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April 9, 2021

Indiana Brownfields Program
Indiana Finance Authority
100 North Senate Avenue, Room 1275
Indianapolis, Indiana 46204
Attn: Tracey Michael

City of LaPorte
801 Michigan Avenue
LaPorte, Indiana 46350
Attn: Nick Minich

*Ref: Remediation Work Plan Addendum for Waste Pile Removal
RLF Subgrant – LaPorte Redevelopment Project
US HWY 35 & SR 39 (a.k.a. 408 Truesdell Avenue)
LaPorte, Laporte County
BFD #4030051
RLF BF-00E48101-D*

Dear Ms. Michael and Mr. Minich:

This letter serves as a *Remediation Work Plan Addendum for Waste Pile Removal* for the lots located near 408 Truesdell Avenue in LaPorte, Indiana.

In review, Geosyntec Consultants, Inc. (Geosyntec) prepared a *Remediation Work Plan (RWP)* dated November 2019 (Revised March 2020) for a redevelopment site known as the NewPorte Landing Phase 2A Development Area in La Porte, Indiana. The RWP executive summary is included as Attachment A. The redevelopment area encompassed approximately 15-acres. Remedial action began in 2019 and have/will include various efforts including soil excavation, soil stabilization, disposal, backfilling, and restoration activities. Remediation and restoration are ongoing throughout the central and north portions of the area. At present, a portion of the area has been redeveloped with a large medical office building over the south-southwest portion. A large soil stockpile remains southeast of the medical office building.

The stockpile contains a mixture of soil and foundry sand that exhibits various concentrations primarily of heavy metals, polychlorinated biphenyls (PCBs) and polycyclic aromatic hydrocarbon (PAHs). Volatile organic compounds (VOCs) are also present in soils (at the project area). For the purpose of this addendum, the stockpiled soil is considered a waste pile and disposal at an approved solid waste landfill is proposed.



Stockpile Removal

The following task implementation sequence will be followed to complete the soil removal effort:

1. Republic Services' County Line Landfill has an established waste profile (#47141915837) for the project area. Prior to beginning site work, a change form will be prepared for the stockpile. Stockpile sampling and testing, if necessary, will be conducted in accordance with criteria required by the landfill.
2. The stockpiled soil (estimated 8,000 tons, 0.6-acre) will be removed, loaded onto trucks, and transported to a licensed solid waste-disposal facility (County Line Landfill). Waste manifests will be maintained for all off-site shipments.
3. SES will collect soil samples from exposed surface (after the stockpiled is removed). One sample will be collected to represent each 2000 square feet of exposed surface (former stockpile).
4. Samples will be placed in laboratory provided sample containers. Containers will be properly labeled, entered into chain-of-custody documentation, and placed into an ice-filled cooler for shipment to the laboratory.
5. The primary constituents identified in soil at the project area include VOCs, PAHs, PCBs, Antimony, Arsenic, Cobalt, Iron, Lead, Manganese, Thallium, and Zinc. Therefore, all retained soil samples will be promptly delivered to a sub-contract laboratory and analyzed for these parameters in accordance with the QAPP.
6. QA/QC samples consisting of field duplicates and MS/MSD samples will be retained per 20 samples. A level IV analytical data package will be requested from the laboratory.
7. All confirmation surface soil test results will be evaluated to current Remediation Closure Guide *remediation screening levels*.
8. In the event a surface soil sample testing result exceeds *RCG recreational or commercial/industrial direct contact screening levels*, the IDEM project manager will be contacted to discuss additional removal.
9. A *Completion Report* will be prepared to document the stockpiled soil removal sequence, soil sampling methods, and laboratory testing results. Site maps will be developed that clearly and accurately depict the removal location, and final sampling results. The report appendix will include any waste characterization data, disposal documentation, photographs, and other information derived from RWP Addendum implementation.

A soil erosion and sediment control plan were previously prepared and implemented by others. This RWP Addendum assumes others will maintain compliance with the existing plan.

Quality Assurance

The overall QA objective is to develop and implement procedures for field sampling, chain of custody, laboratory analysis, and reporting that will provide results that are scientifically valid, and the levels of which are sufficient to meet Level IV DQOs. Field and quality assurance procedures are detailed in a report titled "*Quality Assurance Project Plan (QAPP) – Revision 0*" dated April 2021.

