. Rinse boots and gloves
5. Remove outer boots (if applicable)
6. Remove outer gloves (if applicable)
7. Remove Tyvek coverall (if applicable)
8. Remove respirator, wipe clean and store (if applicable)
9. Remove inner gloves (if outer gloves were used)

PPE that is not grossly contaminated can be bagged and disposed in regular trash receptacles.

Small Equipment Decontamination

Pretreatment of heavily contaminated equipment may be conducted as necessary:

1. Remove gross contamination using a brush or wiping with a paper towel
2. Soak in a solution of Alconox and water (if possible)
3. Wipe off excess contamination with a paper towel

Standard decontamination procedure:

4. Wash using a solution of Alconox and water
5. Rinse with potable water
6. Rinse with methanol (or equivalent)
7. Rinse with distilled/deionized water

Inspect the equipment for any remaining contamination and repeat as necessary.

Disposal Methods

Procedures for disposal of contaminated materials, decontamination waste, and single use personal protective equipment shall meet applicable client, locate, State, and Federal requirements.

Disposal of Single Use Personal Protective Equipment

PPE that is not grossly contaminated can be bagged and disposed in regular trash receptacles. PPE that is grossly contaminated must be bagged (sealed and field personnel should communicate with the Project Manager to determine proper disposal.

Disposal Method for Contaminated Soil

- Contaminated soil cuttings and spoils must be containerized for disposal off-site unless otherwise specifically directed.
- Soil cuttings and spoils determined to be free of contamination through field screening can usually be returned to the boreholes or excavations from which they came.

Any additional requirements that are designated by the workplan or by client specifications should be entered here.

8. SITE CONTROL

The overall purpose of site control is to minimize potential contamination of workers, protect the public from the site's hazards, and prevent vandalism. Site control is especially important in emergency situations. The degree of site control necessary depends on site characteristics, site size, and the surrounding community. The following information identifies the elements used to control the activities and movements of people and equipment at the project site.

Communication

Internal
Haley & Aldrich site personnel will communicate with other Haley & Aldrich staff member and/or subcontractors or contractors with:

Face to Face Communication

External
H&S site personnel will use the following means to communicate with off-site personnel or emergency services.

Cellular Phones

Visitors

Project Site
Will visitors be required to check-in prior to accessing the project site?

Yes

Visitor Access
Authorized visitors that require access to the project site need to be provided with known information with respect to the site operations and hazards as applicable to the purpose of their site visit. Authorized visitors must have the required PPE and appropriate training to access the project site.

Yanxia Lin and/or Zachary Simmel will be responsible for facilitating authorized visitor access.

Zoning

Work Zone
The work zone will be clearly delineated to ensure that the general public or unauthorized worker access is prevented. The following will be used:

Cones, locked doors/gates

9. SITE SPECIFIC EMERGENCY RESPONSE PLAN

The Emergency Response Plan addresses potential emergencies at this site, procedures for responding to these emergencies, roles, responsibilities during emergency response, and training. This section also describes the provisions this project has made to coordinate its emergency response with other contractors onsite and with offsite emergency response organizations (as applicable).

During the development of this emergency response plan, local, state, and federal agency disaster, fire, and emergency response organizations were consulted (if required) to ensure that this plan is compatible and integrated with plans of those organizations. Documentation of the dates of these consultations are the names of individuals contacted is kept on file and available upon request.

The site has been evaluated for potential emergency occurrences, based on site hazards, and the major categories of emergencies that could occur during project work are:

- Fire(s)/Combustion
- Hazardous Material Event
- Medical Emergency
- Natural Disaster

A detailed list of emergency types and response actions are summarized in Table X below. Prior to the start of work, the SSO will update the table with any additional site-specific information regarding evacuations, muster points, or additional emergency procedures. The SSO will establish evacuation routes and assembly areas for the Site. All personnel entering the Site will be informed of these routes and assembly areas.

