

FOR CONSTRUCTION ACTIVITIES
LENOX CENTER/ AB FORD PARK PROPERTY

188BS23244

PREPARED FOR:

Mr. Al Dyer City of Detroit Construction and Demolition Department 1301 Third Street, Suite 606 Detroit, Michigan 48226

PREPARED BY:

Atlas Technical Consultants LLC 1735 E McNichols Detroit, Michigan 48203



February 5, 2024

Atlas No. 188BS23244

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

Subject: Due Care Evaluation

For Construction Activities

Lenox Center/ AB Ford Park 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, Construction and Demolition Department (C&DD) 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 C&DD 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 in respect to its planned construction and renovation of the existing AB Ford Park. 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 construction and renovation of the existing AB Ford Park and its associated improvements and structures. This document <u>is not intended</u> 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

James Bresko

Senior Project Manager

Attachment: Due Care Evaluation
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Joshua Schuyler

Operations Manager, Michigan



Due Care Evaluation

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

For Construction and Renovation Activities Lenox Center/ AB Ford Park Property 100 Lenox Street Detroit, Wayne County, Michigan 48215

Atlas Project Number 188BS23244 Prepared: February 5, 2024

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

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CONTENTS

1.	INTRODUCTION			
2.	DET	AILED PROPERTY INFORMATION	5	
	2.1	Subject Property Location and Description	5	
	2.2	Existing Infrastructure Features and Conditions of Infrastructure	5	
	2.3	Current Property Use	6	
3.	EXP	OSURE PATHWAY EVALUATION	7	
4.	FAC	ILITY INFORMATION	8	
	4.1	Historical Use of Subject Property	8	
	4.2	Subject Property Physical Setting	8	
	4.3	Contaminant Information	9	
	4.3.1	2022 Investigation Summary	9	
	4.3.2	2 2023 Investigation Summary	10	
	4.3.3	Facility Contaminant Summary	12	
5 .	ASS	ESSMENT OF APPLICABILITY OF PART 201 GENERIC CRITERIA	14	
6.	CON	IPLETE EXPOSURE PATHWAYS & RECOMMENDED RESPONSE ACTIVITIES .	15	
	6.1	Direct Contact Pathway	15	
	6.2	Soil Particulate Inhalation Pathway	17	
	6.3	Soil Volatilization to Ambient Air Pathway	17	
	6.4	Volatilization to Indoor Air Pathway	18	
	6.5	Groundwater-Surface Water Interface Pathway	18	
7.	DOC	UMENTATION OF COMPLIANCE WITH DUE CARE OBLIGATIONS	19	
8.	DEMONSTRATION OF COMPLIANCE WITH DUE CARE OBLIGATIONS			
	8.1	Exacerbation	20	
	8.2	Mitigate or Prevent Unacceptable Exposures	21	
		8.2.1 Demonstration of Due Care Applicable with Current/Proposed Use	21	
	8.3	Reasonable Precautions	22	
	8.4	Response Activities, Access, and Restrictions by Others	22	
9.	LIMITATIONS			
10.	SIGNATURES OF ENVIRONMENTAL PROFESSIONALS2			



TABLES

Table 1 – Exposure Pathway Evaluation

APPENDICES

Appendix I Figures

Appendix II Bio Swale Detail Drawing
Appendix III Analytical Summary Tables

Appendix IV Due Care Acknowledgement Form



1. INTRODUCTION

City of Detroit, Construction and Demolition Department (C&DD) 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), Delineation Assessment Summary, and Delineation of Soil-Fill Material Contamination Summary on behalf of C&DD 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 C&DD in accordance with Section 20107a of Part 201 using the information provided in the aforementioned Phase II ESA, Delineation Assessment Summary, and Delineation of Soil-Fill Material Contamination 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 the City of Detroit in respect to its planned park construction and renovation activities. In summary, the planned project activities consist of, but may not be limited to clearing and removal of all existing vegetation, including trees. throughout the park, removal of most existing park improvements followed by the installation of a clean soil cap (i.e., Surface Protective Barrier) across the entirety of the park and, following installation of the soil cap, construction of various improvements and structures throughout the park. The planned improvements include, but are not limited to, the construction of approximately 22,000 square feet of concrete walkways, two (2) pickleball courts, one (1) tennis court, one (1) integrated skate path, four (4) outdoor shelters, lighting improvements, the resurfacing of the existing Lakewood asphalt parking lot serving the park and final restoration of all disturbed surfaces with topsoil and seed. 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 City of Detroit 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 <u>is not intended</u> 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 Section 7a or Section 4c need to be made available to EGLE, <u>but not submitted</u>, 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, August 2, 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
- Delineation of Soil-Fill Material Contamination Summary Report, Alfred Brush Ford Park, 100 Lenox Street, Detroit, Wayne County, Michigan 48215, Commercial/Environmental Due Diligence, Atlas Project No. 188BS23244, November 30, 2023

These reports are currently on file with C&DD under a separate cover.



2. DETAILED PROPERTY INFORMATION

2.1 Subject Property Location and Description

The Subject Property includes an area of approximately 29.5 acres with the subject assessment area of an 11.5-acre portion of the parcel of land that is currently developed with an 8,116 square foot community center building and associated parking that was completed in 2023. See Figure A for current property location and Figure B for the AB Ford Master Plan Rendering. The Subject Property building serves as a community space as well as a sustainable resilience hub during emergencies and includes a community hub space, flexible space for indoor youth sports and community events, classrooms, and quiet learning space. The Subject Property is serviced by municipally supplied utilities. The municipalities having jurisdiction over the Subject Property are City of Detroit and Wayne County.

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.

As indicated above, the planned park construction and renovation activities consist of, but may not be limited to, clearing and removal of all existing vegetation, including trees, throughout the park, removal of most existing park improvements followed by the installation of a clean soil cap (i.e., Surface Protective Barrier) across the entirety of the park and, following installation of the soil cap, construction of various improvements and structures throughout the park. The planned improvements and structures include, but are not limited to, concrete walkways, pickleball courts, a tennis court, an integrated skate path, outdoor shelters, lighting improvements, resurfacing of an existing asphalt parking lot serving the park, and final restoration of all disturbed surfaces with topsoil and seed.

In addition, the naturalized property will feature a pollinator meadow, arboretum for educational enrichment opportunities, and additional tree plantings. Other renovations expected to take place at the park include Detroit Pistons-sponsored basketball courts and an Environmental Protection Agency Habitat Restoration Project to provide a habitat wetland for wildlife.

A Subject Property Location Map and Subject Property Plans are provided in **Appendix I, Figures A and B and Figures 1 through 3.3 for assessment study area.**

Based on provided information provided by C&DD there are currently no land or resource use limitations or institutional controls established on the Subject Property. There are no known aboveground storage tanks, underground storage tanks or 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 currently accessed from the northwest corner of the parcel via Lenox Street. Municipally supplied utilities (electricity, natural gas, water, storm sewer, sanitary sewer) are provided to the Subject Property. There are no known water wells or septic systems identified or reported for the Subject Property. Two newly constructed inter-connected bio swales



(completed in 2023) that receive stormwater runoff and are connected to the municipal sewer system are located on the northwestern portion of the Subject Property, west of the newly constructed community center building. A detail drawing of the bio swale construction is included in **Appendix II, Drawing Number C-9.0**. There is no other surface water on the Subject Property. The Detroit River is located directly south of the Subject Property.

2.3 Current Property Use

The Subject Property is owned/operated by City of Detroit, Parks and Recreation and is being redeveloped into a community space as well as a community hub space, flexible space for indoor youth sports and community events, classrooms, and quiet learning space. <u>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.</u> The following activities are anticipated during current planned park construction/ renovation 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 and groundwater.
- Exacerbation of existing contamination could be a result of handling soil and groundwater encountered during construction or soil adhered to demolition debris, construction workers, and/or demolition and construction equipment/trucks leaving the Subject Property.
- 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 park construction/ renovation 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. No groundwater wells were observed at the Subject Property. Current and Future use will be municipal supplied drinking water.	INCOMPLETE: Drinking Water is supplied by municipal system
Direct Contact Pathway	A person can come in contact with contaminated soils or groundwater on the Subject Property (walking, playing, or working on surficial soils with or without vegetation; below surface construction or utility activities; trespassing.)	COMPLETE: 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.	COMPLETE: 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.	COMPLETE: 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.	COMPLETE: 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. Two newly constructed interconnected bio swales are located on the Subject Property and the Detroit River is adjacent to the Southern Property Line.	COMPLETE: Surface Water was identified on, and adjacent to, 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 former community center building, which was demolished by C&DD in early 2023, was 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 author and journalist Karen 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

A topographic survey of the Subject Property was originally issued in March 2020 indicates that the elevation across the property ranges from approximately 575 feet above mean sea level (AMSL) to approximately 582 AMSL. The contour lines provided on the survey indicate a slight west-southwesterly topographic slope. The anticipated direction of groundwater flow is to the west-southwest.

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 artifactual sandy loam underlain by gravelly-artifactual 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 soil borings completed on the Subject Property (maximum boring depth was 18.5 feet below grade surface). The soil horizons contained debris (e.g., brick) at several soil borings (GP-1, GP-4 through GP-14) at depths ranging from 10 to 12-feet bgs, which indicates fill materials were placed in several areas across the Subject Property. 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 soil borings contained groundwater at depths ranging from approximately 4 to 12 feet bgs.

4.3 Contaminant Information

Investigative activities that included soil sampling, gridded soil/fill sampling, stockpiled soil sampling and soil gas sampling were performed in 2022 and 2023. Site activities and contaminant information compiled from these investigations are summarized in the following sections:

4.3.1 2022 Investigation Summary

A Limited Phase II ESA was performed by Atlas in April 2022 within the western portion of the park, 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 in July 2022. A summary of the findings from these investigations is provided below. The complete reports are on file with C&DD.

- On April 12, 2022, Atlas advanced eight (8) soil borings (GP-1 through GP-8) to a maximum depth ranging from 12to 18.5-feet bgs. 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. At 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 4 to 12 feet bgs at all soil boring 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 (SVIAIC) and/or Particulate Soil Inhalation Criteria) contained in Table 2 of P.A. 451, Part 201.

2022 Contaminant Summary

- VOCs, PAHs, and metals were detected at concentrations that exceed EGLE Residential GCC.
- Lead and benzo(a)pyrene were identified above EGLE Residential GCC for direct contact at GP-3 (1'-3').
- Lead was identified in the soil above DCC at GP-8 (2'-4').
- Lead was identified in the soil above the Drinking Water Protection Criteria (DWPC) at GP 3 (1'-3').



- Barium, cadmium, copper, lead, mercury, and zinc were identified in the soil above the DWPC at GP-8 (2'-4').
- Benzene was identified in the perched groundwater (in fill material) above Drinking Water Criteria (DWC) at GP-4.

Atlas noted that the Drinking water exposure pathway is incomplete as the City of Detroit is serviced by municipal water system and installation of wells for consumptive purposes is prohibited. Atlas also notes that although several soil sample locations may exceed Groundwater Surface Water Interface Protection Criteria (GSIPC), and the pathway is complete, there is limited risk as the area along the river/canal contains metal sheet piling and the bioswale areas were excavated and replaced with clean fill and aggregate.

Atlas recommended additional sampling to determine the full extent of risk pathways (metals and SVOCs in soil) above cleanup criteria to fully evaluate the owner's obligations for due care responsibilities.

4.3.2 2023 Investigation Summary

Delineation of Soil-Fill Material Contamination investigations were performed in April and July 2023 within the western portion of the park area. The following provides a timeline of activities for these investigations:

April 4, 2023	File Review of project-related documents provided by the DDD
April 7, 2023	Site-Specific Health and Safety Plan (SSHASP)
April 10, 2023	Work Plan
April 13, 2023	Kickoff Meeting & Site Visit
April 13, 2023	Property Survey Mapping
April 24, 2023	Utility Clearance/GPR
April 24-27, 2023	Soil Borings & Soil/Fill Material Sampling
May 10, 2023	Soil Stockpile Sampling
July 11, 2023	Property Survey Mapping (cont.)
July 25, 2023	Soil Borings & Soil/Fill Material Sampling (cont.)
August 11, 2023	Soil Gas Point Installation
August 16, 2023	Soil Gas Sampling

A summary of the findings from the 2023 investigations is provided below. The complete reports are on file with C&DD.

Gridded Soil Sampling

- A total of 158 grid and boring locations were completed during the delineation activities. Soil boring locations SB-1 through SB-123 were completed in April 2023. Soil boring locations SB-124 through SB-158 were completed in July 2023.
- Soil borings were advanced to a depth of approximately 4 feet bgs.
- One soil boring was advanced at each grid node on an established 50-foot by 50-foot grid.
- At each boring location, soil/ fill material samples were collected continuously with a five-foot macro core sampler from ground surface to the bottom of each borehole and subjected to headspace testing using a portable photo-ionization detector (PID). The headspace testing was performed for safety and to screen soil/ fill material for the potential presence of VOCs.
- The samples collected from the 0–2-foot sampling interval were submitted for PAH and 10 Michigan Metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium,



silver, and zinc) analyses. The samples collected from the 2–4-foot sampling interval were submitted to the laboratory and put on hold for potential laboratory analysis. PAH (2-4') samples were extracted at the laboratory prior to totals results of the (0-2') samples due to hold times. PAH and specific metals were requested for analysis from the 2-4' interval based on specific COC exceedances at each 0-2' sample location.

Stockpiled Soil Sampling

- Stockpiles were identified by Atlas upon arrival due to active on-site construction identified as stockpile areas North (N), South (S), and East (E). Atlas evaluated and quantified soil volume and total areas of stockpiled soil and all stockpiled soil was staged on the northwest corner of the Subject Property. Soil volumes changed daily as new soil was placed in this area. Atlas attempted to collect composite samples of all soil stockpiled in conjunction with the site assessment/soil boring drilling activities using established protocols applied to the stockpiled soil (for possible disposal or re-use on-site) that included: one composite sample per 500 cubic yards (cy), or one composite sample from each stockpile of soil stockpile <500 cy; each stockpile (500 cy volume) was divided into quadrants and three vertical levels; the quadrants/vertical levels were confirmed in the field based on size (but generally consisted of three vertical levels of approximately 0-5 feet, 5-10 feet, and 10-15 feet pending total height/width of each 500 cy quadrant); three discrete samples were collected from each individual quadrant/level (12 discrete samples total per 500 cy) to be combined for one composite sample for laboratory analysis.
- Atlas collected a total of eight composite and duplicate stockpile samples on May 10, 2023, that were submitted VOC, SVOCs, PCB and 10 Michigan Metals analyses in accordance with EGLE-approved methanol preservation protocols.

Soil Gas Sampling

- On August 11, 2023, seven (7) soil gas points (SG-01 through SG-07) were installed outside/surrounding the on-site newly constructed recreation building in areas of grass/landscape. The soil gas points were installed to a final depth of 4-5 feet bgs using a Geoprobe® 7822DT. The soil gas point consisted of 3.5-4 feet of ¼-inch Teflon™ tubing connected to a six-inch long stainless steel soil gas implant set at approximately 4-4.5 feet bgs. The soil gas point was fitted with a locking cap and a flush-mounted protective manhole cover. The location of soil gas points is shown on all Figures and Soil Gas Analytical Results on Figure 3.3.
- On August 16, 2023, seven (7) soil gas samples were collected from soil gas points SG-01 through SG-07 with final collection using a laboratory-provided sorbent tube container. The soil gas samples were collected using techniques outlined in the EGLE document "Guidance Document for the Vapor Intrusion Pathway" and in the laboratory provided Vapor Tube Sampling Procedures (included as Attachment 7). The samples were collected using a constructed pathway between the vapor pinpoint and the Vapor Tube (sorbent tube). The pathway was created using plastic and Tygon® tubing, as well as plastic stopcocks allowing for the control of flow direction supplied by the laboratory.
- Atlas collected a total of seven (7) soil gas samples that were submitted for Polycyclic Aromatic Hydrocarbons (PAHs) and Mercury (Hg) analyses upon request of Buildings Safety Engineering and Environmental Department, Environmental Affairs (BSEED-EA).



2023 Contaminant Summary

Metals

Arsenic: - Exceeded Residential DCC at 148 locations.

- Exceeded Non-Residential DCC at one location.

- Exceeded Residential DCC at SP (N) and SP (S)

Cadmium: - Exceeded Residential DCC at one location Lead: - Exceeded Residential DCC at 37 locations.

- Exceeded Non-Residential DCC at 17 locations.

- Exceeded Residential DCC at SP (N)

Mercury: - Exceeded Residential VIAP Levels at 114 locations.

- Exceeded VIAP screening levels at SP (E) and SP (S).

PAHs

- Exceeded Residential DCC for one or more PAH compounds at 37 locations.

- Exceeded Non-Residential DCC at four locations (one location exceeds for benzo(a)pyrene and dibenzo(a.h)anthracene).

- Exceeded Residential VIAP screening levels at 59 locations.

- Soil Gas Samples were below all laboratory detection limits at all 7 soil gas point locations.

Soil Gas

- All samples were below all laboratory detection limits.

4.3.3 Facility Contaminant Summary

The following soil contaminants of concern (COCs) that are applicable to this DCE have been identified on the Subject Property to date:

Contaminant	Maximum Concentration (μg/kg)	Location of Maximum Concentration	Part 201 Residential or Non-Residential GCC / DCC / VIAP				
Soil Boring Samples	Soil Boring Samples						
Arsenic	100,000	SB-10 (0-2)	Residential DCC				
			Nonresidential DCC				
Cadmium	1,100,000	SB-58 (0-2)	Residential DCC				
Lead	10,500,000	SB-158 (0-2)	Residential DCC				
			Nonresidential DCC				
Mercury	7,150	SB-118 (0-2)	Residential VIAP				
Benzo(a)anthracene	61,200	SB-96 (0-2)	Residential DCC				
Benzo(a)pyrene	43,500	SB-96 (0-2)	Residential DCC				
		, ,	Nonresidential DCC				
Benzo(b)fluoranthene	58,500	SB-96 (0-2)	Residential DCC				
Dibenz(a,h)anthracen	8,420	SB-96 (0-2)	Residential DCC				
e		, ,	Nonresidential DCC				
Indeno(1,2,3-	24,900	SB-96 (0-2)	Residential DCC				
cd)pyrene							



Contaminant	Maximum Concentration (μg/kg)	Location of Maximum Concentration	Part 201 Residential or Non-Residential GCC / DCC / VIAP			
Naphthalene	1,950	SB-33 (2-4)	Residential VIAP			
Phenanthrene	69,500	SB-96 (0-2)	Residential VIAP			
Stockpile Soil Samples						
Arsenic	10,300	SP (N) -6	Residential DCC			
Lead	434,000	SP (N)-6	Residential DCC			
Mercury	752	SP (N)-1	Residential VIAP			
Benzo(a)pyrene	6,400	SP (N)-6	Residential DCC			
Naphthalene	408	SP (N)-6	Residential VIAP			
Phenanthrene	13,900	SP (N)-6	Residential VIAP			

Notes: Only analytes for which one or more of the Part 201 Criteria are exceeded are included.

All data presented in units of micrograms per kilogram (µg/kg).

VIAP - Volatilization to Indoor Air Pathway GCC – Generic Cleanup Criteria

DCC – Direct Contact Criteria

Maps that document all soil sampling locations and analytical results are provided in **Appendix I, Figures 1.1 through 3.3.** Soil analytical summary tables are provided in **Appendix III.** Analytical Laboratory reports are included in the Delineation of Soil-Fill Material Contamination Summary Report identified in Section 1 and are not duplicated in this DCE. It should be noted, based of soil-fill material grid sampling completed to date, the level, nature, and distribution of soil/ fill material contamination within the eastern portion of the park are expected to be similar, if not identical, to the western portion of the park fully investigated in mid-2023. Therefore, a presumptive remedy consisting of construction and installation of a Surface Protective Barrier (i.e., clean soil cap) has also been recommended for the eastern portion of the park to prevent direct human contact to the contaminated material(s). This presumptive remedy is consistent with the selected remedy recommended for the western portion of the park. A presumptive remedy is a remedy that can be implemented to mitigate unacceptable exposure at a contaminated property without the need for conducting sampling and testing activities.



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 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.

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 as discussed in Section 4.3, soil impact exists on the Subject Property at concentrations that exceed Part 201 GRCC for Direct Contact. Atlas notes that delineation of the extent and distribution of the identified COCs in the soil from the historical fill at the Subject Property is not fully delineated. *This complete pathway is an unacceptable exposure and, therefore, response activities are required.*

Atlas recommends the following response activities to address unacceptable exposures based on the planned park construction/ renovation activities at the Subject Property.