Safety Plan

All field personnel conducting on-site activities will have completed OSHA 1910.120 40-hour Health and Safety Training, as well as annual eight-hour refresher training updates. A health and safety plan will be reviewed and provided to site personnel prior to beginning work. All site personnel will acknowledge participation in a safety meeting by signing and dating the health and safety plan.

Implementation Schedule

Following RWP Addendum approval, we expect 1 to 2 weeks of planning and coordination with landfill and the



removal contractor. The removal process will require approximately 2 weeks, with a report following in about 4 weeks after the final confirmation sampling.

Closing

Please contact the undersigned at g.howard@sesadvantage.com or 260.497.7645 with any questions regarding this proposal.

Sincerely,
SES Environmental

Glen A Howard, CHMM
Senior Project Manager

Attachment A – Executive Summary from Geosyntec’s *Remediation Work Plan (RWP)*

Attachment B - Site Map Depicting Waste Pile



**Attachment A –
Executive Summary From Geosyntec’s Remediation Work Plan (RWP)**



REMEDIATION WORK PLAN
NewPorte Landing
Phase 2A Development Area
La Porte, IN

Prepared for

City of La Porte

801 Michigan Avenue

La Porte, IN 46350

Prepared by

Geosyntec 
consultants

engineers | scientists | innovators

1420 Kensington Road, Suite 103
Oak Brook, IL 60523

November 2019 (Revised March 2020)

EXECUTIVE SUMMARY

Geosyntec Consultants, Inc. (Geosyntec) has prepared this Remediation Work Plan (RWP) for the NewPorte Landing Phase 2A Development Area in La Porte, Indiana. The area encompasses approximately 15-acres and is composed of two currently vacant and undeveloped properties (Verma [North and South] and Blalack properties), as well as one stormwater retention basin (West Basin on the Verma Property) herein referenced as “the Site.” The Site Characterization Report (SCR), submitted to the Indiana Brownfield Program (IBP) and Indiana Department of Environmental Management (IDEM) in August 2017 for review, can be referenced for a detailed discussion of all Site features (Geosyntec, 2017).

The Phase 2A area is scheduled for remediation, restoration, and redevelopment in 2020 and 2021. An RWP for Phase 2B will be submitted by the City of La Porte at future date prior to remediation, restoration, and redevelopment.

RWP Objective

This RWP was prepared to describe the planned work to allow the IBP and IDEM to understand the existing Site conditions, planned future use of the Site, the potential risks posed by legacy contamination in the context of the planned future Site-use, and the remediation measures planned to mitigate this risk. This RWP presents the basis and selected approach for remediation that will facilitate redevelopment of the Site into residential or commercial use with public amenities. The planned remediation includes the use of green and sustainable remediation (GSR) technologies and use of engineering controls (ECs) and environmental restrictive covenants (ERCs) as part of the risk mitigation approach.

Following the proposed remediation activities, the City of La Porte will be pursuing Site Status Letters (SSLs) for different portions of the Site, for either residential or commercial/industrial property use, to allow site restoration and redevelopment. The City's vision is to return the brownfield properties to beneficial use as residential and commercial properties and public open space.

Constituents of Concern

As summarized in the SCR, Site constituents of concern (COCs) were identified for various exposure routes using the 2018 IDEM Remediation Closure Guide (RCG) screening levels (SLs) for soil, sediment, and groundwater. Soil screening levels were used for both soil and sediment evaluations. COC concentrations exceeded criteria for the soil direct contact, soil migration to groundwater, groundwater ingestion, and groundwater vapor exposure routes. Note that future properties will not be utilizing on-site groundwater as a potable or non-potable water source, as specified in an ERC to be included with the SSLs; therefore, COCs that exceed the soil migration to groundwater pathway and residential tap ingestion are not considered for remediation.

