



**DUE CARE EVALUATION**  
**FOR DEMOLITION ACTIVITIES**  
**LENOX CENTER PROPERTY**  
188BS22572

**PREPARED FOR:**

Mr. Al Dyer  
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**PREPARED BY:**

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September 8, 2022



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September 8, 2022

Atlas No. 188BS22572

Mr. Al Dyer  
**CITY OF DETROIT**  
**DEMOLITION DEPARTMENT**  
1301 Third Street, Suite 606  
Detroit, Michigan 48226

**Subject: Due Care Evaluation  
For Demolition Activities  
Lenox Center Property  
100 Lenox Street, Detroit, Michigan 48215**

Dear Mr. Dyer:

Atlas Technical Consultants, LLC (Atlas) is pleased to present this Due Care Evaluation to City of Detroit, Demolition Department (client) for the property located at 100 Lenox Street, Detroit, Michigan 48215 (Subject Property). Atlas prepared a Phase II Environmental Site Assessment (Phase II ESA) and Delineation Assessment Summary on behalf of the client that indicated that the Subject Property meets the definition of a “facility” as that term is defined in Part 201 of the Natural Resources and Environmental Protection Act (NREPA), PA 451 of 1994, as amended (Part 201). An owner or operator of a facility also has due care obligations under Section 20107a and Section 21304c with respect to any existing contamination. The City of Detroit, Parks and Recreation currently owns/operates the property. This DCE has been prepared on behalf of City of Detroit, Demolition Department in respect to their planned demolition of the existing recreation building and associated paved surfaces. *This DCE is not intended to be a complete evaluation of the owner’s due care obligations.*

Atlas has prepared this Due Care Evaluation to document current property conditions, identify complete exposure pathways, apply applicable criteria by category and provide recommendations of response activities or corrective actions necessary to prevent the spread of and exposure to existing contamination during demolition of the existing recreation center and its associated surface pavement. This document is not intended to represent a Documentation of Due Care Compliance for submission to and approval by Michigan Department of Environment, Great Lakes, and Energy (EGLE). If you have any questions, please contact the undersigned.

Respectfully submitted,  
**Atlas Technical Consultants LLC**

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Senior Project Manager

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**Due Care Evaluation**

**In accordance with Section 20107a of Part  
201, Natural Resources and Environmental  
Protection Act, 1994 PA 451, as amended**

**For Demolition Activities  
Lenox Center Property  
100 Lenox Street  
Detroit, Wayne County, Michigan 48215**

**Atlas Project Number 188BS22572  
Prepared: September 8, 2022**

**Prepared For:**

Al Dyer  
City of Detroit  
Demolition Department  
1301 Third Street, Suite 606  
Detroit, Michigan 48226

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## 1. INTRODUCTION

City of Detroit, Demolition Department (Client) retained Atlas Technical Consultants, LLC (Atlas) to prepare a Due Care Evaluation (DCE) for the property located at 100 Lenox Street, Detroit, Wayne County, Michigan 48215 (herein referred to as the Subject Property). Atlas prepared a Phase II Environmental Site Assessment (Phase II ESA) and Delineation Assessment Summary on behalf of the Client that indicated that the Subject Property meets the definition of a “facility” as that term is defined in Part 201 of the Natural Resources and Environmental Protection Act (NREPA), PA 451 of 1994, as amended (Part 201).

Atlas prepared this DCE for the Client in accordance with Section 20107a of Part 201 using the information provided in the aforementioned Phase II ESA and Delineation Assessment Summary. An owner or operator of a facility also has due care obligations under Section 20107a and Section 21304c with respect to any existing contamination. The City of Detroit, Parks and Recreation currently owns/operates the property. This DCE has been prepared on behalf of City of Detroit, Demolition Department in respect to their planned demolition of the existing recreation building and associated paved surfaces. *This DCE is not intended to be a complete evaluation of the owner’s due care obligations.*

This evaluation is based on current property conditions, identified contamination above cleanup criteria, planned DDD activities and includes: the identification of complete exposure pathways, applicable criteria by category of land use, and provides recommendations of response activities or corrective actions.

This document is not intended to represent a Documentation of Due Care Compliance (DDCC) for submission to and approval by Michigan Department of Environment, Great Lakes, and Energy (EGLE). An owner or operator of a facility must take actions to protect people from exposure of contamination present in soil, groundwater, and subsurface vapors. Documentation of due care evaluations, all conducted response activities, and compliance with 7a or 4c need to be made available to Michigan Department of Environment, Great Lakes, and Energy (EGLE), but not submitted, within 8 months of becoming the owner or operator of a facility. EGLE may request documentation of due care compliance from an owner or operator.

The following documents associated with the Subject Property were used to prepare the Due Care Evaluation:

- Atlas Technical Consultants LLC, Phase I Environmental Site Assessment (ESA) Lenox Center Property 100 Lenox Street, Detroit, Michigan 48215, Atlas Project No.: 188BS21459, September 20, 2021
- Atlas Technical Consultants LLC, Limited Phase II ESA; Lenox Center Property– QQ-0070, 100 Lenox Street, Detroit, Michigan 48215, Atlas Project No. 188BS22164, May 5, 2022
- Atlas Technical Consultants LLC, Delineation Assessment Summary – QQ-0070, Lenox Center Property, 100 Lenox Street, Detroit, Michigan 48215, Atlas Project No. 188BS22411, August 16, 2022

These reports are currently on file with the Client under separate cover.

## 2. DETAILED PROPERTY INFORMATION

### 2.1 Subject Property Location and Description

The municipalities having jurisdiction over the Subject Property are City of Detroit and Wayne County. A Subject Property location map is provided in **Appendix I, Figure 1**.

The Subject Property includes 11.5 acres developed with a one-story 6,470 square foot community center building, built in 1970. The building is currently unoccupied and disconnected from utilities. The area surrounding the building generally includes grass and/or landscaping with asphalt driveways/parking areas to the north. A playground is located east of the building and a pavilion and basketball court are located west of the building. Concrete pads and two missile tracking radar towers, associated with the U.S. Army Integrated Fire Control (IFC) site D-23, are also present on the Subject Property. A Subject Property Plan map is provided in **Appendix I, Figure 2**.

The proposed site activities to be performed by DDD will consist of the demolition of the current recreation building and removal of the associated parking/drive areas. For demolition plan details see **Appendix I, Figure 5 and Appendix II, Proposed Demolition Plan**.

Based on provided information provided by the Client, there are currently no land or resource use limitations or institutional controls established on the Subject Property. There are no aboveground storage tanks, underground storage tanks, and no containers of hazardous substances present or abandoned at the Subject Property. There are no current response activities or corrective actions being conducted at the Subject Property by liable or non-liable parties.

### 2.2 Existing Infrastructure Features and Conditions of Infrastructure

The Subject Property is accessible by Lenox Street located to the northwest. Municipally supplied utilities (electricity, natural gas, water, storm sewer, sanitary sewer) are available to the Subject Property. There are no known water wells or septic systems identified or reported for the Subject Property. There is no surface water on the Subject Property; however, the Detroit River is located directly south of the Subject Property.

Stormwater from the Subject Property flows over building rooftops, paved parking lots, roadways and landscaped areas, and travels into catch basins located on the Subject Property and the adjacent roadway which discharge into the municipal stormwater system. The Subject Property is a mix of landscaped areas and developed land with covered areas consisting of building footprints and parking lots. The observed vegetation did not exhibit signs of biological stress. No significant staining from parked cars, strong odors or stressed vegetation was observed.

### 2.3 Current Property Use

The Subject Property is owned/operated by City of Detroit, Parks and Recreation who intends to redevelop the Subject Property following Detroit Demolition Department removal of existing recreation building and associated parking areas. The Subject Property is not currently occupied, nor intends to be occupied at this time. *Future development of the Subject Property may occur and this DCE does not include the evaluation of future use or represent the owner's obligations with respect to due care.* The following activities are anticipated during current planned DDD site activities:

- During demolition activities soil particles could be dispersed through wind and water erosion to adjacent properties or through storm sewer systems.
- Perched shallow groundwater may be encountered and could be dispersed in construction site runoff to adjacent properties or storm sewer systems.
- Construction workers may be exposed to hazardous substances found in soil, groundwater.
- Exacerbation of contamination could be a result of handling soil and groundwater encountered during construction or soil adhered to demolition debris, construction workers, and/or demolition equipment/trucks leaving the site.
- Authorized visitors or unauthorized users may be exposed to hazardous substances found in soil and groundwater.

### 3. EXPOSURE PATHWAY EVALUATION

The analysis of potential exposure pathways and the resulting due care obligations shall always be based on current site conditions; however, this Due Care Evaluation is based on the proposed demolition site activities.

The following table summarizes the potential exposure pathways and identifies if the exposure is complete.