- Restrict access to work areas during the construction and renovation activities. These
 areas should be accessible only to authorized contractors, consultants, agents, or
 employees of the City of Detroit. Access restrictions will include a secure 6-foot-high vinylpaneled fencing and/or locked gated access with proper signage.
- Install silt fences as needed to protect sensitive areas (a silt fence detail drawing is included in **Appendix II**, **Drawing Number C-9.0**).
- Atlas has proposed locations to collect composite samples for Toxicity Characteristic Leaching Procedure (TCLP) analysis in preparation for future soil disposal/waste characterization. Atlas will submit six (6) composite soil/ fill materials samples to be analyzed for TCLP for one or more of the following COCs: VOCs, SVOCs, and/or Michigan 10 Metals** as well as total PCBs using U.S. EPA-approved methods. Atlas will review and request the laboratory to analyze a minimum of 6 samples/composite from locations with the highest concentrations across the western portion of the Subject Property from the 0-2' interval as this is most likely the soil that may be removed as part of remedial/due care obligations. Additional composite samples may need to be collected from the eastern portion of the Subject Property. **Note: Atlas and Pace recommend analyzing the samples for TCLP for Resource Conservation and Recovery Act (RCRA) 8 Metals as that is a common request for disposal facilities. This task may



be revised pending discussion with disposal location (landfill) to ensure proper characterization is completed prior to site remediation and soil disposal.

The following list includes the breakdown of proposed TCLP composite sampling:

The following samples are considered for composite TCLP analysis from the 0-2 ft sample intervals. These TCLP sampling groups were based on general similar locations across the site in order to assess general portions of the site for future soil removal.

Selection Criteria: highest concentrations (all exceeding non-residential direct contact, those exceeding 20X TCLP level, then grouped according to site location. The sampling protocols/locations do not include all of lead samples that were exceeding 20X TCLP level (i.e., lead above 100 ppm), however, previous sampling experience has shown that lead is rarely hazardous at 400 ppm or less.

o TCLP Group 1:

- Primary: SB-102, SB-103, SB-119, SB-120, SB-121, SB-122
- Secondary (if needed for volume): SB-123

TCLP Group 2:

- Primary: SB-105, SB-116, SB-117, SB-118
- Secondary (if needed for volume): SB-104, SB-106, SB-107,

o TCLP Group 3:

- Primary: SB-96, SB-97, SB-98, SB-109, SB-110, SB-113
- Secondary (if needed for volume): SB-111, SB-112, SB-114

TCLP Group 4:

- Primary: SB-71, SB-72, SB-73, SB-76, SB-83, SB-85, SB-157, SB-158
- Secondary: SB-84, SB-74, SB-75, SB-81

o TCLP Group 5:

- Primary: SB-23, SB-38, SB-39, SB-40
- Secondary: SB-17, SB-18, SB-19, SB-22, SB-24, SB-41

TCLP Group 6:

- Primary: SB-9, SB-10, SB-58, SB-146
- Secondary: SB-8, SB-11, SB-57, SB-30. SB-31, SB-32, SB-33
- Minimize relocation of impacted soil via dust and soil erosion via best management practices, as needed, including but not limited to Soil Erosion Sedimentation Control SESC) Measures and covering stockpiled impacted soils during rain events to prevent leaching and surface run-off of potentially impacted water.
- Stockpiled soil generated during construction activities that will remain on the Subject property for final use in all recreation areas and/or identified areas of impact above DCC should be capped and/or covered with clean soil. Confirmatory soil sampling/analysis of any site soil to be reused as surface and/or topsoil for final grade is recommended.
- Soil characterization in accordance with applicable landfill protocols should be performed prior to any offsite soil disposal.
- Monitor for relocation of impacted soils via dust (offsite and/or out of construction area) by implementing perimeter dust monitoring (a dust monitoring and personal air monitoring plan will be submitted under separate cover).
- In the event that water accumulates in excavations and requires removal to facilitate the completion of a given subsurface construction activity, the groundwater should be sampled for waste characterization to determine the appropriate disposal requirements.



- 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 (when safely feasible) to minimize dust during demolition.
- Provide a protective surface barrier (i.e., soil cap) of clean backfill material over existing contamination following removal of all existing vegetation, including trees, structures, and paved parking areas.
- 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).
- Construction planning should include SESC measures to prevent movement of materials.
 Infiltration of precipitation through stockpiled contaminated soil should also be minimized, and any infiltrated water should be kept from going offsite and/or into stormwater basins and the one site bio swales.
- Require that a Competent Person and Supervisor in conformance with OSHA 29 CFR 1910.120 be onsite or readily accessible during work activities. Contractors will be responsible for ensuring workers have the appropriate level of hazard awareness training, which may include up to 40-Hour HAZWOPER certification.
- Require onsite construction companies and associated workers to have a Site-Specific Health & Safety Plan (SSHASP), in conformance with all applicable OSHA and MIOSHA requirements and regulations, requiring a negative exposure assessment for each identified bio-accumulative compound greater than the residential cleanup criteria and/or wear appropriate Personal Protective Equipment (PPE), when necessary, including but limited to steel-toed boots, long pants, gloves, safety glasses or safety goggles.
- Disclose this DCE to any contractors, tenants, relevant third parties (e.g., utility companies), and easement holders that perform activities at the Subject Property that may result in exposure to contaminants.
- Provide written and documented notifications to all construction workers, subcontractors, utility/maintenance workers, operators and other personnel operating onsite.
- Maintain a record of all notices provided to entities and maintain these records throughout ownership and/or operation of the Subject Property.
- Implement the proposed remedial activities in a manner consistent with this plan.

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.* Atlas, however, does suggest common construction practices of dust/erosion mitigation, construction traffic/soil removal and post construction vegetative cover to minimize dispersion of soil.

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 Subject 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 at this time. Note, the need for conducting additional vapor intrusion assessments to evaluate existing structures or new structures to be constructed will be assessed, if warranted, as the planned park construction/ renovation work progresses.

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 detected at limited locations above applicable Part 201 GRCC. Atlas notes that although several soil sample locations may exceed Groundwater Surface Water Interface Protection Criteria (GSIPC), and the pathway is complete, there is limited risk as the area along the river/canal contains metal sheet piling and the bioswale areas were excavated and replaced with clean fill and aggregate. This complete pathway is not an unacceptable exposure and therefore no response activities are required at this time.



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, upon request, shall provide the documentation to EGLE. 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. Atlas notes that as site conditions and Subject Property use change, 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.

Atlas recommends the city 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 the as-built construction and installation of the recommended Surface Protective Barrier (i.e., clean soil cap) to be placed across the entire park property. Documentation supporting use of clean fill material to construct/ install the Surface Protective Barrier. The documentation must include detailed description of all site activities completed, volume/ quantity of material(s) used, scaled-site plans, 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 Subject Property.
- 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 Subject Property).
- A copy of this Due Care Evaluation should be provided to all 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 the city a SSHASP as required under applicable regulations (MIOSHA, OSHA, etc.) that will address measures to protect workers during demolition activities. The SSHASP 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.

As described above, proposed site activities include completing various construction and renovation activities throughout the Subject Property, including demolition/ removal of existing structures and constructing new amenities and improvements as noted in the site plans developed for park construction and renovation. 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 Subject Property. Avoid transportation/relocation of soil from one area of the Subject Property to another without conducting the appropriate soil sampling and characterization testing.
- 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 planned demolition/ construction/ renovation activities.
- Install silt fences as needed to protect sensitive areas (A silt fence detail drawing is included in **Appendix II, Drawing Number C-9.0**).

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 (via visual observations and/or PID screening) and properly characterized if any soil is transported off-site. Any soil relocation on the Subject Property shall be documented with detailed description of site activities, appropriate sampling/ characterization, scaled-site plans, and location/ extent of soil relocation. The city 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 Park construction and renovation activities include completing various construction and renovation activities throughout the Subject Property, including demolition/ removal of existing structures and constructing new amenities and improvements as noted in the site plans developed for park construction and renovation. 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 Subject Property without conducting the appropriate soil sampling and characterization testing.
- 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 planned demolition/ construction/ renovation activities.
- The city shall construct and install a surface protective barrier (i.e., soil cap) of clean backfill over existing contamination to mitigate unacceptable exposure following removal of all existing vegetation, including trees, and demolition/removal of existing improvements and structures (per the park construction/renovation site plans).

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 site activities to be completed:



- 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 properly 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.
 - o 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 seg.
- (i) The resource conservation and recovery act, 42 U.S.C. §6901 et seg.
- (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 any site 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 be used is believed sufficient in the prevention of reasonably foreseeable acts or omissions of a third party at this time. The city should notify all on-site contractors of the presence of the soil and groundwater impacts during park construction and renovation 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 Subject Property to another without conducting the appropriate soil sampling and characterization testing.
- Maintain documentation of appropriate screening, characterization, and disposal of all soil
 or groundwater encountered during park construction and renovation 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 ESA 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, Delineation Assessment and Delineation of Soil-Fill Material Contamination. 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, Delineation Assessment, and Delineation of Soil-Fill Material Contamination. 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 James Bresko and reviewed by Joshua Schuyler.

James Bresko

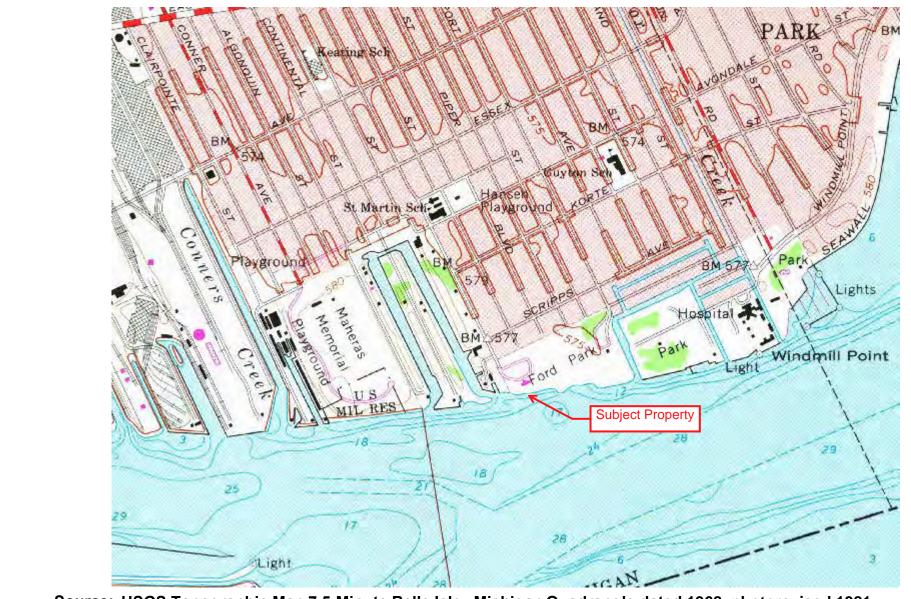
Senior Project Manager

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 A

> Lenox Center Property 100 Lenox Street Detroit, Michigan

PROJECT NO.: 188BS23244

DRAWN BY: AJT



FORD MASTER PLAN RENDERING AB

Project Number: 188BS23244 08/18/2023 DH

Scale: AS SHOWN B

















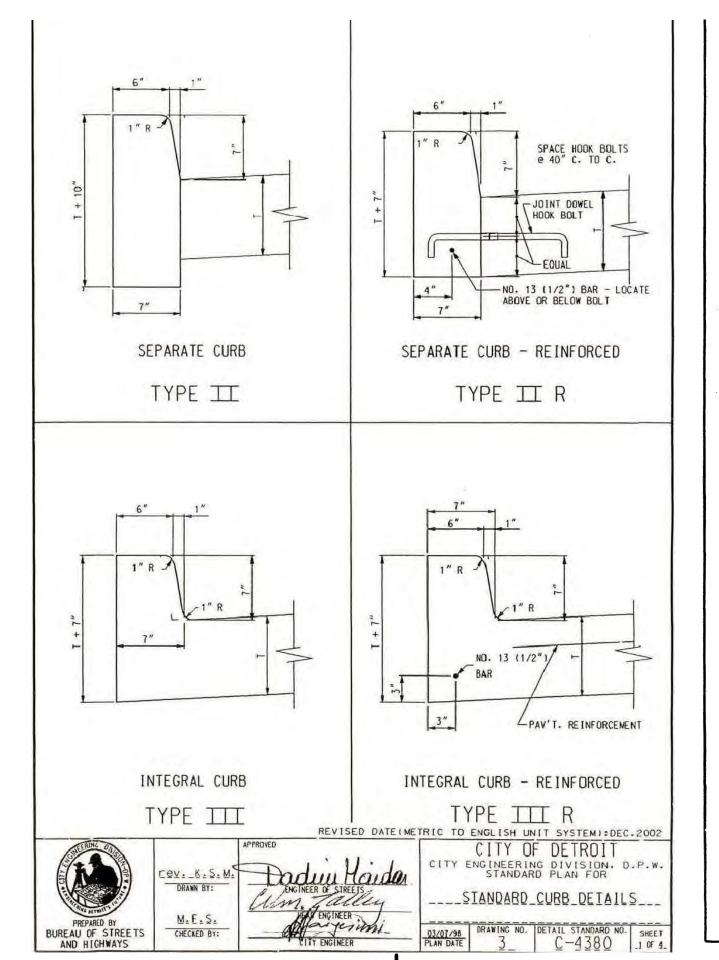








APPENDIX II BIO SWALE DETAIL DRAWING



EXPANSION JOINTS ALL EXPANSION JOINT PAPER SHALL EXTEND 1" BELOW THE

- BOTTOM OF THE THINNER OF ADJOINING PAVEMENT SECTIONS. PLACE 1/2" PAPER EXPANSION JOINTS AT LOT LINES WHEN LOT LINES ARE BETWEEN 25' AND 50' APART.
- PLACE ADDITIONAL 1/2" PAPER EXPANSION JOINTS SO THAT THE DISTANCE BETWEEN JOINTS DOES NOT EXCEED 50' WHEN LOT LINES ARE OVER
- PLACE 1/2" PAPER EXPANSION JOINTS AT EVERY SECOND LOT LINE AND CONTRACTION JOINT AT INTERVENING LOT LINE WHEN LOT LINES ARE
- LESS THAN 25' APART. PLACE 1" PAPER EXPANSION JOINTS AT CURB AND BUILDING OR PROPERTY LINE OR AT ALTERNATE POSITION (4A) AS SHOWN FOR DRIVEWAY.
- PLACE 1" PAPER EXPANSION JOINTS AT CURB AND BUILDING OR PROPERTY LINE FOR FULL WIDTH SIDEWALK EXCEEDING 7' IN WIDTH.
- 6 PLACE 1" PAPER EXPANSION JOINTS AT CURB CIRCLES OR AT ALTERNATE POSITION (6A) AS SHOWN.
- 7 PLACE 1" PAPER EXPANSION JOINTS AT INTERSECTIONS OF SERVICE WALKS AND SIDEWALKS AND SERVICE WALKS AND CURBS.
- (8) PLACE 1" PAPER EXPANSION JOINTS AT MARGIN FLAGS AT CROSSWALKS. (9) PLACE 1" PAPER EXPANSION JOINTS AT ALLEY APRONS.
- 10 PLACE 1/2" PAPER EXPANSION JOINT BOTH SIDES OF SIDEWALK FLAG ABUTTING TREE AND ON CENTERLINE JOINT.

CONTRACTION JOINTS

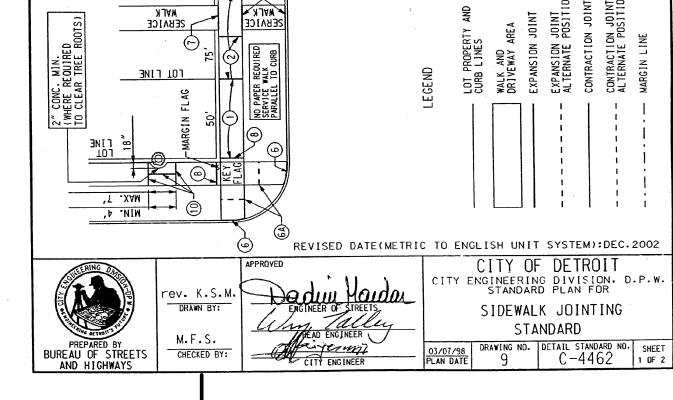
- PLACE CONTRACTION JOINTS AT INTERVALS OF NOT LESS THAN 5' NOR MORE THAN 7' ON WALKS 5' WIDE OR WIDER. INCLUDING FULL
- PLACE CONTRACTION JOINTS AT INTERVALS OF NOT LESS THAN 4' NOR MORE THAN 7' ON WALKS 4' WIDE.
- PLACE CONTRACTION JOINTS AT THE MARGIN LINE ON FULL WIDTH WALKS (OPTIONAL).

DRIVEWAYS

- PLACE CONTRACTION JOINTS IN DRIVEWAYS SO THAT NO SLAB WILL EXCEED THE DIMENSIONS OF 15' BY 15'
- PLACE 1" PAPER EXPANSION JOINTS ON ALL SIDES OF COMMERCIAL DRIVES.
- PLACE CONSTRUCTION OR CONTRACTION JOINT ON CENTERLINE
- WHEN WIDTH OF DRIVEWAY EXCEEDS 15' PLACE 1/2" PAPER EXPANSION JOINTS ON

HEAVY DUTY CONCRETE DETAIL

CITY OF DETROIT BOTH SIDES OF RESIDENTIAL DRIVEWAYS CITY ENGINEERING DIVISION, D.P.W STANDARD PLAN FOR IF DRIVEWAY EDGE IS WITHIN 2 FEET OF LOT INE. PLACE THIS EXPANSION PAPER AT ____SIDEWALK_JOINTING___ PROPERTY LINE. ____STANDARD_ DRAWING NO. DETAIL STANDARD NO. SHEET 30 C-4462 2 OF 2 REVISED DATE (METRIC TO ENGLISH UNIT SYSTEM): DEC 2002 PLAN DATE



8" MDOT 21AA CRUSHED

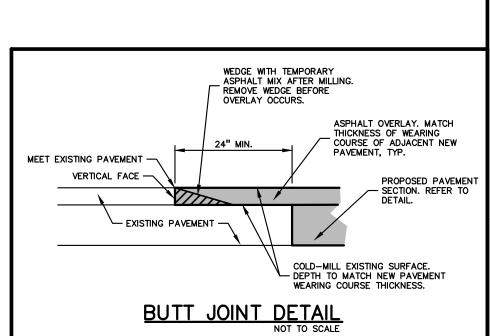
PROOF-ROLLED/COMPACTED

SUBGRADE OR ENGINEERED FILL COMPACTED TO 95% OF

UNIT WEIGHT PER ASTM D-1557

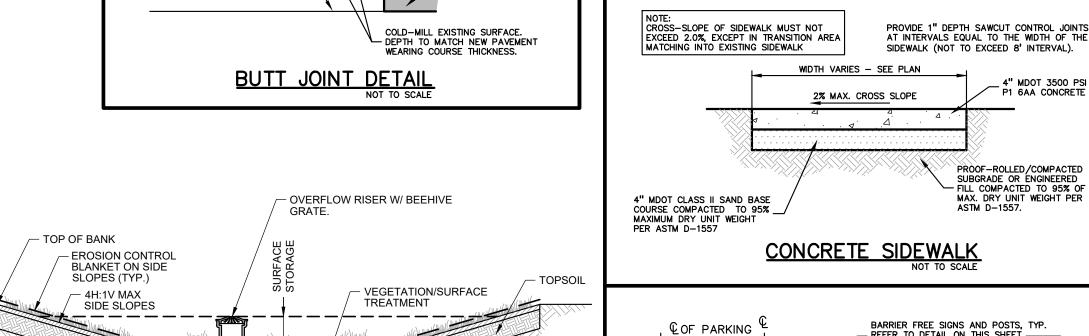
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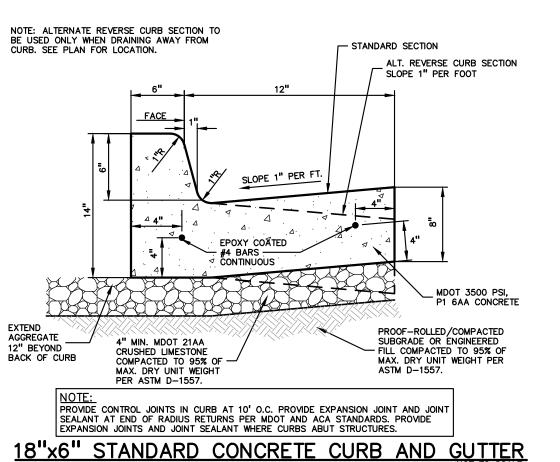
TO1 L1NE