Pre-Emergency Planning

Before the start of field activities, the Project Manager will ensure preparation has been made in anticipation of emergencies. Preparatory actions include the following:

Meeting with the subcontractor/and or client concerning the emergency procedures in the event a person is injured. Appropriate actions for specific scenarios will be reviewed. These scenarios will be discussed, and responses determined before the sampling event commences. A form of emergency communication (i.e.; Cell phone, Air horn, etc.) between the Project Manager and subcontractor and/or client will be agreed on before the work commences.

A training session (i.e., “safety meeting”) given by the Project Manager or their designee informing all field personnel of emergency procedures, locations of emergency equipment and their use, and proper evacuation procedures.

Ensuring field personnel are aware of the existence of the emergency response HASP and ensuring a copy of the HASP accompanies the field team(s).

Onsite Emergency Response Equipment

Emergency procedures may require specialized equipment to facilitate work rescue, contamination control and reduction or post-emergency cleanup. Emergency response equipment stocked

Table 9.1 Emergency Equipment			
Emergency Equipment	**Specific Type**	**Quantity Stocked**	**Location Stored**
First Aid Kit	General First Aid Kit	1	With H&A personnel

EVACUATION ALARM
Verbal Communication (Site Personnel are adjacent in work zone)
EVACUATION ROUTES
Will be given a map after site specific training
EVACUATION MUSTER POINT(S)/ SHELTER AREA(S)
Will be given a locations after site specific training
EVACUTION RESPONSE DRILLS
The Site relies on outside emergency responders and a drill is not required.

Table 9-2 – Emergency Planning

Emergency Type	Notification	Response Action	Evacuation Plan/Route
Chemical Exposure	Report event to SSO immediately	Refer to Safety Data Sheet for required actions	Remove personnel from work zone
Fire - Small	Notify SSO and contact 911	Use fire extinguisher if safe and qualified to do so	Mobilize to *Muster Point*
Fire – Large/Explosion	Notify SSO and contact 911	Evacuate immediately	Mobilize to *Muster Point*
Hazardous Material – Spill/Release	Notify SSO; SSO will contact PM to determine if additional agency notification is	If practicable don PPE and use spill kit and applicable procedures to contain the release	See Evacuation Map for route, move at least 100 ft upwind of spill location
Medical – Bloodborne Pathogen	Notify SSO	If qualified dispose in container or call client or city to notify for further instruction.	None Anticipated
Medical – First Aid	Notify SSO	If qualified perform first aid duties	None Anticipated
Medical – Trauma	If life threatening or transport is required call 911, immediately	Wait at site entrance for ambulance	Noe Anticipated
Security Threat	Notify SSO who will call 911 as warranted	Keep all valuables out of site and work zones delineated.	None Anticipated
Weather – Earthquake/Tsunami's	STOP WORK and evacuate Site upon any earthquake	Turn off equipment and evacuate as soon as is safe to do so	Mobilize to *Shelter Location*
Weather – Lightning Storm	STOP WORK	Work may resume 30 minutes after the last observed lightning.	None Anticipated
Weather – Tornadoes/Hurricanes	Monitor weather conditions STOP WORK and evacuate the site	Evacuate to shelter location or shelter in place immediately	Mobilize to *Shelter Location*
MUSTER POINT Site walk along the Fleet place street		*SHELTER LOCATION* Personal vehicle	
In case of site emergencies, site personnel shall be evacuated per this table and will not participate in emergency response activities. Site emergencies shall be reported to local, state, and federal governmental agencies as required.			

10. HASP ACKNOWLEDGEMENT FORM

All Haley & Aldrich employees onsite must sign this form prior to entering the site.

I hereby acknowledge receipt of, and briefing on, this HASP prior to the start of on-site work. I declare that I understand and agree to follow the provisions, processes, and procedures set forth herein at all times while working on this site.