The following provides a summary of COCs detected in Site soils above default 2018 IDEM RCG (SLs) for the exposure routes and are therefore subject to remediation:

- Residential: 1,2,4-trimethylbenzene, ethylbenzene, m&p-xylene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, dibenz[a,h]anthracene, naphthalene, polychlorinated biphenyl (PCB) Aroclors 1254 and 1260, antimony, arsenic, cobalt, iron, lead, manganese, thallium, and zinc
- Commercial/industrial: 1,2,4-trimethylbenzene, m&p-xylene, naphthalene, antimony, arsenic, cobalt, iron, lead, manganese, and thallium
- Excavation: 1,2,4-trimethylbenzene, m&p-xylene, iron, and lead

Investigations also indicated the presence of source material (based on exceedances of chemical-specific soil saturation [C^{sat}] volatile organic compound [VOC] limits) and hazardous material at the Site on the North Verma property (based on toxicity characteristic leaching procedure [TCLP] lead concentrations). The area delineated by these elevated lead samples overlaps with an area containing orangish-red, sweet odorous, rubbery paint sludge. Samples with the highest bulk lead concentrations (up to 110,000 mg/kg) were collected from intervals containing the paint sludge material in the north area of the Verma property. These samples exceeded the TCLP hazardous limit for lead.

Sediment from West Basin exhibits exceedances of default 2018 IDEM RCG SLs for residential direct contact for arsenic, lead, and PAHs at various sample locations that will require remedial action on the South Verma property.

Surface water samples from the West Basin were evaluated using United States Environmental Protection Agency (USEPA) regional screening level (RSL) calculated criteria. No COCs were detected in any samples at concentrations that exceed the selected RSLs.

Groundwater sampling results were compared to 2018 IDEM screening criteria for residential tap water ingestion and residential and commercial/industrial vapor exposure routes. Analytes that exceed these screening criteria from 2015 to 2018 and are thus considered potential Site COCs include:

- Residential tap water ingestion: trichloroethene, cis-1,2-dichloroethene, vinyl chloride, 1,4-dioxane, m&p-xylene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, bis-[2-ethylhexyl] phthalate, indeno[1,2,3-c,d]pyrene, naphthalene, PCB Aroclor 1260, arsenic, cobalt, iron, lead, and manganese
- Residential vapor exposure: trichloroethene and vinyl chloride
- Commercial/industrial vapor exposure: trichloroethene

Future properties will not be utilizing on-site groundwater as a potable or non-potable water source; therefore, detections of COCs that exceed the residential tap water ingestion screening levels are not considered for remediation.

Proposed Remedial Actions

The Site remediation goal is to obtain SSLs for the Blalack and Verma properties by preventing human exposure to COCs in Site media. The default 2018 IDEM RCG SLs are proposed as Site remediation objectives (ROs), depending on the future property use, to prevent completion of the exposure pathways. The following remedial actions (which are described in detail in this RWP) are proposed to meet Site ROs and mitigate exposure pathways:

- Address VOC, polycyclic aromatic hydrocarbon (PAH), PCB, and metal impacts to surface and subsurface soil to meet Site ROs for direct contact based on post-remediation Site status (i.e. residential or commercial/industrial) through excavation and disposal, clean backfill, engineered barriers, and ERCs;
- Address hazardous lead and C^{sat} VOC impacts to subsurface soil and groundwater through excavation of soil and debris, chemical fixation/stabilization (CFS) of impacted soil, and landfill disposal. CFS involves blending the soil with a proprietary based reagent to chemically alter the lead into a form that is relatively insoluble, rendering the material non-hazardous for off-site disposal.
- Address arsenic, lead, and PAH impacts to surface and subsurface sediment through closure of West Basin with clean backfill and ERCs.
- Address residential tap water ingestion through an ERC to prohibit future use of groundwater beneath the Site.
- Address residential and commercial/industrial vapor exposure impacts from groundwater through post-remediation monitoring to verify if chlorinated VOCs are present at concentrations above groundwater vapor exposure screening levels following remediation of soils. If necessary, additional post-remediation soil gas sampling to address the vapor intrusion pathway will also be completed.
- Monitor post-remediation groundwater conditions through a permanent groundwater monitoring network at the Site. Groundwater wells at the Site were abandoned prior to remedial activities and will be replaced after remediation and redevelopment is completed. The permanent groundwater monitoring network will be used to verify that constituent concentrations downgradient of the deep excavation areas are either stable or below the groundwater levels per the RCG and verify that concentrations of chlorinated VOCs in groundwater are below the groundwater vapor exposure screening levels.

The previously approved remedial action began in 2019 and remediation and restoration activities are expected to take 9 to 12 months. Remedial actions may be completed concurrently with other Site activities to reduce overall schedule of the work. A Remediation Completion Report (RCR) will be prepared and issued within 60 days of final receipt of analytical data from the soil excavation, soil stabilization, disposal, backfilling, and restoration activities.