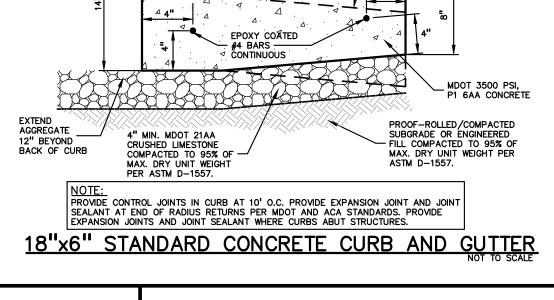


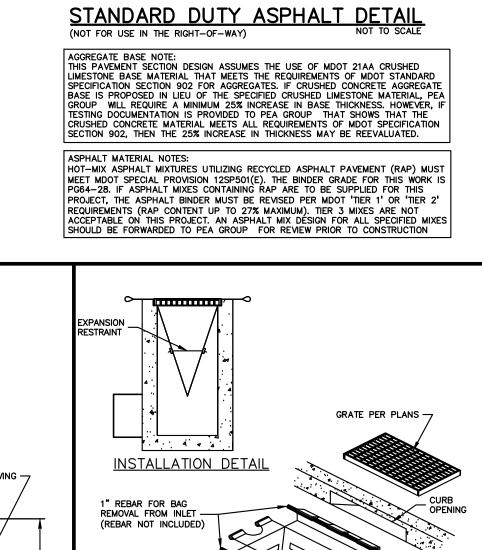
GEOTEXTILE

SUBGRADE



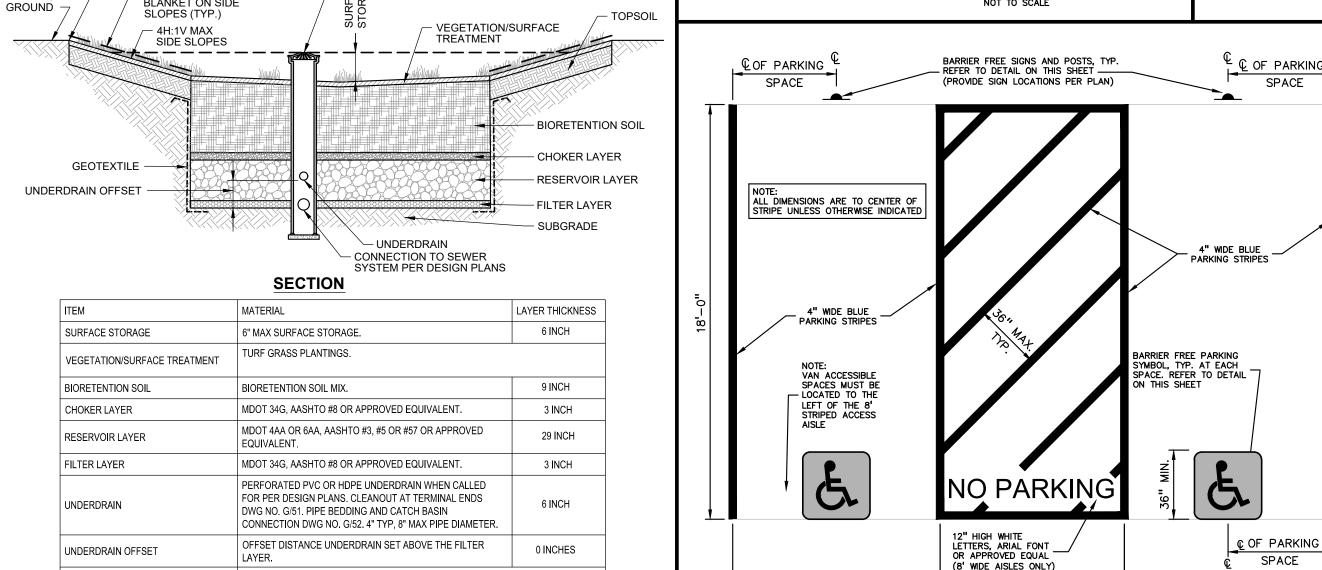


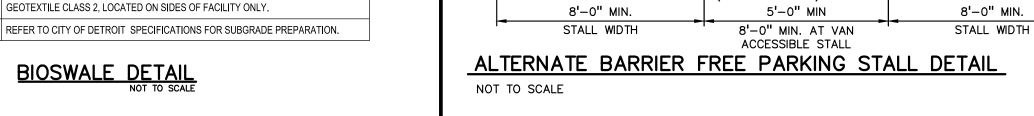


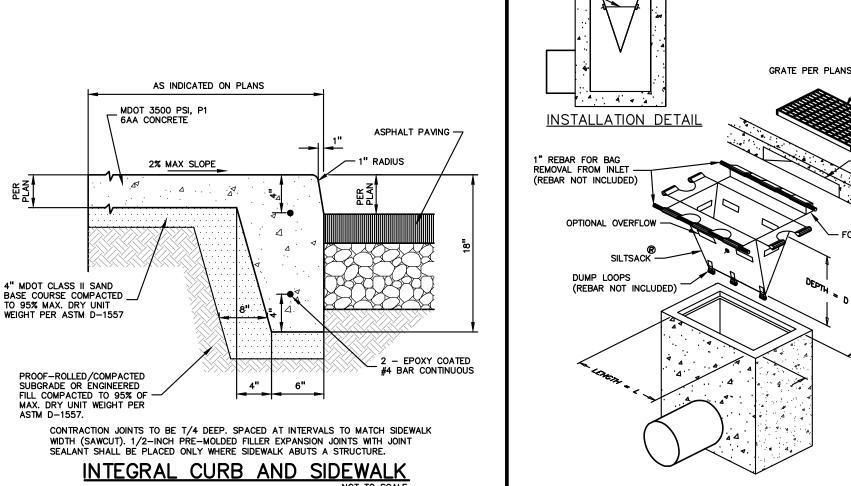


1.5" MDOT 5E1 ASPHALT

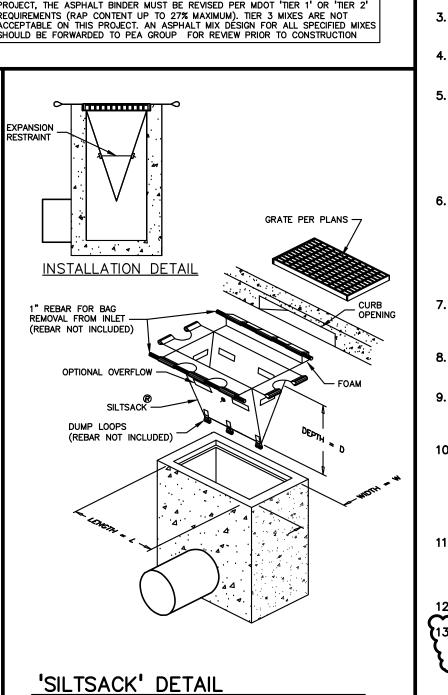
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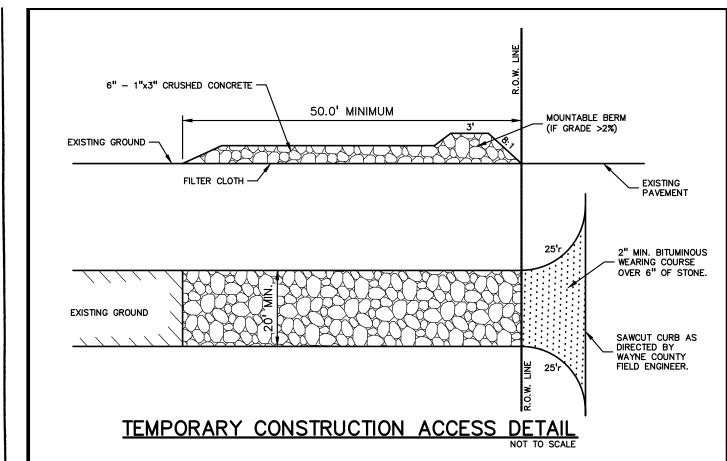


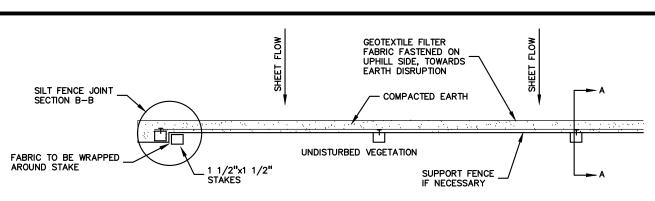


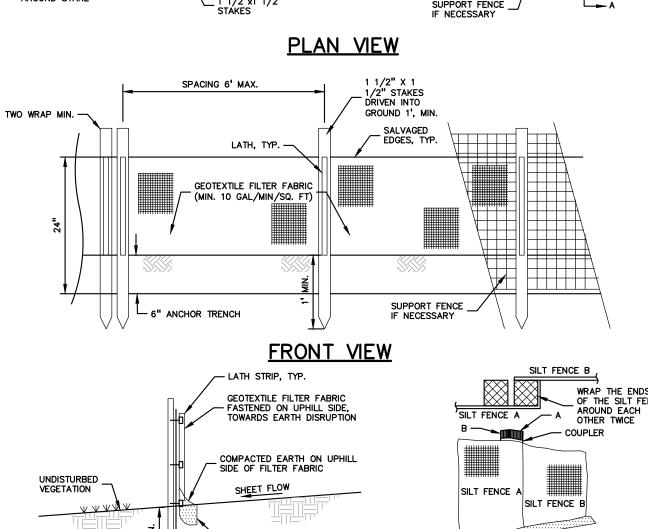


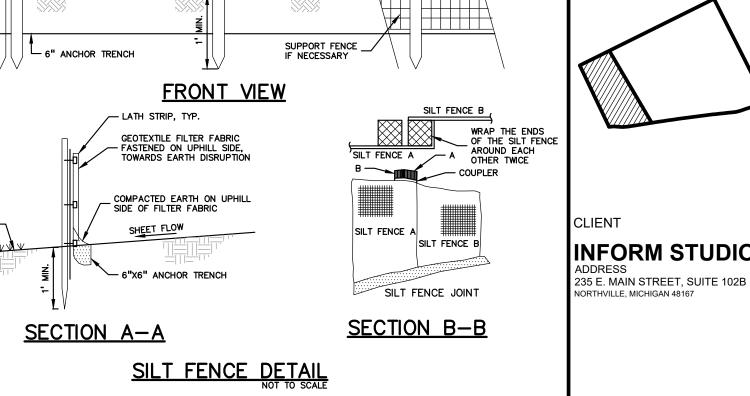
NOT TO SCALE











GENERAL NOTES:

NOTE: ALL SPECIFIED THICKNESSES ARE FINAL COMPACTED THICKNESSES, TYP.

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF DETROIT.

THE CONTRACTOR MUST CONTACT THE ENGINEER SHOULD THEY ENCOUNTER ANY DESIGN ISSUES DURING CONSTRUCTION. IF THE CONTRACTOR MAKES DESIGN MODIFICATIONS WITHOUT THE WRITTEN DIRECTION OF THE DESIGN ENGINEER, THE CONTRACTOR DOES SO AT HIS OWN RISK.

ALL NECESSARY PERMITS, TESTING, BONDS AND INSURANCES ETC., SHALL BE PAID FOR BY THE CONTRACTOR. THE OWNER SHALL PAY FOR ALL CITY OF DETROIT INSPECTION FEES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL DURING THE PERIODS OF CONSTRUCTION. THIS SHALL BE CONSIDERED INCIDENTAL TO THE JOB.

THE CONTRACTOR SHALL NOTIFY MISS DIG (811) AND REPRESENTATIVES OF OTHER UTILITIES IN THE VICINITY OF THE WORK A MINIMUM OF 72 HOURS PRIOR TO START OF CONSTRUCTION (EXCLUDING WEEKENDS AND HOLIDAYS) FOR LOCATION AND STAKING OF ON-SITE UTILITY LINES. IF NO NOTIFICATION IS GIVEN AND DAMAGE RÉSULTS, SAID DAMAGE WILL BE REPAIRED AT SOLE EXPENSE OF THE CONTRACTOR. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER SO THAT THE CONFLICT MAY E

CONTRACTOR TO VERIFY THAT THE PLANS AND SPECIFICATIONS ARE THE VERY LATEST PLANS AND SPECIFICATIONS AND FURTHERMORE. VERIFY THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN APPROVED. ALL ITEMS CONSTRUCTED BY THE CONTRACTOR PRIOR TO RECEIVING FINAL APPROVAL, HAVING TO BE ADJUSTED OR RE-DONE, SHALL BE AT THE CONTRACTORS EXPENSE. SHOULD THE CONTRACTOR ENCOUNTER A CONFLICT BETWEEN THESE PLANS AND/OR SPECIFICATIONS, THEY SHALL SEEK CLARIFICATION IN WRITING FROM THE ENGINEER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT SOLE EXPENSE TO THE CONTRACTOR.

ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREAS, PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DISTURBED DUE TO CONSTRUCTION, SHALL BE REPLACED AND/OR RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR.

MANHOLE, CATCH BASIN, GATE VALVES AND HYDRANT FINISH GRADES MUST BE CLOSELY CHECKED AND APPROVED BY THE ENGINEER BEFORE THE CONTRACTOR'S WORK IS CONSIDERED COMPLETE.

9. CONTRACTOR SHALL REMOVE AND DISPOSE OF OFF-SITE ANY TREES, BRUSH, STUMPS, TRASH OR OTHER UNWANTED DEBRIS AT THE OWNER'S DIRECTION, INCLUDING OLD BUILDING FOUNDATIONS AND FLOORS. BURNING OF TRASH, STUMPS OR OTHER DEBRIS SHALL NOT BE PERMITTED. 10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADING, SIGNAGE, LIGHTS AND TRAFFIC CONTROL DEVICES TO PROTECT THE WORK AND SAFELY MAINTAIN TRAFFIC IN ACCORDANCE WITH LOCAL

REQUIREMENTS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). THE DESIGN ENGINEER, OWNER, CITY AND STATE SHALL NOT BE HELD LIABLE FOR ANY CLAIMS RESULTING FROM ACCIDENTS OR DAMAGES CAUSED BY THE CONTRACTOR'S FAILURE TO COMPLY WITH TRAFFIC AND PUBLIC SAFETY REGULATIONS DURING THE CONSTRUCTION PERIOD.

11. ALL EXCAVATIONS SHALL BE SLOPED, SHORED OR BRACED IN ACCORDANCE WITH MI-OSHA REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE AN ADEQUATELY CONSTRUCTED AND BRACED SHORING SYSTEM FOR EMPLOYEES WORKING IN AN EXCAVATION THAT MAY EXPOSE EMPLOYEES TO THE DANGER

12. REFER TO CITY OF DETROIT STANDARD DETAIL SHEETS FOR ADDITIONAL INFORMATION. 13. CONTRACTOR TO REFER AND ADHERE TO SITE HEALTH AND SAFETY PLAN PREPARED BY ASTI DATED SEPTEMBER 26, 2022 AND ANY AND ALL DUE CARE PLANS AND REQUIREMENTS PREPARED FOR THE SITI TO BE PROVIDED BY OWNER.

PΞΛ GROUP t: 313.769.5770

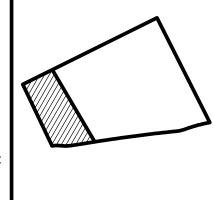
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INFORM STUDIO

PROJECT TITLE

REVISIONS

LENOX CENTER AB FORD

BE	-	
DE		
<u>∕\$</u>	BULLETIN 02	12.22.2022
7	REV PER EGLE	10.19.2022
	REV PER FIELD COND.	08.22.2022
	EGLE PERMIT	08.16.2022
	ADDENDUM B	10.13.2021
	ADDENDUM A	09.24.2021
	D BIDS AND PERMITS	04.16.2021
1D	C 95% OWNER REVIEW	/ 03.22.2021
	ORIGINAL ISSUE DATE	:
HER	MARCH 22, 2020	

NOTES AND DETAILS

	PEA JOB NO.	2020-0109
\sim	P.M.	BWJ
TE 🕻	DN.	ESB
5	DES.	ESB
	DRAWING NUMBER:	