Printed Name	Signature	Date

ATTACHMENT A
HASP AMENDMENT FORM

HASP AMENDMENT FORM

This form is to be used whenever there is an immediate change in the project scope that will require an amendment to the HASP. For project scope changes associated with "add-on" tasks, the changes must be made in the body of the HASP. Before changes can be made, a review of the potential hazards must be initiated by the Haley & Aldrich Project Manager.

This original form must remain on site with the original HASP. If additional copies of this HASP have been distributed, it is the Project Manager's responsibility to forward a signed copy of this amendment to those who have copies.

Amendment No.	
Site Name	
Work Assignment No.	
Date	
Type of Amendment	
Reason for Amendment	
Alternate Safeguard Procedures	
Required Changes in PPE	

Project Manager Name (Print)	Project Manager Signature	Date

Health & Safety Approver Name (Print)	Health & Safety Approver Signature	Date

ATTACHMENT B
TRAINING REQUIREMENTS

TRAINING REQUIREMENTS

Health and Safety Training Requirements

Personnel will not be permitted to supervise or participate in field activities until they have been trained to a level required by their job function and responsibility. Haley & Aldrich staff members, contractors, subcontractors, and consultants who have the potential to be exposed to contaminated materials or physical hazards must complete the training described in the following sections.

The Haley & Aldrich Project Manager/FSM will be responsible for maintaining and providing to the client/site manager documentation of Haley & Aldrich staff members' compliance with required training as requested. Records shall be maintained per OSHA requirements.

40-Hour Health and Safety Training

The 40-Hour Health and Safety Training course provides instruction on the nature of hazardous waste work, protective measures, proper use of personal protective equipment, recognition of signs and symptoms which might indicate exposure to hazardous substances, and decontamination procedures. It is required for all personnel working on-site, such as equipment operators, general laborers, and supervisors, who may be potentially exposed to hazardous substances, health hazards, or safety hazards consistent with 29 CFR 1910.120.

8-hour Annual Refresher Training

Personnel who complete the 40-hour health and safety training are subsequently required to attend an annual 8-hour refresher course to remain current in their training. When required, site personnel must be able to show proof of completion (i.e., certification) at an 8-hour refresher training course within the past 12 months.

8-Hour Supervisor Training

On-site managers and supervisors directly responsible for, or who supervise staff members engaged in hazardous waste operations, should have eight additional hours of Supervisor training in accordance with 29 CFR 1910.120. Supervisor Training includes, but is not limited to, accident reporting/investigation, regulatory compliance, work practice observations, auditing, and emergency response procedures.

Additional Training for Specific Projects

Haley & Aldrich personnel will ensure their personnel have received additional training on specific instrumentation, equipment, confined space entry, construction hazards, etc., as necessary to perform their duties. This specialized training will be provided to personnel before engaging in the specific work activities including:

- Client specific training or orientation
- Competent person excavations
- Confined space entry (entrant, supervisor, and attendant)
- Heavy equipment including aerial lifts and forklifts
- First aid/ CPR
- Use of fall protection
- Use of nuclear density gauges
- Asbestos awareness

ATTACHMENT C
ROLES AND RESPONSIBILITIES

SITE ROLES AND RESPONSIBILITIES

Haley & Aldrich Personnel

Field Safety Manager (FSM)

The Haley & Aldrich FSM is a full-time Haley & Aldrich staff member, trained as a safety and health professional, who is responsible for the interpretation and approval of this Safety Plan. Modifications to this Safety Plan cannot be undertaken by the PM or the SSO without the approval of the FSM.

Specific duties of the FSM include:

- Approving and amending the Safety Plan for this project
- Advising the PM and SHSOs on matter relating to health and safety
- Recommending appropriate personal protective equipment (PPE) and air monitoring instrumentation
- Maintaining regular contact with the PM and SSO to evaluate the conditions at the property and new information which might require modifications to the HASP and
- Reviewing and approving JSAs developed for the site-specific hazards.