**Table 1 – Exposure Pathway Evaluation**

Exposure Pathway	Current Property Conditions	Explanation
Drinking Water Pathway	A person could be exposed to contaminated groundwater through ingestion. <i>No groundwater wells were observed at the Subject Property. Current and Future use will be municipal supplied drinking water.</i>	INCOMPLETE: Drinking Water is supplied by municipal system
Direct Contact Pathway	A person can come in contact with contaminated soils on the Subject Property (walking, playing, or working on surficial soils with or without vegetation; below surface construction or utility activities; trespassing.)	<b>COMPLETE:</b> Direct Contact to soil may occur at the Subject Property.
Soil Particulate Inhalation Pathway	A person can inhale ambient air particles from substances present in soil (with or without vegetation) via wind erosion of contaminated soils and vehicle traffic.	<b>COMPLETE:</b> Soil Particulate Inhalation from soil may occur at the Subject Property.
Soil Volatilization to Ambient Air Pathway	A person can inhale ambient air that contains vapors from volatile substances present in soil.	<b>COMPLETE:</b> Soil Volatilization to Ambient Air may occur at the Subject Property.
Volatilization to Indoor Air Pathway	A person may inhale substances in indoor air from volatile substances present in soil or groundwater that may volatilize into buildings present on the property.	<b>COMPLETE:</b> Soil Volatilization to Indoor Air may occur at the Subject Property.
Groundwater-Surface Water Interface Pathway	A person can come in contact with surface water on the property where groundwater is venting to the surface water with contaminant that would present human exposure concerns. <i>The Detroit River is adjacent to the Southern Property Line.</i>	<b>COMPLETE:</b> No Surface Water identified at the Subject Property.

## 4. FACILITY INFORMATION

### 4.1 Historical Use of Subject Property

The Subject Property appears to have been undeveloped land from at least 1905 to the 1950s and was occupied by an army base from at least the late 1950s through the 1960s. The base consisted of several barrack buildings and two radar towers. The barrack buildings were removed except the building pads and only the two towers remain. The current community center building was then constructed in 1970. Occupants of the building have included the Kiwanis Community Center, the Kiwanis Clubhouse at the Detroit Recreational Center, Recreation Center for the Handicapped, then as the Detroit Community Center. The building was vacated in 2013 after a water main break caused significant damage. Based on research conducted by Atlas in the Phase I ESA, significant filling occurred in the southern portion of the property along the Detroit River between 1937 and 1981. The presence of a significant amount of fill material from an unknown origin is considered to be a *recognized environmental condition* (REC).

Atlas also reviewed the internet site <https://detroit.curbed.com/maps/map-secret-detroit-explore-city-history-art-landmarks> for historical pertinent information regarding past Subject Property usage during the Phase I ESA:

- This site is identified as Alfred Brush Ford Park in Jefferson-Chalmers, but some maps may list it as Nike Missile Control Site D-23. According to Dybis, "What is now known as Alfred Brush Ford Park formerly served as a radar installation for missiles stored underground on nearby Belle Isle. The station, which operated sometime during the Cold War, was private and few people around the time of its construction in the 1950s knew about its true purpose. As word got out and other threats became more pressing, the Nike missile station was closed. All that remains today are several decommissioned towers that sit as a ghostly reminder of its former purpose."

### 4.2 Subject Property Physical Setting

The Subject Property is approximately 577 feet above mean sea level. The contour lines in the area of the Subject Property indicate that the area slopes to the east-southeast. There are no surface water bodies located on the Subject Property; however, the Detroit River is directly to the south. The anticipated direction of groundwater flow is to the east/southeast.

The Subject Property soils are mapped as Riverfront-Urban land complex, 0 to 4 percent slopes on the southwestern portion of the Subject Property and as Riverfront sandy loam, 0 to 4 percent slopes soils on the remainder of the Subject Property. These soil types typically include sandy loam, then very artificial sandy loam underlain by gravelly-artificial loam. The Subject Property geology encountered during a subsurface investigation conducted by Atlas consisted primarily of grass and topsoil surface cover, followed intermixed horizons of brown to dark gray, damp to saturated, clay with varying amounts of sand and silt; and horizons of fine to coarse grain sand with varying amounts of silt that continued to the bottom of the borings (maximum boring depth was 18.5 feet below grade surface (bgs) at GP-1). The soil horizons contained debris (e.g., brick) at GP-1, GP-4 through GP-14 at depths ranging from 10-feet bgs to 12-feet bgs which indicates fill materials were placed in several areas of the site. GP-14 indicated crushed limestone/gravel from 4 to 10 feet bgs and groundwater at 7 feet. With the exception of GP-1, all the borings contained groundwater at depths ranging from approximately 4 feet bgs to 12 feet bgs.



### 4.3 Contaminant Information

A Limited Phase II ESA was performed by Atlas on April 12, 2022, which identified concentrations in soil and/or groundwater above Part 201 Residential Generic Cleanup Criteria (GRCC). Atlas performed a Delineation Assessment in areas of identified soil that exceeded DCC on July 27, 2022.

The following provides a summary of the findings from the subsurface investigations:

- On April 12, 2022, Atlas advanced eight (8) soil borings (GP-1 through GP-8) to a maximum depth ranging from 12-feet to 18.5-feet below grade surface. Soil samples were collected continuously for soil characterization and field screening for volatile organic compounds (VOCs) utilizing a photoionization detector (PID) device. One soil sample was collected from each soil boring and submitted for laboratory analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc (the 10 Michigan Metals).
- On July 27, 2022, Atlas advanced six (6) Geoprobe borings (GP-9 through GP-14) to depths of approximately 10 feet bgs to assess the previously identified lead at GP-3 and GP-8 and benzo(a)pyrene identified at GP-3. A total of 18 soil samples, and two duplicate samples were collected for laboratory analysis of lead by USEPA Method 7010 and PAHs by USEPA Method 8270C.
- Groundwater was encountered at depths ranging from four (4) feet bgs to 12 feet bgs at soil boring locations at all locations except GP-1. Groundwater samples were collected from GP-2, GP-3, GP-4, GP-5, GP-6, GP-7, and GP-8 were submitted for laboratory analysis for the presence of VOCs, SVOCs, PCBs, and the 10 Michigan Metals.
- Soil and groundwater analytical results were compared to the most restrictive Part 201 Residential Generic Cleanup Criteria (Drinking Water Protection Criteria (DWPC), Direct Contact Criteria (DCC) to the Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC) and/or Particulate Soil Inhalation Criteria) contained in Table 2 of P.A. 451, Part 201.

#### Soil Results

- VOCs: was not detected in the soil above laboratory detection limits.
- SVOCs: GP-1 and GP-3 through GP-8 all indicated the presence of one or more of the following SVOCs: acenaphthene, anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, carbazole, chrysene, di-n-butylphthalate, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and/or pyrene. The SVOCs were detected at concentrations ranging from 332 µg/kg of benzo(a)pyrene at GP-5 (1'-2') to 8,720 µg/kg of Fluoranthene at GP-3 (1'-3')(duplicate). The soil sample from GP-3 (1'-3') indicated the presence of benzo(a)pyrene at 3,250 µg/kg which is above the Residential DCC of 2,000 µg/kg in Table 2 of P.A. 451, Part 201.
- PCBs: The presence of Aroclor 1260 (a PCB) was detected in soil at GP-6 (1'-2') at 119 µg/kg; however, found below Part 201 Criteria.
- Metals: GP-1 through GP-8, the presence of arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc was detected at concentrations ranging from 112 micrograms per kilogram (µg/kg) of mercury at GP-4 (7'-8') to 18,000,000 µg/kg of copper at

GP-1 (2'-4'). The soil sample results from GP-3 (1'-3'), GP-3 (1'-3') (duplicate), and GP-8 (2'-4') indicated the presence of lead at 848,000 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ), 1,730,000  $\mu\text{g}/\text{kg}$  and 3,900,000  $\mu\text{g}/\text{kg}$  which all exceed the Residential DWPC of 700,000  $\mu\text{g}/\text{kg}$  and the Residential DCC of 400,000  $\mu\text{g}/\text{kg}$  in Table 2 of P.A. 451, Part 201. In addition, the soil sample results from GP-8 (2'-4') also indicated the presence of barium, cadmium, copper, mercury and zinc at concentrations of 3,720,000  $\mu\text{g}/\text{kg}$ , 168,000  $\mu\text{g}/\text{kg}$ , 7,660,000  $\mu\text{g}/\text{kg}$ , 3,730  $\mu\text{g}/\text{kg}$  and 3,190,000  $\mu\text{g}/\text{kg}$ , respectively, which all exceeded the Residential DWPC in Table 2 of P.A. 451, Part 201.