APPENDIX III ANALYTICAL SUMMARY TABLES

TABLE	E 1- SOIL ANALYTI	CAL SUMMARY					Mich	igan 10 Metal	S			
Residential Part 20: 213 Risk-Based Si Criteria Updated Ji Screening levels	1 Generic Cleanup Crit creening Levels, Dece une 25, 2018 and Volat s from the EGLE Guida	Great Lakes, and Energy Soil: reria and Screening Levels/Part mber 30, 2013, GSI Protection illzation of Indoor Air Pathway nce Document for the Vapor andix D, updated September 4,	Arsenic	Barium (B)	Cadmium (B)	Chromium (Total) (B.H)	Copper (B)	Lead (B)	Mercury (Total) (B*,Z)	Selenium (B)	Silver (B)	Zinc (B)
CAS Number			7440382	7440393	7440439	7440473	7440508	7439921	7439976	7782492	7440224	7440666
	ckground Levels (µg/kg)		5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000
Residential Volatilizat	tion to Indoor Air Pathwa	ly (µg/kg)	NA	NA	NA	NA	NA	NA	50 (M) 22	NA	NA	NA
Residential Direct Co.			7,600	3.7E+07	550,000	7.9E+08	2.0E+07	400,000	160,000	2.6E+06	2.5E+06	1.7E+08
	Contact Criteria (µg/kg) SAMPLE DEPTH		37,000	1.3E+08	2,200,000	1.0E+09	7.3E+07	900,000	580,000	9.6E+06	9.0E+06	6.3E+08
SAMPLE ID	(feet below grade)	SAMPLE DATE					All results a	are expressed in	μα/kq			
GP-1	2-4 ft	4/12/2022	6,240	344,000	1,050	8,040	18,000,000	228,000	1,320	ND	464	418,000
GP-2	1-3 ft	4/12/2022	2,420	246,000	261	16,300	126,000	181,000	136	ND	124	86,800
GP-3 GP-4	1-3 ft	4/12/2022	2,790	506,000 448,000	1,330	20,000 27,200	110,000 36,800	848,000 199,000	423	214	164 ND	591,000 265,000
GP-5	7-8 ft 1-2 ft	4/12/2022 4/12/2022	2,630 992	178,000	ND	6,710	19,200	21,700	112 ND	ND ND	ND ND	31,800
GP-6	1-2 ft	4/12/2022	2,700	229,000	745	13,200	45,200	145,000	168	ND	ND ND	120,000
GP-7	1-2 ft	4/12/2022	1,460	296,000	536	12,900	32,800	208,000	401	ND	ND	133,000
GP-8	2-4 ft	4/12/2022	4,760	3,720,000	168,000	168,000	7,660,000	3,900,000	3,730	ND	826	3,190,000
GP-9	0-1 ft	7/27/2022	NS	NS	NS	NS NS	NS NG	153,000	NS	NS	NS	NS
GP-9 GP-9	2-4 ft 6-7 ft	7/27/2022 7/27/2022	NS NS	NS NS	NS NS	NS NS	NS NS	14,800 165,000	NS NS	NS NS	NS NS	NS NS
GP-10	0-1 ft	7/27/2022	NS	NS	NS		NS	6,020	NS	NS	NS	NS
GP-10	2-4 ft	7/27/2022	NS	NS	NS	NS	NS	1,430,000	NS	NS	NS	NS
GP-10	6-7 ft	7/27/2022	NS	NS NC	NS	NS NC	NS NC	19,800	NS NC	NS NC	NS NC	NS NS
GP-11 GP-11	0-1 ft 2-4 ft	7/27/2022 7/27/2022	NS NS	NS NS	NS NS	NS NS	NS NS	328,000 4,880,000	NS NS	NS NS	NS NS	NS NS
GP-11	6-7 ft	7/27/2022	NS	NS	NS	NS	NS NS	895,000	NS	NS	NS	NS NS
GP-12	0-1 ft	7/27/2022	NS	NS	NS	NS	NS	1,340,000	NS	NS	NS	NS
GP-12	2-4 ft	7/27/2022	NS	NS	NS	NS	NS	56,700	NS	NS	NS	NS
GP-12	6-7 ft	7/27/2022	NS	NS	NS	NS	NS	91,000	NS	NS	NS	NS
GP-13 GP-13	0-1 ft 2-4 ft	7/27/2022 7/27/2022	NS NS	NS NS	NS NS	NS NS	NS NC	563,000 309,000	NS NS	NS NS	NS NS	NS NS
GP-13	6-7 ft	7/27/2022	NS	NS NS	NS	NS NS	NS NS	4.920	NS NS	NS NS	NS NS	NS NS
GP-14	0-1 ft	7/27/2022	NS	NS	NS	NS	NS	13,600	NS	NS	NS	NS
GP-14	2-4 ft	7/27/2022	NS	NS	NS	NS	NS	14,300	NS	NS	NS	NS
GP-14 SB-1 (0-2)	6-7 ft 0-2 ft	7/27/2022 4/24/2023	NS 5,630	NS 117,000	NS 593	NS 79,900	NS 65,500	672,000 65,000	NS ND	NS 3.590	NS 65.0	NS 94,600
SB-2 (0-2)	0-2 ft	4/24/2023	10,400	167,000	1,220	17,600	60,500	246,000	416	3,940	161	218,000
SB-2 (2-4)	2-4 ft	4/24/2023	14,000	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-3 (0-2)	0-2 ft	4/24/2023	5,040	55,000	343	14,500	20,300	52,300 32,100	ND	3,640	71.6	74,200
SB-4 (0-2) SB-5 (0-2)	0-2 ft 0-2 ft	4/24/2023 4/24/2023	3,690 3,460	34,600 37,000	241 284	11,000 8,970	13,800 8,860	19,700	ND ND	2,320 2,260	ND ND	45,600 39,500
SB-6 (0-2)	0-2 ft	4/24/2023	8,670	112,000	550	18,200	59,500	122,000	ND	1,940	ND	176,000
SB-6 (2-4)	2-4 ft	4/24/2023	9,070	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-7 (0-2)	0-2 ft	4/24/2023	4,100 5,850	41,400	372 530	10,000 14,900	16,900	33,000 42,900	ND	3,620	ND ND	63,800 125,000
SB-8 (0-2) SB-9 (0-2)	0-2 ft 0-2 ft	4/24/2023 4/24/2023	10,500	69,300 197,000	19,300	25,900	21,400 103,000	995,000	ND ND	2,100	ND 146	327,000
SB-9 (2-4)	2-4 ft	4/24/2023	10,700	NS	NS	NS	NS	166,000	NS	NS	NS	NS
SB-10 (0-2)	0-2 ft	4/24/2023	100,000	134,000	472	21,200	57,700	128,000	370	4,450	122	139,000
SB-10 (2-4) SB-11 (0-2)	2-4 ft 0-2 ft	4/24/2023 4/24/2023	9,080 9,870	NS 53 100	NS 278	NS 17,900	NS 22,700	28,400 68.000	NS ND	NS 4,170	NS ND	NS 73.300
SB-11 (0-2)	2-4 ft	4/24/2023	7,980	33,100 NS	NS NS	NS	NS	9.620	NS	4,170 NS	NS NS	73,300 NS
SB-12 (0-2)	0-2 ft	4/24/2023	3,320	34,000	303	8,040	9,350	23,400	ND	2,230	ND	43,600
SB-13 (0-2)	0-2 ft	4/24/2023	7,500	130,000	154	32,700	26,700	29,300	ND ND	4,340	ND ND	62,600
SB-14 (0-2) SB-15 (0-2)	0-2 ft 0-2 ft	4/24/2023 4/24/2023	3,150 5,950	20,700 55,800	123 170	13,100 16,000	5,560 17,300	5,600 43,800	ND ND	2,270 2,500	ND ND	18,400 66,100
SB-16 (0-2)	0-2 ft	4/24/2023	3,600	25,500	169	19,600	7,480	12,100	ND ND	2,610	ND ND	29,500
SB-17 (0-2)	0-2 ft	4/24/2023	3,020	18,800	169	6,840	6,020	8,490	ND	2,720	ND	22,500
SB-18 (0-2) SB-19 (0-2)	0-2 ft 0-2 ft	4/24/2023 4/25/2023	2,580 2,950	17,900 24,100	78.8 263	5,710 7,530	5,090	4,830 11,100	ND ND	1,770 ND	ND ND	15,900 52,100
SB-19 (0-2) SB-20 (0-2)	0-2 ft	4/25/2023	2,730	19,700	263	8,130	6,830 7,350	11,100	ND ND	ND ND	ND ND	31,100
SB-21 (0-2)	0-2 ft	4/25/2023	3,110	22,400	135	6,980	7,560	11,900	ND	ND	ND	26,900
SB-22 (0-2)	0-2 ft	4/25/2023	4,920	60,100	318	10,100	20,300	48,900	ND 212	ND	ND ND	93,200
SB-23 (0-2) SB-23 (2-4)	0-2 ft 2-4 ft	4/25/2023 4/25/2023	6,680 NS	446,000 NS	300 NS	16,100 NS	46,100 NS	749,000 12,000	313 NS	ND NS	ND NS	263,000 NS
SB-24 (0-2)	0-2 ft	4/25/2023	8,870	28,600	242	8,900	8,510	16,000	ND ND	ND ND	ND ND	36,800
SB-24 (2-4)	2-4 ft	4/25/2023	17,200	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-25 (0-2)	0-2 ft	4/25/2023 4/25/2023	4,360	42,200 35,600	532 192	11,400	10,600	17,700 14,700	ND ND	688 ND	ND ND	41,800
SB-26 (0-2) SB-27 (0-2)	0-2 ft 0-2 ft	4/25/2023 4/25/2023	3,170 6,170	35,600 79,500	372	10,300 12,800	10,600 22,800	77,600	ND ND	ND 766	ND 120	38,500 84,600
SB-28 (0-2)	0-2 ft	4/25/2023	5,340	1,200,000	428	10,200	24,300	149,000	390	589	67.6	146,000
SB-29 (0-2)	0-2 ft	4/25/2023	6,480	58,100	209	21,000	27,200	30,500	ND	ND	76.3	58,400
SB-30 (0-2) SB-30 (2-4)	0-2 ft 2-4 ft	4/25/2023 4/25/2023	7,810 8,280	265,000 NS	1,570 NS	46,300 NS	68,100 NS	273,000 NS	ND NS	762 NS	100 NS	208,000 NS
SB-30 (2-4) SB-31 (0-2)	2-4 II 0-2 ft	4/25/2023	9,170	92,000	NS 561	17,900	51,200	105,000	ND ND	919	92.7	128,000
SB-31 (2-4)	2-4 ft	4/25/2023	9,270	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-32 (0-2)	0-2 ft	4/25/2023	8,570	364,000	3,730	19,500	114,000	327,000	372	877	186	389,000
SB-32 (2-4)	2-4 ft	4/25/2023	8,280	NS 262.000	NS 1.100	NS 26.900	NS 40,900	NS 204,000	NS ND	NS 1.030	NS 110	NS 203.000
SB-33 (0-2) SB-34 (0-2)	0-2 ft 0-2 ft	4/25/2023 4/25/2023	7,470 7,330	263,000 205,000	1,100 816	26,800 37,600	23,900	204,000	ND ND	1,030	112 110	203,000 163,000
SB-35 (0-2)	0-2 ft	4/25/2023	11,900	479,000	662	79,000	31,100	289,000	ND ND	709	85.2	246,000
SB-35 (2-4)	2-4 ft	4/25/2023	10,800	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-36 (0-2)	0-2 ft	4/25/2023 4/25/2023	7,140 4.430	62,500 52,400	419 368	15,800 13,600	19,900 16,400	47,000 31,600	ND ND	921	64.3 ND	75,200
SB-37 (0-2) SB-38 (0-2)	0-2 ft 0-2 ft	4/25/2023 4/25/2023	4,430 8,210	257,000	4,790	27,400	16,400	223,000	ND 346	676 928	ND 138	60,000 303,000
SB-38 (2-4)	2-4 ft	4/25/2023	6,800	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-39 (0-2)	0-2 ft	4/25/2023	7,860	137,000	2,510	20,600	83,000	207,000	278	3,570	135	208,000
SB-39 (2-4)	2-4 ft	4/25/2023	8,830	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABL	E 1- SOIL ANALYTI	ICAL SUMMARY					Mich	igan 10 Metal	S			
Residential Part 20 213 Risk-Based S	1 Generic Cleanup Crit icreening Levels, Dece	Great Lakes, and Energy Soil: teria and Screening Levels/Part mber 30, 2013, GSI Protection illization of Indoor Air Pathway			:	(Total) (B.H)			(Total) (B*.Z)	œ		
Screening levels	s from the EGLE Guida	ince Document for the Vapor endix D, updated September 4,	Arsenic	Barium (B)	Cadmium (B)	Promium (T	Copper (B)	ead (B)	Mercury (To:	Selenium (B)	Silver (B)	Zinc (B)
CAS Number			7440382	7440393	7440439	7440473	7440508	7439921	7439976	7782492	7440224	7440666
	ickground Levels (µg/kg)		5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000
	tion to Indoor Air Pathwa intact Criteria (µg/kg)	ily (µg/kg)	NA 7,600	NA 3.7E+07	NA 550,000	NA 7.9E+08	NA 2.0E+07	NA 400,000	50 (M) 22 160,000	NA 2.6E+06	NA 2.5E+06	NA 1.7E+08
	Contact Criteria (µg/kg)		37.000	1.3E+08	2.200.000	1.0E+09	7.3E+07	900,000	580,000	9.6E+06	9.0E+06	6.3E+08
SAMPLE ID	SAMPLE DEPTH	SAMPLE DATE					•					
SB-40 (0-2)	(feet below grade) 0-2 ft	4/25/2023	8,540	96,500	924	44.700	All results a 55,800	are expressed in 131,000	µg/kg 221	3.490	112	154.000
SB-41 (0-2)	0-2 ft	4/25/2023	6,720	101,000	779	15,100	48,700	96,700	ND	3,490	87.5	118,000
SB-42 (0-2)	0-2 ft	4/25/2023	11,200	73,800	496	19,600	28,500	61,600	ND	2,170	96.1	109,000
SB-42 (2-4) SB-43 (0-2)	2-4 ft 0-2 ft	4/25/2023 4/25/2023	13,700 5,930	NS 50,700	NS 418	NS 10,900	NS 14,800	NS 28,200	NS ND	NS 3,040	NS ND	NS 54,800
SB-44 (0-2)	0-2 ft	4/25/2023	7,050	46,400	241	12,000	13,400	14,500	ND	2,980	ND	76,800
SB-45 (0-2)	0-2 ft	4/25/2023	3,050	19,700	129	8,880	7,110	9,810	ND	1,540	ND	25,800
SB-46 (0-2) SB-46 (2-4)	0-2 ft 2-4 ft	4/25/2023 4/25/2023	7,890 10,800	467,000 NS	981 NS	16,600 NS	126,000 NS	175,000 NS	358 NS	3,110 NS	105 NS	314,000 NS
SB-47 (0-2)	0-2 ft	4/25/2023	5,490	82,200	798	50,300	36,000	114,000	ND ND	2,710	73.4	114,000
SB-48 (0-2)	0-2 ft	4/25/2023	6,110	70,200	1,030	16,700	40,300	167,000	ND	2,010	127	120,000
SB-49 (0-2)	0-2 ft	4/26/2023	1,540	11,500	70.1	4,890	3,170	2,820	ND 00.51	345J	11.6J	9,800
SB-50 (0-2) SB-51 (0-2)	0-2 ft 0-2 ft	4/26/2023 4/26/2023	6,140 3,490	92,000 45,700	465 92.9	12,600 9,160	91,400 26,200	104,000 40,900	89.5J ND	492J 370J	55.3J 17.9J	177,000 58,000
SB-52 (0-2)	0-2 ft	4/26/2023	5,510	127,000	1,730	20,600	57,600	105,000	295	842	121	141,000
SB-53 (0-2) SB-54 (0-2)	0-2 ft	4/26/2023	5,220 7,320	128,000 134,000	2,010 690	251,000 19,800	467,000 61.800	141,000 110,000	64.8J 140J	703 845	142.0 99.0	222,000 162,000
SB-54 (0-2) SB-55 (0-2)	0-2 ft 0-2 ft	4/26/2023 4/26/2023	7,320	76,400	690 46.9J	20,200	61,800 20,400	14,300	ND ND	845 874	99.0 58.4	162,000 54,000
SB-56 (0-2)	0-2 ft	4/26/2023	6,060	115,000	324	25,400	15,900	18,800	80.7J	1,270	72.8	61,900
SB-57 (0-2) SB-57 (2-4)	0-2 ft	4/26/2023 4/26/2023	7,680	136,000	2,970	19,200	52,900	212,000 NS	164J	904 NC	93.3	159,000
SB-57 (2-4) SB-58 (0-2)	2-4 ft 0-2 ft	4/26/2023 4/26/2023	6,910 36,200	NS 3,790,000	NS 1,100,000	NS 153,000	NS 3,240,000	NS 10,000,000	NS 829	NS 1,490	NS 2,060	NS 5,490,000
SB-58 (2-4)	2-4 ft	4/26/2023	8,670	NS	0.80	NS	NS	NS	NS	NS	NS	NS
SB-59 (0-2)	0-2 ft	4/26/2023	7,750	112,000	351	17,800	26,200	86,400	122J	1,040J	65.2	91,300
SB-59 (2-4) SB-60 (0-2)	2-4 ft 0-2 ft	4/26/2023 4/26/2023	11,600 7.040	NS 120,000	NS 507	NS 19,900	NS 16.000	NS 82.200	NS 85.3J	NS 1,370	NS 105.0	NS 93,200
SB-61 (0-2)	0-2 ft	4/26/2023	7,290	118,000	177	26,500	28,100	48,100	199J	1,310	86.7	78,500
SB-62 (0-2)	0-2 ft	4/26/2023	7,840	82,500	356	17,900	23,000	52,600	128J	876	97.0	73,500
SB-62 (2-4) SB-63 (0-2)	2-4 ft 0-2 ft	4/26/2023 4/26/2023	9,080 8,850	NS 78,500	NS 210	NS 20,600	NS 23,600	NS 21,200	NS 31.5J	NS 1,150	NS 62.9	NS 61,700
SB-63 (2-4)	2-4 ft	4/26/2023	9,360	NS	NS NS	NS	NS	NS NS	NS	NS.	NS NS	NS
SB-64 (0-2)	0-2 ft	4/26/2023	7,660	144,000	661	18,400	41,700	87,500	202J	813	173.0	118,000
SB-64 (2-4) SB-65 (0-2)	2-4 ft 0-2 ft	4/26/2023 4/26/2023	11,700 8,840	NS 393,000	NS 745	NS 20,200	NS 76,100	NS 388,000	NS 166J	NS 851	NS 74.8	NS 291,000
SB-65 (2-4)	2-4 ft	4/26/2023	9,700	393,000 NS	NS NS	20,200 NS	76,100 NS	300,000 NS	NS	NS	/4.0 NS	291,000 NS
SB-66 (0-2)	0-2 ft	4/26/2023	10,600	171,000	2,070	21,900	320,000	266,000	1,380	1,160	914.0	416,000
SB-66 (2-4)	2-4 ft	4/26/2023	4,940	NS 04.000	NS 010	NS 22.200	NS 41.100	NS 102.000	NS 1021	NS 054	NS 114.0	NS 144,000
SB-67 (0-2) SB-68 (0-2)	0-2 ft 0-2 ft	4/26/2023 4/26/2023	6,940	94,800 92,200	919 1.380	22,200 24.300	61,100 37,200	102,000 135.000	182J 307	856 1.150	114.0 121	164,000 123,000
SB-69 (0-2)	0-2 ft	4/26/2023	8,540	80,400	94.6	19,300	19,800	10,600	ND	783	54.5J	51,300
SB-69 (2-4)	2-4 ft	4/26/2023	7,810	NS 72.200	NS (31	NS 12.500	NS 22.000	NS (4.000	NS 1101	NS 754	NS 69.2	NS 93.500
SB-70 (0-2) SB-71 (0-2)	0-2 ft 0-2 ft	4/26/2023 4/26/2023	6,510 14,900	73,200 144,000	631 1.190	22,200	22,900 38,300	64,900 117,000	118J 132J	928	70.9	93,500
SB-71 (2-4)	2-4 ft	4/26/2023	11,700	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-72 (0-2) SB-72 (2-4)	0-2 ft 2-4 ft	4/26/2023 4/26/2023	10,700 18,800	246,000 NS	249 NS	180,000 NS	62,200 NS	577,000 440,000	232J	680 NS	70.5 NS	316,000 NS
SB-72 (2-4) SB-73 (0-2)	2-4 ft 0-2 ft	4/26/2023 4/26/2023	11,300	NS 211,000	NS 1.590	NS 21,200	NS 52,200	440,000	NS 569	1,290	NS 137.0	NS 270,000
SB-73 (2-4)	2-4 ft	4/26/2023	14,600	NS	NS	NS	NS	817,000	NS	NS	NS	NS
SB-74 (0-2)	0-2 ft	4/26/2023	11,100	121,000	970	17,600	35,800	87,200	152J	1,070	85.5	124,000
SB-74 (2-4) SB-75 (0-2)	2-4 ft 0-2 ft	4/26/2023 4/26/2023	13,400 9,530	NS 95,300	NS 531	NS 18,600	NS 18.100	NS 35.800	NS 89.4J	NS 1,300	NS 79.0	NS 71.300
SB-75 (2-4)	2-4 ft	4/26/2023	7,920	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-76 (0-2)	0-2 ft	4/26/2023	11,600	668,000	1,370	24,700	322,000	852,000	170J	1,190	161 NC	1,850,000
SB-76 (2-4) SB-77 (0-2)	2-4 ft 0-2 ft	4/26/2023 4/26/2023	11,400 8,870	NS 101,000	NS 2,790	NS 19,600	NS 116,000	373,000 290,000	NS 463	NS 854	NS 299	NS 266,000
SB-77 (2-4)	2-4 ft	4/26/2023	5,760	NS	NS	NS	NS NS	373,000	NS	NS	NS	NS NS
SB-78 (0-2) SB-78 (2-4)	0-2 ft 2-4 ft	4/26/2023 4/26/2023	8,800 7,250	101,000 NS	1,210 NS	22,400 NS	23,800 NS	27,800 373,000	229J NS	898 NS	190.0 NS	74,600 NS
SB-79 (0-2)	0-2 ft	4/26/2023	8,030	78,300	81.3	20,100	18,400	17,300	29.5	794	52.8	50,600
SB-79 (2-4)	2-4 ft	4/26/2023	9,840	NS	NS	NS	NS	NS	NS 1071	NS	NS	NS
SB-80 (0-2) SB-80 (2-4)	0-2 ft 2-4 ft	4/26/2023 4/26/2023	9,340 10,100	134,000 NS	357 NS	23,700 NS	64,100 NS	82,000 NS	187J NS	930 NS	87.6 NS	150,000 NS
SB-81 (0-2)	0-2 ft	4/26/2023	12,900	97,700	297	21,200	25,600	41,800	118J	876	42.4J	68,800
SB-81 (2-4)	2-4 ft	4/26/2023	10,600	NS 153,000	NS 2.410	NS 17,000	NS 27, 400	NS	NS	NS 021	NS 122	NS 157,000
SB-82 (0-2) SB-82 (2-4)	0-2 ft 2-4 ft	4/26/2023 4/26/2023	8,680 12,600	152,000 NS	2,410 NS	16,900 NS	36,400 NS	118,000 NS	503 NS	831 NS	122 NS	157,000 NS
SB-83 (0-2)	0-2 ft	4/26/2023	12,300	1,330,000	4,390	31,700	328,000	2,590,000	1,190	1,030	245.0	1,320,000
SB-83 (2-4)	2-4 ft	4/26/2023	11,900	NS 03.400	NS	NS 14.700	NS 27.400	2,710,000	NS 212.1	NS one	NS (0.2	NS 112,000
SB-84 (0-2) SB-85 (0-2)	0-2 ft 0-2 ft	4/26/2023 4/26/2023	7,240 10,300	83,600 358,000	553 2,140	14,700 19,400	27,600 50,900	150,000 833,000	213J 286	815 892	69.3 147	112,000 379,000
SB-85 (2-4)	2-4 ft	4/26/2023	5,040	NS	2,140 NS	NS	NS	29,100	NS NS	NS	NS	NS
SB-86 (0-2)	0-2 ft	4/26/2023	8,840	114,000	653	18,900	50,900	101,000	166J	947	105	150,000
SB-86 (2-4) SB-87 (0-2)	2-4 ft 0-2 ft	4/26/2023 4/27/2023	3,830 7,510	NS 126,000	NS 2,630	NS 19,600	NS 68,500	29,100 157,000	NS 144J	NS 5,320	NS 73.4	NS 281,000
SB-87 (0-2)	0-2 ft	4/27/2023	6,770	63,700	2,63U 862	15,900	21,600	42,700	38.4J	3,970	73.4 54.0J	75,100
SB-89 (0-2)	0-2 ft	4/27/2023	9,670	110,000	424	17,700	30,800	60,300	397	5,720	60.0	80,300
SB-89 (2-4)	2-4 ft	4/27/2023	7,730	NS 121,000	NS 2 900	NS 19.000	NS 52.600	NS 152,000	NS 2001	NS E 460	NS 94.2	NS 127,000
SB-90 (0-2) SB-90 (2-4)	0-2 ft 2-4 ft	4/27/2023 4/27/2023	8,330 5,240	121,000 NS	2,800 NS	18,000 NS	52,600 NS	153,000 NS	200J NS	5,460 NS	84.3 NS	127,000 NS
SB-91 (0-2)	0-2 ft	4/27/2023	9,840	75,800	343	20,300	20,000	21,800	42.2J	5,680	50.2J	53,500
SB-91 (2-4)	2-4 ft	4/27/2023	10,700	NS 250,000	NS 4.0F0	NS 24.100	NS 75 500	NS 207.000	NS F20	NS E 140	NS 170	NS 207.000
SB-92 (0-2) SB-92 (2-4)	0-2 ft 2-4 ft	4/27/2023 4/27/2023	16,200 14,700	250,000 NS	4,050 NS	24,100 NS	75,500 NS	287,000 NS	539 NS	5,140 NS	170 NS	207,000 NS
SB-93 (0-2)	0-2 ft	4/27/2023	5,670	84,000	924	15,200	26,000	58,100	152J	4,450	58.0	86,600
SB-94 (0-2)	0-2 ft	4/27/2023	7,700	63,400	850	18,600	17,200	8,600	ND	5,090	73.5	44,300
SB-94 (2-4) SB-95 (0-2)	2-4 ft 0-2 ft	4/27/2023 4/27/2023	9,240 7,830	NS 150,000	NS 1,720	NS 21,400	NS 59,200	NS 151,000	NS 155J	NS 5,830	NS 83.2	NS 281,000
SB-95 (2-4)	2-4 ft	4/27/2023	7,560	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-96 (0-2)	0-2 ft	4/27/2023	9,770	390,000	1,610	24,900	226,000	735,000	147J	4,200	74.0	704,000
SB-96 (2-4)	2-4 ft	4/27/2023	9,100	NS	NS	NS	NS	135,000	NS	NS	NS	NS