Project Manager (PM)

The Haley & Aldrich PM is responsible for ensuring that the requirements of this HASP are implemented at that project location. Some of the PM´s specific responsibilities include:

- Assuring that all personnel to whom this HASP applies have received a copy of it;
- Providing the FSM with updated information regarding environmental conditions at the site and the scope of site work;
- Providing adequate authority and resources to the on-site SHSO to allow for the successful implementation of all necessary safety procedures;
- Supporting the decisions made by the SHSO;
- Maintaining regular communications with the SHSO and, if necessary, the FSM;
- Coordinating the activities of all subcontractors and ensuring that they are aware of the pertinent health and safety requirements for this project;
- Providing project scheduling and planning activities; and
- Providing guidance to field personnel in the development of appropriate Job Safety Analysis (JSA) relative to the site conditions and hazard assessment.

Site Health & Safety Officer (SHSO)

The SHSO is responsible for field implementation of this HASP and enforcement of safety rules and regulations. SHSO functions may include some or all of the following:

- Act as Haley & Aldrich´s liaison for health and safety issues with client, staff, subcontractors, and agencies.
- Verify that utility clearance has been performed by Haley & Aldrich subcontractors.
- Oversee day-to-day implementation of the Safety Plan by Haley & Aldrich personnel on site.

- Interact with subcontractor project personnel on health and safety matters.
- Verify use of required PPE as outlined in the safety plan.
- Inspect and maintain Haley & Aldrich safety equipment, including calibration of air monitoring instrumentation used by Haley & Aldrich.
- Perform changes to HASP and document in Appendix A of the HASP as needed and notify appropriate persons of changes.
- Investigate and report on-site accidents and incidents involving Haley & Aldrich and its subcontractors.
- Verify that site personnel are familiar with site safety requirements (e.g., the hospital route and emergency contact numbers).
- Report accidents, injuries, and near misses to the Haley & Aldrich PM and FSM as needed.

The SHSO will conduct initial site safety orientations with site personnel (including subcontractors) and conduct toolbox and safety meetings thereafter with Haley & Aldrich employees and Haley & Aldrich subcontractors at regular intervals and in accordance with Haley & Aldrich policy and contractual obligations. The SHSO will track the attendance of site personnel at Haley & Aldrich orientations, toolbox talks, and safety meetings.

Field Personnel

Haley & Aldrich personnel are responsible for following the health and safety procedures specified in this HASP and for performing their work in a safe and responsible manner. Some of the specific responsibilities of the field personnel are as follows:

- Reading the HASP in its entirety prior to the start of on-site work;
- Submitting a completed Safety Plan Acceptance Form and documentation of medical surveillance and training to the SHSO prior to the start of work;
- Attending the pre-entry briefing prior to beginning on-site work;
- Bringing forth any questions or concerns regarding the content of the Safety Plan to the PM or the SHSO prior to the start of work;
- Stopping work when it is not believed it can be performed safely;
- Reporting all accidents, injuries and illnesses, regardless of their severity, to the SHSO;
- Complying with the requirements of this safety plan and the requests of the SHSO; and
- Reviewing the established JSAs for the site-specific hazards on a daily basis and prior to each shift change, if applicable.

Visitors

Authorized visitors (e.g., Client Representatives, Regulators, Haley & Aldrich management staff, etc.) requiring entry to any work location on the site will be briefed by the Site Supervisor on the hazards present at that location. Visitors will be escorted at all times at the work location and will be responsible for compliance with their employer´s health and safety policies. In addition, this safety plan specifies the minimum acceptable qualifications, training and personal protective equipment which are required for entry to any controlled work area; visitors must comply with these

requirements at all times. Unauthorized visitors, and visitors not meeting the specified qualifications, will not be permitted within established controlled work areas.

SUBCONTRACTOR PERSONNEL

Subcontractor Site Representative

Each contractor and subcontractor shall designate a Contractor Site Representative. The Contractor Site Representative will interface directly with Insert Staff Name Here, the Subcontractor Site Safety Manager, with regards to all areas that relate to this safety plan and safety performance of work conducted by the contractor and/or subcontractor workforce. Contractor Site Representatives for this site are listed in the Contact Summary Table at the beginning of the Safety Plan.