The extent of barium, cadmium, copper, mercury and zinc in soil exceeding DWPC is not fully delineated. The extent of lead and benzo(a)pyrene in soil exceeding residential DCC is not fully delineated.

### Groundwater Results

- VOCs: GP-4 indicated the presence of VOCs, benzene at 167  $\mu\text{g}/\text{L}$ , ethylbenzene at 1  $\mu\text{g}/\text{L}$  and naphthalene at 8  $\mu\text{g}/\text{L}$ . Based on the above comparison, benzene detected at GP-4 was above the Residential DWC.
- SVOCs: GP-4 indicated the presence of SVOCs to include fluoranthene at 2  $\mu\text{g}/\text{L}$  and phenanthrene 5  $\mu\text{g}/\text{L}$ , which are below Part 201 Criteria.
- PCBs: was not detected in the soil above laboratory detection limits.
- Metals: GP-2 through GP-8, indicated a presence of arsenic, barium, cadmium and/or zinc was detected in groundwater at concentrations ranging from 5 micrograms per liter ( $\mu\text{g}/\text{L}$ ) of arsenic at GP-6 to 1,190  $\mu\text{g}/\text{L}$  of barium at GP-7. Detected concentrations of metals in groundwater did not exceed Part 201 Criteria.

The extent of benzene in groundwater exceeding residential DWC is not fully delineated.

As documented in the Delineation Assessment report, additional sampling to determine the full extent of risk pathways (lead and SVOCs in soil) above cleanup criteria is recommended to fully evaluate the owner's obligations for due care responsibilities. The location of soil borings with Soil Analytical Map is provided as **Appendix I, Figure 4**. Soil analytical data is provided in Table 1 and Table 2 of **Appendix II**.

## **5. ASSESSMENT OF APPLICABILITY OF PART 201 GENERIC CRITERIA**

Atlas performed an assessment of applicability of Part 201 Generic Cleanup Criteria to determine if exposure pathways identified as complete in Section 3 above require any response activities or corrective actions for due care. The following documents were utilized for the assessment of applicability.

- Checklist for Determining if the Generic Volatilization to Indoor Air Inhalation Criteria Apply (Appendix C.1 of EGLE, Guidance Document for the Vapor Intrusions Pathway), dated May 2013; updated April 23, 2021
- Checklist for Determining if the Volatilization to Indoor Air Pathway Screening Levels Apply (Appendix C.7 of EGLE, Guidance Document for the Vapor Intrusions Pathway), dated May 2013; updated April 23, 2021



Based on the unknown intended use of the Subject Property the Part 201 GRCC are considered to be applicable and are used as a basis for this due care evaluation, in addition based on completion of the checklists and nature of existing contamination, which is not likely to volatilize, a request for site specific volatilization to indoor air criteria, is not warranted at this time.

## 6. COMPLETE EXPOSURE PATHWAYS & RECOMMENDED RESPONSE ACTIVITIES

The following sections outline measures to be taken to minimize the risks to public health and the environment. The following recommendations are intended to prevent the potential exacerbation of known contaminants based on the nature and concentration of the contaminant, zoning, planned site activities, Subject Property features and characteristics.

As noted in Table 1: Exposure Pathway Evaluation found in Section 3, the direct contact pathway, soil particulate inhalation pathway, soil volatilization to ambient air, soil volatilization to indoor air pathway and groundwater-surface water interface pathways are considered complete for the Subject Property.

Atlas compared the existing soil and groundwater analytical results to the Part 201 GRCC. The following contaminants were identified at a concentration that exceeds the applicable Generic Residential Part 201 criteria:

Contaminant	Criteria Exceeded	Affected Media	CAS Number
Benzene	Drinking Water	Groundwater	71432
Benzo(a)pyrene	Direct Contact	Soil	50328
Lead	Direct Contact	Soil	7439921
Lead	Drinking Water	Soil	7439921
Barium	Drinking Water	Soil	7440393
Cadmium	Drinking Water	Soil	7440439
Copper	Drinking Water	Soil	7440508
Mercury	Drinking Water	Soil	Varies
Zinc	Drinking Water	Soil	7440666

Concentrations of benzene, barium, cadmium, copper, lead, mercury and zinc identified in soil and/or groundwater exceed applicable drinking water criteria; however, the drinking water pathway is incomplete since drinking water is provided through a municipal supply system.

***In the event that additional contaminants other than those identified above are discovered during planned site activities performed by the owner or owners' contractors at the Subject Property, this due care evaluation shall be modified to reflect applicable pathways.***

The following sections summarize the complete exposure pathways.

### 6.1 Direct Contact Pathway

A person can come in contact with contaminated soils on the Subject Property (walking, playing, or working on surficial soils with or without vegetation; below surface construction or utility activities; trespassing.) Based on the current soil analytical results, concentrations of lead and benzo(a)pyrene are detected in soil above applicable Part 201 GRCC for Direct Contact. Atlas notes that delineation of the extent and distribution of lead and benzo(a)pyrene in the soil from the historical fill at the Subject Property is not fully

delineated. Refer to **Appendix I, Figure 3** for location of exceedances and estimated extent of impact. ***This complete pathway is an unacceptable exposure and therefore response activities are required.***

Atlas recommends the following response activities to address unacceptable exposures based during planned DDD activities at the Subject Property.

- Provide written and documented notifications to all construction workers, utility maintenance workers, operators and/or visitors to the Subject Property regarding the soil contamination.
- Avoid direct contact with soil (on-site workers should wear gloves, clean soil/dust from boots and/or clothing and wash hands prior to leaving the site).
- Restrict access to the Subject Property. The Property should be accessible only to authorized contractors, consultants, agents or employees of the City of Detroit. Access restrictions should include secure 6-foot-high fencing and/or locked gated access with proper signage restricting access.
- Maintain all soil and groundwater on the site. Avoid transportation/re-location of soil from one area of the site to another.
- Removal of soil adhered to demolition debris, site equipment and trucks prior to transporting off-site (cleaning tires/tracks, gravel or other tracking mat, decontamination methods).
- Mitigate dust/debris from becoming airborne by utilizing standard wet methods to minimize dust during demolition.
- DDD shall provide a protective barrier of clean backfill over existing contamination following removal of structures and paved parking areas.

## 6.2 Soil Particulate Inhalation Pathway

A person can inhale ambient air particles from substances present in soil (with or without vegetation) via wind erosion of contaminated soils and vehicle traffic. Based on the soil analytical results contamination was not detected above applicable Part 201 GRCC and the contaminants are not likely to volatilize. ***This complete pathway is not an unacceptable exposure and therefore no response activities are required.***

## 6.3 Soil Volatilization to Ambient Air Pathway

A person can inhale ambient air that contains vapors from volatile substances present in soil. Based on the soil analytical results contamination was not detected above applicable Part 201 GRCC, and the contaminants identified are not likely to volatilize. ***This complete pathway is not an unacceptable exposure and therefore no response activities are required.***

## 6.4 Volatilization to Indoor Air Pathway

A person may inhale substances in indoor air from volatile substances present in soil or groundwater that may volatilize into buildings present on the property. Based on the soil and groundwater analytical results contamination (for volatile substances) was not detected above applicable Part 201 GRCC and the contaminants identified are not likely to volatilize. ***This complete pathway is not an unacceptable exposure and therefore no response activities are required.***

## 6.5 Groundwater-Surface Water Interface Pathway

A person may come in contact with surface water where groundwater is venting to the surface water with contaminants that would present human exposure concerns (e.g. pH exceedances). There is no surface water body on the Subject Property; however, the Detroit River is immediately south. Based on the soil and groundwater analytical results contamination was not detected above applicable Part 201 GRCC. *This complete pathway is not an unacceptable exposure and therefore no response activities are required.*

## 7. DOCUMENTATION OF COMPLIANCE WITH DUE CARE OBLIGATIONS

A person who is subject to Section 20107a of the act shall maintain the documentation of compliance with due care obligations and shall provide the documentation upon request. The following sections explain the elements of due care obligations and how to comply based on current property use as described in Section 2.3 above. This DCE is based on current/proposed Subject Property use and is meant to be a working document. As site conditions and Subject Property use changes, the owner or operator must re-evaluate due care compliance and maintain appropriate records documenting compliance with due care obligations. This document is not intended to represent a DDCC for submission to and approval by EGLE. An owner or operator of a facility or property may request EGLE to review their documentation that demonstrates they are in compliance with their due care obligations, which requires the completion of EGLE form EQ4402.