TABL	E 1- SOIL ANALYT	ICAL SUMMARY					Mich	igan 10 Metal	S			
Residential Part 20 213 Risk-Based S Criteria Updated J Screening levels	11 Generic Cleanup Cri- icreening Levels, Dece lune 25, 2018 and Volat is from the EGLE Guida of dated May 2013, Appe	Great Lakes, and Energy Soil: teria and Screening Levels/Part mber 30, 2013, GSI Protection illization of Indoor Air Pathway ince Document for the Vapor andix D, updated September 4,	Arsenic	Barium (B)	Cadmium (B)	Chromium (Total) (B,H)	Copper (B)	ead (B)	Aercury (Total) (B°.Z)	Selenium (B)	Silver (B)	c (B)
CAS Number	2020.		₹ 7440382	7440393	7440439	7440473	7440508	<u>\$</u> 7439921	7439976	7782492	₹ 7440224	≦ 7440666
	ickground Levels (µg/kg)		5,800	75,000	1,200 NA	18,000 NA	32,000	21,000	130	410 NA	1,000	47,000 NA
	tion to Indoor Air Pathwa intact Criteria (µg/kg)	Hy (µg/kg)	NA 7,600	NA 3.7E+07	550,000	7.9E+08	NA 2.0E+07	NA 400,000	50 (M) 22 160,000	2.6E+06	NA 2.5E+06	1.7E+08
Nonresidential Direct	4 3 3		37,000	1.3E+08	2,200,000	1.0E+09	7.3E+07	900,000	580,000	9.6E+06	9.0E+06	6.3E+08
SAMPLE ID	SAMPLE DEPTH (feet below grade)	SAMPLE DATE						are expressed in				
SB-97 (0-2)	0-2 ft	4/27/2023	14,300	309,000	1,240	39,100	77,600	200,000	333	4,670	96.6	276,000
SB-97 (2-4)	2-4 ft	4/27/2023	7,150	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-98 (0-2)	0-2 ft	4/27/2023	5,650	93,400	1,550	14,300	42,000	118,000	203J	5,330	105	130,000
SB-99 (0-2)	0-2 ft	4/27/2023	9,160	107,000		17,500	37,300	82,800	184J	5.580	97.6	125,000
SB-99 (2-4)	2-4 ft	4/27/2023	8,280	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-100 (0-2)	0-2 ft	4/27/2023	7,720	92,400	1,320	18,500	39,100	89,400	343	5,050	92.5	118,000
SB-100 (2-4)	2-4 ft	4/27/2023	15,700	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-101 (0-2)	0-2 ft	4/27/2023	8,270	112,000	14,500	17,600	56,100	141,000	355	4,840	123.0	208,000
SB-101 (2-4)	2-4 ft	4/27/2023	8,810	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-102 (0-2)	0-2 ft	4/27/2023	17,600	1,110,000	9,120	31,200	182,000	2,270,000	6,120	6,050	225.0	1,290,000
SB-102 (2-4)	2-4 ft	4/27/2023	20,500	NS	NS	NS	NS	173,000	NS	NS	NS	NS
SB-103 (0-2)	0-2 ft	4/27/2023	14,800	364,000	9,130	26,300	59,900	882,000	5,040	4,860	93.3	258,000
SB-103 (2-4)	2-4 ft	4/27/2023	25,600	NS	NS	NS	NS	244,000	NS	NS	NS	NS
SB-104 (0-2)	0-2 ft	4/27/2023	14,000	332,000	4,300	20,700	91,200	358,000	386	5,030	129.0	269,000
SB-104 (2-4)	2-4 ft	4/27/2023	20,100	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-105 (0-2)	0-2 ft	4/27/2023	13,000	1,070,000	115,000	60,400	516,000	4,270,000	2,990	4,900	2,100	767,000
SB-105 (2-4)	2-4 ft	4/27/2023	13,700	NS	NS	NS	NS	262,000	NS	NS	NS	NS
SB-106 (0-2)	0-2 ft	4/27/2023	11,500	89,400	265	20,600	42,500	34,700	44.6J	5,970	75.7	88,200
SB-106 (2-4)	2-4 ft	4/27/2023	4,900	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-107 (0-2)	0-2 ft	4/27/2023	7,880	90,700	804	20,700	31,700	62,500	142J	4,870	71.3	89,200
SB-107 (2-4)	2-4 ft	4/27/2023	13,400	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-108 (0-2)	0-2 ft	4/27/2023	8,790	112,000	357	18,400	41,700	86,400	106J	4,220	54.8	123,000
SB-108 (2-4)	2-4 ft	4/27/2023	7,480	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-109 (0-2)	0-2 ft	4/27/2023	10,100	167,000	1,050	21,100	43,900	987,000	198J	4,230	134	202,000
SB-109 (2-4)	2-4 ft	4/27/2023	9,380	NS	NS	NS	NS	52,700	NS	NS	NS	NS
SB-110 (0-2)	0-2 ft	4/27/2023	19,600	1,240,000	2,410	60,900	161,000	323,000	2,750	2,990	68.4	693,000
SB-110 (2-4)	2-4 ft	4/27/2023	11,000	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-111 (0-2)	0-2 ft	4/27/2023	8,070	78,800	471	34,000	44,000	40,200	280	3,850	63.2	85,200
SB-111 (2-4)	2-4 ft	4/27/2023	4,870	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-112 (0-2)	0-2 ft	4/27/2023	11.000	211,000	1,970	29,900	124,000	216,000	266	3,340	95.0	283,000
SB-112 (2-4)	2-4 ft	4/27/2023	21,000	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-113 (0-2)	0-2 ft	4/27/2023	14,800	927,000	19,300	47,800	129,000	718,000	1,270	5,470	220	1,330,000
SB-113 (2-4)	2-4 ft	4/27/2023	7,490	NS	NS	NS	NS	305,000	NS	NS	NS	NS
SB-114 (0-2)	0-2 ft	4/27/2023	7,210	65,600	525	17,400	20,900	33,400	54.6J	3,520	40.1J	67,000
SB-115 (0-2)	0-2 ft	4/27/2023	8,990	211,000	1,220	61,200		115,000	469	4,570	237	300.000
SB-115 (2-4)	2-4 ft	4/27/2023	9,890	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-116 (0-2)	0-2 ft	4/27/2023	12,400	248,000	981	21,900	246,000	113,000	137J	4,850	135	247,000
SB-116 (2-4)	2-4 ft	4/27/2023	17,900	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-117 (0-2)	0-2 ft	4/27/2023	12,200	413,000	4,310	26,660	178,000	333,000	905	4,840	126	465,000
SB-117 (2-4)	2-4 ft	4/27/2023	7,430	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-118 (0-2)	0-2 ft	4/27/2023	19,900	1,240,000	12,100	82,500	729,000	751,000	7,150	4,610	394	2,080,000
SB-118 (2-4)	2-4 ft	4/27/2023	10,200	NS	NS	NS	NS	40,100	NS	NS	NS	NS
SB-119 (0-2)	0-2 ft	4/27/2023	14,600	420,000	5,990	26,900	91,900	1,200,000	1,900	4,790	154	446,000
SB-119 (2-4)	2-4 ft	4/27/2023	7,880	NS	NS	NS	NS	259,000	NS	NS	NS	NS
SB-120 (0-2)	0-2 ft	4/27/2023	9,290	102,000	1,970	37,400	42,500	251,000	281	2,640	308	631,000
SB-120 (2-4) SB-121 (0-2)	2-4 ft	4/27/2023	13,400	NS	NS	NS	NS	NS 1,610,000	NS	NS	NS	NS
SB-121 (2-4)	0-2 ft 2-4 ft	4/27/2023 4/27/2023	12,900 11,500	609,000 NS	8,700 NS	21,900 NS	114,000 NS	1,540,000	1,250 NS	4,640 NS	226 NS	757,000 NS
SB-122 (0-2)	0-2 ft	4/27/2023	8,160	108,000	858	17,800	34,600	184,000	260	4,630	73.3	188,000
SB-122 (2-4)	2-4 ft	4/27/2023	5,320	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-123 (0-2)	0-2 ft	4/27/2023	8,790	126,000	716	17,500	33,700	80,000	196J	4,950	81.9	108,000
SB-123 (2-4)	2-4 ft	4/27/2023	8,560	NS	NS	NS	NS	NS		NS	NS	NS
SB-124 (0-2)	0-2 ft	7/25/2023	5,300	39,500	309	10,000	13,400	17,700	NS 72.5J	613	43.6J	40,200
SB-125 (0-2)	0-2 ft	7/25/2023	9,590	109,000	1,630	20,000	56,400	131,000	448	926	138.0	171,000
SB-126 (0-2)	0-2 ft	7/25/2023	8,970	98,900		15,700	26,900	88,800	95.8J	863	72.7	119,000
SB-127 (0-2)	0-2 ft	7/25/2023	8,340	410,000	3,060	16,200	59,100	138,000	335	1,270	150.0	299,000
SB-128 (0-2)	0-2 ft	7/25/2023	7,620	124,000	2.550	17,100	40,500	209,000	192J	1.050	175.0	211,000
SB-129 (0-2)	0-2 ft	7/25/2023	7,030	119,000	860	18,100	22,500	91,200	92.5J	858	79.5	135,000
SB-130 (0-2)	0-2 ft	7/25/2023	8,040	415,000	4,550	24,300	94,200	470,000		1,090	163.0	389,000
SB-131 (0-2)	0-2 ft	7/25/2023	9,070	161,000	8,650	16,300	59,000	238,000	653 547	1,050	163.0	170,000
SB-132 (0-2)	0-2 ft	7/25/2023	9,340	384,000	18,900	26,300	231,000	656,000	767	994	209.0	495,000
SB-133 (0-2)	0-2 ft	7/25/2023	9,040	511,000	20,200	26,300	198,000	327,000	600	948	656.0	403,000
SB-134 (0-2)	0-2 ft	7/25/2023	9,640	224,000	4,580	22,300	142,000	425,000	232	939	113.0	365,000
SB-135 (0-2)	0-2 ft	7/25/2023	6,160	70,500	189	21,000	17,800	12,800	25.9J	828	46.9J	53,100
SB-136 (0-2)	0-2 ft 0-2 ft	7/25/2023	8,170	77,800 90,500	128 973	18,300 17,000	20,800	19,400 42,700	86.5J 94.4J	893 816	72.4 60.5	56,300 66.800
SB-137 (0-2) SB-138 (0-2)	0-2 ft	7/25/2023 7/25/2023	7,600 5,240	77,900	830	14,600	25,100	62,200	107J	915	53.5J	112,000
SB-139 (0-2)	0-2 ft	7/25/2023	7,810	81,500	12,200	19,200	19,300	14,100	72.0J	825	68.5	46,200
SB-140 (0-2)	0-2 ft	7/25/2023	11,700	252,000	56,700	20,400	169,000	421,000	146J	917	326.0	460,000
SB-141 (0-2)	0-2 ft	7/25/2023	6,790	94,600	5,050	29,800	33,600	131,000	143J	880	80.7	118,000
SB-142 (0-2)	0-2 ft	7/25/2023	9,300	121,000	667	24,400	29,900	131,000	537	965	102.0	129,000
SB-143 (0-2)	0-2 ft 0-2 ft	7/25/2023	8,490 7,830	90,100	173	19,400	25,500 17,900	220,000	229J	780 1,560	55.8J	95,200 52,800
SB-144 (0-2) SB-145 (0-2)	0-2 ft	7/25/2023 7/25/2023	7,860	181,000	3,230	20,500	107,000	319,000	ND 315	1,480	50.7J 98.7	234,000
SB-146 (0-2)	0-2 ft	7/25/2023	11,300	555,000	7,310	27,500	151,000	1,770,000	356	1,320	181	616,000
SB-147 (0-2)	0-2 ft	7/25/2023	7,890	155,000	8,530	19,000	51,200	129,000	594	1,650	109	162,000
SB-148 (0-2)	0-2 ft	7/25/2023	7,570	187,000	2,400	24,200	89,000	140,000	342	1,530	67.7	164,000
SB-149 (0-2)	0-2 ft	7/25/2023	7,500	166,000	5,310	18,700	91,300	140,000	207J	1,740	88.9	189,000
SB-150 (0-2)	0-2 ft	7/25/2023	7,770	403,000	380	22,200	84,200	250,000	179J	1,580	57.7J	246,000
SB-151 (0-2)	0-2 ft	7/25/2023	10.800	88,500	629	21,000	23,700	24,500	132J	1,530	66.4	60,500
SB-152 (0-2)	0-2 ft	7/25/2023	6,590	91,400	407	13,900	20,500	123,000	167J	1,140	66.8	96,900
SB-153 (0-2)	0-2 ft	7/25/2023	6,380	169,000	712	15,500	29,100	261.000	238	1,310	92.9	266,000
SB-154 (0-2)	0-2 ft	7/25/2023	7,310	84,100	1,130	18,300	32,500	474.000	246	943	70.8	510,000
SB-155 (0-2)	0-2 ft	7/25/2023	8.030	68,800	549	12,000	24,000	65,200	234	1,140	72.7	101,000
SB-156 (0-2)	0-2 ft	7/25/2023	3.070	34,900	213	7,100	8.520	13,400		839	25.3J	33,800
SB-157 (0-2)	0-2 ft	7/25/2023	13,700	2,320,000	5,600	47,400	520,000	4,040,000	26.6J 909	950	107.0	1,880,000
SB-158 (0-2)	0-2 ft	7/25/2023	10,300	2,070,000	9,580	29,200	243,000	10,500,000	1,350	1,480	215.0	1,660,000

TABLI	E 1- SOIL ANALYTICAL SUMMARY					Mich	igan 10 Metal	S			
Residential Part 20 213 Risk-Based S Criteria Updated J Screening levels	nent of Environment, Great Lakes, and Energy Soli- I Generic Cleanup Criteria and Screening Levels/Pe- creening Levels, December 30, 2013, GSI Protection une 25, 2018 and Volatilization of Indoor Air Pathwa from the EGLE Guidance Document for the Vapor dated May 2013, Appendix D, updated September 4 2020.	,	Barium (B)	Cadmium (B)	Chromium (Total) (B.H)	Copper (B)	Lead (B)	Mercury (Total) (B*,Z)	Selenium (B)	Silver (B)	Zinc (B)
CAS Number		7440382	7440393	7440439	7440473	7440508	7439921	7439976	7782492	7440224	7440666
Statewide Default Ba	ckground Levels (µg/kg)	5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000
Residential Volatilizat	ion to Indoor Air Pathway (µg/kg)	NA	NA	NA	NA	NA	NA	50 (M) 22	NA	NA	NA
Residential Direct Co	ntact Criteria (µg/kg)	7,600	3.7E+07	550,000	7.9E+08	2.0E+07	400,000	160,000	2.6E+06	2.5E+06	1.7E+08
Nonresidential Direct	Contact Criteria (µg/kg)	37,000	1.3E+08	2,200,000	1.0E+09	7.3E+07	900,000	580,000	9.6E+06	9.0E+06	6.3E+08
SAMPLE ID	SAMPLE DEPTH (feet below grade) SAMPLE DATE					All results :	are expressed in	μg/kg			

Notes:

Bold fort indicates parameter exceeds the Statewide Default Background level

ND = Not Detected above laboratory reporting limits

Notes in parentheses and standard abbreviations are from Part 201 Rules 299.1 - 299.50, dated June 25, 2018

NLV = Not Likely to Volatilize

NS = Not Sampled or Not Analyzed

NS = Not Sampled or Not Analyzed

NA = Not Applicate

M= The VIAP screening level may be below target detection limits (TDL). In accordance with SEC. 20120a(10) when the TDL for a hazardous substance is greater than the developed VIAP screening level, the TDL is used to evaluate the risk posed from the pathway.

nc = Non-Carcinogenetic J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

ND or "<" = Concentration is not detected above laboratory detection limits

(B) = Background, as defined in R 2991.(b), may be substituted if higher than the calculated clean up criterion. Background levels may be less than criteria for some inorganic compounds

(B*) = Background, as defined in R 2991.(b), may be substituted if higher than the calculated clean up criterion. Background levels may be less than criteria for some inorganic compounds. However, for Mercury for the Volatilization to Indoor Air Pathway, this footnote does not apply.

(H) - Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. If both Cr III and Cr VI are present in groundwater, the total concentration of both cannot exceed the drinking water criterion of 100 ugit... If analytical data are provided for total chromium only, they shall be compared to the cleanup criteria for Cr VI. Cr III soil cleanup criterion for protection of drinking water can only be used at sites where groundwater is prevented from being used as a public water supply, currently and in the future, through an approved land or resource use restriction. (If total chromium data is presented, that data shall be compared to the hex chrome cleanup criteria)

(2) - Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the Soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhabition criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the SGI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the difficking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

For the April 2023 sampling event, all non-detect ("ND) values of mercury had a method dection limit (MDL) < 50 µg/kg.

