

DECISION DOCUMENT

HPS Parcel F
Brownfield Cleanup Program
Long Island City, Queens County
Site No. C241225
November 2019



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

DECLARATION STATEMENT - DECISION DOCUMENT

HPS Parcel F
Brownfield Cleanup Program
Long Island City, Queens County
Site No. C241225
November 2019

Statement of Purpose and Basis

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

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

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Remedial Design

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

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

2. Excavation

Excavation and off-site disposal of all on-site soils which exceed the soil cleanup objectives (SCOs) for restricted residential use, as defined by 6 NYCRR Part 375-6.8, in the upper 15 feet. If a Track 2 restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy.

Excavation and off-site disposal of contaminant source areas, including soils which exceed the protection of groundwater SCOs, as defined by 6 NYCRR Part 375-6.8, for those contaminants found in site groundwater above standards.

Approximately 23,000 cubic yards of contaminated soil will be removed from the site.

3. Backfill

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

4. Groundwater Extraction & Treatment

Dewatering at the site will be required to enable the excavation and subgrade work. Contaminated groundwater from dewatering operations will be treated as necessary prior to discharge to the municipal sewer system.

5. Institutional Controls

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

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

6. Site Management Plan

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

- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
 - Institutional Controls: The Environmental Easement discussed in Paragraph 4.
 - Engineering Controls: The cover system, if necessary, discussed in Paragraph 7.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;

- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 6 will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
 - provisions for the management and inspection of the identified engineering controls;
 - maintaining site access controls and Department notification; and
 - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- b. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Contingent Track 4 Remedy

In the event that Track 2 restricted residential use is not achieved, the following contingent remedial elements will be required and the remedy will achieve a Track 4 restricted residential cleanup.

7. Cover System

A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

Declaration

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

November 26, 2019



Date

Gerard Burke, Director
Remedial Bureau B

DECISION DOCUMENT

HPS Parcel F
Long Island City, Queens County
Site No. C241225
November 2019

SECTION 1: SUMMARY AND PURPOSE

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

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

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

SECTION 2: CITIZEN PARTICIPATION

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

DECInfo Locator - Web Application
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C241225>

Queens Community Board 2
43-22 50th Street, 2nd Floor
Woodside, NY 11377
Phone: (718) 533-8773

Queens Public Library
Court Square
25-01 Jackson Avenue

Long Island City, NY 11101
Phone: (718) 937-2790

Receive Site Citizen Participation Information By Email

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

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The site is identified as Tax Block 6, Lot 30 on the Queens County tax map and is bounded by 56th Avenue to the north, Center Boulevard to the west, 2nd Street to the east, and 57th Avenue to the south. Directly adjacent to the site to the south is a vacant lot that is planned to be developed as a school by the New York City School Construction Authority. The site is part of the Hunters Point South Project Area (HPSPA), which includes creation of new infrastructure, roadways, and public open space by New York City Economic Development Corporation (NYCEDC) in support of a mixed-use affordable housing development.

Site Features: The site is an approximately 0.79-acre, vacant, unpaved lot surrounded by chain-link fence.

Current Zoning and Land Use: The site is zoned R10 (residential) with a C2-5 (commercial) overlay (C2-5). R10 districts are high-density districts that permit a wide range of building types including towers. The area surrounding the site consists of a mix of industrial and commercial properties (Figure 5). The nearest residential area is approximately 1,200 feet north of the site. To the south, across Newtown Creek, the nearest residential area is approximately 900 feet away.

Past Use of the Site: The site has had industrial uses since the late 19th century when it was part of a sugar refinery, which expanded operations to cover the entire site and immediately surrounding properties from approximately 1916 through 1962. The refinery included large warehouses, a boiler house with four boilers and coal conveyors to Newtown Creek, and an incinerator and ash pit to the south of the site. The sugar refinery property was transferred to a newspaper company in 1965 and around this time the refinery was demolished. The site remained vacant until the 1970s. The eastern portion of the former refinery was developed with a newspaper publishing plant and associated parking from the mid-1970s through 2003. From 1974 through 1986, Sanborn maps indicate an area of this parking lot was used for storage of solvents within an earthen berm. The maps depict three 10,000-gallon and one 4,000-gallon tanks in this area, which are likely associated with the printing operation at the site.

Site Geology & Hydrogeology: The land surface elevation is approximately 25 feet above mean sea level at the northwest corner of the site, and slopes downward to an elevation of approximately 15 feet at the southeast corner. Historic fill of unknown origin was added in the 1970s to expand the shoreline west of the HPSPA into the East River, as determined by the historical aerial

photographs, topographic maps, and Sanborn Fire Insurance Maps. The site is underlain by urban fill to depths to approximately 35 feet below land surface (ft bls). Bedrock is estimated to be present approximately 75 to 85 feet below grade. The measured groundwater flow direction is west-southwest towards the East River in the area of the site.