Atlas recommends DDD maintain the following documentation and/or Operation Maintenance & Monitoring documentation for the response activities described in §6.1 to ensure compliance based on the complete exposure pathways identified in this DCE:

- Record of Installation of Protective Barrier. Documentation supporting use of clean fill material. Must include color photographs and photographic measurement documentation.
- Implementation of inspection program for the vegetative cover or any paved surfaces.
- Records of Inspection and Maintenance of Protective Barrier. Documented with field forms and photographs.
- Records of installation, inspection, and repairs of restricted access areas.
- Maintain disposal records for all material moved off-site or any soil relocated at the site.
- Maintain records of all applicable permits, required inspections as noted in any permits, documentation of proper soil handling (including removal of soil from construction debris, vehicles/equipment, and workers prior to leaving the site).
- A copy of this Due Care Evaluation should be provided to on-site workers and acknowledgement of notice/understanding documented with signatures. Reference **Appendix IV** for Due Care Acknowledgement form.
- Contractors should prepare and provide to DDD a Health and Safety Plan (HASP) as required under applicable regulations (MIOSHA, OSHA, etc.) that will address measures to protect workers during demolition activities. The HASP will be revised as needed based on current site conditions.

## 8. DEMONSTRATION OF COMPLIANCE WITH DUE CARE OBLIGATIONS

The following sections discuss the due care obligations that will be employed at the Subject Property in addition to the planned response activities discussed in §6.1 to ensure compliance with NREPA Section 20107a.

## 8.1 Exacerbation

Undertaking measures to prevent exacerbation of existing contamination. In the event subsurface construction is contemplated at the Subject Property, the owner/operator should undertake measures to minimize the risks to human health and the environment, including properly managing impacted soil or groundwater.

Proposed DDD activities include razing of all onsite buildings, footing removal, foundation removal, site structures and paving/drive areas as noted in the demolition plan. The following response activities described in §6.1 shall be implemented to demonstrate that the existing impact is not being exacerbated:

- Avoid direct contact with soil (on-site workers should wear gloves, clean soil/dust from boots and/or clothing and wash hands prior to leaving the site).
- Restrict access to the Subject Property. The Property should be accessible only to authorized contractors, consultants, agents or employees of the City of Detroit. Access restrictions should include secure 6-foot-high fencing and/or locked gated access with proper signage restricting access.
- Maintain all soil and groundwater on the site. Avoid transportation/re-location of soil from one area of the site to another.
- Removal of soil adhered to demolition debris, site equipment and trucks prior to transporting off-site (cleaning tires/tracks, gravel or other tracking mat, decontamination methods).
- Mitigate dust/debris from becoming airborne by utilizing standard wet methods to minimize dust during demolition.

Any abandoned or discarded containers (i.e. unregulated USTs, drums, etc.) that are discovered, although not anticipated, during site activities should be appropriately characterized and removed. Any abandoned or discarded containers that are discovered should not be disturbed and any activities that could result in damage to buried containers should be ceased. Construction activities should not resume until the abandoned or discarded container(s) are properly removed. Notification to EGLE is required for any abandoned or discarded containers and non-regulated underground storage tanks per Rule 299.51015(1); EGLE form EQP 4476 may be used for this purpose.

Groundwater accumulating within excavations, if encountered, should be properly characterized and appropriately handled and disposed. The pumping of groundwater from an open excavation onto the ground should be strictly prohibited unless the water is treated and/or properly permitted.

All excavated material shall be field screened (visual and/or PID) and properly characterized if any soil will be transported off-site. Any soil relocation on the subject property shall be documented with scaled site plans and location of soil relocation. The owner/operator shall maintain documentation of appropriate screening, characterization, and disposal to comply with due care obligations.

## 8.2 Mitigate or Prevent Unacceptable Exposures

Exercising due care by undertaking response activities to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the Subject Property in a manner that protects health and safety. Proposed DDD activities include razing of all onsite buildings,

footing removal, foundation removal, site structures and paving/drive areas as noted in the demolition plan. The following response activities described in §6.1 shall be implemented to demonstrate that the unacceptable exposures have been mitigated or prevented.

- Provide written and documented notifications to all construction workers, utility maintenance workers, operators and/or visitors to the Subject Property regarding the soil contamination.
- Avoid direct contact with soil (on-site workers should wear gloves, clean soil/dust from boots and/or clothing and wash hands prior to leaving the site).
- Restrict access to the Subject Property. The Property should be accessible only to authorized contractors, consultants, agents or employees of the City of Detroit. Access restrictions should include secure 6-foot-high fencing and/or locked gated access with proper signage restricting access.
- Maintain all soil and groundwater on the site. Avoid transportation/re-location of soil from one area of the site to another.
- Removal of soil adhered to demolition debris, site equipment and trucks prior to transporting off-site (cleaning tires/tracks, gravel or other tracking mat, decontamination methods).
- Mitigate dust/debris from becoming airborne by utilizing standard wet methods to minimize dust during demolition.
- DDD shall provide a protective barrier of clean backfill over existing contamination following removal of structures and paved parking areas.

### **8.2.1 Demonstration of Due Care Applicable with Current/Proposed Use**

As part of the documentation for compliance with Section 20107a(1)(b) there must be compliance with Rule 1005, Rule 1009, Rule 1011, Rule 1013(6), Rule 1015, Rule 1107, and Rule 1019 with regards to the conditions at the Subject Property. Based on applicable conditions and provided proposed development plans as discussed in section 2 Detail Property Information, the following rules apply to the Subject Property during DDD activities:

- 1) Best Management Practices (BMP) will be utilized for the storage, usage and disposal of lubricants, coolants, cleaning supplies, and precautions will be taken to prevent spills, overfills or material releases. The BMP utilized at the Subject Property will be documented and will include, but is not limited to the following:
  - Containers will be kept capped, labeled and stored in dedicated areas inside the building on impervious surfaces void of drains or other potential subsurface migration pathways
  - Secondary containment may be used if needed
  - Maintain inventory of safety data sheets
  - Implement strict inventory control measures

Other laws and regulations in addition to Part 201 that may be relevant to the management of hazardous substances include, but are not limited to, the following:

- (a) Part 55 of the act (air pollution control).
- (b) Part 111 of the act (hazardous waste management).
- (c) Part 115 of the act (solid waste management).

- (d) Part 211 of the act (underground storage tank regulation).
  - (e) Part 213 of the act (leaking underground storage tanks).
  - (f) Part 615 of the act (supervisor of wells).
  - (g) Act No. 207 of the Public Acts of 1941, as amended, being §29.1 et seq. of the Michigan Compiled Laws, and known as the fire protection code.
  - (h) The toxic substances control act, 15 U.S.C. §2601 et seq.
  - (i) The resource conservation and recovery act, 42 U.S.C. §6901 et seq.
  - (j) Rules and regulations promulgated under the laws listed in subdivisions (a) to (i) of rule 299.51005.
- 2) Any contractor who does work (conducts activities) on the Subject Property should be notified of the conditions (impacted soil) that are relevant to the activities prior to initiating work.

### 8.3 Reasonable Precautions

Take reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions. The location of contamination identified to date, the existing surface cover, and the fact that groundwater will not being used is believed sufficient in the prevention of reasonably foreseeable acts or omissions of a third party at this time. The DDD should notify all on-site contractors of the presence of the soil and groundwater impacts during construction activities. Reference **Appendix IV** for Due Care Acknowledgement form.

### 8.4 Response Activities, Access and Restrictions by Others

At the time of this report, no on-going response activities, land use restrictions, or resource restrictions are known to exist at the Subject Property. Atlas notes that delineation of the extent and distribution of lead and benzo(a)pyrene in the soil from the historical fill at the Subject Property is not fully delineated. Atlas recommends the property owner/operator comply with 20107a due care obligations during their ownership; however, the following apply to DDD during planned activities:

- Maintain all soil and groundwater on the site. Avoid transportation/re-location of soil from one area of the site to another.
- Maintain documentation of appropriate screening, characterization, and disposal of all soil or groundwater encountered during construction activities.
- Maintain documentation of applicable notifications to EGLE or others during construction activities.

## 9. LIMITATIONS

This Due Care Evaluation has been developed in consideration of Part 201 and was restricted to observations made during the aforementioned Phase I which included reconnaissance of the Subject Property, observations of adjoining properties, records review, interviews, and research into its history and the results of the Phase II ESA and Delineation Assessment. This Due Care Evaluation is not intended to be a regulatory compliance audit. Sketches and maps used in this report are included to aid the visual understanding by the reader and should not be considered surveys or engineering studies, unless otherwise indicated or required in association with Part 201. In preparing this report, Atlas has relied upon the aforementioned Phase I ESA, Phase II





ESA and Delineation Assessment. Atlas did not detect any inconsistency or omission of a nature that might call into question the validity of any information obtained during the performance of these assessments. To the extent that the conclusions in this report are based in whole or in part on such information, they are contingent on its validity.