Table 3-1
Soil Sample Exceedances and Associated Remedial Actions
NewPorte Landing Phase 2A Area
La Porte, Indiana

Property	Soil Boring	Sample Depth (ft bgs)	Remedial Action	Contaminants																					
				1,2,4-Trimethylbenzene	1,4-Dioxane	cis-1,2-Dichloroethylene	Ethylbenzene	m,p-Xylene	Trichloroethylene	Vinyl chloride	Benz[a]anthracene	Benz[b]aipyrene	Benz[b]fluoranthene	Bi[2-chloroethyl]ether	Bi[2-ethylhexyl]phthalate	Naphthalene	PCB-1254	PCB-1260	Antimony	Arsenic	Cobalt	Iron	Lead	Manganese	Thallium
Blalack	A-1	0 to 0.5	RA-1 Excavation /Disposal															R							
Blalack	A-2	1 to 1	Averaging Analysis															R							
Blalack	A-4	1 to 1.5	RA-1 Excavation /Disposal												R			R					R		
Blalack	A-8	1 to 1	RA-1 Excavation /Disposal															R				CI			
Blalack	A-9	1 to 1	Averaging Analysis															R							
Blalack	SB54	0 to 2	RA-1 Excavation /Disposal								R							CI							
Blalack	SB55	0 to 2	RA-1 Excavation /Disposal															R							
Blalack	SB56	0 to 2	Averaging Analysis															R							
Blalack	SB56	2 to 4	Averaging Analysis															R							
Blalack	SB57	10 to 12	Averaging Analysis															R							
Blalack	SB59	5 to 6	Averaging Analysis															R							
North Verma	SB39	0 to 1.5	RA-2 Excavation /Disposal								R														
North Verma	SB40	0 to 2	RA-2 Excavation /Disposal															R							
North Verma	SB40	10 to 12	Averaging Analysis															R							
North Verma	SB41	0 to 2	RA-2 Excavation /Disposal															R							
North Verma	SB41	4.5 to 6.5	Averaging Analysis															R							
North Verma	SB42	0 to 2	RA-2 Excavation /Disposal								R							R							
North Verma	SB43	0 to 2	RA-2 Excavation /Disposal								R														
North Verma	SB43	6 to 8	Averaging Analysis								R														
North Verma	SB43A	0 to 2	RA-2 Excavation /Disposal															R							
North Verma	SB43A	10 to 11	RA-6 CFSD															R						CW	
North Verma	SB43A	14 to 16	RA-6 CFSD															R						CW	
North Verma	SB45	3 to 5	RA-2 Excavation /Disposal								R	R			R			R							
North Verma	SB46	0 to 2	RA-2 Excavation /Disposal																					CI	
North Verma	SB46	6 to 8	RA-6 CFSD															R	R	CW	CW		R	R	
North Verma	SB47	3 to 4	RA-6 CFSD								R					R	R	R	CI				CW		
North Verma	SB47	10 to 12	RA-6 CFSD	CW			R	CW									CI	R	R				CW		
North Verma	SB48	0 to 2	RA-2 Excavation /Disposal															R							
North Verma	SB48	2 to 4	Averaging Analysis															R							
North Verma	SB49	0 to 2	RA-2 Excavation /Disposal															R							