* Residential Drinking Water Criteria and Residential Groundwater Surface Water Interface Protection Criteria exceedances are not shown (site on municipal supply / no groundwater present: sea wall/sheet pile barrier along river)

S(TABLE 2							PO	LYCYCLI	C AROMA	TIC HYDI	ROCARB	ONS (PAH	H)					
Michigan Depar Residential Part 2 213 Risk-Based Criteria Updated Screening leve	rtment of Environment, 0 201 Generic Cleanup Crit I Screening Levels, Dece I June 25, 2018 and Volat els from the EGLE Guida	Great Lakes, and Energy Soil: teria and Screening Levels/Part mber 30, 2013, GSI Protection tilization of Indoor Air Pathway ince Document for the Vapor endix D, updated September 4,	Acenaphthylene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a.h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-Methynaphthalene	Naphthalene	Phenanthrene	Pyrene
CAS Number			208968	83329	120127	56553	50328	205992	191242	207089	218019	53703	206440	86737	193395	91576	91203	85018	129000
	g Water Protection Criteria		5,900	300,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	3.90E+05	NLL	5.70E+04	35,000	5.60E+04	4.80E+05
	ice Water Interface Protect	1 /	ID	8,700	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	4,200	730	2,100	ID
	zation to Indoor Air Pathwa	ay	NA	2.0e05 nc	1.3e07 nc	1.6e5 (MM) mut	NA	NA	NA	NA	NA	NA	NA	4.7E5 nc	NA	1,700 nc	330 (M) 67	1,700 nc	2.5e07 nc
Residential Direct C			1.60E+06	4.10E+07	2.30E+08	20,000	2,000	20,000	2.50E+06	200,000	2.00E+06	2,000	4.60E+07	2.70E+07	20,000	8.10E+06	1.60E+07	1.60E+06	2.90E+07
Nonresidental Direc	SAMPLE DEPTH		5.20E+06	1.30E+08	7.30E+08	80,000	8,000	80,000	7.00E+06	800,000	8.00E+06	8,000	1.00E+08	8.70E+07	80,000	2.60E+07	5.20E+07	5.20E+06	8.40E+07
SAMPLE ID	(feet below grade)	SAMPLE DATE								All results a	ire expressed	l in ug/kg							
GP-1	2-4 ft	4/12/2022	NS	ND	669	669	770	492	516	914	770	NS	1,420	ND	462	NS	NS	851	1,370
GP-3	1-3 ft	4/12/2022	NS	405	1,440	3,350	3,250	2,070	2,290	4,430	3,290	NS	7,880	504	2,110	NS	NS	5,790	6,730
GP-4	7-8 ft	4/12/2022	NS	ND	474	1,130	1,100	615	855	1,500	1,220	NS	2,810	ND	707	NS	NS	2,280	2,460
GP-5 GP-6	1-2 ft 1-2 ft	4/12/2022 4/12/2022	NS NS	ND ND	ND ND	ND 357	332 359	ND ND	ND ND	453 528	ND 359	NS NS	544 779	ND ND	ND ND	NS NS	NS NS	ND 461	454 669
GP-0 GP-7	1-2 ft	4/12/2022	NS NS	ND ND	ND ND	ND ND	ND 339	ND ND	ND ND	425	ND 224	NS	526	ND ND	ND.	NS	NS NS	ND	467
GP-8	2-4 ft	4/12/2022	NS	ND	ND	378	414	ND	381	705	416	NS	668	ND	ND	NS	NS	378	641
GP-9	0-1 ft	7/27/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-9	2-4 ft	7/27/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-9	6-7 ft	7/27/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-10 GP-10	0-1 ft 2-4 ft	7/27/2022 7/27/2022	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS
GP-10	6-7 ft	7/27/2022	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS	NS NS	NS	NS	NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS
GP-11	0-1 ft	7/27/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-11	2-4 ft	7/27/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-11	6-7 ft	7/27/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-12	0-1 ft	7/27/2022	NS	469	1,390	6,500	2,560	3,590	1,720	1,500	NS	436	NS	NS	1,500	ND	ND	6,270	6,610
GP-12 GP-12	2-4 ft 6-7 ft	7/27/2022 7/27/2022	NS NS	ND NS	ND NC	588 NS	424 NS	583 NS	374 NS	ND NS	NS NS	ND NS	NS NS	NS NS	ND NS	ND NS	ND NS	788 NS	950 NS
GP-12 GP-13	0-7 It	7/27/2022	NS NS	ND ND	NS ND	417	ND ND	404	ND ND	ND ND	NS	ND ND	NS	NS NS	ND ND	ND ND	ND ND	658	950
GP-13	2-4 ft	7/27/2022	NS	ND	ND	784	562	785	432	342	NS	ND	NS	NS	360	ND	ND	630	643
GP-13	6-7 ft	7/27/2022	NS	ND	ND	ND	ND	ND	ND	ND	NS	ND	NS	NS	ND	ND	ND	ND	1,170
GP-14	0-1 ft	7/27/2022	NS	ND	ND	ND	ND	ND	ND	ND	NS	ND	NS	NS	ND	ND	ND	ND	ND
GP-14	2-4 ft	7/27/2022	NS	ND	ND	ND	ND	ND	ND	ND	NS	ND	NS	NS	ND	ND	ND	ND	ND
GP-14 SB-1 (0-2)	6-7 ft 0-2 ft	7/27/2022 4/24/2023	NS 51.3	ND 61.9	933 246	2,490 793	1,760 830	2,570 1.070	1,040 566	968 391	NS 799	346 157	NS 1.800	NS 59.4	898 524	365 45.2	374 46.6	2,080	2,930 1,560
SB-2 (0-2)	0-2 ft	4/24/2023	127	276	987	2.380	2.150	2.850	1.300	1.010	2.240	333	5,290	373	1,260	236	234	3,770	4,480
SB-2 (2-4)	2-4 ft	4/24/2023	54.6	87.7	342	1,060	987	1,330	655	487	1,150	164	2,340	70.3	568	89.8	94	1,220	1,920
SB-3 (0-2)	0-2 ft	4/24/2023	ND	79.6	264	804	800	1,070	526	400	813	124	1,760	84.9	500	ND	37.6	1,020	1,530
SB-4 (0-2)	0-2 ft	4/24/2023	67.4	572	1,460	2,770	2,330	2,780	1,280	1,030	2,510	408	5,910	665	1,220	152	306	4,890	5,720
SB-4 (2-4) SB-5 (0-2)	2-4 ft 0-2 ft	4/24/2023 4/24/2023	ND ND	85.2 43.6	152 151	324 522	347	444 780	236 403	170 225	420 573	62.8 103	837 1,260	78.2 38.3	213 362	ND ND	63.7 ND	418 590	657 1.090
SB-5 (0-2) SB-6 (0-2)	U-2 π 0-2 ft	4/24/2023	ND ND	43.6 ND	82.5	522 262	570 270	780 374	403 179	225 118	281	54.4	1,260 528	38.3 ND	362 168	ND ND	ND ND	251	481
SB-7 (0-2)	0-2 ft	4/24/2023	ND ND	ND ND	156	398	1,770	951	3,160	205	983	483	439	ND	869	69.5	61.7	327	1,380
SB-8 (0-2)	0-2 ft	4/24/2023	ND	34.1	104	349	370	490	304	158	387	66.1	684	37.7	239	111	149	416	635
SB-9 (0-2)	0-2 ft	4/24/2023	697	365	1,800	4,100	3,070	4,270	1,640	1,370	3,980	631	9,080	665	1,620	200	103	8,540	8,890
SB-9 (2-4)	2-4 ft	4/24/2023	ND 00.4	ND (10	182	576	508	683	301	270	644	61.8	1,180	ND 1.020	266	58.5	60.9	659	892
SB-10 (0-2) SB-10 (2-4)	0-2 ft 2-4 ft	4/24/2023 4/24/2023	80.4 ND	619 457	3,830 1.190	5,860 2,200	4,330 1,780	6,340 1.850	2,370 992	2,060 774	5,480 2.400	827 207	14,800 4.390	1,020 411	2,430 794	175 252	163 426	12,000 4,950	12,500 4,400
SB-10 (2-4) SB-11 (0-2)	2-4 II 0-2 ft	4/24/2023	6.4	ND	1,190	53.4	55.7	74.6	37.0	24.4	2,400 56.0	14.1	4,390 88.1	ND ND	34.1	13.6	14.6	39.4	82.7
SB-12 (0-2)	0-2 ft	4/24/2023	6.1	14.0	41.0	133	135	197	88.6	59.9	144	27.3	296	14.3	82.8	10.9	12.3	176	257
SB-13 (0-2)	0-2 ft	4/24/2023	ND	12.0	9.5	26.6	24.9	33.9	21.6	10.5	32.4	ND	49.8	5.9	14.5	46.4	117	41.1	52.4
SB-14 (0-2)	0-2 ft	4/24/2023	ND	ND	27.5	116	128	171	83.3	63.4	133	ND	230	ND	79.5	ND	ND	106	208
SB-15 (0-2)	0-2 ft	4/24/2023	ND	10.1	55.9	166	148	214	85.5	66.5	181	23.5	328	11.9	83.9	ND	ND	154	289
SB-16 (0-2) SB-17 (0-2)	0-2 ft 0-2 ft	4/24/2023 4/24/2023	ND ND	ND ND	9.2 39.1	42.2 191	45.1 211	64.1 286	29.8 139	22.0 102	47.4 215	7.0 39.6	88.3 403	ND ND	28.1 132	ND ND	ND ND	40.9 196	80.9 361
SB-17 (0-2)	0-2 It	4/24/2023	ND ND	8.7	24.0	93.1	93.5	136	59.8	41.9	100	39.6 18.4	200	7.9	58.0	ND ND	ND ND	102	175
	V Z II	4/25/2023	6.7	8.6	26.2	137	146	193	98.9	66.6	132	26.4	254	6.7	87.1	ND	ND	103	209

	TABLE	2	ı																
SO	: TABLE IL ANALYTICAL							PO	LYCYCLIC	C AROMA	ATIC HYDF	ROCARB	ONS (PAF	1)					
Residential Part 20 213 Risk-Based S Criteria Updated J Screening levels	of Generic Cleanup Cri Coreening Levels, Dece June 25, 2018 and Volat S from the EGLE Guida	Great Lakes, and Energy Soil: teria and Screening Levels/Part imber 30, 2013, GSI Protection tilization of Indoor Air Pathway unce Document for the Vapor andix D, updated September 4,	kcenaphthylene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g, h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	:-Methylnaphthalene	Naphthalene	Phenanthrene	Ругепе
CAS Number			208968	83329	120127	56553	50328	205992	191242	207089	218019	53703	206440	86737	193395	91576	91203	85018	129000
	Water Protection Criteria		5,900	300,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	3.90E+05	NLL	5.70E+04	35,000	5.60E+04	4.80E+05
	e Water Interface Protection to Indoor Air Pathwa		ID NA	8,700 2.0e05 nc	1.3e07 nc	NLL 1.6e5 (MM) mut	NLL NA	NLL	NLL	NLL	NLL	NLL NA	5,500	5,300	NLL NA	4,200 1,700 nc	730 330 (M) 67	2,100 1,700 nc	1D
Residential Direct Co		ay	1.60E+06	4.10E+07	2.30E+08	20.000	2.000	NA 20.000	NA 2.50E+06	NA 200.000	NA 2.00E+06	2.000	NA 4.60E+07	4.7E5 nc 2.70E+07	20.000	8.10E+06	1.60E+07	1,700 nc 1.60E+06	2.5e07 nc 2.90E+07
Nonresidental Direct			5.20E+06	1.30E+08	7.30E+08	80,000	8,000	80,000	7.00E+06	800,000	8.00E+06	8,000	1.00E+08	8.70E+07	80,000	2.60E+07	5.20E+07	5.20E+06	8.40E+07
SAMPLE ID	SAMPLE DEPTH (feet below grade)	SAMPLE DATE								All results a	are expressed	in ug/kg							
SB-20 (0-2)	0-2 ft	4/25/2023	10.2	26.0	68.1	285	283	375	178	130	266	48.4	567	23.9	159	7.8	13.1	274	443
SB-21 (0-2) SB-22 (0-2)	0-2 ft 0-2 ft	4/25/2023 4/25/2023	ND ND	8.8 99.1	23.6 268	101 614	97.9 541	144	61.8 325	46.7 248	98.1 592	17.5 90.3	201 1.380	6.0 89.8	55.9 288	7.1 39.7	8.0 40.4	97.3 1.040	159 1.120
SB-22 (0-2) SB-23 (0-2)	0-2 ft	4/25/2023 4/25/2023	ND 34.7	639	1,100	1,840	1,500	1,800	325 784	248 694	1,580	90.3	4,270	499	750	240	40.4 252	4,120	3,380
SB-24 (0-2)	0-2 ft	4/25/2023	ND	ND	67.6	293	297	395	190	138	292	52.2	549	ND	169	ND	ND	256	447
SB-25 (0-2) SB-26 (0-2)	0-2 ft 0-2 ft	4/25/2023 4/25/2023	20.9 ND	31.7 ND	145 5.7	724 24.8	601 24.8	809 32.6	329 16.1	281 12.1	628 26.2	98.9 ND	1,400 47.8	33.9 ND	312 14.0	72.7 ND	28.4 ND	530 24.8	1,090 42.1
SB-26 (U-2) SB-27 (0-2)	0-2 ft	4/25/2023	43.1	32.8	148	24.8 485	24.8 417	517	226	201	26.2 441	67.3	1.010	45.8	212	48.9	45.2	659	804
SB-28 (0-2)	0-2 ft	4/25/2023	31.9	31.6	123	493	464	601	307	227	475	83.2	961	32.8	257	39.3	34.7	504	777
SB-29 (0-2)	0-2 ft	4/25/2023	ND 100	ND	11.0	43.2	40.5	59.7	29.9	20.1	45.8	8.1	77.2	ND 207	24.4	7.0	6.4	40.8 4.290	66.9
SB-30 (0-2) SB-30 (2-4)	0-2 ft 2-4 ft	4/25/2023 4/25/2023	193 32.5	303 38.2	1,010 179	3,440 302	3,040 234	3,690 280	1,850 117	1,300 105	3,270 266	498 28.3	6,710 684	307 72.9	1,590 105	115 60	149 53.4	4,290 672	466
SB-31 (0-2)	0-2 ft	4/25/2023	ND ND	10.4	26.8	95.8	88.3	106	52.7	37.3	90.2	14.7	175	7.9	45.5	ND	8.3	108	165
SB-32 (0-2)	0-2 ft	4/25/2023	2,150	2,240	10,400	44,200	28,400	34,100	15,000	13,700	32,200	4,550	94,400	2,900	13,800	652	974	51,100	87,000
SB-32 (2-4) SB-33 (0-2)	2-4 ft 0-2 ft	4/25/2023 4/25/2023	26.1 160	97.5 173	179 710	470 3.100	434 2.690	541 3.380	262 1.520	198 3.210	464 2.810	57.3 436	1,060 5,940	96.2 178	228 1,380	49.3 46.6	105 61.4	779 2,800	767 5,230
SB-33 (2-4)	2-4 ft	4/25/2023	172	2,930	8,040	22,200	21,500	26,000	12,700	9,660	20,300	3,290	51,800	2,790	11,100	684	1,950	28,300	36,400
SB-34 (0-2)	0-2 ft	4/25/2023	120	197	661	2,610	2,280	2,840	1,330	1,070	2,360	376	5,140	179	1,180	43.8	63.3	2,660	4,490
SB-34 (2-4) SB-35 (0-2)	2-4 ft 0-2 ft	4/25/2023 4/25/2023	ND 74.2	7.4 159	34.1 524	107 1.550	98 1.200	125 1.400	65 678	44.5 498	113 1.420	13.2 193	233 2.940	149	53.3 572	10.2 52.2	13.5 72.4	119 2.380	179 2.900
SB-36 (0-2)	0-2 ft	4/25/2023	18.8	13.1	45.5	228	219	273	131	100	221	37.1	432	11.8	116	14.6	13.5	196	374
SB-37 (0-2)	0-2 ft	4/25/2023	ND 10.4	ND	13.1	65.3	60.3	75.3	36.6	27.8	64.0	9.9	121	ND	32.3	ND 70.0	ND	51.4	106
SB-38 (0-2) SB-39 (0-2)	0-2 ft 0-2 ft	4/25/2023 4/25/2023	68.1 114	121 51.7	351 204	1,230 991	1,070 937	1,350	605 553	475 438	1,130 911	180 152	2,290 1.800	115 51.4	545 503	79.2 80.3	126 80.1	1,270 763	2,090 1.540
SB-40 (0-2)	0-2 ft	4/25/2023	53.8	39.0	158	614	612	817	413	271	660	127	1,220	42.8	382	77.7	69.5	604	1,140
SB-41 (0-2)	0-2 ft	4/25/2023	28.5	21.6	88.3	375	393	560	273	180	421	85.7	751	21.2	253	81.9	63.6	340	654
SB-42 (0-2) SB-43 (0-2)	0-2 ft 0-2 ft	4/25/2023 4/25/2023	ND 20.7	49.3 19.8	48.2 60.2	71.6 192	61.3 202	80.8 266	35.8 129	26.6 101	70.7 210	10.5 39.3	185 432	28.7 29.1	32.8 126	19.1 12.9	26.4 15.9	176 240	144 339
SB-44 (0-2)	0-2 ft	4/25/2023	249	131	586	1,250	1,090	1,450	625	577	1,250	208	3,430	516	645	103	195	3,240	2,470
SB-45 (0-2) SB-46 (0-2)	0-2 ft 0-2 ft	4/25/2023 4/25/2023	42.4 295	20.1 514	90.8	317 4.540	340 4.030	460 5.210	2.520	161 1.900	360 4.330	57.4 825	719 9.770	44.7 770	218 2,430	9.5 269	16.1 338	384 7,270	559 7,990
SB-46 (0-2) SB-46 (2-4)	0-2 ft 2-4 ft	4/25/2023 4/25/2023	295 82.8	218	790	4,540 1.630	1,480	1.890	902	688	1,740	825 177	4.170	247	762	209	347	2,570	3,110
SB-47 (0-2)	0-2 ft	4/25/2023	ND	ND	212	729	693	875	433	335	715	132	1,530	55.1	416	54.9	51.1	728	1,320
SB-48 (0-2) SB-49 (0-2)	0-2 ft 0-2 ft	4/25/2023 4/26/2023	34.6 ND	56.2	245 94.4	616 130	587 99.8	823	381 57.0	304 53.0	627	91.8 11.9	1,440 341	93.3 34.5	361 51.3	48.4 ND	42.2 ND	972 306	1,180 256
SB-49 (0-2) SB-50 (0-2)	0-2 ft	4/26/2023	ND 49.2	25.8 296.0	2,300	4,060	3,140	125 3,990	1,500	1,680	126 3,700	405	8,530	453	1,430	115	ND 85.7	5,040	6,100
SB-50 (2-4)	2-4 ft	4/26/2023	139	239.0	1,090	2,980	3,280	4,040	2,690	1,310	3,400	860	6,210	396	1,980	322	621	3,570	4,600
SB-51 (0-2) SB-52 (0-2)	0-2 ft 0-2 ft	4/26/2023 4/26/2023	ND 10.6	20.6	54.3 81.1	134 349	119 310	156 404	68.5 179	53.7 147	136 330	14.6 53.8	326 644	17.9 30.8	60.8 163	11.5 92.4	9.8 335	185 316	251 538
SB-52 (0-2) SB-53 (0-2)	0-2 ft	4/26/2023	11.0	43.6 17.9	53.3	221	198	252	117	91.9	210	33.8	414	16.0	103	19.8	22.5	215	376
SB-54 (0-2)	0-2 ft	4/26/2023	269	292	1,220	5,920	4,970	5,760	2,700	2,260	5,470	760	9,980	298	2,350	107	162	4,750	10,100
SB-54 (2-4) SB-55 (0-2)	2-4 ft 0-2 ft	4/26/2023 4/26/2023	73.4 ND	404 ND	1,780 ND	7,020 21.4J	7,200 31.5	8,590 30.5	4,220 30.7	2,980 ND	6,680 32.2	865 ND	15,500 51.1	343 ND	3,820 25.1J	169 ND	204 ND	5,430 23.0J	11,800 58.9
SB-55 (0-2) SB-56 (0-2)	0-2 ft	4/26/2023	ND ND	ND ND	4.8J	15.6	17.1	21.4	12.0	7.7	16.8	ND ND	32.8	ND ND	25.1J 11.1	ND ND	ND ND	23.03	29.6
SB-57 (0-2)	0-2 ft	4/26/2023	39.7	297	783	1,400	1,090	1,340	556	514	1,250	175	3,050	324	515	110	136	2,780	2,460
SB-58 (0-2) SB-59 (0-2)	0-2 ft 0-2 ft	4/26/2023 4/26/2023	ND 24.1	ND 19.0	43.3J 79.5	153 263	175 223	247	152 127	85.3 111	254 241	ND 28.4	341 521	ND 20.6	123 115	84.6 17.9	117 16.9	249 321	312 461
SB-60 (0-2)	0-2 ft	4/26/2023	6.4	20.2	47.0	150	132	168	73.3	65.1	139	17.3	298	15.3	68.5	11.4	10.9	181	256
SB-61 (0-2)	0-2 ft	4/26/2023	ND	13.5	39.0	104	93.1	115	51.1	42.1	91.2	15.0	207	11.8	47.1	6.9	5.9J	128	171