No Due Care Evaluation can wholly eliminate uncertainty regarding the potential for environmental impacts concerning a Subject Property. Performance of this Due Care Evaluation is intended to reduce, but not eliminate, such uncertainty recognizing the limits of time and cost.

Atlas represents that, within the limitations of the agreed upon scope of services, this work has been undertaken and performed in a professional manner, in accordance with generally accepted industry practices, and using the degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances and locations. No other warranty, expressed or implied, is made. Specifically, Atlas does not and cannot represent that the property contains no hazardous material, oil, or other latent condition beyond that identified by Atlas during the work performed.

## 10. SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

This Due Care Evaluation was prepared by April Hehir and reviewed by Joshua Schuyler.

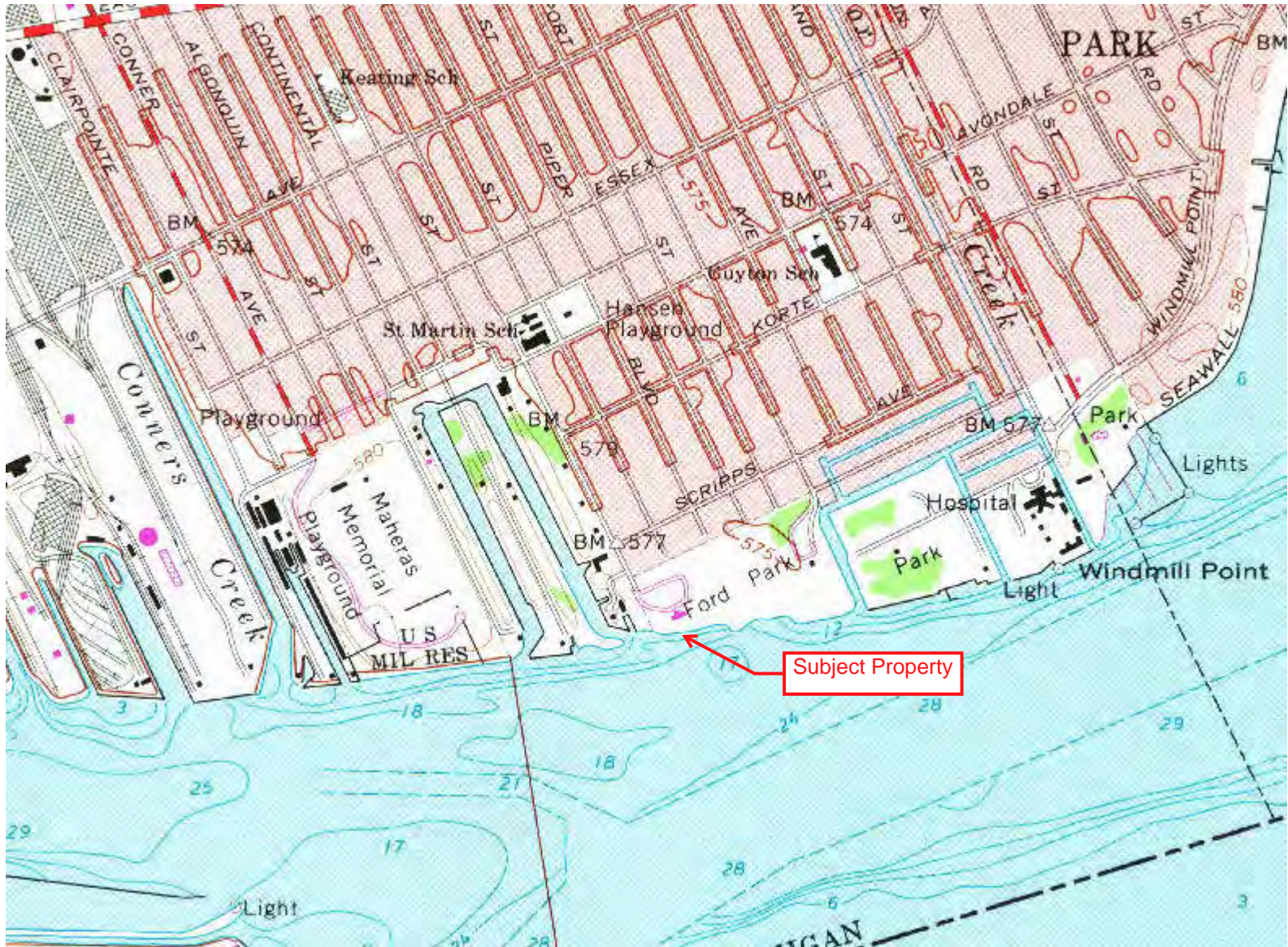
A handwritten signature in black ink, appearing to read "April Hehir". The signature is fluid and cursive.

April Hehir  
Senior Project Manager

A handwritten signature in black ink, appearing to read "Joshua Schuyler". The signature is fluid and cursive.

Joshua Schuyler  
Operations Manager, Michigan

## APPENDIX I FIGURES



Source: USGS Topographic Map 7.5 Minute Belle Isle , Michigan Quadrangle dated 1968, photorevised 1981

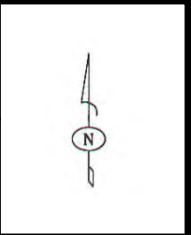


**Subject Property Location Map**  
**Figure 1**  
  
**Lenox Center Property**  
**100 Lenox Street**  
**Detroit, Michigan**

PROJECT NO.: 188BS22572

---

DRAWN BY: AJT



**LEGEND:**

- - - - = Subject Property Boundary
- = Subject Property Building
- T = Pole mounted transformer
- = 55-gallon Drum



**Subject Property Plan  
Figure 2**

**Lenox Center Property  
100 Lenox Street  
Detroit, Michigan**

PROJECT NO.: 188BS22572

DRAWN BY: AJT





○ Lead above direct contact criteria

○ Benzo(a)pyrene above direct contact criteria

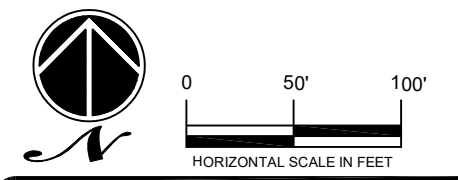
— Estimated Extent of Delineation  
 ..... Unknown Extent of Delineation