Table 3-1
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La Porte, Indiana

Property	Soil Boring	Sample Depth (ft bgs)	Remedial Action	Contaminants																						
				1,2,4-Trimethylbenzene	1,4-Dioxane	cis-1,2-Dichloroethylene	Ethylbenzene	m,p-Xylene	Trichloroethylene	Vinyl chloride	Benz[a]anthracene	Benz[a]pyrene	Benz[b]fluoranthene	Bi[2-chloroethyl]ether	Bi[2-ethylhexyl]phthalate	Dibenz[a,h]anthracene	Naphthalene	PCB-1254	PCB-1260	Antimony	Arsenic	Cobalt	Iron	Lead	Manganese	Thallium
North Verma	SB49	6 to 8	RA-6 CFSD	CW											R		R	R	R			CW				
North Verma	SB49	10 to 12	RA-6 CFSD															R								
North Verma	SB51	0 to 2	Averaging Analysis															R								
North Verma	SB51	0 to 2	Averaging Analysis															R								
North Verma	SS03-01	0	RA-2 Excavation /Disposal															R								
North Verma	SS04-01	0	RA-2 Excavation /Disposal															R		R		CW				
North Verma	VP-AOC14-SB13	0 to 1	RA-2 Excavation /Disposal															R						R		
North Verma	VP-AOC14-SB13	2.5 to 3.5	RA-2 Excavation /Disposal															R	R		CW	CW	R			
North Verma	VP-AOC14-SB14	0 to 1	RA-2 Excavation /Disposal															R					CI	R		
North Verma	VP-AOC14-SB14	2 to 3	RA-2 Excavation /Disposal												R			CI								
North Verma	VP-AOC14-SB14	5 to 6	Averaging Analysis															R						R		
North Verma	VP-AOC14-SB15	0 to 1	RA-2 Excavation /Disposal											R				R								
North Verma	VP-AOC14-SB15	8 to 9	RA-6 CFSD	CW			R	CW						R			R	R	R			CW				
North Verma	VP-AOC6-SB01	0 to 1	RA-2 Excavation /Disposal															R					R	R		
North Verma	VPBH-05	0 to 2	RA-2 Excavation /Disposal															R	R					CI		
North Verma	VPBH-05	4 to 6	RA-2 Excavation /Disposal															CI								
North Verma	VPBH-14	0 to 2	RA-2 Excavation /Disposal															CI								
North Verma	VPBH-15	0 to 2	RA-2 Excavation /Disposal															R								
North Verma	VPBH-16	0 to 2	RA-2 Excavation /Disposal															R					CW			
North Verma	VPBH-24	2 to 4	RA-2 Excavation /Disposal											R												
North Verma	VP-FOUND-SB17	0 to 1	RA-2 Excavation /Disposal															R	R				CI	R		
North Verma	VP-FOUND-SB17	11 to 12	Engineered Barrier										R					CI			CW					
North Verma	SBISS02	10 to 12	Engineered Barrier															R								
North Verma	SBISS03A	7.5 to 10	Engineered Barrier																				R			
North Verma	SBISS03A	10 to 12	Engineered Barrier																				R			
North Verma	SBISS04	5 to 7	Engineered Barrier															CI								
North Verma	SBISS05	7 to 9	RA-6 CFSD															R					CW			
North Verma	SBISS05A	6 to 8	Engineered Barrier															R					CI			
North Verma	SBISS08	6 to 8	Engineered Barrier															R					CW			