	TABLE	2	ı																
SO	: TABLE IL ANALYTICAL							PO	LYCYCLIC	C AROMA	ATIC HYDF	ROCARB	ONS (PAF	1)					
Residential Part 20 213 Risk-Based S Criteria Updated J Screening levels	of Generic Cleanup Cri Screening Levels, Dece June 25, 2018 and Volat s from the EGLE Guida	Great Lakes, and Energy Soil: teria and Screening Levels/Part imber 30, 2013, GSI Protection tilization of Indoor Air Pathway unce Document for the Vapor andix D, updated September 4,	cenaphithylene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	-Methylnaphthalene	Naphithalene	Phenanthrene	Pyrene
CAS Number			208968	83329	120127	56553	50328	205992	191242	207089	218019	53703	206440	86737	193395	91576	91203	85018	129000
	Water Protection Criteria		5,900	300,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	3.90E+05	NLL	5.70E+04	35,000	5.60E+04	4.80E+05
	e Water Interface Protec ition to Indoor Air Pathwa		ID NA	8,700	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	4,200 1,700 nc	730	2,100	ID or or
Residential Volatiliza		dy	1.60E+06	2.0e05 nc 4.10E+07	1.3e07 nc 2.30E+08	1.6e5 (MM) mut 20.000	NA 2.000	NA 20.000	NA 2.50E+06	NA 200.000	NA 2.00E+06	NA 2.000	NA 4.60E+07	4.7E5 nc 2.70E+07	NA 20.000	8.10E+06	330 (M) 67 1.60E+07	1,700 nc 1.60E+06	2.5e07 nc 2.90E+07
Nonresidental Direct			5.20E+06	1.30E+08	7.30E+08	80,000	8,000	80,000	7.00E+06	800,000	8.00E+06	8,000	1.00E+08	8.70E+07	80,000	2.60E+07	5.20E+07	5.20E+06	8.40E+07
SAMPLE ID	SAMPLE DEPTH (feet below grade)	SAMPLE DATE								All results a	are expressed	in ug/kg							
SB-62 (0-2)	0-2 ft	4/26/2023	49.1	349	1,270	2,630	2,170	2,640	1,160	903	2,400	326	5,820	488	1,040	70.2	55.8	5,100	5,330
SB-62 (2-4) SB-63 (0-2)	2-4 ft 0-2 ft	4/26/2023 4/26/2023	ND 4.6J	ND 14.9	ND 32.0	4.9 112	6.9 98.8	12.3 134	9.8 58.0	ND 44.0	11.3 107	ND 16.3	12.5 210	ND 12.7	4.6 50.7	ND 11.4	ND 11.5	12.4 138	12 193
SB-63 (0-2) SB-64 (0-2)	0-2 ft	4/26/2023	14.3	31.6	32.0 82.2	349	331	405	199	140	319	53.0	656	27.6	175	24.4	23.5	339	611
SB-65 (0-2)	0-2 ft	4/26/2023	23.4	45.9	191	550	451	591	259	209	505	59.0	1,240	74.5	231	45.7	54.9	983	1,000
SB-66 (0-2) SB-66 (2-4)	0-2 ft 2-4 ft	4/26/2023 4/26/2023	407 ND	147 ND	1,080 9.2	3,100 26.9	2,370 25.0	3,050 40.6	1,180 19.1	995 10.7	2,760 35.6	371 5.4	5,870 62.4	310 ND	1,100 15.6	151 41.6	150 33.5	3,490 50.5	5,400 47.1
SB-67 (0-2)	0-2 ft	4/26/2023	11.2	31.8	95.3	342	308	411	19.1	148	340	40.9	779	29.6	174	21.1	21.5	461	636
SB-68 (0-2)	0-2 ft	4/26/2023	30.3J	59.6	213	685	642	809	403	298	661	85.5	1,420	57.6	352	57.3	45.0	860	1,250
SB-69 (0-2) SB-70 (0-2)	0-2 ft 0-2 ft	4/26/2023 4/26/2023	ND 27.4	ND 49.0	ND 193	8.3 759	10.7 691	16.0 895	9.7 396	4.0 318	13.6 717	ND 84.7	17.9 1.530	ND 55.9	7.4 357	5.7 34.0	ND 28.9	10.8 766	17.2 1,300
SB-70 (0-2)	0-2 ft	4/26/2023	86.9	27.6	140	976	884	1,110	511	425	913	111	1,760	30.9	460	220	139	654	1,630
SB-72 (0-2)	0-2 ft	4/26/2023	ND	42.3	116	588	583	804	405	314	684	103	1,330	24.3J	345	129	88.0	645	1,130
SB-73 (0-2) SB-73 (2-4)	0-2 ft 2-4 ft	4/26/2023 4/26/2023	80.7 127	737 178	1,590 429	4,630 1.060	4,080 844	5,450 1,210	2,540 519	2,130 421	4,620 1.030	549 127	11,900 2.400	654 238	2,280 455	180 679	192 650	8,150 2,240	8,730 1.900
SB-73 (2-4) SB-74 (0-2)	2-4 II 0-2 ft	4/26/2023	26.5	178	429	1,060	1.440	1,210	849	693	1,630	173	3.720	131	757	69.4	74.8	1,920	2.870
SB-75 (0-2)	0-2 ft	4/26/2023	5.6J	6.1	16.4	92.8	126	163	70.2	63.4	116	13.8	178	4.4J	64.8	10.7	8.9	86.6	147
SB-76 (0-2) SB-77 (0-2)	0-2 ft	4/26/2023	ND 1 210	46.1	154 1.540	429	491	641	315 2.570	186	449	59.9	863	49.1	276	127 192	89.7 169	618 5,480	738
SB-77 (0-2) SB-77 (2-4)	0-2 ft 2-4 ft	4/26/2023 4/26/2023	1,210 11.2	133 9.1	21.2	6,960 96.6	5,120 96.4	6,610 126	59.7	2,510 43.1	6,110 110	662 16.6	12,400 236	318 14	2,470 54.6	23.9	21.7	170	184
SB-78 (0-2)	0-2 ft	4/26/2023	44.1	97.9	253	1,170	1,140	1,420	687	499	1,090	147	2,070	85.7	597	70.9	66.4	1,090	1,950
SB-79 (0-2) SB-80 (0-2)	0-2 ft 0-2 ft	4/26/2023 4/26/2023	ND 14.1	ND 40.1	ND 144	23.4 557	31.3 499	36.1 666	24.0 314	13.9 236	31.2 528	4.3J 68.6	37.0 1.130	ND 40.7	18.2 274	ND 67.2	ND 53.8	17.3 644	36.3 974
SB-81 (0-2)	0-2 ft	4/26/2023	21.5	14.9	63.8	215	195	267	120	89.4	229	27.2	434	19.8	107	91.6	97.0	322	374
SB-82 (0-2)	0-2 ft	4/26/2023	245	4,140	9,270	15,100	12,800	16,900	7,690	5,340	13,400	1,570	44,400	4,440	6,910	803	1,770	43,200	32,900
SB-82 (2-4) SB-83 (0-2)	2-4 ft 0-2 ft	4/26/2023 4/26/2023	27.6 65.0	60.9 58.0	246 189	947 808	857 793	1,100 1,050	485 524	406 369	932 811	134	2,160 1,540	65.5 49.1	443 452	52.8 239	41.6 186	1,160 866	1,650 1,440
SB-84 (0-2)	0-2 ft	4/26/2023	21.5J	44.2	198	828	722	954	445	326	756	110 97.5	1,540	44.7	391	63.4	51.5	744	1,440
SB-85 (0-2)	0-2 ft	4/26/2023	27.5	85.6	326	1,430	1,360	1,630	795	617	1,420	169	2,450	88.8	673	131	105	1,360	2,330
SB-86 (0-2) SB-86 (2-4)	0-2 ft 2-4 ft	4/26/2023 4/26/2023	131	780 36.7	3,260 142	8,300 356	6,930 289	8,480 342	3,990 154	2,820 117	7,210 331	860 33.4	19,600 838	924 37.7	3,500 136	136 5.8	144 6.9	12,100 515	16,300 784
SB-87 (0-2)	0-2 ft	4/27/2023	46.7	44.5	173	508	445	608	271	219	514.0	91.3	1,120	49.4	267	32.0	41.6	679	959
SB-88 (0-2)	0-2 ft	4/27/2023	ND	ND	4.0J	24.9	25.1	35.3	21.5	10.5	27.2	5.4J	44.8	ND	16.7	ND	ND	17.2	43.1
SB-89 (0-2) SB-90 (0-2)	0-2 ft 0-2 ft	4/27/2023 4/27/2023	ND 28.5	43.6J 38.0	98.4 119	326 523	312 492	436 643	191 303	133 208	324 534	62.0 99.6	644 999	38.5J 29.5	189 284	ND 16.1	ND 18.3	375 448	539 941
SB-91 (0-2)	0-2 ft	4/27/2023	ND	ND ND	ND 114	5.1J	4.6J	8.1	5.9	ND	8.8	ND	9.1	29.5 ND	ND	ND	ND	6.1	8.3
SB-92 (0-2)	0-2 ft	4/27/2023	86.9	54.1	234	678	666	861	432	349	745	138	1,380	71.9	414	54.8	58.8	747	1,170
SB-93 (0-2) SB-94 (0-2)	0-2 ft 0-2 ft	4/27/2023 4/27/2023	23.4 ND	55.6 ND	180 ND	418 9.1	388 7.7	511 11.9	236 8.3	191 3.6J	422 12.5	63.0 ND	960 20.6	54.2 ND	232 4.7J	28.6 ND	30.0 ND	619 14.1	779 17.4
SB-95 (0-2)	0-2 ft	4/27/2023	270	89.6	733	2,710	2,190	3,010	1,180	1,130	2,450	433	5,800	135	1,210	ND	52.0J	2,680	4,720
SB-95 (2-4)	2-4 ft	4/27/2023	15.0	1550	3,680	4,680	4,060	4,400	2,320	1,840	4,320	549	14,400	1,380	1,980	272	226	15,100	12,200
SB-96 (0-2) SB-96 (2-4)	0-2 ft 2-4 ft	4/27/2023 4/27/2023	6,240	1,680 10.3	17,400 27.7	61,200 76.3	43,500 71	58,500 90.3	24,600 40.2	19,500 32.4	54,200 77.5	8,420 9.5	146,000 156	2,650 9.9	24,900 36.6	627 18.6	1,030	69,500 101	122,000 130
SB-97 (0-2)	0-2 ft	4/27/2023	27.2	10.3	344	604	496	727	305	213	611	98.5	1,560	143	299	455	329	1,500	1,280
SB-98 (0-2)	0-2 ft	4/27/2023	11.9	30.7	63.7	211	205	296	129	87.9	244	41.5	464	27.7	123	59.2	43.7	304	407
SB-99 (0-2) SB-100 (0-2)	0-2 ft 0-2 ft	4/27/2023 4/27/2023	10.6 ND	23.4 5.6 J	74.5 13.2	209 48.5	193 54.0	263 86.2	134 49.1	76.0 25.2	208 49.5	40.5 12.2	410 82.3	20.8 5.3.I	118 42.5	20.4	16.2 8.2	292 52.2	418 81.7
SB-101 (0-2)	0-2 ft	4/27/2023	85.0	63.0	284	925	844	1,140	490	347	902	165	1,820	76.9	483	44.3	44.2	987	1,670
SB-102 (0-2)	0-2 ft	4/27/2023	40.8	42.5	174	463	394	610	241	186	485	85.8	972	60.6	238	312	195	633	870

	TABLE	2																	
SO	IL ANALYTICAL							PO	LYCYCLI	C AROMA	ATIC HYDF	ROCARB	ONS (PAF	1)					
Residential Part 20 213 Risk-Based S Criteria Updated J Screening levels	01 Generic Cleanup Cri Screening Levels, Dece June 25, 2018 and Volat s from the EGLE Guida	Great Lakes, and Energy Soil: teria and Screening Levels/Part imber 30, 2013, GSI Protection tillization of Indoor Air Pathway ince Document for the Vapor endix D, updated September 4,	Acenaphthylene	Acenaphithene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g.h.i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a.h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-Methyinaphthalene	Naphthalene	Phenanthrene	Pyrene
CAS Number			208968	83329	120127	56553	50328	205992	191242	207089	218019	53703	206440	86737	193395	91576	91203	85018	129000
	Water Protection Criteria		5,900	300,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	3.90E+05	NLL	5.70E+04	35,000	5.60E+04	4.80E+05
	e Water Interface Protec ation to Indoor Air Pathwa		ID NA	8,700 2.0e05 nc	1.3e07 nc	NLL 1.6e5 (MM) mut	NLL NA	NLL NA	NLL NA	NLL NA	NLL NA	NLL NA	5,500 NA	5,300 4.7E5 nc	NLL NA	4,200 1,700 nc	730 330 (M) 67	2,100 1,700 nc	2.5e07 nc
Residential Direct Co		шу	1.60E+06	4.10E+07	2.30E+08	20.000	2.000	20.000	2.50E+06	200.000	2.00E+06	2.000	4.60E+07	4.7E51IC 2.70E+07	20.000	8.10E+06	1.60E+07	1,700 HC 1.60E+06	2.90E+07
Nonresidental Direct	Contact Criteria		5.20E+06	1.30E+08	7.30E+08	80,000	8,000	80,000	7.00E+06	800,000	8.00E+06	8,000	1.00E+08	8.70E+07	80,000	2.60E+07	5.20E+07	5.20E+06	8.40E+07
SAMPLE ID	SAMPLE DEPTH (feet below grade)	SAMPLE DATE								All results a	are expressed	in ug/kg							
SB-103 (0-2)	0-2 ft	4/27/2023	37.6	158	334	664	580	765	392	223	704	115	1,430	128	342	184	103	1,500	1,530
SB-104 (0-2) SB-104 (2-4)	0-2 ft 2-4 ft	4/27/2023 4/27/2023	1,420 39.8	356 6.3J	1,750 26	5,890 62.1	4,120 54.2	5,950 73.3	2,380	1,850 24.4	5,540 76.4	898 9.3	9,660 130	590 12.2	2,270 32.9	255 200	197 184	6,600 197	10,700 107
SB-105 (0-2)	0-2 ft	4/27/2023	54.7	ND	53.4	210	182	334	171	103	329	55.4	312	ND	147	378	346	342	306
SB-106 (0-2)	0-2 ft	4/27/2023	4.1J	15.2	52.8	112	94.3	130	62.7	38.2	117	21.5	251	21.3	55.4	19.1 40.2	12.6	195 259	217 457
SB-107 (0-2) SB-108 (0-2)	0-2 ft 0-2 ft	4/27/2023 4/27/2023	34.2 16.2	20.6	69.4 443	256 1.380	252 933	372 1.100	175 568	110 360	266 1.440	42.9 189	510 2.280	23.9 129	161 465	38.0	30.5 25.2	2,630	3,260
SB-109 (0-2)	0-2 ft	4/27/2023	10.3	11.2	47.7	164	152	210	100	64.8	174	32.0	326	14.0	92.6	121	90.5	230	303
SB-110 (0-2)	0-2 ft	4/27/2023	17.2	36.4	117	341	311	436	216	150	389	56.4	716	46.8	197	409	460	631	649
SB-111 (0-2) SB-112 (0-2)	0-2 ft 0-2 ft	4/27/2023 4/27/2023	11.1 126	15.6 727	35.2 1,600	129 3,670	95.7 3,370	143 4,420	68.7 2,270	40.2 1.700	191 3,780	22.0 657	192 12,900	21.7 811	54.7 2.110	746 532	516 770	439 10,700	213 10,100
SB-112 (2-4)	2-4 ft	4/27/2023	136	3290	6,280	11,100	10.200	13,000	6,190	4,400	11,000	1,580	32,600	3,690	5,430	1,440	4.000	33.300	24,500
SB-113 (0-2)	0-2 ft	4/27/2023	136	501	1,330	2,550	2,420	3,130	1,540	1,050	2,500	443	6,350	504	1,470	252	331	4,960	5,580
SB-113 (2-4) SB-114 (0-2)	2-4 ft 0-2 ft	4/27/2023 4/27/2023	125 13.8	492 10.4	1,420 26.6	3,240 95.9	2,830 78.6	3,620 129	1,550 57.8	1,050 40.2	3,020 140	339 17.2	7,490 165	551 14.8	1,400 50.8	106 500	175 378	5,170 286	6,020 158
SB-114 (0-2)	0-2 ft	4/27/2023	ND	ND	148	490	566	616	634	213	550	115	954	ND	363	ND	ND	575	925
SB-116 (0-2)	0-2 ft	4/27/2023	52.4	23.6	112	412	375	538	240	167	406	79.0	872	33.1	230	120	78.4	480	748
SB-117 (0-2) SB-117 (2-4)	0-2 ft 2-4 ft	4/27/2023 4/27/2023	178 ND	246 ND	876 5.5.1	2,450 12.6	2,260 14	3,250 20.8	1,510 11.1	1,010 5.9	2,390 17.1	400 ND	5,330 31	313 ND	1,440 9.5	214 ND	227 ND	3,000 20.3	4,580 25.7
SB-117 (2-4)	0-2 ft	4/27/2023	108	300	813	1,960	1,560	2,170	884	649	1,890	302	4,120	349	862	185	169	3,170	3,700
SB-119 (0-2)	0-2 ft	4/27/2023	112	89.3	155	274	177	345	124	107	333	ND	724	114	113	632	1,200	813	587
SB-120 (0-2) SB-121 (0-2)	0-2 ft 0-2 ft	4/27/2023 4/27/2023	14.4 1.690	8.2 173	24.1 1.090	87.5 4.550	67.8 4.250	118 6.080	48.0 2.550	32.7 1.780	143 4.420	19.2 939	7.290	14.3 263	40.6 2,510	702 154	468 137	317 2,110	7,420
SB-121 (2-4)	2-4 ft	4/27/2023	930	229	1,340	5,080	4,620	5,900	2,550	2,000	4,510	619	9,910	338	2,350	103	113	3,470	8,020
SB-122 (0-2)	0-2 ft	4/27/2023	10.1	4.9J	23.3	97.7	97.1	146	70.3	43.7	124	22.2	191	6.8	61.6	58.2	31.5	97.3	177
SB-123 (0-2) SB-124 (0-2)	0-2 ft 0-2 ft	4/27/2023 7/25/2023	5.0J 14.6	ND 19.0	17.8 68.7	61.3 216.0	63.4 232.0	92.5 276.0	48.6 135.0	27.4 88.2	76.7 198.0	13.4 37.5	146 484	5.0J 20.4	39.9 132	24.2 12.8	15.9 13.1	81.7 240	122 399
SB-125 (0-2)	0-2 ft	7/25/2023	37.5	41.0	133.0	389.0	401.0	515.0	248.0	157.0	356.0	73.8	792	54.6	248	90.5	66.2	513	643
SB-126 (0-2)	0-2 ft	7/25/2023	ND FOR	ND 104.0	81.0	248.0	268.0	337.0	185.0	101.0	229.0	48.6J	520	ND 127.0	163	ND	ND	309	406
SB-127 (0-2) SB-128 (0-2)	0-2 ft 0-2 ft	7/25/2023 7/25/2023	52.5J 60.3	104.0 83.6	249.0 233.0	656.0 537.0	668.0 550.0	867.0 722.0	403.0 336.0	261.0 214.0	595.0 483.0	119.0 97.3	1,390	127.0 139.0	403 325	121 87.4	121 140	984 877	1120 895
SB-129 (0-2)	0-2 ft	7/25/2023	ND	ND	ND	149.0	164.0	224.0	130.0	77.0	172.0	ND	349	ND	121	ND	ND	164	256
SB-130 (0-2)	0-2 ft	7/25/2023	75.2	57.2J 1.380.0	221.0	738.0	763.0	908.0 8500.0	478.0 3550.0	372.0	682.0 6740.0	141.0	1,530	84.4 1990.0	476 3700	105 437	101 667	878 12500	1140 13600
SB-131 (0-2) SB-132 (0-2)	0-2 ft 0-2 ft	7/25/2023 7/25/2023	972 102	1,380.0	3900.0 467.0	7800.0 1450.0	6790.0 1450.0	8500.0 1870.0	3550.0 863.0	3010.0 600.0	1310.0	1140.0 268.0	18,000 3,150	149.0	887	94.2	92.1	12500	2250
SB-133 (0-2)	0-2 ft	7/25/2023	77.0	112.0	332.0	977.0	935.0	1250.0	585.0	401.0	925.0	175.0	2,220	138.0	573	178	225	1370	1610
SB-134 (0-2) SB-135 (0-2)	0-2 ft 0-2 ft	7/25/2023 7/25/2023	85.2 ND	212.0 ND	590.0 ND	1730.0 5.1J	1650.0 5.8	2270.0 9.3	908.0 9.1	782.0 ND	1740.0 11.2	300.0 ND	4,550 9.2	238.0 ND	987 3.9J	81 ND	127 ND	2660 8.5	2980 8.7
SB-136 (0-2)	0-2 ft	7/25/2023	ND ND	52.2J	152.0	438.0	427.0	9.3 540.0	255.0	182.0	413.0	74.8	9.2	57.2	257	ND ND	ND ND	668	729
SB-137 (0-2)	0-2 ft	7/25/2023	115	67.5	316.0	853.0	1100.0	1240.0	934.0	422.0	825.0	231.0	2,050	74.2	830	ND	ND	1040	1620
SB-138 (0-2) SB-139 (0-2)	0-2 ft 0-2 ft	7/25/2023 7/25/2023	38.3J 164	469 122	926.0 573.0	2190.0 1730.0	2230.0 1630.0	2680.0 1980.0	1230.0 937.0	969.0 797.0	2110.0 1610.0	336.0 226.0	5,190 3,760	447.0 134.0	1240 963	59.3 67.5	69.1 82.6	3640 2220	3820 2940
SB-140 (0-2)	0-2 ft	7/25/2023	56.6J	46.5J	174.0	516.0	499.0	621.0	298.0	235.0	492.0	90.4	1,130	51.4J	300	ND	ND	754	843
SB-141 (0-2)	0-2 ft	7/25/2023	62.9	93.4	265.0	921.0	955.0	1220.0	563.0	432.0	862.0	175.0	1,960	95.0	573	ND	ND	1020	1460
SB-142 (0-2) SB-143 (0-2)	0-2 ft 0-2 ft	7/25/2023 7/25/2023	41.5 9.6	58.1 12.1	162.0 43.6	489.0 157.0	478.0 160.0	608.0 194.0	273.0 92.0	221.0 76.5	463.0 146.0	86.9 27.7	1,060 321	52.9 11.6	283 94.3	37.8 16.7	44 17.7	632 145	777 249
SB-143 (0-2)	0-2 ft	7/25/2023	9.6 ND	ND	7.0	23.8	23.7	32.5	23.4	11.2	29.8	5.0J	57.2	ND	94.3 14.8	15.7	52.8	54.8	39.2
SB-145 (0-2)	0-2 ft	7/25/2023	80.1	86.1	265.0	896.0	901.0	1070.0	522.0	425.0	851.0	157.0	1,940	92.9	525	80.3	75.7	1080	1480
SB-146 (0-2)	0-2 ft	7/25/2023	75.5	1,000.0	1890.0	3250.0	3060.0	3850.0	1750.0	1450.0	2960.0	524.0	8,240	1070.0	1820	407	821	7210	5580