- - - SUBJECT PROPERTY BOUNDARY

▭ SUBJECT PROPERTY BUILDING

● DELINEATION SOIL BORING LOCATION

● SOIL BORING LOCATION



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DATE:  
8/12/2022

PROJECT NO.:  
188BS22189

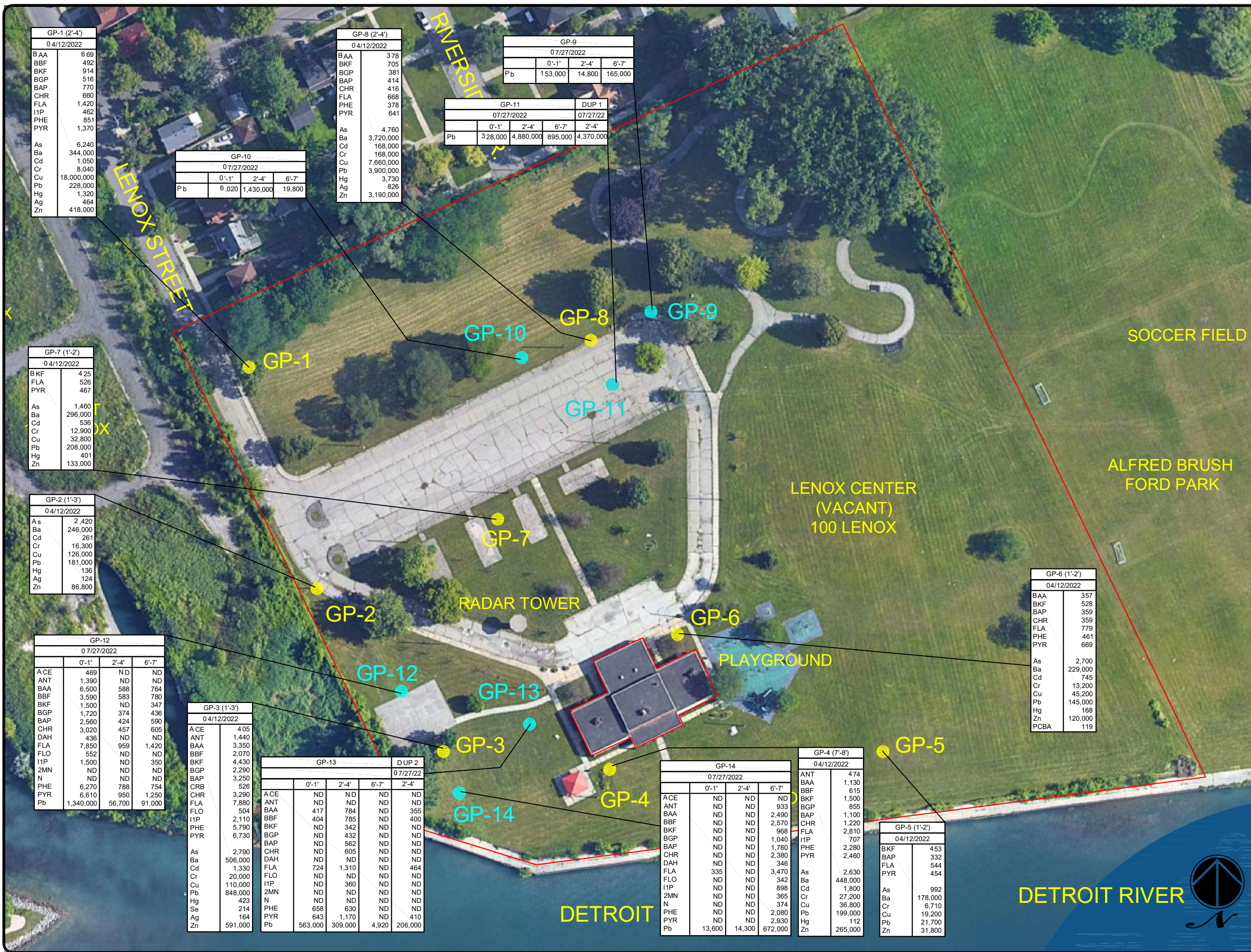
DRAWN BY:  
DTB

SCALE:  
AS SHOWN

REVIEWED BY:  
KL

**FIGURE 3**

**Lead and Benzo(a)pyrene  
 Direct Contact Criteria  
 Exceedances**  
 Lenox Center Property  
 100 Lenox Street  
 Detroit, Michigan



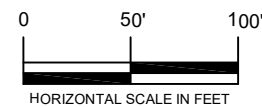
### LEGEND

SAMPLE LOCATION (SAMPLE DEPTH)  
 SAMPLE DATE  
 SAMPLE DEPTH

- PNAs:  
 ACE- Acenaphthene  
 ANT- Anthracene  
 BAA- Benzo(a)anthracene  
 BBF- Benzo(b)fluoranthene  
 BKF- Benzo(k)fluoranthene  
 BGP- Benzo(g,h,i)perylene  
 BAP- Benzo(a)pyrene  
 CRB- Carbazole  
 CHR- Chrysene  
 DAH- Dibenzo(a,h)anthracene  
 DNB- Di-n-butylphthalate  
 DBF- Dibenzofuran  
 FLA- Fluoranthene  
 FLO- Fluorene  
 I1P- Indeno(1,2,3-cd)pyrene  
 2MN- 2-Methylnaphthalene  
 N- Naphthalene  
 PHE- Phenanthrene  
 PYR- Pyrene
- Metals:  
 As- Arsenic  
 Ba- Barium  
 Cd- Cadmium  
 Cr- Chromium  
 Cu- Copper  
 Pb- Lead  
 Hg- Mercury  
 Se- Selenium  
 Ag- Silver  
 Zn- Zinc

PCBA- PCB AROCLOR 1260  
 (µg/kg) - All concentrations in micrograms per kilogram  
 PNA- Polynuclear Aromatic Hydrocarbons  
 ND- Analytes below laboratory detection limits  
 DUP Analytical results are found on analytical tables.

- SUBJECT PROPERTY BOUNDARY
- SUBJECT PROPERTY BUILDING
- DELINEATION SOIL BORING LOCATION
- SOIL BORING LOCATION



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DATE: 08/12/2022 PROJECT NO.: 188BS22189

DRAWN BY: DTB SCALE: AS SHOWN

REVIEWED BY: KL FIGURE 4

### SOIL ANALYTICAL MAP

Lenox Center Property  
 100 Lenox Street  
 Detroit, Michigan

GP-1 (2'-4')	
04/12/2022	
BAA	669
BBF	492
BKF	914
BGP	516
BAP	770
CHR	660
FLA	1,420
I1P	462
PHE	851
PYR	1,370
As	6,240
Ba	344,000
Cd	1,050
Cr	8,040
Cu	18,000,000
Pb	228,000
Hg	1,320
Ag	464
Zn	418,000

GP-8 (2'-4')	
04/12/2022	
BAA	378
BKF	705
BGP	381
BAP	414
CHR	416
FLA	668
PHE	378
PYR	641
As	4,760
Ba	3,720,000
Cd	168,000
Cr	168,000
Cu	7,660,000
Pb	3,900,000
Hg	3,730
Ag	826
Zn	3,190,000

GP-9				
07/27/2022				
	0'-1'	2'-4'	6'-7'	
Pb	153,000	14,800	165,000	

GP-11				
07/27/2022				
	07/27/22			
	0'-1'	2'-4'	6'-7'	2'-4'
Pb	328,000	4,880,000	895,000	4,370,000

GP-10			
07/27/2022			
	0'-1'	2'-4'	6'-7'
Pb	6,020	1,430,000	19,800

GP-7 (1'-2')	
04/12/2022	
BKF	425
FLA	526
PYR	467
As	1,460
Ba	296,000
Cd	536
Cr	12,900
Cu	32,500
Pb	208,000
Hg	401
Zn	133,000

GP-2 (1'-3')	
04/12/2022	
As	2,420
Ba	246,000
Cd	261
Cr	16,300
Cu	126,000
Pb	181,000
Hg	136
Ag	124
Zn	86,800

GP-12				
07/27/2022				
ACE	469	ND	ND	ND
ANT	1,390	ND	ND	ND
BAA	6,500	588	764	
BBF	3,590	583	780	
BKF	1,500	ND	347	
BGP	1,720	374	436	
BAP	2,560	424	590	
CHR	3,020	457	605	
DAH	436	ND	ND	
FLA	7,850	959	1,420	
FLO	552	ND	ND	
I1P	1,500	ND	350	
2MN	ND	ND	ND	
N	ND	ND	ND	
PHE	6,270	788	754	
PYR	6,610	950	1,250	
Pb	1,340,000	56,700	91,000	

GP-3 (1'-3')	
04/12/2022	
ACE	405
ANT	1,440
BAA	3,350
BBF	2,070
BKF	4,430
BGP	2,290
BAP	3,250
CHR	526
CHR	3,290
FLA	7,880
FLO	504
I1P	2,110
PHE	5,790
PYR	6,730
As	2,790
Ba	506,000
Cd	1,330
Cr	20,000
Cu	110,000
Pb	848,000
Hg	423
Se	214
Ag	164
Zn	591,000

GP-13				
07/27/22				
	0'-1'	2'-4'	6'-7'	2'-4'
ACE	ND	ND	ND	ND
ANT	ND	ND	ND	ND
BAA	417	784	ND	355
BBF	404	785	ND	400
BKF	ND	342	ND	ND
BGP	ND	432	ND	ND
BAP	ND	562	ND	ND
CHR	ND	605	ND	ND
DAH	ND	ND	ND	ND
FLA	724	1,310	ND	464
FLO	ND	ND	ND	ND
I1P	ND	360	ND	ND
2MN	ND	ND	ND	ND
N	ND	ND	ND	ND
PHE	658	630	ND	ND
PYR	643	1,170	ND	410
Pb	563,000	309,000	4,920	206,000

GP-14			
07/27/2022			
	0'-1'	2'-4'	6'-7'
ACE	ND	ND	ND
ANT	ND	ND	933
BAA	ND	ND	2,490
BBF	ND	ND	2,570
BKF	ND	ND	968
BGP	ND	ND	1,040
BAP	ND	ND	1,760
CHR	ND	ND	2,380
DAH	ND	ND	346
FLA	335	ND	3,470
FLO	ND	ND	342
I1P	ND	ND	898
2MN	ND	ND	365
N	ND	ND	374
PHE	ND	ND	2,080
PYR	ND	ND	2,930
Pb	13,600	14,300	672,000

GP-4 (7'-8')	
04/12/2022	
ANT	474
BAA	1,130
BBF	615
BKF	1,500
BGP	855
BAP	1,100
CHR	1,220
FLA	2,810
I1P	707
PHE	2,280
PYR	2,460
As	2,630
Ba	448,000
Cd	1,800
Cr	27,200
Cu	36,800
Pb	199,000
Hg	112
Zn	265,000

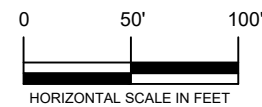
GP-6 (1'-2')	
04/12/2022	
BAA	357
BKF	528
BAP	359
CHR	359
FLA	779
PHE	461
PYR	669
As	2,700
Ba	229,000
Cd	745
Cr	13,200
Cu	45,200
Pb	145,000
Hg	168
Zn	120,000
PCBA	119