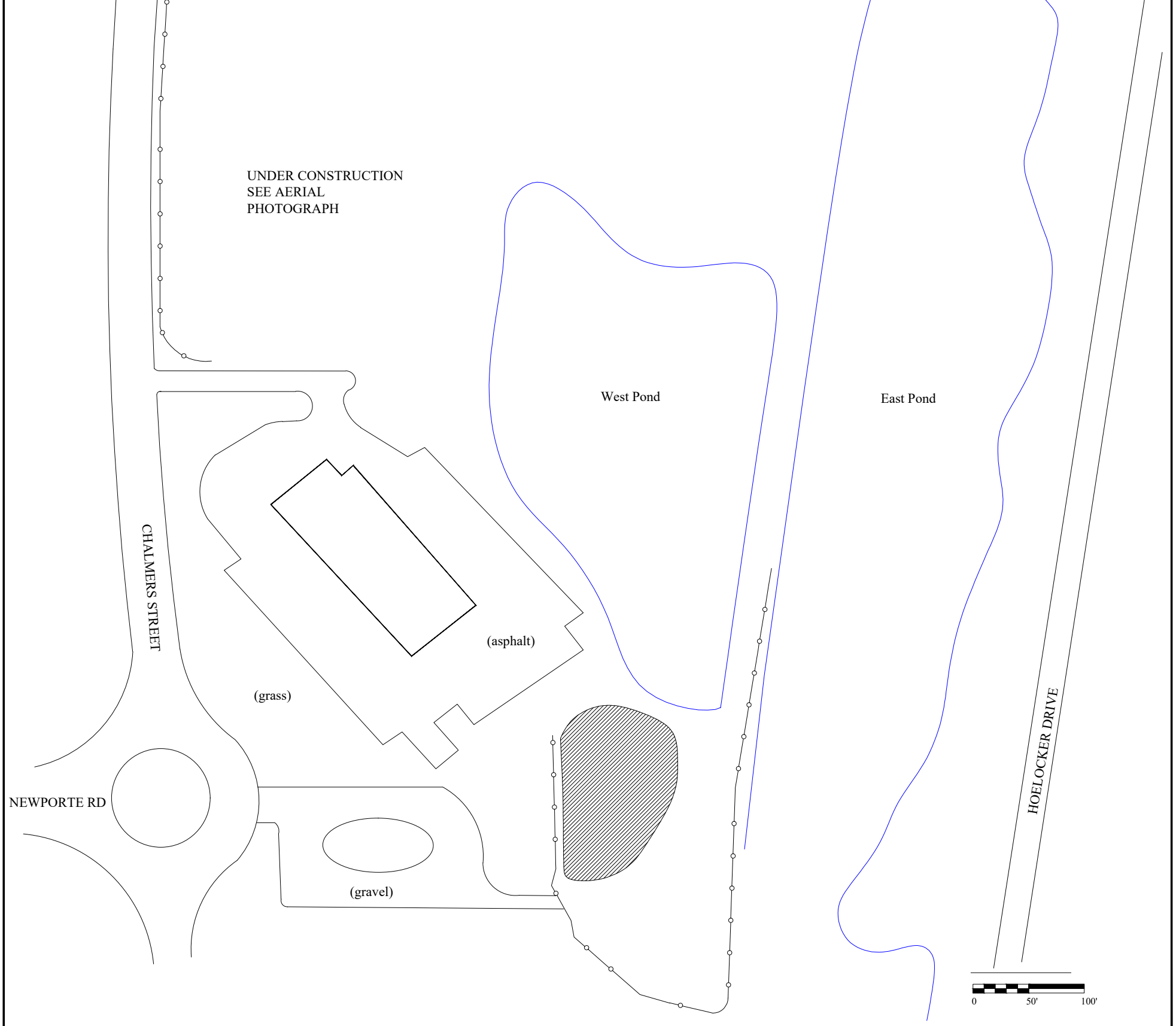
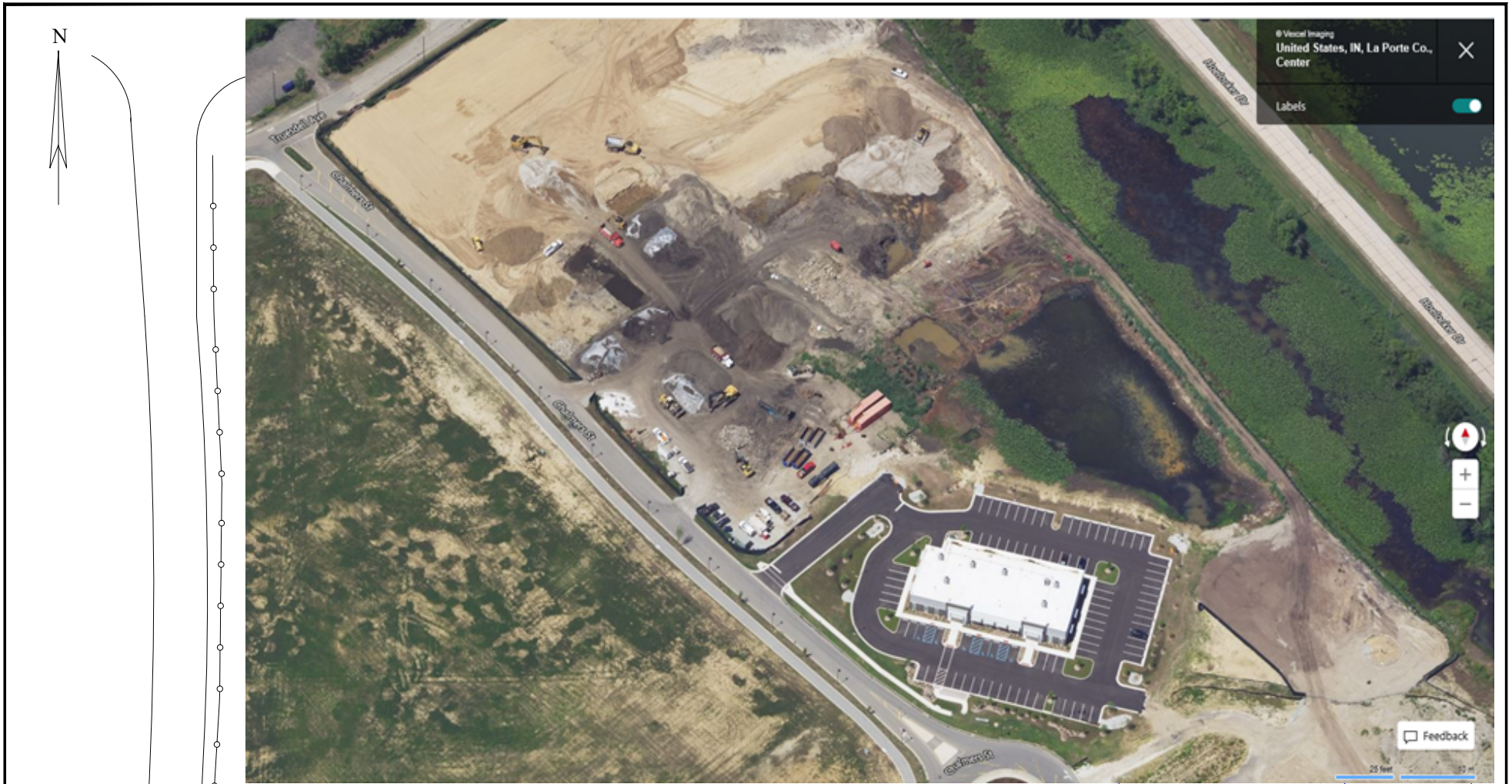
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Property	Soil Boring	Sample Depth (ft bgs)	Remedial Action	Contaminants																						
				1,2,4-Trimethylbenzene	1,4-Dioxane	cis-1,2-Dichloroethylene	Ethylbenzene	m,p-Xylene	Trichloroethylene	Vinyl chloride	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Bis[2-chloroethyl]ether	Bis[2-ethylhexyl]phthalate	Dibenz[a,h]anthracene	Naphthalene	PCB-1254	PCB-1260	Antimony	Arsenic	Cobalt	Iron	Lead	Manganese	Thallium
South Verma	SB72	0 to 2	Averaging Analysis																R							
South Verma	SB72	4 to 6	Averaging Analysis																R							
South Verma	SB72	12 to 13	Averaging Analysis																R							
South Verma	SB73	0 to 2	RA-3 Excavation /Disposal							R											CW		R	R		
South Verma	SB74	0 to 1.5	RA-3 Excavation /Disposal																			R				
South Verma	SB74	2 to 4	RA-3 Excavation /Disposal							R										Cl						
South Verma	SB74	8 to 10	Averaging Analysis																R							
South Verma	SB75	0 to 1	Averaging Analysis							R																
South Verma	SB75	2.5 to 4.5	Averaging Analysis																	R						
South Verma	SB76	0 to 2	Averaging Analysis																	R						
South Verma	SS01-01	0	Averaging Analysis																	R						
South Verma	SS02-01	0	Surface Sampling													R				R						