The East River is approximately 200 feet west of the site and the mouth of Newtown Creek is approximately 300 feet south. A portion of the site is within the 100-year flood zone. The remainder of the site is within a 500-year flood zone. The depth to groundwater is between approximately 16 and 22 feet bls.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

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

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

SECTION 5: ENFORCEMENT STATUS

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

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

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

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

also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

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

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

6.1.2: RI Results

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

benzo(a)anthracene	indeno(1,2,3-CD)pyrene
benzo(a)pyrene	barium
benzo(b)fluoranthene	chromium
benzo(k)fluoranthene	lead
chrysene	mercury
dibenz[a,h]anthracene	

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

- soil

6.2: Interim Remedial Measures

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

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

6.3: Summary of Environmental Assessment

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

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

Soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), pesticides, emerging contaminants (ECs), and 1,4-dioxane. Soil vapor and indoor air were sampled for VOCs. Based upon investigations conducted to date, the primary contaminants of concern include SVOCs and metals.

Soil - No VOCs, PCBs or pesticides were detected in exceedance of restricted residential use soil cleanup objectives (RRSCOs). Several SVOCs were found throughout the site to depths of 6 feet, including: benzo(a)anthracene at a maximum concentration of 23 parts per million (ppm) as compared to the RRSCO of 1 ppm; benzo(a)pyrene at 21 ppm (RRSCO is 1 ppm); benzo(b)fluoranthene at 26 ppm (RRSCO is 1 ppm); benzo(k)fluoranthene at 10 ppm (RRSCO is 3.9 ppm), chrysene at 22 ppm (RRSCO is 3.9 ppm); dibenz(a,h)anthracene at 3.3 ppm (RRSCO is 0.33 ppm), and indeno(1,2,3-cd)pyrene at 16 ppm (RRSCO is 0.5 ppm). Heavy metals were detected in the northwestern and central portions of the site at depths up to 15 feet, including: barium at 944 ppm (RRSCO is 400 ppm); chromium at 217 ppm (RRSCO is 180 ppm); lead at 1,000 ppm (RRSCO is 400 ppm); and mercury at 1.4 ppm (RRSCO is 0.81 ppm). Emerging contaminants, specifically perfluorooctanesulfonic acid (PFOS), were detected in one boring in the south-central portion of the site at a maximum concentration of 4.02 parts per billion (ppb). Data does not indicate any off-site impacts in soil related to this site.

Groundwater - No VOCs, SVOCs, PCBs or pesticides were detected in groundwater at concentrations exceeding the ambient water quality standards (AWQS). Several naturally-occurring metals, including sodium, magnesium and manganese were detected above their respective AWQS of 25 ppb; however, these can be attributed to the site's proximity to saline surface water. The emerging contaminant perfluorooctanoic acid (PFOA) was detected at a maximum concentration of 104 parts per trillion (ppt). Data does not indicate any off-site impacts in groundwater related to this site.

Soil Vapor - Several VOCs were detected in soil vapor, including 1,1,1-trichloroethane at a maximum concentration of 90 micrograms per cubic meter (ug/m³), and toluene at 1300 ug/m³. Data does not indicate any off-site impacts in soil vapor related to this site.

6.4: Summary of Human Exposure Pathways

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

The site is fenced, which restricts public access. However, persons who enter the site could contact contaminants in the soil by walking on the site, digging or otherwise disturbing the soil. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. The potential exists for the inhalation of site contaminants due to soil vapor intrusion in any future onsite development. Environmental sampling indicates soil vapor intrusion is not a concern offsite.

6.5: Summary of the Remediation Objectives

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

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.

RAOs for Environmental Protection

- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

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

Soil Vapor

RAOs for Public Health Protection

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

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

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

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

The selected remedy is referred to as the Soil Excavation remedy.

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

1. Remedial Design

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

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

2. Excavation

Excavation and off-site disposal of all on-site soils which exceed the soil cleanup objectives (SCOs) for restricted residential use, as defined by 6 NYCRR Part 375-6.8, in the upper 15 feet. If a Track 2 restricted residential cleanup is achieved, a Cover System will not be a required element of the remedy.

Excavation and off-site disposal of contaminant source areas, including soils which exceed the protection of groundwater SCOs, as defined by 6 NYCRR Part 375-6.8, for those contaminants found in site groundwater above standards.

Approximately 23,000 cubic yards of contaminated soil will be removed from the site.

3. Backfill

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

4. Groundwater Extraction & Treatment

Dewatering at the site will be required to enable the excavation and subgrade work. Contaminated groundwater from dewatering operations will be treated as necessary prior to discharge to the municipal sewer system.

5. Institutional Controls

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

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

6. Site Management Plan

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

- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:
 - Institutional Controls: The Environmental Easement discussed in Paragraph 4.
 - Engineering Controls: The cover system, if necessary, discussed in Paragraph 7.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 6 will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

- b. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Contingent Track 4 Remedy

In the event that Track 2 restricted residential use is not achieved, the following contingent remedial elements will be required and the remedy will achieve a Track 4 restricted residential cleanup.

7. Cover System

A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.