GP-5 (1'-2')	
04/12/2022	
BKF	453
BAP	332
FLA	544
PYR	454
As	992
Ba	178,000
Cr	6,710
Cu	19,200
Pb	21,700
Zn	31,800



**LEGEND**

- SUBJECT PROPERTY BOUNDARY
- SUBJECT PROPERTY BUILDING
- DELINEATION SOIL BORING LOCATION
- SOIL BORING LOCATION
- ESTIMATED EXTENT OF CITY OF DETROIT DEMOLITION DEPARTMENT WORK AREA



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DATE: 09/06/2022	PROJECT NO.: 188BS22572
DRAWN BY: AKH	SCALE: AS SHOWN
REVIEWED BY: JS	<b>FIGURE 5</b>

**ESTIMATED EXTENT OF DETROIT DEMOLITION DEPARTMENT WORK AREA**

Lenox Center Property  
 100 Lenox Street  
 Detroit, Michigan





## APPENDIX II PROPOSED DEMOLITION PLAN



{INSERT DETROIT DEMOLITION DEPARTMENT  
DEMOLITION SITE PLAN}



## APPENDIX III ANALYTICAL SUMMARY TABLES

**Table 1 - Summary of Soil Laboratory Analytical Results (Detected Metals)**  
**Lenox Center Property**  
**100 Lenox Street**  
**Detroit, Michigan**

Analytes	Statewide Default Background Levels (µg/kg)	Residential Drinking Water Protection Criteria (DWPC) (µg/kg)	Residential Particulate Soil Inhalation Criteria (µg/kg)	Residential Direct Contact Criteria (DCC) (µg/kg)	Sample Locations								
					GP-1 (2'-4')	GP-2 (1'-3')	GP-3 (1'-3')	Duplicate (GP-3) (1'-3")	GP-4 (7'-8')	GP-5 (1'-2')	GP-6 (1'-2')	GP-7 (1'-2')	GP-8 (2'-4')
					(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
<b>Metals</b>													
Arsenic	5,800	4,600	720,000	7,600	6,240	2,420	2,790	2,800	2,630	992	2,700	1,460	4,760
Barium	75,000	1,300,000	330,000,000	37,000,000	<b>344,000</b>	<b>246,000</b>	<b>506,000</b>	<b>704,000</b>	<b>448,000</b>	<b>178,000</b>	<b>229,000</b>	<b>296,000</b>	<b>3,720,000</b>
Cadmium	1,200	6,000	1,700,000	550,000	1,050	261	1,330	1,370	1,800	ND	745	536	<b>168,000</b>
Chromium	18,000	100,000,000	330,000,000	790,000,000	8,040	16,300	<b>20,000</b>	<b>36,000</b>	<b>27,200</b>	6,710	13,200	12,900	<b>168,000</b>
Copper	32,000	580,000	130,000,000	20,000,000	<b>18,000,000</b>	<b>126,000</b>	<b>110,000</b>	<b>209,000</b>	<b>36,800</b>	19,200	<b>45,200</b>	<b>32,800</b>	<b>7,660,000</b>
Lead	21,000	700,000	100,000,000	400,000	<b>228,000</b>	<b>181,000</b>	<b>848,000</b>	<b>1,730,000</b>	<b>199,000</b>	<b>21,700</b>	<b>145,000</b>	<b>208,000</b>	<b>3,900,000</b>
Mercury	130	1,700	20,000,000	160,000	<b>1,320</b>	136	423	960	112	ND	<b>168</b>	<b>401</b>	<b>3,730</b>
Selenium	410	4,000	130,000,000	2,600,000	ND	ND	214	ND	ND	ND	ND	ND	ND
Silver	1,000	4,500	670,000,000	2,500,000	464	124	164	238	ND	ND	ND	ND	826
Zinc	47,000	2,400,000	ID	170,000,000	<b>418,000</b>	<b>86,800</b>	<b>591,000</b>	<b>792,000</b>	<b>265,000</b>	31,800	<b>120,000</b>	<b>133,000</b>	<b>3,190,000</b>

- Notes: 1. Samples were collected on April 12, 2022.  
2. NA denotes: "Not Analyzed". ND denotes the indicated laboratory parameter was "Not Detected" above the laboratory reported detection limit (RDL).  
3. The cleanup criteria are derived from Table 2, Soil Residential Generic Cleanup Criteria and Screening Levels, issued under part 201 of P.A. 451 dated June 25, 2018 (Table 2).  
4. Shaded values exceed one or more applicable cleanup criteria and bold font indicates a metal detected above the Default Background Level contained in Table 2.  
5. All samples were analyzed at Quantum Laboratories, Inc. located in Wixom, Michigan.  
6. NLV denotes: "Not Likely to Volatilize", ID denotes: "Insufficient Data" that is available to establish criteria.  
7. µg/kg denotes micrograms per kilogram.  
8. A "G" denotes value depends on the pH or water hardness, or both, of the receiving waters and an "X" denotes value is not protective for surface water used as a drinking water source. For details, please refer to P.A. 451, Part 201, R 299.49 footnotes for Table 2.

**Table 1 - Summary of Soil Laboratory Analytical Results (Detected Lead)  
Lenox Center Property  
100 Lenox Street  
Detroit, Michigan**

	Statewide Default Background Levels	Residential Drinking Water Protection Criteria	Residential Particulate Soil Inhalation Criteria	Residential Direct Contact Criteria (DCC)	Sample Locations									
					GP-9 (0'-1')	GP-9 (2'-4')	GP-9 (6'-7')	GP-10 (0'-1')	GP-10 (2'-4')	GP-10 (6'-7')	GP-11 (0'-1')	GP-11 (2'-4')	GP-11 (Duplicate-1) (2'-4')	GP-11 (6'-7')
					(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
<b>Analytes</b>	(µg/kg)	(DWPC) (µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
<b>Metals</b>														
Lead	21,000	700,000	100,000,000	400,000	<b>153,000</b>	14,800	<b>165,000</b>	6,020	<b>1,430,000</b>	19,800	<b>328,000</b>	<b>4,880,000</b>	<b>4,370,000</b>	<b>895,000</b>

- Notes:
1. Samples were collected on July 27, 2022.
  2. NA denotes: "Not Analyzed". ND denotes the indicated laboratory parameter was "Not Detected" above the laboratory reported detection limit (RDL).
  3. The cleanup criteria are derived from Table 2, Soil Residential Generic Cleanup Criteria and Screening Levels, issued under part 201 of P.A. 451 dated June 25, 2018 (Table 2).
  4. Shaded values exceed one or more applicable cleanup criteria and bold font indicates a metal detected above the Default Background Level contained in Table 2.
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**Table 1 - Summary of Soil Laboratory Analytical Results (Detected Lead)**  
**Lenox Center Property**  
**100 Lenox Street**  
**Detroit, Michigan**

Analytes	Statewide	Residential	Residential	Residential	Sample Locations									
	Default	Drinking Water	Particulate Soil	Direct Contact	GP-12	GP-12	GP-12	GP-13	GP-13	GP-13 (Duplicate-2)	GP-13	GP-14	GP-14	GP-14
	Background Levels	Protection Criteria	Inhalation Criteria	Criteria (DCC)	(0'-1')	(2'-4')	(6'-7')	(0'-1')	(2'-4')	(2'-4')	(6'-7')	(0'-1')	(2'-4')	(6'-7')
	(µg/kg)	(DWPC) (µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)
<b>Metals</b>														
Lead	21,000	700,000	100,000,000	400,000	<b>1,340,000</b>	<b>56,700</b>	<b>91,000</b>	<b>563,000</b>	<b>309,000</b>	<b>206,000</b>	4,920	13,600	14,300	<b>672,000</b>

- Notes:
1. Samples were collected on July, 27, 2022.
  2. NA denotes: "Not Analyzed". ND denotes the indicated laboratory parameter was "Not Detected" above the laboratory reported detection limit (RDL).
  3. The cleanup criteria are derived from Table 2, Soil Residential Generic Cleanup Criteria and Screening Levels, issued under part 201 of P.A. 451 dated June 25, 2018 (Table 2).
  4. Shaded values exceed one or more applicable cleanup criteria and bold font indicates a metal detected above the Default Background Level contained in Table 2.
  5. All samples were analyzed at Quantum Laboratories, Inc. located in Wixom, Michigan.
  6. NLV denotes: "Not Likely to Volatilize", ID denotes: "Insufficient Data" that is available to establish criteria.
  7. µg/kg denotes micrograms per kilogram.
  8. A "G" denotes value depends on the pH or water hardness, or both, of the receiving waters and an "X" denotes value is not protective for surface water used as a drinking water source. For details, please refer to P.A. 451, Part 201, R 299.49 footnotes for Table 2.