South Verma	VP-AOC11-SB09	0 to 1	Averaging Analysis																	R				R		
South Verma	VP-AOC11-SB09	3 to 4	Averaging Analysis																	R						
South Verma	VP-AOC11-SB09	7 to 8	Averaging Analysis																	R						
South Verma	VP-AOC13-SB11	0 to 1	RA-4 Excavation/Disposal																	R						
South Verma	VP-AOC13-SB11	3 to 4	Averaging Analysis																	R				R		
South Verma	VPBH-09	8 to 10	Averaging Analysis																	R						
South Verma	VPBH-10	0 to 2	Surface Improvement																	R						
South Verma	VPBH-11	2 to 4	Averaging Analysis																	R						
South Verma	VPMW-1	0 to 2	Averaging Analysis																	R						
South Verma	VPMW-1	4 to 6	Averaging Analysis																	R						

Notes:
 ft bgs - Feet below ground surface
 RA - Remedial Action
 CFSD - Chemical fixation/stabilization and disposal
 R - RCG 2018 Soil Direct Contact Residential Screening Level Exceedance
 Cl - RCG 2018 Soil Direct Contact Commercial/Industrial Screening Level Exceedance
 CW - RCG 2018 Soil Direct Contact Construction Worker Screening Level Exceedance

**Attachment B –
Site Map Depicting Waste Pile**





Title SITE MAP	Legend  Subject Soil Pile	Project 2021-162	Scale 1" = 100'	
		Date 3/29/21	Checked gh	
		Drawn le	Figure 1	
		File 2021162map		
Location LaPorte Redevelopment Project 408 Truesdell Avenue LaPorte, LaPorte County, Indiana				