Subcontractor Site Safety Manager

Each contractor / subcontractor will provide a qualified representative who will act as their Site Safety Manager (Sub-SSM). This person will be responsible for the planning, coordination, and safe execution of subcontractor tasks, including preparation of job hazard analyses (JHA), performing daily safety planning, and coordinating directly with the Haley & Aldrich SHSO for other site safety activities. This person will play a lead role in safety planning for Subcontractor tasks, and in ensuring that all their employees and lower tier subcontractors are in adherence with applicable local, state, and/or federal regulations, and/or industry and project specific safety standards or best management practices.

General contractors / subcontractors are responsible for preparing a site-specific HASP and/or other task specific safety documents (e.g., JHAs), which are, at a minimum, in compliance with local, state, and/or federal other regulations, and/or industry and project specific safety standards or best management practices. The contractor(s)/subcontractor(s) safety documentation will be at least as stringent as the health and safety requirements of the Haley & Aldrich Project specific HASP.

Safety requirements include, but are not limited to: legal requirements, contractual obligations and industry best practices. Contractors/subcontractors will identify a site safety representative during times when contractor/subcontractor personnel are on the Site. All contractor/subcontractor personnel will undergo a field safety orientation conducted by the Haley & Aldrich SHSO and/or PM prior to commencing site work activities. All contractors / subcontractors will participate in Haley & Aldrich site safety meetings and their personnel will be subject to training and monitoring requirements identified in this Safety Plan. If the contractors / subcontractors means and methods deviate from the scope of work described in Section 1 of this Safety Plan, the alternate means and methods must be submitted, reviewed and approved by the Haley & Aldrich SHSO and/or PM prior to the commencement of the work task. Once approved by the Haley & Aldrich SHSO and/or PM, the alternate means and methods submittal will be attached to this Safety Plan as an Addendum.

ATTACHMENT D
JOB SAFETY ANALYSES

101 FLEET PLACE

KEY TASK ENTER TASK NUMBER.: ENTER TASK NAME.

Subtask Category	Potential Hazards	Controls
Drilling	Slips, Trips, and Falls	• Keep work area clear
Drilling	Utility locators and underground hazards	• Utility markout
Drilling	Noise reduction	• Wear appropriate noise reducing PPE
Drilling	Heavy equipment	• Avoid line of fire, wear PPE
Sampling	Slips, trips, and falls	• Keep work area clear
Sampling	Slips, trips, and falls	• Wear PPE
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.
Enter subtask information.	Choose category.	• Enter control(s) for each hazard.

ATTACHMENT E
PROJECT SITE FORMS

ATTACHMENT F
COVID DOCUMENTS

APPENDIX B

EXAMPLE MANIFEST

BSM Non-Hazardous Manifest

Please complete Sections 3 & 5 at a minimum.

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number: BSM Approval Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number: E 008456

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

Bayshore Soil Management, LLC
75 Crows Mill Rd
Keasbey, NJ 08832

NJ1225001522

Facility's Phone: 732.738.6000

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1.					
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

Provide additional information if applicable/needed

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name | Signature | Month | Day | Year

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

APPENDIX C

EXAMPLE FIELD FORMS

DAILY FIELD REPORT

Page of

Project		Report No.	
Location		Date	
Client		Page	of
Contractor		File No.	
Weather		Temperature	

Field Representative(s)	Time on site	Report/Travel/Other	Total hours

Distribution:

Haley & Aldrich, Inc.

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page
of

Date Rec'd in Lab

ALPHA Job #

Client Information

Client:
Address:
Phone:
Fax:
Email:

Project Information

Project Name:
Project Location:
Project #
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time

Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ **Done**
☐ **Lab to do**
Preservation
☐ **Lab to do**
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Sample Specific Comments

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)