SO	TABLE : IL ANALYTICAL							PO	LYCYCLI	C AROMA	ATIC HYDF	ROCARBO	ONS (PAF	Н)					
Residential Part 20 213 Risk-Based S Criteria Updated Ji Screening levels	1 Generic Cleanup Crit creening Levels, Dece une 25, 2018 and Volat s from the EGLE Guida	Great Lakes, and Energy Soil: teria and Screening Levels/Part imber 30, 2013, GSI Protection tilization of Indoor Air Pathway ance Document for the Vapor endix D, updated September 4,	Acenaphthylene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g.h.i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a.h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
CAS Number			208968	83329	120127	56553	50328	205992	191242	207089	218019	53703	206440	86737	193395	91576	91203	85018	129000
Residential Drinking \	Water Protection Criteria	a*	5,900	300,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	3.90E+05	NLL	5.70E+04	35,000	5.60E+04	4.80E+05
Groundwater Surface	Water Interface Protect	tion Criteria* (XII)	ID	8,700	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	4,200	730	2,100	ID
Residential Volatilizat	tion to Indoor Air Pathwa	ay	NA	2.0e05 nc	1.3e07 nc	1.6e5 (MM) mut	NA	NA	NA	NA	NA	NA	NA	4.7E5 nc	NA	1,700 nc	330 (M) 67	1,700 nc	2.5e07 nc
Residential Direct Co	ntact Criteria		1.60E+06	4.10E+07	2.30E+08	20,000	2,000	20,000	2.50E+06	200,000	2.00E+06	2,000	4.60E+07	2.70E+07	20,000	8.10E+06	1.60E+07	1.60E+06	2.90E+07
Nonresidental Direct	Contact Criteria		5.20E+06	1.30E+08	7.30E+08	80,000	8,000	80,000	7.00E+06	800,000	8.00E+06	8,000	1.00E+08	8.70E+07	80,000	2.60E+07	5.20E+07	5.20E+06	8.40E+07
SAMPLE ID	SAMPLE DEPTH (feet below grade)	SAMPLE DATE								All results a	are expressed	in ug/kg							
SB-147 (0-2)	0-2 ft	7/25/2023	55.0J	84.5	240.0	727.0	723.0	885.0	421.0	334.0	685.0	126.0	1,470	90.9	428	72.3	77.7	931	1180
SB-148 (0-2)	0-2 ft	7/25/2023	ND	45.5J	167.0	569.0	600.0	722.0	352.0	270.0	533.0	100.0	1,270	41.1J	358	ND	ND	586	928
SB-149 (0-2)	0-2 ft	7/25/2023	38.9J	110	243.0	589.0	597.0	733.0	371.0	279.0	559.0	115.0	1,360	159.0	373	109	186	961	940
SB-150 (0-2)	0-2 ft	7/25/2023	54.8J	85.7	340.0	789.0	776.0	917.0	444.0	355.0	749.0	140.0	1,900	92.5	448	95.3	88.2	1340	1380
SB-151 (0-2)	0-2 ft	7/25/2023	8.0	8.8	23.1	52.7	54.8	67.1	33.2	25.8	52.3	9.1	130	9.7	32.4	5.7	5.1J	82.7	92.7
SB-152 (0-2)	0-2 ft	7/25/2023	24.6	28.3	92.2	275.0	270.0	350.0	146.0	110.0	245.0	47.3	580.0	34.6	153	21.7	20.3	326	430
SB-153 (0-2)	0-2 ft	7/25/2023	19.6	18.6	63.4	224.0	241.0	316.0	148.0	99.2	213.0	43.8	474	23.9	146	35.9	28	254	365
SB-154 (0-2)	0-2 ft	7/25/2023	19.4	20.0	73.5	252.0	269.0	340.0	168.0	114.0	239.0	48.7	534	27.8	165	40.3	34.4	265	427
SB-155 (0-2)	0-2 ft	7/25/2023	20.9J	25.7	132.0	354.0	357.0	462.0	209.0	144.0	335.0	61.3	800	32.9	211	65	49.7	468	617
SB-156 (0-2)	0-2 ft	7/25/2023	ND	19.7J	52.9	146.0	162.0	224.0	107.0	69.8	149.0	28.9	311	19.9J	109	ND	ND	185	235
SB-157 (0-2)	0-2 ft	7/25/2023	31.6	44.6	118.0	407.0	322.0	444.0	199.0	165.0	417.0	49.4	747	59.4	192	134	167	446	657
SB-158 (0-2)	0-2 ft	7/25/2023	112	1,660	2790.0	5060.0	4840.0	5860.0	2620.0	2300.0	4710.0	853.0	12,400	2200.0	2780	1320	2280	13300	9370

Notes:

ND = Not Detected above laboratory reporting limits

Notes in parentheses and standard abbreviations are from Part 201 Rules 299.1 - 299.50, dated June 25, 2018

NLV = Not Likely to Volatilize

ID = Insufficient Data To Develop Criterion

NS = Not Sampled or Not Analyzed

NA = Not Applicable

M= The VIAP screening level may be below target detection limits (TDL). In accordance with SEC. 20120a(10) when the TDL for a hazardous substance is greater than the developed VIAP screening level, the TDL is used to evaluate the risk posed from the pathway.

in the VIAP screening lever may be below larger detection limits (TDL). In accordance with SEC, 20120d,10) when the TDL for a nazardous substance is called the screening lever may be below the adjusted reporting limit.

ND = Concentration is not detected above laboratory detection limits

^{* -} Residential Drinking Water Criteria and Residential Groundwater Surface Water Interface Protection Criteria exceedances are not shown (site on municipal supply / no groundwater present: sea wall/sheet pile barrier along river)

TABLE 3- ST	TOCKPILE SOIL AN (METALS	IALYTICAL SUMMARY)					Michigan	10 Metals				
Residential Part 20 213 Risk-Based S Criteria Updated J Screening levels	1 Generic Cleanup Crit icreening Levels, Dece une 25, 2018 and Volat s from the EGLE Guida	Great Lakes, and Energy Soil: eria and Screening Levels/Part mber 30, 2013, GSI Protection ilization of Indoor Air Pathway nce Document for the Vapor endix D, updated September 4,	Arsenic	Barlum (B)	Cadmium (B)	Chromium (Total) (B,H)	Copper (B)	Lead (B)	Mercury (Total) (B*,Z)	Selenium (B)	Silver (B)	Zinc (B)
CAS Number			7440382	7440393	7440439	7440473	7440508	7439921	7439976	7782492	7440224	7440666
Statewide Default Ba	ickground Levels (µg/kg)		5,800	75,000	1,200	NA	32,000	21,000	130	410	1,000	47,000
Residential Drinking	Water Protection Criteria	* (µg/kg)	4,600	1.3E+06	6,000	30,000	5.8E+06	7.0E+05	1,700	4,000	4,500	2.4E+06
Groundwater Surface	Water Interface Protect	ion Criteria* (XII) (μg/kg)	4,600	(G)	(G,X)	3,300	(G)	(G,X)	50 (M): 1.2	400	100 (M): 27	(G)
Residential Volatilizat	tion to Indoor Air Pathwa	ly (μg/kg)	NA	NA	NA	NA	NA	NA	50 (M) 22	NA	NA	NA
Residential Direct Co	ntact Criteria (µg/kg)		7,600	3.7E+07	550,000	7.9E+08	2.0E+07	400,000	160,000	2.6E+06	2.5E+06	1.7E+08
Nonresidential Direct	Contact Criteria (µg/kg)		37,000	1.3E+08	2,200,000	1.0E+09	7.3E+07	900,000	580,000	9.6E+06	9.0E+06	6.3E+08
SAMPLE ID	SAMPLE DEPTH (feet below grade)	SAMPLE DATE				All	results are ex	opressed in µ	ıq/kq			
SP (E)-1	Stockpile	5/10/2023	6,640	116,000	1,120	13,400	38,900	164,000	526	5,400	126	132,000
SP (N)-1	Stockpile	5/10/2023	9,420	463,000	12,300	26,700	294,000	320,000	752	4,500	209	873,000
SP (N)-2	Stockpile	5/10/2023	7,190	353,000	4,650	18,400	172,000	304,000	588	4,440	124	258,000
SP (N)-3	Stockpile	5/10/2023	6,590	198,000	20,100	14,300	79,200	190,000	402	4,050	146	203,000
SP (N)-4	Stockpile	5/10/2023	7,300	304,000	7,220	24,200	175,000	252,000	464	4,020	103	309,000
SP (N)-5	Stockpile	5/10/2023	7,570	278,000	7,370	20,100	182,000	197,000	296	4,010	121	239,000
SP (N)-6	Stockpile	5/10/2023	10,300	482,000	13,900	28,500	383,000	434,000	711	5,400	212	493,000
SP (S)-1	Stockpile	5/10/2023	9,030	146,000	1,070	360,000	50,700	93,100	133J	3,790	65.7	121,000
DUP-1	Stockpile	5/10/2023	7,960	241,000	6,660	17,500	110,000	230,000	430	3,530	165	237,000

Notes

Bold font indicates parameter exceeds the Statewide Default Background Level

Notes in parentheses and standard abbreviations are from Part 201 Rules 299.1 - 299.50, dated June 25, 2018

ID = Insufficient Data To Develop Criterion

ND = Not Detected above laboratory reporting limits NLV = Not Likely to Volatilize

NS = Not Sampled or Not Analyzed

M= The VIAP screening level may be below target detection limits (TDL). In accordance with SEC. 20120a(10) when the TDL for a hazardous substance is greater than the developed VIAP screening level, the TDL is used to evaluate the risk posed from the pathway.

Non-Carcinogenetic J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

ND or "<" = Concentration is not detected above laboratory detection limits

(B) = Background, as defined in R 2991.(b), may be substituted if higher than the calculated clean up criterion. Background levels may be less than criteria for some inorganic compounds

(B') = Background, as defined in R 2991.(b), may be substituted if higher than the calculated clean up criterion. Background levels may be less than criteria for some inorganic compounds. However, for Mercury for the Volatilization to Indoor Air Pathway, this foothole does not apply.

(H) = Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. If both Cr III and Cr VI are present in groundwater, the total concentration of both cannot exceed the drinking water criterion of 100 ugil. If analytical data are provided for total chromium only, they shall be compared to the cleanup criteria for Cr VI. Cr III soil cleanup criterion for protection of drinking water can only be used at sites where groundwater is prevented from being used as a public water supply, currently and in the future, through an approved land or resource use restriction. (If total chromium data is presented, that data shall be compared to the hex chrome cleanup criteria)

(Z) = Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 74.39976, serve as the basis for the soil volalitization to indoor air criteria. Data for mercury, CAS number 22967926, serve as the basis for the GSI criterion: and data for mercuric chloride, CAS number 7487947, serve as the basis for the disking water, groundwater contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

* - Residential Drinking Water Criteria and Residential Groundwater Surface Water Interface Protection Criteria exceedances are not shown (site on municipal supply / no groundwater present; sea wall/sheet pile barrier along

TABLE 4 - STOCKPILE SOIL ANALYTICAL SUMMARY (SEMI-VOLATILE & VOLATILE ORGANIC COMPOUNDS)				SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)													VOLATILE ORGANIC COMPOUNDS						
Residential Part 201	Generic Cleanup Crit	Great Lakes, and Energy Soil: eria and Screening Levels/Part mber 30, 2013, GSI Protection e 25, 2018	Acenaphthylene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a.h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran	Remaining SVOCs	VOCs
CAS Number			208968	83329	120127	56553	50328	205992	191242	207089	218019	53703	206440	86737	193395	91576	91203	85018	129000	87688	132649	NA	NA
Residential Drinking Water Protection Criteria*			5,900	300,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	3.90E+05	NLL	5.70E+04	35,000	5.60E+04	4.80E+05	9,400	ID	NA	NA
Groundwater Surface Water Interface Protection Criteria* (XII)			ID	8,700	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	4,200	730	2,100	ID				
Residential Volatilization to Indoor Air Pathway		NA	2.0E05 nc	1.3E07 nc	1.6E5 (MM) mut	NA	NA	NA	NA	NA	NA	NA	4.7E5 nc	NA	1,700 nc	330 (M) 67	1,700 nc	2.5E07 nc	NA	4.10E+06	NA	NA	
Residential Direct Contact Criteria		1.60E+06	4.10E+07	2.30E+08	20,000	2,000	20,000	2.50E+06	200,000	2.00E+06	2,000	4.60E+07	2.70E+07	20,000	8.10E+06	1.60E+07	1.60E+06	2.90E+07	5.30E+05	ID	NA	NA	
Nonresidental Direct Contact Criteria		5.20E+06	1.30E+08	7.30E+08	80,000	8,000	80,000	7.00E+06	800,000	8.00E+06	8,000	1.00E+08	8.70E+07	80,000	2.60E+07	5.20E+07	5.20E+06	8.40E+07	2.40E+06	ID	NA	NA	
SAMPLE ID	SAMPLE DEPTH (feet below grade)	SAMPLE DATE	All results are expressed in µo/kg																				
SP (E)-1	Stockpile	5/10/2023	ND	ND	255J	403	364J	426	ND	178J	384J	ND	925	ND	ND	ND	ND	928	736	ND	ND	ND	ND
SP (N)-1	Stockpile	5/10/2023	ND	225J	763	2,790	2,400	2,730	1,300	1,130	2,740	379	4,950	207J	1,210	ND	ND	3,230	5,220	ND	ND	ND	ND
SP (N)-2	Stockpile	5/10/2023	ND	ND	487	1,840	1,750	1,900	938	851	1,870	251J	3,620	ND	817	ND	ND	2,260	3,500	208J	ND	ND	ND
SP (N)-3	Stockpile	5/10/2023	ND	ND	ND	556	517	600	272J	255J	575	ND	1,030	ND	257J	ND	ND	642	1,080	ND	ND	ND	ND
SP (N)-4	Stockpile	5/10/2023	ND	ND	287J	892	851	979	421	417	881	ND	1,810	ND	400	ND	ND	1,060	1,640	ND	ND	ND	ND
SP (N)-5	Stockpile	5/10/2023	ND	684	1,440	3,430	3,110	3,380	1,530	1,600	3,170	391	8,730	717	1,460	ND	244J	7,080	8,010	593	460	ND	ND
SP (N)-6	Stockpile	5/10/2023	238J	1,000	3,290	7,970	6,400	7,470	3,260	2,210	7,330	982	15,400	1,390	2,680	200J	408	13,900	15,900	899	848	ND	ND
SP (S)-1	Stockpile	5/10/2023	ND	259J	611	1,290	1,160	1,240	479	679	1,380	ND	3,170	326J	440	ND	ND	3,140	2,890	207J	ND	ND	ND
DUP-1	Stockpile	5/10/2023	ND	ND	ND	517	472	560	217J	263J	531	ND	1,030	ND	194J	ND	ND	550	951	ND	ND	ND	ND

Notes:

Notes in parentheses and standard abbreviations are from Part 201 Rules 299.1 - 299.50, dated June 25, 2018

ID = Insufficient Data To Develop Criterion

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NLV = Not Likely to Volatilize

NS = Not Sampled or Not Analyzed

M= The VIÁP screening level may be below target detection limits (TDL). In accordance with SEC. 20120a(10) when the TDL for a hazardous substance is greater than the developed VIAP screening level, the TDL is used to evaluate the risk posed from the pathway.

c = Non-Carcinogenetic J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

ND = Concentration is not detected above laboratory detection limits

* - Residential Drinking Water Criteria and Residential Groundwater Surface Water Interface Protection Criteria exceedances are not shown (site on municipal supply / no groundwater present: sea wall/sheet pile barrier along river)

TABLE 5- STOC	KPILE SOIL ANALY		POLYCHLORINATED BIPHENYLS (PCBs)										
Residental Part 201	ent of Environment, Gre Generic Cleanup Crite reening Levels, Decemi ne 25, 2018	PCB-1248 (Aroclor 1248)	PCB-1232 (Araclar 1232)	PCB-1262 (Aroclor 1262)	PCB-1260 (Araclar 1260)	PCB-1016 (Araclar 1016)	PCB-1254 (Aroclor 1254)	PCB-1268 (Aroclor 1268)	PCB-1242 (Aroclor 1242)	PCB-1221 (Aroclor 1221)	PCB Total		
CAS Number		12672296	11141165	37324235	11096825	12674112	11097691	11100144	53469219	11104282	NA		
Residential Drinking	Water Protection Criteria	NA	NA	NA	NA	NA	NA	NA	NA	NA	NLL		
Groundwater Surface	e Water Interface Protect	NA	NA	NA	NA	NA	NA	NA	NA	NA	NLL		
Residential Volatiliza	tion to Indoor Air Pathwa	NA	NA	NA	NA	NA	NA	NA	NA	NA	DATA		
Residential Direct Co	ontact Criteria (µg/kg)	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,000		
Nonresidential Direct	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,000			
SAMPLE ID SAMPLE DEPTH SAMPLE DATE			All results are expressed in ug/kg										
SP (E)-1	Stockpile	5/10/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SP (N)-1	Stockpile	5/10/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SP (N)-2	Stockpile 5/10/2023		ND	ND	6.9J	ND	ND	ND	ND	ND	ND	6.9	
SP (N)-3	Stockpile	5/10/2023	ND	ND	7.5J	ND	ND	ND	ND	ND	ND	7.5	
SP (N)-4	Stockpile	5/10/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SP (N)-5	Stockpile	5/10/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SP (N)-6	Stockpile	5/10/2023	ND	ND	6.0J	ND	ND	ND	ND	ND	ND	6	
SP (S)-1	Stockpile	5/10/2023	9.8J	ND	ND	9.8							
DUP-1	Stockpile	5/10/2023	ND	ND	14.2J	ND	ND	ND	ND	ND	ND	14.2	

Notes:

NA = Not Available

ND = Not Detected above laboratory reporting limits

DATA = Insufficient physical chemical parameters to calculate VIAP screening level for specified media

NLL = Not Likely to Leach

^{* -} Residential Drinking Water Criteria and Residential Groundwater Surface Water Interface Protection Criteria exceedances are not shown (site on municipal supply / no groundwater present; sea wall/sheet pile barrier along river)

TABLE 6 SOIL GAS ANALYTICAL SUMMARY				POLYCYCLIC AROMATIC HYDROCARBONS (PAH)										
Residential Part 20 213 Risk-Based S Criteria Updated J Screening levels	1 Generic Cleanup Crit icreening Levels, Decer une 25, 2018 and Volat s from the EGLE Guida	Great Lakes, and Energy Soil: eria and Screening Levels/Part mber 30, 2013, GSI Protection ilitation of Indoor Air Pathway nce Document for the Vapor endix D, updated September 4,	Acenaphithylene	Acenaphthene	Anthracene	Benzo(a)anthracene	Fluorene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Mercury		
CAS Number	208968	83329	120127	56553	86737	91576	91203	85018	129000	7439976				
Residential Volatilization to Indoor Air Pathway (VIAP)				7,300	35,000	5.8	4,900	350	25	3.5	3,500	10		
Nonresidential Volatilization to Indoor Air Pathway (VIAP)			11,000	11,000	51,000	33	7,200	510	59	5.1	5,100	15		
SAMPLE ID	SAMPLE ID SAMPLE DEPTH (feet below grade) SAMPLE DATE			All results are expressed in ug/m3										
Field Blank	Ambient air	8/16/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
SG-1	4 ft	8/16/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
SG-2	4 ft	8/16/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
SG-3	4 ft	8/16/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
SG-4	4 ft	8/16/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
SG-5	4 ft	8/16/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
SG-6	4 ft	8/16/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
SG-7	4 ft	8/16/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		

Notes:

Laboratory analytical results are compared to the EGLE Volatilization to Indoor Air Pathway (VIAP) Screening Levels dated September 4, 2020.

ND = Concentration is not detected above laboratory detection limits

all data represented in ug/m3 = Micrograms per cubic meter



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 prepared on behalf of City of Detroit Construction & 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	