**Table 2 - Summary of Soil Laboratory Analytical Results (Detected SVOCs)**  
**Lenox Center Property**  
**100 Lenox Street**  
**Detroit, Michigan**

Analyte	Residential Drinking Water Protection Criteria (DWPC) (µg/kg)	Residential Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC) (µg/kg)	Residential Particulate Soil Inhalation Criteria (µg/kg)	Residential Direct Contact Criteria (DCC) (µg/kg)	Sample Location								
					GP-1 (2'-4') (µg/kg)	GP-3 (1'-3') (µg/kg)	Duplicate (GP-3) (1'-3') (µg/kg)	GP-4 (7'-8') (µg/kg)	GP-5 (1'-2') (µg/kg)	GP-6 (1'-2') (µg/kg)	GP-7 (1'-2') (µg/kg)	GP-8 (2'-4') (µg/kg)	
<b>SVOCs</b>													
Acenaphthene	300,000	190,000,000	14,000,000,000	41,000,000	ND	405	445	ND	ND	ND	ND	ND	ND
Anthracene	41,000	1,000,000,000	67,000,000,000	230,000,000	ND	1,440	1,760	474	ND	ND	ND	ND	ND
Benzo(a)anthracene	NLL	NLV	ID	20,000	669	3,350	3,680	1,130	ND	357	ND	378	378
Benzo(b)fluoranthene	NLL	NLV	ID	20,000	492	2,070	1,760	615	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	NLL	NLV	ID	200,000	914	4,430	5,560	1,500	453	528	425	705	705
Benzo(ghi)perylene	NLL	NLV	800,000,000	2,000,000	516	2,290	2,860	855	ND	ND	ND	381	381
Benzo(a)pyrene	NLL	NLV	1,500,000	2,000	770	3,250	3,830	1,100	332	359	ND	414	414
Carbazole	9,400	NLV	62,000,000	530,000	ND	526	657	ND	ND	ND	ND	ND	ND
Chrysene	NLL	ID	ID	2,000,000	660	3,290	3,770	1,220	ND	359	ND	416	416
Di-n-butylphthalate	960,000	NLV	3,300,000,000	27,000,000	ND	ND	405	ND	ND	ND	ND	ND	ND
Dibenzofuran	ID	2,000,000	6,700,000	ID	ND	ND	401	ND	ND	ND	ND	ND	ND
Fluoranthene	730,000	1,000,000,000	9,300,000,000	46,000,000	1,420	7,880	8,720	2,810	544	779	526	668	668
Fluorene	390,000	580,000,000	9,300,000,000	27,000,000	ND	504	646	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	NLL	NLV	ID	20,000	462	2,110	2,470	707	ND	ND	ND	ND	ND
Phenanthrene	56,000	2,800,000	6,700,000	1,600,000	851	5,790	6,830	2,280	ND	461	ND	378	378
Pyrene	480,000	1,000,000,000	230,000,000	29,000,000	1,370	6,730	7,740	2,460	454	669	467	641	641

Notes:  
1. Samples were collected on April 12, 2022.  
2. NA denotes "Not Analyzed". "ND" denotes the indicated laboratory parameter was not detected above the laboratory reported detection limit (RDL).  
3. The cleanup criteria are derived from Table 2, Soil Residential Generic Cleanup Criteria and Screening Levels, issued under part 201 of P.A. 451- dated June 25, 2018 (Table 2).  
4. Shaded values exceed one or more cleanup criteria contained in Table 2 of P.A. 451, Part 201.  
5. All samples were analyzed at Quantum Laboratories, Inc. located in Wixom, Michigan.  
6. NLV = not likely to volatilize, NLL = not likely to leach, ID = Insufficient data available to establish criteria.  
7. µg/kg denotes micrograms per kilogram.  
8. A "ID" denotes insufficient data to develop criterion. For details, please refer to P.A. 451, Part 201, R.299-49 footnotes for Table 2.

**Table 2 - Summary of Soil Laboratory Analytical Results (Detected SVOCs)  
Lenox Center Property  
100 Lenox Street  
Detroit, Michigan**

Analyte	Residential Drinking Water Protection Criteria (DWPC) (µg/kg)	Residential Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC) (µg/kg)	Residential Particulate Soil Inhalation Criteria (µg/kg)	Residential Direct Contact Criteria (DCC) (µg/kg)	Sample Location									
					GP-12 (0'-1) (µg/kg)	GP-12 (2'-4) (µg/kg)	GP-12 (6'-7) (µg/kg)	GP-13 (0'-1) (µg/kg)	GP-13 (2'-4) (µg/kg)	GP-13 (Duplicate-2) (2'-4) (µg/kg)	GP-13 (6'-7) (µg/kg)	GP-14 (0'-1) (µg/kg)	GP-14 (2'-4) (µg/kg)	GP-14 (6'-7) (µg/kg)
<b>PNAs</b>														
Acenaphthene	300,000	190,000,000	14,000,000,000	41,000,000	469	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	41,000	1,000,000,000	67,000,000,000	230,000,000	1,390	ND	ND	ND	ND	ND	ND	ND	ND	933
Benzo(a)anthracene	NLL	NLV	ID	20,000	6,500	588	764	417	784	355	ND	ND	ND	2,490
Benzo(b)fluoranthene	NLL	ID	ID	20,000	3,590	583	780	404	785	400	ND	ND	ND	2,570
Benzo(k)fluoranthene	NLL	NLV	ID	200,000	1,500	ND	347	ND	342	ND	ND	ND	ND	968
Benzo(g,h,i)perylene	NLL	NLV	800,000,000	2,500,000	1,720	374	436	ND	432	ND	ND	ND	ND	1,040
Benzo(a)pyrene	NLL	NLV	1,500,000	2,000	2,560	424	590	ND	562	ND	ND	ND	ND	1,760
Chrysene	NLL	ID	ID	2,000,000	3,020	457	605	ND	605	ND	ND	ND	ND	2,380
Dibenzo(a,h)anthracene	NLL	NLV	ID	2,000	436	ND	ND	ND	ND	ND	ND	ND	ND	346
Fluoranthene	730,000	1,000,000,000	930,000,000	46,000,000	7,850	959	1,420	724	1,310	464	ND	335	ND	3,470
Fluorene	390,000	580,000,000	9,300,000,000	27,000,000	552	ND	ND	ND	ND	ND	ND	ND	ND	342
Indeno(1,2,3-cd)pyrene	NLL	NLV	ID	20,000	1,500	ND	350	ND	360	ND	ND	ND	ND	898
2-Methylnaphthalene	57,000	2,700,000	670,000,000	8,100,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	365
Naphthalene	35,000	250,000	200,000,000	16,000,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	374
Phenanthrene	56,000	2,800,000	6,700,000	1,600,000	6,270	788	754	658	630	ND	ND	ND	ND	2,080
Pyrene	480,000	1,000,000,000	6,700,000,000	29,000,000	6,610	950	1,250	643	1,170	410	ND	ND	ND	2,930

Notes:  
1. Samples were collected on July 27, 2022.  
2. NA denotes "Not Analyzed". "ND" denotes the indicated laboratory parameter was not detected above the laboratory reported detection limit (RDL).  
3. The cleanup criteria are derived from Table 2, Soil Residential Generic Cleanup Criteria and Screening Levels, issued under part 201 of P.A. 451-  
dated June 25, 2018 (Table 2).  
4. Shaded values exceed one or more cleanup criteria contained in Table 2 of P.A. 451, Part 201.  
5. All samples were analyzed at Quantum Laboratories, Inc. located in Wixom, Michigan.  
6. NLV – not likely to volatilize, NLL – not likely to leach, ID – Insufficient data available to establish criteria.  
7. µg/kg denotes micrograms per kilogram.  
8. A "ID" denotes insufficient data to develop criterion. For details, please refer to P.A. 451, Part 201, R 299-49 footnotes for Table 2.



**APPENDIX IV  
NOTIFICATION FORM**



**DUE CARE ACKNOWLEDGEMENT FORM  
100 LENOX STREET  
DETROIT, MICHIGAN 48215**

**The Property located at 100 Lenox Street, Detroit, Wayne County, Michigan meets the definition of a “facility” as that term is defined in Part 201 of the Natural Resources and Environmental Protection Act (NREPA), PA 451 of 1994, as amended (Part 201).**

***By authorizing this form, you are acknowledging the following:***

You are aware this property is a “facility.”

You are acknowledging you have received and reviewed the Due Care Evaluation Report, dated September 8, 2022, prepared on behalf of Detroit Demolition Department, for 100 Lenox Street.

You have read and understand the Due Care Evaluation Report, applicable pathways, potential exposure of contamination and proper handling of material.

You have read and understand the potential exposure to third parties such as employees, contractors, utility workers, etc.

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Printed Name/Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date