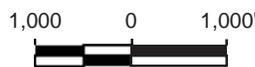
QUADRANGLE LOCATION



Title:

SITE LOCATION MAP

HPS PARCEL F
NYSDEC BCP SITE C241225



Figure

1

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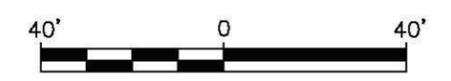


LEGEND

- BCP SITE BOUNDARY
- PROPOSED LIMITS OF EXCAVATION TO A MINIMUM OF APPROXIMATELY 15 FT BLS (ELEVATION +9.0 TO 0.0 FT NAVD 88)
- PROPOSED LIMITS OF EXCAVATION FOR MAT FOOTINGS TO APPROXIMATELY 15 TO 22 FT BLS (ELEVATION 0.0 TO -2.0 FT NAVD 88)

SOURCE

TRUE NORTH SURVEYORS, P.C., Q-B:6 LOT 30
DATED APRIL 23, 2018.



EXTENT OF EXCAVATION

HPS PARCEL F
NYDEC BCP SITE C241225

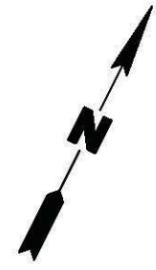
NOTES

FT BLS — FEET BELOW LAND SURFACE

NAVD 88 — NORTH AMERICAN VERTICAL DATUM OF 1988

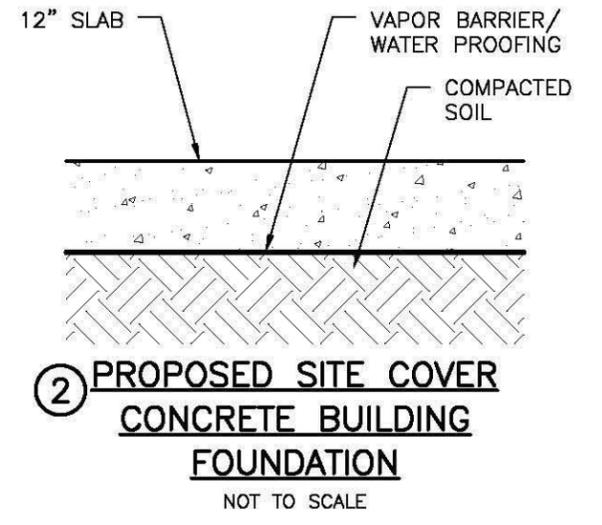
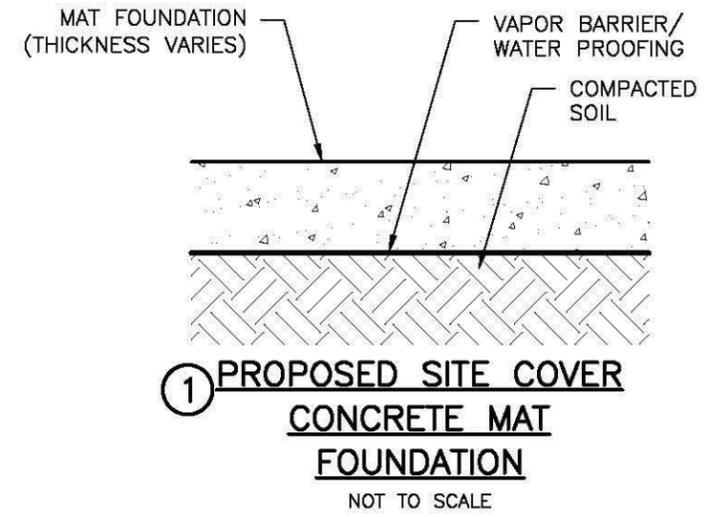
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2

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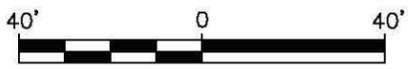


LEGEND

- BCP SITE BOUNDARY
- PROPOSED LIMITS OF EXCAVATION TO A MINIMUM OF APPROXIMATELY 12 FT BLS (ELEVATION +12.0 TO +3.0 FT NAVD 88) SITE COVER SYSTEM COMPRISED OF CONCRETE BUILDING FOUNDATIONS WITH A DEMARCATION LAYER OF 20 MIL THICK VAPOR BARRIER OR WATERPROOFING MEMBRANE. SEE DETAILS 1 AND 2
- PROPOSED LIMITS OF EXCAVATION FOR MAT FOOTINGS TO APPROXIMATELY 15 TO 22 FT BLS (ELEVATION 0.0 TO -2.0 FT NAVD 88)



SOURCE
TRUE NORTH SURVEYORS, P.C., Q-B:6 LOT 30
DATED APRIL 23, 2018.



NOTES

- FT BLS – FEET BELOW LAND SURFACE
- NAVD 88 – NORTH AMERICAN VERTICAL DATUM OF 1988

COVER SYSTEM DETAILS
HPS PARCEL F NYDEC BCP SITE C241225
Figure 3